

TECHNO SALES



- » Standardpneumatik
- » Standard pneumatic



Einleitung / Introduction

Die Unimatic GmbH wurde im Jahre 1974 gegründet und ist bis heute in der Hand der Gründerfamilie. Laufende Verbesserungen und innovative Entwicklungen ermöglichen ein stetiges Wachstum des mittelständischen Unternehmens. Durch eine breit gefächerte Aufstellung am Markt, ist es der Unimatic GmbH möglich, Lösungen zu einer Vielzahl von Problemen zu erarbeiten. Zudem ist das Unternehmen durch diese Position gegen die Auswirkungen regionaler oder branchenspezifischer Störungen geschützt.

Die Unimatic GmbH steht als Systemhaus für:

- Eigene Entwicklungen
- Druckluftherzeugung und Druckluftverteilung, Steuerungs- und Fluidtechnik, Wege- und Proportionaltechnik
- Vakuumfördertechnik
- Elektromechanik
- Automatisierung
- Montage und Wartung

Bei dem Label TechnoSales handelt es sich um eine hauseigene Pneumatikmarke, welche sich durch ihr gutes Preis-Leistungs-Verhältnis seit Jahren am Markt bewährt.

Dieser Produktkatalog umfasst das Angebot über pneumatische, sowie elektropneumatische Wegeventile inklusive passendem Zubehör. Außerdem wird im Rahmen dieser Auflage das erweiterte Produktprogramm vorgestellt, welches nun auch Pneumatikzylinder inklusive Beschläge und Sensoren umfasst. Des Weiteren ist in dieser Auflage das Angebot an Schläuchen und Steckanschlüssen zu finden.

The Unimatic GmbH was founded in 1974 and is still run and managed by the founding family. Continuous improvement and innovative developments enable constant growth of the midsize company. Due to a broad range of products and services it is achievable for the company to find solutions for a variety of problems in the market. Owing to this position the company is well protected against effects of local or branch-specific disturbances.

The Unimatic GmbH stands as a system house for:

- Own developments
- Compressed air generation and distribution, control-, fluid-, directional- and proportional technology
- Vacuum conveying technology
- Electromechanics
- Automation
- Assembly and maintenance

The label TechnoSales is an own pneumatic brand, which is successfully proving itself in the marketplace for many years.

This product catalog contains the offer of pneumatic as well as electrically operated valves with its matching accessories. Furthermore this circulation presents the extended product range, which now also includes pneumatic cylinders with its suitable fittings and sensors. In addition this circulation holds the offer of tubes and Push-In fittings.

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Einleitung / Introduction

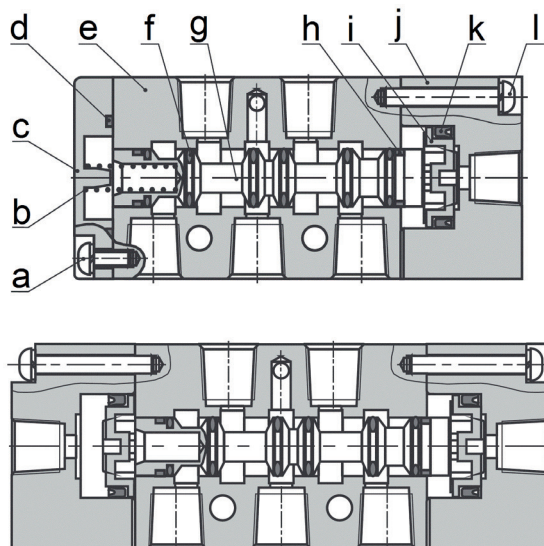
Dieser Teil des Katalogs umfasst unser Angebot über 3/2, 5/2 und 5/3 Wegeventile. Die Ventile sind in vielen verschiedenen Ausführungen lieferbar, damit die Verwendung für die unterschiedlichsten Einsatzfälle gewährleistet werden kann. Unsere Ventile können als Einzelventile oder in Batteriebauweise, auf entsprechenden Grundplatten montiert, eingesetzt werden. Die stabile Bauweise unserer Baureihe, aus einer speziellen Aluminiumlegierung, macht sie enorm widerstandsfähig.

This part of the catalog contains our offer of 3/2, 5/2 and 5/3 directional valves. The valves are available in many different designs, so that the use in different applications can be ensured. Our valves can be used as single valves or for battery mounting on suitable collectors. The solid construction of our series, made of a special aluminum alloy, makes them extremely resistant.

Technische Daten / Technical Data

| | |
|--|--|
| Medium Fluid | Druckluft (gefiltert - 40µm) Compressed air (filtered - 40µm) |
| Betriebsdruck Operating pressure | 1,5 - 8 bar |
| Temperaturbereich Temperature range | -20°C...+70°C |

Werkstoff / Material



| Nr. | Bauteil / Part | Werkstoff / Material |
|-----|---|--------------------------------------|
| a | Schraube / Bolt | Stahl / Steel |
| b | Rückstellfeder / Return spring | Edelstahl / Stainless steel |
| c | Deckel / Cover | Aluminiumlegierung / Aluminium alloy |
| d | Dichtung / Seal | NBR |
| e | Gehäuse / Barrel | Aluminiumlegierung / Aluminium alloy |
| f | Ventilschieberdichtung / Valve slide seal | HNBR |
| g | Ventilschieber / Valve slide | Aluminiumlegierung / Aluminium alloy |
| h | Führungsring / Guide ring | PA 66 |
| i | Kolben / Piston | POM |
| j | Vorsteuergehäuse / Pilot barrel | Aluminiumlegierung / Aluminium alloy |
| k | Kolbendichtung / Piston seal | NBR |
| l | Schraube / Bolt | Stahl / Steel |

Notizen

Notes

Pneumatisch betätigte Ventile – Größe 1

Pneumatically operated valves – Size 1

Technische Daten / Technical data

| | |
|--|---------------|
| Betriebsdruck / Operating pressure | 1,5 - 8 bar |
| Temperaturbereich / Temperature range | -20°C...+70°C |
| Max. Schaltfrequenz / Max. switching frequency | 5Hz |

Serie 52 116 32 Δ 10 PF \blacktriangle Pneumatisch / Feder

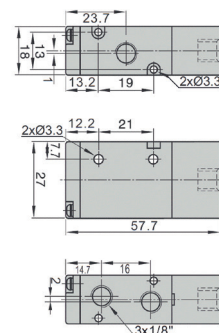
Pneumatically / Spring

3/2

Optionen / Options

Δ N = NC
C = NO

\blacktriangle 00 = Keine / Not any



Durchfluss bei 6bar ($\Delta p = 1$ bar)
Flow rate at 6bar ($\Delta p = 1$ bar)

470 l/min

Entlüftungsanschlüsse
Supply connections

G 1/8"

Arbeitsanschlüsse
Working connections

G 1/8"



69g

Serie 52 116 32 Δ 10 PP \blacktriangle Pneumatisch / Pneumatisch

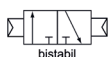
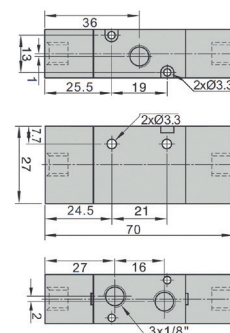
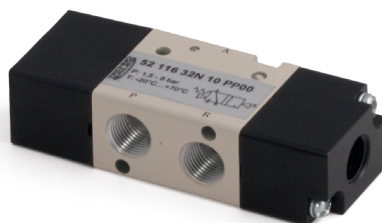
Pneumatically / Pneumatically

3/2

Optionen / Options

Δ N = NC

\blacktriangle 00 = Keine / Not any



Durchfluss bei 6bar ($\Delta p = 1$ bar)
Flow rate at 6bar ($\Delta p = 1$ bar)

470 l/min

Entlüftungsanschlüsse
Supply connections

G 1/8"

Arbeitsanschlüsse
Working connections

G 1/8"



74g

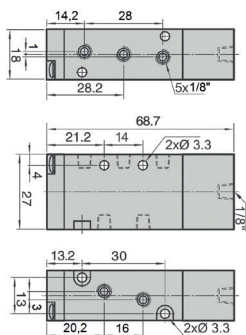
Pneumatisch betätigte Ventile – Größe 1

Pneumatically operated valves – Size 1

Pneumatisch / Feder
Pneumatically / Spring

5/2

Serie 52 116 52Δ 10 PF▲



Optionen / Options

△ N = NC

▲ 00 = Keine / Not any



Durchfluss bei 6bar (Δp = 1bar)
Flow rate at 6bar (Δp = 1bar)

470 l/min

Entlüftungsanschlüsse
Supply connections

G 1/8"

Arbeitsanschlüsse
Working connections

G 1/8"

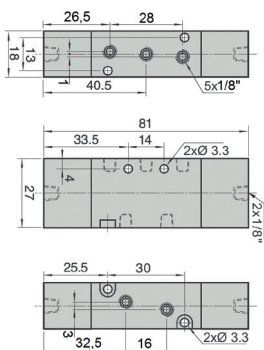


78g

Pneumatisch / Pneumatisch
Pneumatically / Pneumatically

5/2

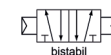
Serie 52 116 52Δ 10 PP▲



Optionen / Options

△ N = NC

▲ 00 = Keine / Not any



Durchfluss bei 6bar (Δp = 1bar)
Flow rate at 6bar (Δp = 1bar)

470 l/min

Entlüftungsanschlüsse
Supply connections

G 1/8"

Arbeitsanschlüsse
Working connections

G 1/8"

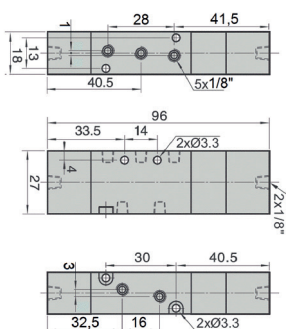


83g

Pneumatisch / Pneumatisch
Pneumatically / Pneumatically

5/3

Serie 52 116 53Δ 10 PP▲



Optionen / Options

F = Mittelstellung geschlossen /
Closed centre
D = Mittelstellung entlüftet /
Exhausted centre
E = Mittelstellung belüftet /
Pressured centre

▲ 00 = Keine / Not any



Durchfluss bei 6bar (Δp = 1bar)
Flow rate at 6bar (Δp = 1bar)

470 l/min

Entlüftungsanschlüsse
Supply connections

G 1/8"

Arbeitsanschlüsse
Working connections

G 1/8"



100g

Pneumatisch betätigte Ventile – Größe 2

Pneumatically operated valves – Size 2

Technische Daten / Technical data

| | |
|--|---------------|
| Betriebsdruck / Operating pressure | 1,5 - 8 bar |
| Temperaturbereich / Temperature range | -20°C...+70°C |
| Max. Schaltfrequenz / Max. switching frequency | 5Hz |

Serie 52 126 32Δ 13 PF▲ Pneumatisch / Feder

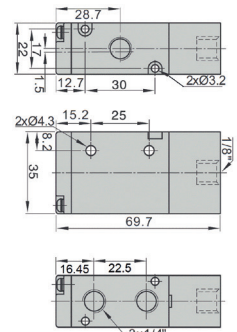
Pneumatically / Spring

3/2

Optionen / Options

Δ | N = NC
C = NO

▲ | 00 = Keine / Not any



monostabil

Durchfluss bei 6bar ($\Delta p = 1\text{ bar}$)
Flow rate at 6bar ($\Delta p = 1\text{ bar}$)

900 l/min

Entlüftungsanschlüsse
Supply connections

G 1/4"

Arbeitsanschlüsse
Working connections

G 1/4"



126g

Serie 52 126 32Δ 13 PP▲ Pneumatisch / Pneumatisch

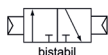
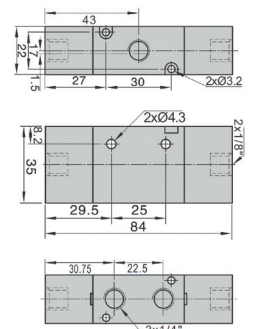
Pneumatically / Pneumatically

3/2

Optionen / Options

Δ | N = NC

▲ | 00 = Keine / Not any



bistabil

Durchfluss bei 6bar ($\Delta p = 1\text{ bar}$)
Flow rate at 6bar ($\Delta p = 1\text{ bar}$)

900 l/min

Entlüftungsanschlüsse
Supply connections

G 1/4"

Arbeitsanschlüsse
Working connections

G 1/4"



141g

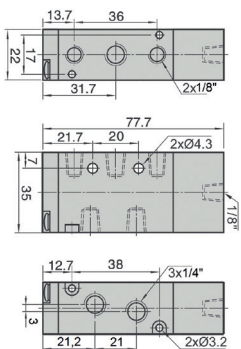
Pneumatisch betätigte Ventile – Größe 2

Pneumatically operated valves – Size 2

Pneumatisch / Feder
Pneumatically / Spring

5/2

Serie 52 126 52Δ 13 PF▲



Optionen / Options

△ N = NC

▲ 00 = Keine / Not any



Durchfluss bei 6bar ($\Delta p = 1\text{ bar}$)
Flow rate at 6bar ($\Delta p = 1\text{ bar}$)

900 l/min

Entlüftungsanschlüsse
Supply connections

G 1/8"

Arbeitsanschlüsse
Working connections

G 1/4"

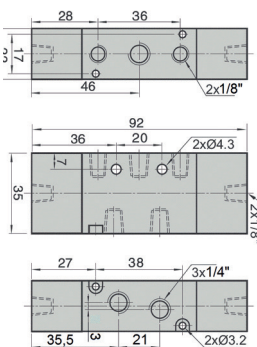


136g

Pneumatisch / Pneumatisch
Pneumatically / Pneumatically

5/2

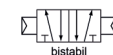
Serie 52 126 52Δ 13 PP▲



Optionen / Options

△ N = NC

▲ 00 = Keine / Not any



Durchfluss bei 6bar ($\Delta p = 1\text{ bar}$)
Flow rate at 6bar ($\Delta p = 1\text{ bar}$)

900 l/min

Entlüftungsanschlüsse
Supply connections

G 1/8"

Arbeitsanschlüsse
Working connections

G 1/4"

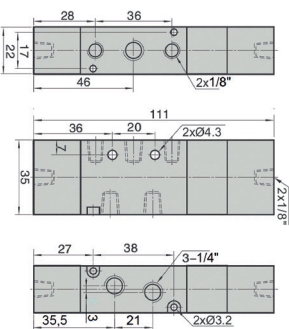


151g

Pneumatisch / Pneumatisch
Pneumatically / Pneumatically

5/3

Serie 52 126 53Δ 13 PP▲



Optionen / Options

F = Mittelstellung geschlossen /
Closed centre
D = Mittelstellung entlüftet /
Exhausted centre
E = Mittelstellung belüftet /
Pressured centre

▲ 00 = Keine / Not any



Durchfluss bei 6bar ($\Delta p = 1\text{ bar}$)
Flow rate at 6bar ($\Delta p = 1\text{ bar}$)

600 l/min

Entlüftungsanschlüsse
Supply connections

G 1/8"

Arbeitsanschlüsse
Working connections

G 1/4"



187g

Pneumatisch betätigte Ventile – Größe 3

Pneumatically operated valves – Size 3

Technische Daten / Technical data

| | |
|--|---------------|
| Betriebsdruck / Operating pressure | 1,5 - 8 bar |
| Temperaturbereich / Temperature range | -20°C...+70°C |
| Max. Schaltfrequenz / Max. switching frequency | 5Hz |

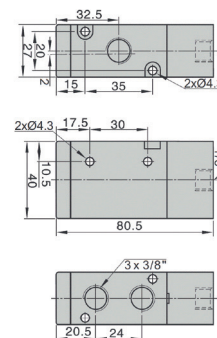
Serie 52 136 32Δ 17 PF▲ Pneumatisch / Feder Pneumatically / Spring

3/2

Optionen / Options

Δ | N = NC
C = NO

▲ | 00 = Keine / Not any



Durchfluss bei 6bar (Δp = 1bar)
Flow rate at 6bar (Δp = 1bar)

1500 l/min

Entlüftungsanschlüsse
Supply connections

G 3/8"

Arbeitsanschlüsse
Working connections

G 3/8"



208g

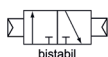
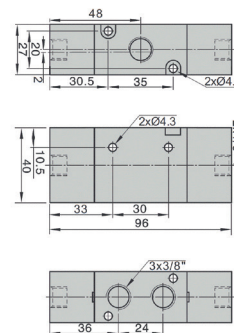
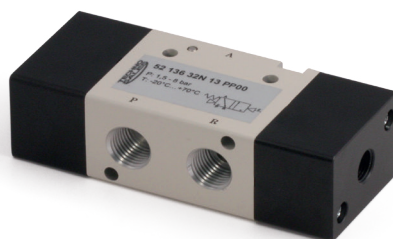
Serie 52 136 32Δ 17 PP▲ Pneumatisch / Pneumatisch Pneumatically / Pneumatically

3/2

Optionen / Options

Δ | N = NC

▲ | 00 = Keine / Not any



Durchfluss bei 6bar (Δp = 1bar)
Flow rate at 6bar (Δp = 1bar)

1500 l/min

Entlüftungsanschlüsse
Supply connections

G 3/8"

Arbeitsanschlüsse
Working connections

G 3/8"



232g

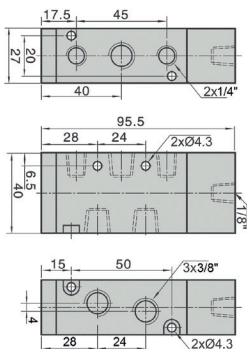
Pneumatisch betätigte Ventile – Größe 3

Pneumatically operated valves – Size 3

Pneumatisch / Feder
Pneumatically / Spring

5/2

Serie 52 136 52Δ 17 PF▲



Optionen / Options

△ N = NC

▲ 00 = Keine / Not any



Durchfluss bei 6bar ($\Delta p = 1\text{bar}$)
Flow rate at 6bar ($\Delta p = 1\text{bar}$)

1500 l/min

Entlüftungsanschlüsse
Supply connections

G 1/4"

Arbeitsanschlüsse
Working connections

G 3/8"

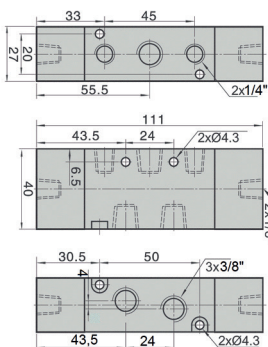


237g

Pneumatisch / Pneumatisch
Pneumatically / Pneumatically

5/2

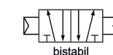
Serie 52 136 52Δ 17 PP▲



Optionen / Options

△ N = NC

▲ 00 = Keine / Not any



Durchfluss bei 6bar ($\Delta p = 1\text{bar}$)
Flow rate at 6bar ($\Delta p = 1\text{bar}$)

1500 l/min

Entlüftungsanschlüsse
Supply connections

G 1/4"

Arbeitsanschlüsse
Working connections

G 3/8"

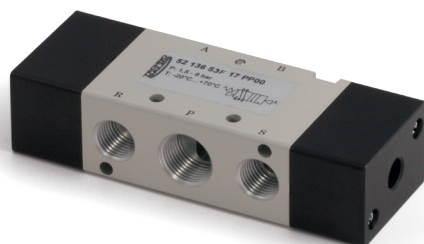
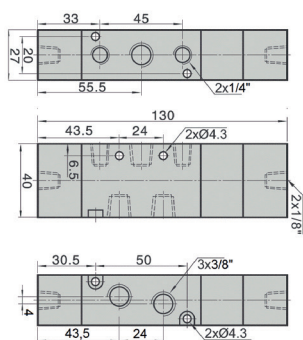


261g

Pneumatisch / Pneumatisch
Pneumatically / Pneumatically

5/3

Serie 52 136 53Δ 17 PP▲



Optionen / Options

F = Mittelstellung geschlossen /
Closed centre
D = Mittelstellung entlüftet /
Exhausted centre
E = Mittelstellung belüftet /
Pressured centre

▲ 00 = Keine / Not any



Durchfluss bei 6bar ($\Delta p = 1\text{bar}$)
Flow rate at 6bar ($\Delta p = 1\text{bar}$)

950 l/min

Entlüftungsanschlüsse
Supply connections

G 1/4"

Arbeitsanschlüsse
Working connections

G 3/8"



313g

Direkt betätigte Ventile

Direct operated valves

Technische Daten / Technical data

| | | |
|--|------------------------------------|----------|
| Betriebsdruck / Operating pressure | 0 - 8 bar | |
| Temperaturbereich / Temperature range | -20°C...+70°C | |
| Elektrischer Anschluss / Electrical connection | Gerätesteckdose / Female connector | |
| | Form B, ISO 4400 | |
| Schutzart / Protection | IP 65 (DIN 40050) | |
| Temperaturklasse / Temperature classification | B Class | |
| Elektr. Leistung / Powerconsumption | AC: 3,5VA | DC: 3,0W |
| Max. Schaltfrequenz / Max. frequency | 10Hz | |

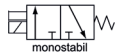
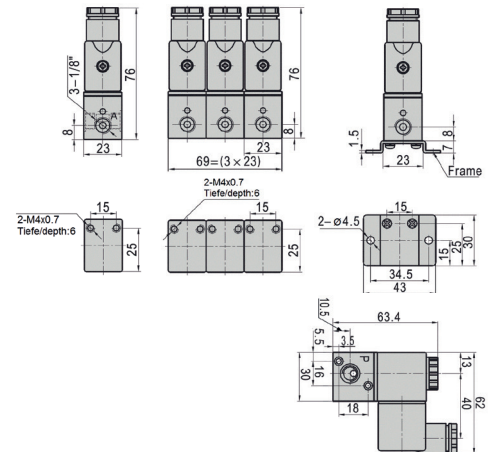
Serie 52 416 32Δ EF□▲


Elektrisch / Feder
Electrically / Spring

3/2

Spannung / Potential

- △ | N = NC
- | 0 = Stecker / Plug
1 = 0,3 m Kabel / Cable
- ▲ | 4 = 12V DC
5 = 24V DC
6 = 24V 50 - 60Hz
7 = 110V 50 - 60Hz
8 = 220V 50 - 60Hz



| Durchfluss bei 6bar ($\Delta p = 1\text{bar}$) Flow rate at 6bar ($\Delta p = 1\text{bar}$) | Entlüftungsanschlüsse Supply connections | Arbeitsanschlüsse Working connections |  |
|--|---|--|---|
| 80 l/min | G 1/8" | G 1/8" | 135g |

Direkt betätigte Ventile

Direct operated valves

Zubehör
Accessories

Serie 52 416

**Bezeichnung
Name**

**Bestell-Nr.
Ordering code**

Grundplatte
Base-Plate

52 416 32 Z001



Zubehör
Accessories

Serie 52 416

**Bezeichnung
Name**

**Bestell-Nr.
Ordering code**

Verbindungsschrauben-Set
Conplug screw set

52 416 32 Z002



Zubehör
Accessories

Serie 52 416

**Bezeichnung
Name**

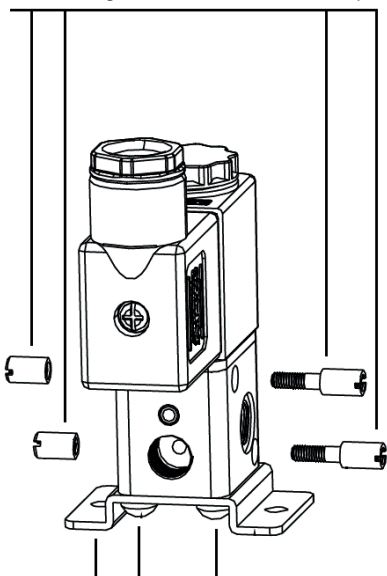
**Bestell-Nr.
Ordering code**

Verbindungsschrauben-Endset
Conplug screw end set

52 416 32 Z003

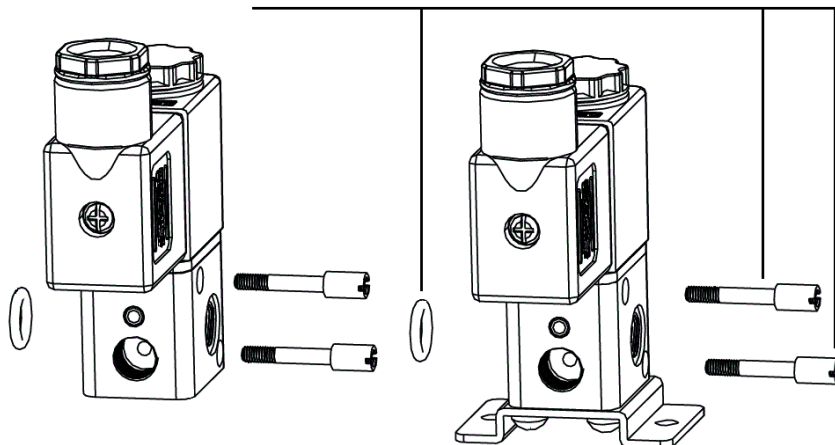


52 416 32 Z003
Verbindungsschrauben-Endset / Conplug screw end set



52 416 32 Z001
Grundplatte / Base plate

52 416 32 Z002
Verbindungsschrauben-Set / Conplug screw set



Elektropneumatisch betätigte Ventile – Größe 1

Electropneumatically operated valves – Size 1

Technische Daten / Technical data

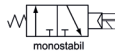
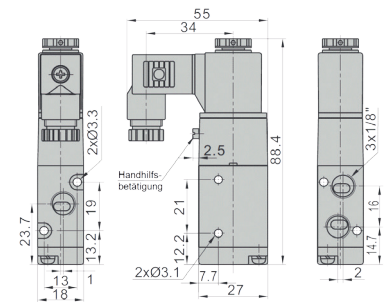
| | |
|--|---|
| Betriebsdruck / Operating pressure | 1,5 - 8 bar |
| Temperaturbereich / Temperature range | -20°C...+70°C |
| Elektrischer Anschluss / Electrical connection | Gerätesteckdose / Female connector |
| Schutzart / Protection | Form C-Industrie |
| Temperaturklasse / Temperature classification | IP 65 (DIN 40050) |
| Elektr. Leistung / Powerconsumption | AC: 2,5VA DC: 2,5W |
| Max. Schaltfrequenz / Max. frequency | 5Hz |

Serie 52 116 32△ 10 EF□▲ Elektrisch / Feder Electrically / Spring

3/2

Spannung / Potential

- △ | N = NC
- | 0 = Stecker / Plug
1 = 0,3 m Kabel / Cable
- ▲ | 4 = 12V DC
5 = 24V DC
6 = 24V 50 - 60Hz
7 = 110V 50 - 60Hz
8 = 220V 50 - 60Hz



Durchfluss bei 6bar ($\Delta p = 1\text{bar}$)
Flow rate at 6bar ($\Delta p = 1\text{bar}$)

470 l/min

Entlüftungsanschlüsse
Supply connections

G 1/8"

Arbeitsanschlüsse
Working connections

G 1/8"



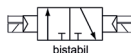
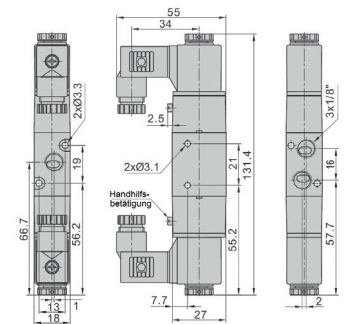
112g

Serie 52 116 32△ 10 EE□▲ Elektrisch / Elektrisch Electrically / Electrically

3/2

Spannung / Potential

- △ | N = NC
- | 0 = Stecker / Plug
1 = 0,3 m Kabel / Cable
- ▲ | 4 = 12V DC
5 = 24V DC
6 = 24V 50 - 60Hz
7 = 110V 50 - 60Hz
8 = 220V 50 - 60Hz



Durchfluss bei 6bar ($\Delta p = 1\text{bar}$)
Flow rate at 6bar ($\Delta p = 1\text{bar}$)

470 l/min

Entlüftungsanschlüsse
Supply connections

G 1/8"

Arbeitsanschlüsse
Working connections

G 1/8"



150g

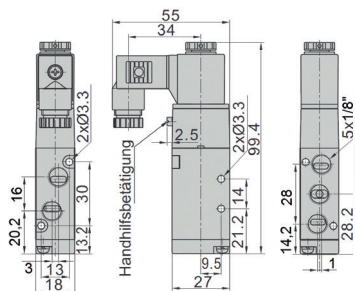
Elektropneumatisch betätigte Ventile – Größe 1

Electropneumatically operated valves – Size 1

Elektrisch / Feder
Electrically / Spring

5/2

Serie 52 116 52Δ 10 EF□▲



Spannung / Potential

- △ N = NC
- 0 = Stecker / Plug
1 = 0,3 m Kabel / Cable
- ▲ 4 = 12V DC
5 = 24V DC
6 = 24V 50 - 60Hz
7 = 110V 50 - 60Hz
8 = 220V 50 - 60Hz

Durchfluss bei 6bar (Δp = 1bar)
Flow rate at 6bar (Δp = 1bar)

470 l/min

Entlüftungsanschlüsse
Supply connections

G 1/8"

Arbeitsanschlüsse
Working connections

G 1/8"



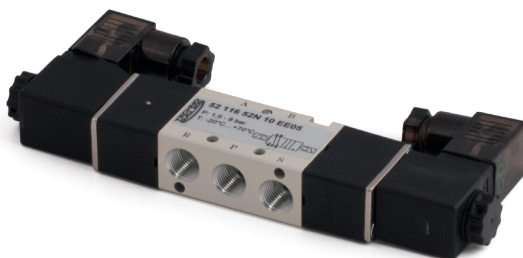
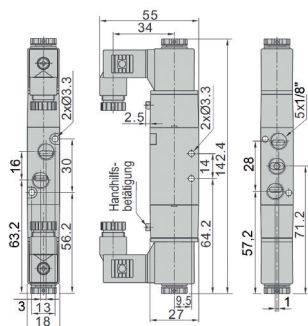
122g



Elektrisch / Elektrisch
Electrically / Electrically

5/2

Serie 52 116 52Δ 10 EE□▲



Spannung / Potential

- △ N = NC
- 0 = Stecker / Plug
1 = 0,3 m Kabel / Cable
- ▲ 4 = 12V DC
5 = 24V DC
6 = 24V 50 - 60Hz
7 = 110V 50 - 60Hz
8 = 220V 50 - 60Hz

Durchfluss bei 6bar (Δp = 1bar)
Flow rate at 6bar (Δp = 1bar)

470 l/min

Entlüftungsanschlüsse
Supply connections

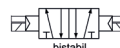
G 1/8"

Arbeitsanschlüsse
Working connections

G 1/8"



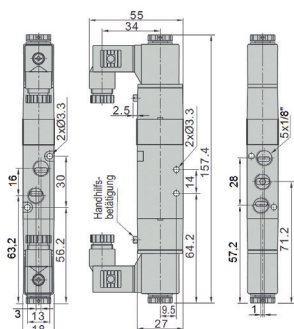
170g



Elektrisch / Elektrisch
Electrically / Electrically

5/3

Serie 52 116 53Δ 10 EE□▲



Spannung / Potential

- F = Mittelstellung geschlossen /
Closed centre
- △ D = Mittelstellung entlüftet /
Exhausted centre
- E = Mittelstellung belüftet /
Pressured centre
- 0 = Stecker / Plug
1 = 0,3 m Kabel / Cable
- ▲ 4 = 12V DC
5 = 24V DC
6 = 24V 50 - 60Hz
7 = 110V 50 - 60Hz
8 = 220V 50 - 60Hz

Durchfluss bei 6bar (Δp = 1bar)
Flow rate at 6bar (Δp = 1bar)

400 l/min

Entlüftungsanschlüsse
Supply connections

G 1/8"

Arbeitsanschlüsse
Working connections

G 1/8"



187g



Elektropneumatisch betätigte Ventile – Größe 2

Electropneumatically operated valves – Size 2

Technische Daten / Technical data

| | |
|--|---|
| Betriebsdruck / Operating pressure | 1,5 - 8 bar |
| Temperaturbereich / Temperature range | -20°C...+70°C |
| Elektrischer Anschluss / Electrical connection | Gerätesteckdose / Female connector |
| Schutzart / Protection | Form B, ISO 4400 |
| Temperaturklasse / Temperature classification | IP 65 (DIN 40050) |
| Elektr. Leistung / Powerconsumption | AC: 3,5VA DC: 3,0W |
| Max. Schaltfrequenz / Max. frequency | 5Hz |

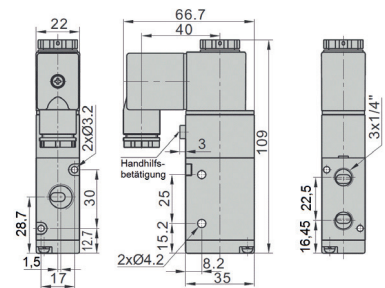
Serie 52 126 32△ 13 EF□▲ Elektrisch / Feder

Electrically / Spring

3/2

Spannung / Potential

- △ N = NC
- 0 = Stecker / Plug
1 = 0,3 m Kabel / Cable
- ▲ 4 = 12V DC
5 = 24V DC
6 = 24V 50 - 60Hz
7 = 110V 50 - 60Hz
8 = 220V 50 - 60Hz



Durchfluss bei 6bar (Δp = 1bar)
Flow rate at 6bar (Δp = 1bar)

900 l/min

Entlüftungsanschlüsse
Supply connections

G 1/4"

Arbeitsanschlüsse
Working connections

G 1/4"



211g

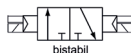
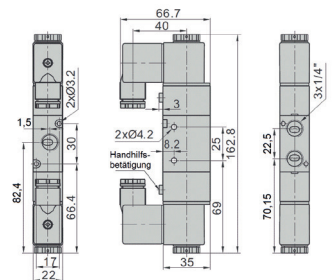
Serie 52 126 32△ 13 EE□▲ Elektrisch / Elektrisch

Electrically / Electrically

3/2

Spannung / Potential

- △ N = NC
- 0 = Stecker / Plug
1 = 0,3 m Kabel / Cable
- ▲ 4 = 12V DC
5 = 24V DC
6 = 24V 50 - 60Hz
7 = 110V 50 - 60Hz
8 = 220V 50 - 60Hz



Durchfluss bei 6bar (Δp = 1bar)
Flow rate at 6bar (Δp = 1bar)

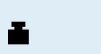
900 l/min

Entlüftungsanschlüsse
Supply connections

G 1/4"

Arbeitsanschlüsse
Working connections

G 1/4"



310g

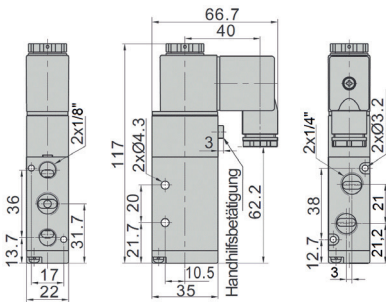
Elektropneumatisch betätigte Ventile – Größe 2

Electropneumatically operated valves – Size 2

Elektrisch / Feder
Electrically / Spring

5/2

Serie 52 126 52Δ 13 EF□▲



Spannung / Potential

- △ N = NC
- 0 = Stecker / Plug
1 = 0,3 m Kabel / Cable
- ▲ 4 = 12V DC
5 = 24V DC
6 = 24V 50 - 60Hz
7 = 110V 50 - 60Hz
8 = 220V 50 - 60Hz

Durchfluss bei 6bar (Δp = 1bar)
Flow rate at 6bar (Δp = 1bar)

900 l/min

Entlüftungsanschlüsse
Supply connections

G 1/8"

Arbeitsanschlüsse
Working connections

G 1/4"



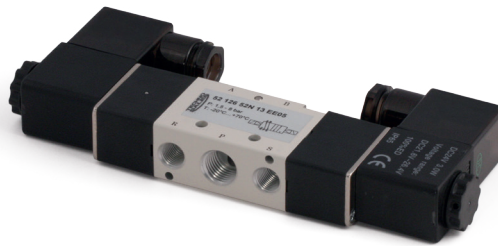
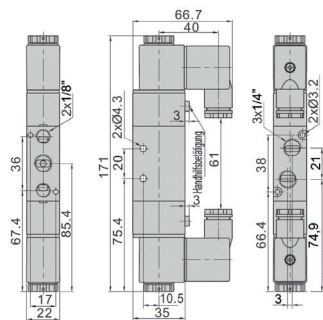
222g



Elektrisch / Elektrisch
Electrically / Electrically

5/2

Serie 52 126 52Δ 13 EE□▲



Spannung / Potential

- △ N = NC
- 0 = Stecker / Plug
1 = 0,3 m Kabel / Cable
- ▲ 4 = 12V DC
5 = 24V DC
6 = 24V 50 - 60Hz
7 = 110V 50 - 60Hz
8 = 220V 50 - 60Hz

Durchfluss bei 6bar (Δp = 1bar)
Flow rate at 6bar (Δp = 1bar)

900 l/min

Entlüftungsanschlüsse
Supply connections

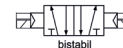
G 1/8"

Arbeitsanschlüsse
Working connections

G 1/4"



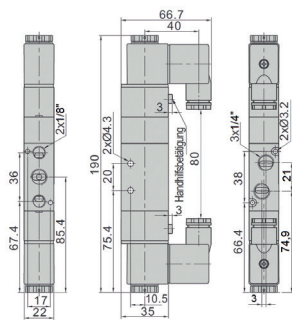
322g



Elektrisch / Elektrisch
Electrically / Electrically

5/3

Serie 52 126 53Δ 13 EE□▲



Spannung / Potential

- F = Mittelstellung geschlossen /
Closed centre
- △ D = Mittelstellung entlüftet /
Exhausted centre
- E = Mittelstellung belüftet /
Pressured centre
- 0 = Stecker / Plug
1 = 0,3 m Kabel / Cable
- ▲ 4 = 12V DC
5 = 24V DC
6 = 24V 50 - 60Hz
7 = 110V 50 - 60Hz
8 = 220V 50 - 60Hz

Durchfluss bei 6bar (Δp = 1bar)
Flow rate at 6bar (Δp = 1bar)

600 l/min

Entlüftungsanschlüsse
Supply connections

G 1/8"

Arbeitsanschlüsse
Working connections

G 1/4"



358g



Elektropneumatisch betätigte Ventile – Größe 3

Electropneumatically operated valves – Size 3

Technische Daten / Technical data

| | |
|--|---|
| Betriebsdruck / Operating pressure | 1,5 - 8 bar |
| Temperaturbereich / Temperature range | -20°C...+70°C |
| Elektrischer Anschluss / Electrical connection | Gerätesteckdose / Female connector |
| Schutzart / Protection | Form B, ISO 4400 |
| Temperaturklasse / Temperature classification | IP 65 (DIN 40050) |
| Elektr. Leistung / Powerconsumption | AC: 3,5VA DC: 3,0W |
| Max. Schaltfrequenz / Max. frequency | 4Hz |

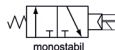
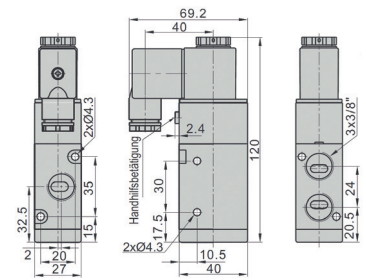
Serie 52 136 32Δ 17 EF□▲ Elektrisch / Feder

Electrically / Spring

3/2

Spannung / Potential

- Δ | N = NC
- | 0 = Stecker / Plug
1 = 0,3 m Kabel / Cable
- ▲ | 4 = 12V DC
5 = 24V DC
6 = 24V 50 - 60Hz
7 = 110V 50 - 60Hz
8 = 220V 50 - 60Hz



monostabil

Durchfluss bei 6bar (Δp = 1bar)
Flow rate at 6bar (Δp = 1bar)

1500 l/min

Entlüftungsanschlüsse
Supply connections

G 3/8"

Arbeitsanschlüsse
Working connections

G 3/8"



273g

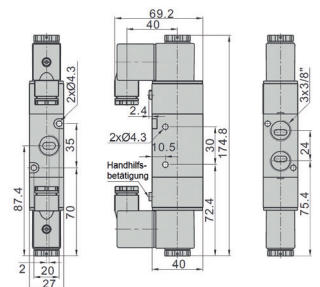
Serie 52 136 32Δ 17 EE□▲ Elektrisch / Elektrisch

Electrically / Electrically

3/2

Spannung / Potential

- Δ | N = NC
- | 0 = Stecker / Plug
1 = 0,3 m Kabel / Cable
- ▲ | 4 = 12V DC
5 = 24V DC
6 = 24V 50 - 60Hz
7 = 110V 50 - 60Hz
8 = 220V 50 - 60Hz



bistabil

Durchfluss bei 6bar (Δp = 1bar)
Flow rate at 6bar (Δp = 1bar)

1500 l/min

Entlüftungsanschlüsse
Supply connections

G 3/8"

Arbeitsanschlüsse
Working connections

G 3/8"



370g

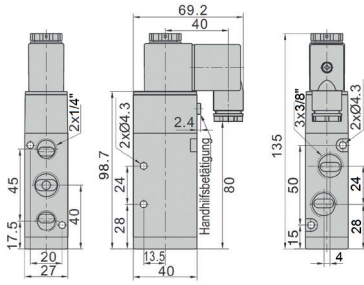
Elektropneumatisch betätigte Ventile – Größe 3

Electropneumatically operated valves – Size 3

Elektrisch / Feder
Electrically / Spring

5/2

Serie 52 136 52Δ 17 EF□▲



Spannung / Potential

- △ N = NC
- 0 = Stecker / Plug
1 = 0,3 m Kabel / Cable
- ▲ 4 = 12V DC
5 = 24V DC
6 = 24V 50 - 60Hz
7 = 110V 50 - 60Hz
8 = 220V 50 - 60Hz

Durchfluss bei 6bar (Δp = 1bar)
Flow rate at 6bar (Δp = 1bar)

1500 l/min

Entlüftungsanschlüsse
Supply connections

G 1/4"

Arbeitsanschlüsse
Working connections

G 3/8"



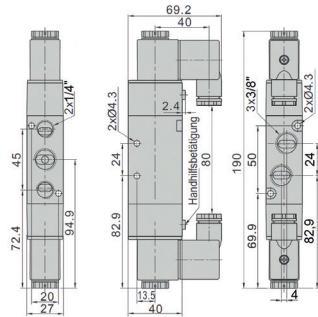
306g



Elektrisch / Elektrisch
Electrically / Electrically

5/2

Serie 52 136 52Δ 17 EE□▲



Spannung / Potential

- △ N = NC
- 0 = Stecker / Plug
1 = 0,3 m Kabel / Cable
- ▲ 4 = 12V DC
5 = 24V DC
6 = 24V 50 - 60Hz
7 = 110V 50 - 60Hz
8 = 220V 50 - 60Hz

Durchfluss bei 6bar (Δp = 1bar)
Flow rate at 6bar (Δp = 1bar)

1500 l/min

Entlüftungsanschlüsse
Supply connections

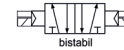
G 1/4"

Arbeitsanschlüsse
Working connections

G 3/8"



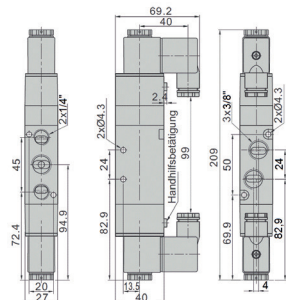
403g



Elektrisch / Elektrisch
Electrically / Electrically

5/3

Serie 52 136 53Δ 17 EE□▲



Spannung / Potential

- F = Mittelstellung geschlossen /
Closed centre
- D = Mittelstellung entlüftet /
Exhausted centre
- E = Mittelstellung belüftet /
Pressured centre
- 0 = Stecker / Plug
1 = 0,3 m Kabel / Cable
- ▲ 4 = 12V DC
5 = 24V DC
6 = 24V 50 - 60Hz
7 = 110V 50 - 60Hz
8 = 220V 50 - 60Hz

Durchfluss bei 6bar (Δp = 1bar)
Flow rate at 6bar (Δp = 1bar)

1150 l/min

Entlüftungsanschlüsse
Supply connections

G 1/4"

Arbeitsanschlüsse
Working connections

G 3/8"



455g



Elektropneumatisch betätigte Ventile – Größe 4

Electropneumatically operated valves – Size 4

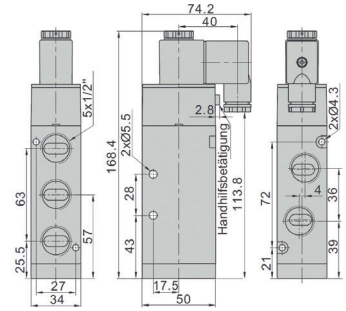
Serie 52 146 52Δ 21 EF□▲

Elektrisch / Feder
Electrically / Spring

5/2

Spannung / Potential

- ▲ N = NC
- 0 = Stecker / Plug
1 = 0,3 m Kabel / Cable
- ▲ 4 = 12V DC
5 = 24V DC
6 = 24V 50 - 60Hz
7 = 110V 50 - 60Hz
8 = 220V 50 - 60Hz



Durchfluss bei 6bar ($\Delta p = 1\text{bar}$)
Flow rate at 6bar ($\Delta p = 1\text{bar}$)

Entlüftungsanschlüsse
Supply connections

Arbeitsanschlüsse
Working connections



1800 l/min

G 1/2"

G 1/2"

541g

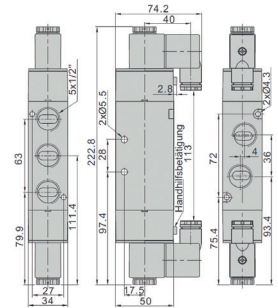
Serie 52 146 52Δ 21 EE□▲

Elektrisch / Elektrisch
Electrically / Electrically

5/2

Spannung / Potential

- ▲ N = NC
- 0 = Stecker / Plug
1 = 0,3 m Kabel / Cable
- ▲ 4 = 12V DC
5 = 24V DC
6 = 24V 50 - 60Hz
7 = 110V 50 - 60Hz
8 = 220V 50 - 60Hz



Durchfluss bei 6bar ($\Delta p = 1\text{bar}$)
Flow rate at 6bar ($\Delta p = 1\text{bar}$)

Entlüftungsanschlüsse
Supply connections

Arbeitsanschlüsse
Working connections



1800 l/min

G 1/2"

G 1/2"

722g

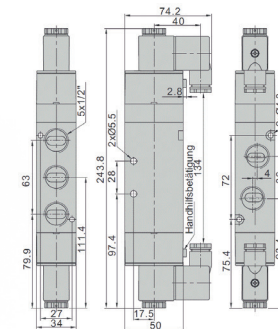
Serie 52 146 53Δ 21 EE□▲

Elektrisch / Elektrisch
Electrically / Electrically

5/3

Spannung / Potential

- ▲ F = Mittelstellung geschlossen /
Closed centre
- ▲ D = Mittelstellung entlüftet /
Exhausted centre
- ▲ E = Mittelstellung belüftet /
Pressured centre
- 0 = Stecker / Plug
1 = 0,3 m Kabel / Cable
- ▲ 4 = 12V DC
5 = 24V DC
6 = 24V 50 - 60Hz
7 = 110V 50 - 60Hz
8 = 220V 50 - 60Hz



Durchfluss bei 6bar ($\Delta p = 1\text{bar}$)
Flow rate at 6bar ($\Delta p = 1\text{bar}$)

Entlüftungsanschlüsse
Supply connections

Arbeitsanschlüsse
Working connections



1500 l/min

G 1/2"

G 1/2"

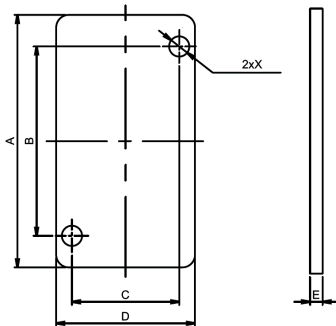
755g

Zubehör für 3/2 Wegeventile

Accessories for 3/2 directional valves

Verschlussplatte

Closing plate

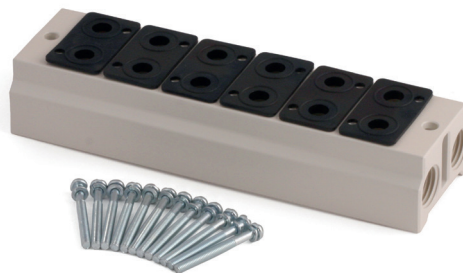
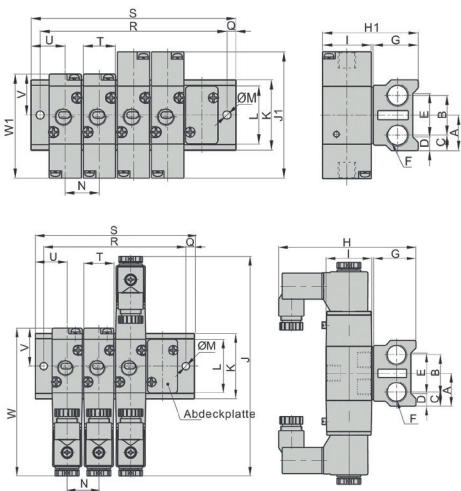


| Artikel Nr./ Ordering code | A | B | C | D | X | E |
|----------------------------|------|------|------|------|-----|-----|
| 52 116 32 Z000 | 32,0 | 19,0 | 13,0 | 18,0 | 3,2 | 2,0 |
| 52 126 32 Z000 | 40,0 | 30,0 | 17,0 | 22,0 | 3,2 | 2,0 |
| 52 136 32 Z000 | 47,0 | 35,0 | 20,0 | 27,0 | 4,3 | 2,0 |

Alle Werte in mm / All values in mm

Grundplatte aus Aluminium für 2 bis 16 Ventile

Collector made of aluminium for 2 to 16 valves



| Artikel Nr./ Ordering code | A | B | C | D | E | F | G | H | H1 | I | J | J1 | K | L | M | N | Q | T | U | V | W | W1 |
|----------------------------|------|------|------|-----|------|-----|------|------|------|------|-------|------|------|------|-----|------|-----|------|------|------|-------|------|
| 52 116 32 Z002 - Z016 | 19,5 | 22,0 | 8,5 | 7,5 | 24,0 | 1/4 | 25,0 | 81,0 | 53,0 | 27,0 | 131,4 | 70,0 | 39,0 | 32,0 | 4,5 | 19,0 | 5,0 | 18,0 | 19,0 | 22,7 | 88,4 | 57,7 |
| 52 126 32 Z002 - Z016 | 22,5 | 25,0 | 10,0 | 8,0 | 29,0 | 1/4 | 25,0 | 92,7 | 61,0 | 35,0 | 162,4 | 84,0 | 45,0 | 40,0 | 4,5 | 23,0 | 6,0 | 22,0 | 23,0 | 27,7 | 109,1 | 69,7 |
| 52 136 32 Z002 - Z016 | 26,0 | 28,0 | 12,0 | 8,0 | 36,0 | 3/8 | 29,0 | 99,2 | 70,0 | 40,0 | 174,8 | 96,0 | 52,0 | 47,0 | 4,5 | 28,0 | 6,0 | 27,0 | 27,0 | 32,5 | 119,9 | 80,5 |

| Artikel Nr./ Ordering code | R * | S * |
|----------------------------|-------------|-------------|
| 52 116 32 Z002 - Z016 | 9 + n x 19 | 19 + n x 19 |
| 52 126 32 Z002 - Z016 | 11 + n x 23 | 23 + n x 23 |
| 52 136 32 Z002 - Z016 | 14 + n x 28 | 26 + n x 28 |

Alle Werte in mm, außer F in Zoll
All values in mm, except F in inches

* die Variable n und die Zahl im letzten Teil der Artikelnummer repräsentiert die Anzahl der Ventilplätze auf der Grundplatte

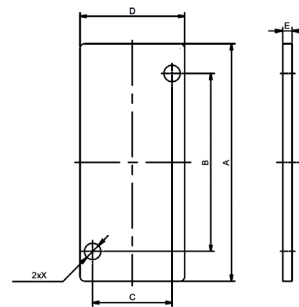
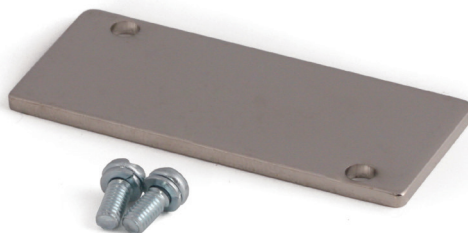
* the variable n and the number in the last part of the article number represents the number of valve slots on the valve collector

Zubehör für 5/2 und 5/3 Wegeventile

Accessories for 5/2 and 5/3 directional valves

Verschlussplatte

Closing plate

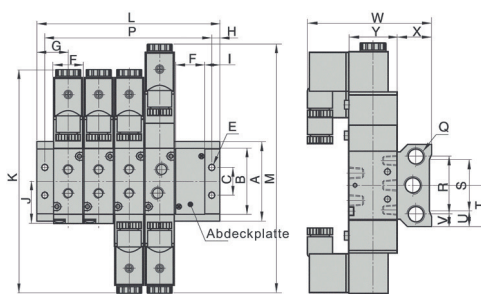
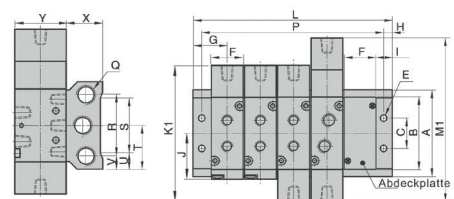


| Artikel Nr./ Ordering code | A | B | C | D | X | E |
|----------------------------|------|------|------|------|-----|-----|
| 52 116 52 Z000 | 43,2 | 30,0 | 13,0 | 18,3 | 3,5 | 2,0 |
| 52 126 52 Z000 | 50,7 | 38,0 | 17,0 | 22,4 | 3,5 | 2,0 |
| 52 136 52 Z000 | 64,8 | 50,0 | 20,0 | 27,3 | 4,5 | 2,0 |
| 52 146 52 Z000 | 94,5 | 72,0 | 27,0 | 34,3 | 4,5 | 3,0 |

Alle Werte in mm / All values in mm

Grundplatte aus Aluminium für 2 bis 16 Ventile

Collector made of aluminium for 2 to 16 valves



| Artikel Nr./ Ordering code | A | B | C | E | F | G | H | I | J | K | K1 | M | M1 | Q | R | S | T | U | V | W | X | Y |
|----------------------------|-------|------|------|-----|------|------|-----|------|------|-------|-------|-------|-------|-----|------|------|------|------|------|-------|------|------|
| 52 116 52 Z002 - Z016 | 58,0 | 43,2 | 20,0 | 4,5 | 18,3 | 19,0 | 5,0 | 10,0 | 28,2 | 139,4 | 81,0 | 154,5 | 96,0 | 1/4 | 40,0 | 30,0 | 29,0 | 14,0 | 9,0 | 79,0 | 25,0 | 27,0 |
| 52 126 52 Z002 - Z016 | 61,0 | 50,7 | 21,0 | 4,5 | 22,4 | 23,0 | 6,0 | 12,0 | 31,7 | 170,0 | 92,0 | 189,0 | 111,0 | 1/4 | 43,0 | 32,0 | 30,5 | 14,5 | 9,0 | 93,0 | 26,0 | 35,0 |
| 52 136 52 Z002 - Z016 | 75,0 | 64,8 | 26,0 | 4,5 | 27,3 | 27,0 | 6,0 | 13,5 | 40,0 | 188,8 | 111,0 | 208,0 | 130,0 | 3/8 | 53,0 | 48,0 | 37,5 | 13,5 | 11,0 | 99,5 | 30,0 | 40,0 |
| 52 146 52 Z002 - Z016 | 104,0 | 94,5 | 32,0 | 5,5 | 34,3 | 31,5 | 7,0 | 14,5 | 57,0 | 221,8 | 142,0 | 243,0 | 163,0 | 1/2 | 68,0 | 67,0 | 52,0 | 18,5 | 18,0 | 112,5 | 38,0 | 50,0 |

| Artikel Nr./ Ordering code | L * | P * |
|----------------------------|-------------|-------------|
| 52 116 52 Z002 - Z016 | 19 + n x 19 | 9 + n x 19 |
| 52 126 52 Z002 - Z016 | 23 + n x 23 | 11 + n x 23 |
| 52 136 52 Z002 - Z016 | 26 + n x 28 | 14 + n x 28 |
| 52 146 52 Z002 - Z016 | 28 + n x 35 | 14 + n x 35 |

Alle Werte in mm, außer F in Zoll

All values in mm, except F in inches

* die Variable n und die Zahl im letzten Teil der Artikelnummer repräsentiert die Anzahl der Ventilplätze auf der Grundplatte

* the variable n and the number in the last part of the article number represents the number of valve slots on the valve collector

Notizen

Notes

Elektropneumatisch betätigte Ventile – NAMUR

Electropneumatically operated valves – NAMUR

Technische Daten / Technical data

| | |
|--|--|
| Betriebsdruck / Operating pressure | 1,5 - 8 bar |
| Temperaturbereich / Temperature range | -20°C...+70°C |
| Elektrischer Anschluss / Electrical connection | Gerätesteckdose / Female connector Form B, ISO 4400 |
| Pneumatischer Anschluss / Pneumatically connection | NAMUR standard VDI/VDE 3847 |
| Schutzart / Protection | IP 65 (DIN 40050) |
| Temperaturklasse / Temperature classification | B Class |
| Elektr. Leistung / Powerconsumption | AC: 3,5VA DC: 3,0W |
| Max. Schaltfrequenz / Max. frequency | 4Hz |

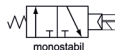
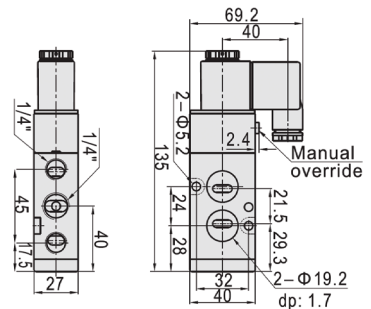
Serie 52 136 M3Δ 13 EF□▲ Elektrisch / Feder

Electrically / Spring

3/2

Spannung / Potential

- Δ N = NC
- 0 = Stecker / Plug
1 = 0,3 m Kabel / Cable
- ▲ 4 = 12V DC
5 = 24V DC
6 = 24V 50 - 60Hz
7 = 110V 50 - 60Hz
8 = 220V 50 - 60Hz



Durchfluss bei 6bar (Δp = 1bar)
Flow rate at 6bar (Δp = 1bar)

1350 l/min

Entlüftungsanschlüsse
Supply connections

G 1/4"

Arbeitsanschlüsse
Working connections

G 1/4"



310g

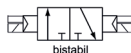
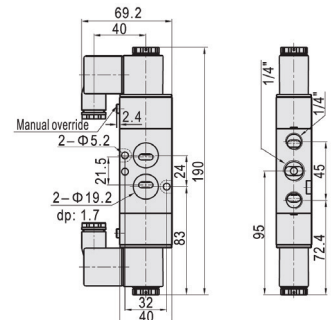
Serie 52 136 M3Δ 13 EE□▲ Elektrisch / Elektrisch

Electrically / Electrically

3/2

Spannung / Potential

- Δ N = NC
- 0 = Stecker / Plug
1 = 0,3 m Kabel / Cable
- ▲ 4 = 12V DC
5 = 24V DC
6 = 24V 50 - 60Hz
7 = 110V 50 - 60Hz
8 = 220V 50 - 60Hz



Durchfluss bei 6bar (Δp = 1bar)
Flow rate at 6bar (Δp = 1bar)

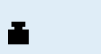
1350 l/min

Entlüftungsanschlüsse
Supply connections

G 1/4"

Arbeitsanschlüsse
Working connections

G 1/4"



400g

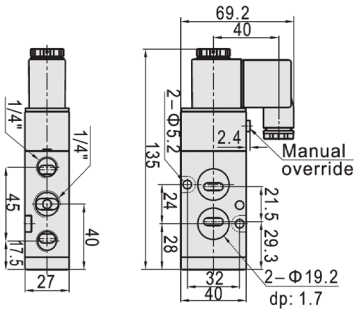
Elektropneumatisch betätigte Ventile – NAMUR

Electropneumatically operated valves – NAMUR

Elektrisch / Feder
Electrically / Spring

5/2

Serie 52 136 M5Δ 13 EF□▲



Spannung / Potential

- △ N = NC
- 0 = Stecker / Plug
1 = 0,3 m Kabel / Cable
- ▲ 4 = 12V DC
5 = 24V DC
6 = 24V 50 - 60Hz
7 = 110V 50 - 60Hz
8 = 220V 50 - 60Hz

Durchfluss bei 6bar (Δp = 1bar)
Flow rate at 6bar (Δp = 1bar)

1350 l/min

Entlüftungsanschlüsse
Supply connections

G 1/4"

Arbeitsanschlüsse
Working connections

G 1/4"

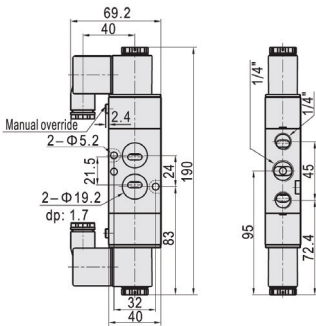


310g

Elektrisch / Elektrisch
Electrically / Electrically

5/2

Serie 52 136 M5Δ 13 EE□▲



Spannung / Potential

- △ N = NC
- 0 = Stecker / Plug
1 = 0,3 m Kabel / Cable
- ▲ 4 = 12V DC
5 = 24V DC
6 = 24V 50 - 60Hz
7 = 110V 50 - 60Hz
8 = 220V 50 - 60Hz

Durchfluss bei 6bar (Δp = 1bar)
Flow rate at 6bar (Δp = 1bar)

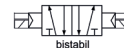
1350 l/min

Entlüftungsanschlüsse
Supply connections

G 1/4"

Arbeitsanschlüsse
Working connections

G 1/4"



400g

Blindscheibe für 3/2 Wege Ventil, Namur
Blind disks for 3/2 directional valves, Namur

Serie 52 136 M3 Z000

Diese Blindscheiben werden verwendet, um durch das Verschließen eines Arbeitskanals ein 5/2 Wegeventil wie ein 3/2 Wegeventil nutzen zu können.

Lieferumfang: 1 Stück

These blind disks are used to create a 5/2 directional valve out of a 3/2 directional valve. Therefore it's necessary to block one working port.

Quantity delivered: 1 piece



Standardzylinder ISO15552 - QD Serie

Standard cylinder ISO15552 - QD series

Allgemeine Informationen

General information

Einleitung / Introduction

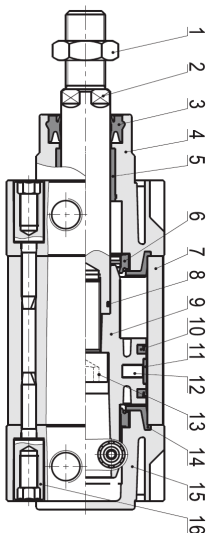
Dieser Teil des Katalogs umfasst unser Angebot über Standardpneumatikzylinder, welche der ISO15552 sowie der VDMA24562 entsprechen. Die einzelnen Bauteile werden mit hoher Präzision gefertigt. Diese Vorgehensweise garantiert minimale Reibungsverluste, sowie geringen Verschleiß und damit eine lange Haltbarkeit.

This part of the catalog contains our offer of standard pneumatic cylinders, which match the ISO15552 and VDMA24562. The individual parts are produced with high precision. This approach guarantees minimal friction losses as well as minor wear and therefore a long life time.

Technische Daten / Technical data

| | |
|--|--|
| Medium Fluid | Druckluft (gefiltert - 40µm) Compressed air (filtered - 40µm) |
| Betriebsdruck / Operating pressure | 1 - 10 bar |
| Temperaturbereich / Temperature range | -20°C...+80°C |
| Wirkprinzip / Acting type | Doppeltwirkend / Double acting |
| Dämpfungstyp / Damping system type | Einstellbar / Adjustable |
| Luftanschlussgewinde / Air connection thread | G-Gewinde / G-thread |

Werkstoff / Material

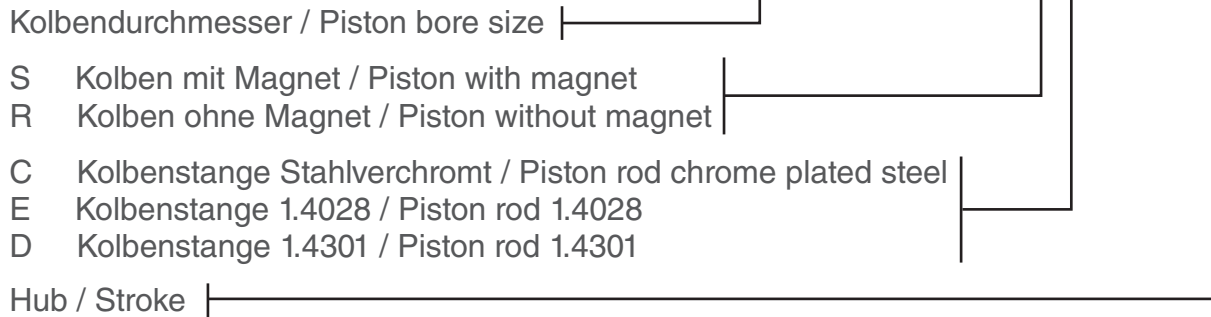


| Nr. | Bauteil / Part | Werkstoff / Material |
|-----|--|---|
| 1 | Kolbenstangenmutter / Piston rod nut | Stahl / steel; 1.4028; 1.4301 |
| 2 | Kolbenstange / Piston rod | Stahl verchromt / Chrome plated steel; 1.4028; 1.4301 |
| 3 | Kolbenstangendichtung / Piston rod seal | TPU |
| 4 | Zylinderdeckel / Cylinder cover | Aluminiumlegierung / Aluminium alloy |
| 5 | Führungsbuchse / Bushing | Verschleißfestes Material / Wear resistant material |
| 6 | Dichtring / Cushing O-Ring | TPU |
| 7 | Gehäuse / Barrel | Aluminiumlegierung / Aluminium alloy |
| 8 | O-Ring | NBR |
| 9 | Kolben / Piston | Aluminiumlegierung / Aluminium alloy |
| 10 | Kolben O-Ring / Piston O-Ring | TPU |
| 11 | Führungsring / Guide ring | Verschleißfestes Material / Wear resistant material |
| 12 | Magnet | Kunststoff / Synthetic |
| 13 | Schraube / Bolt | Stahl / Steel |
| 14 | Zylinderdeckeldichtung / Cylinder cover seal | TPU |
| 15 | Zylinderdeckel / Cylinder cover | Aluminiumlegierung / Aluminium alloy |
| 16 | Schraube / Bolt | Stahl / steel; 1.4028; 1.4301 |

Standardzylinder ISO15552 - QD Serie

Standard cylinder ISO15552 - QD series

Artikel Nr. / Ordering code **50** **063** **QD** **SE** **0600**



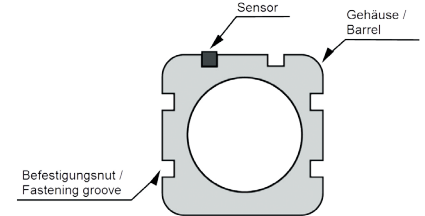
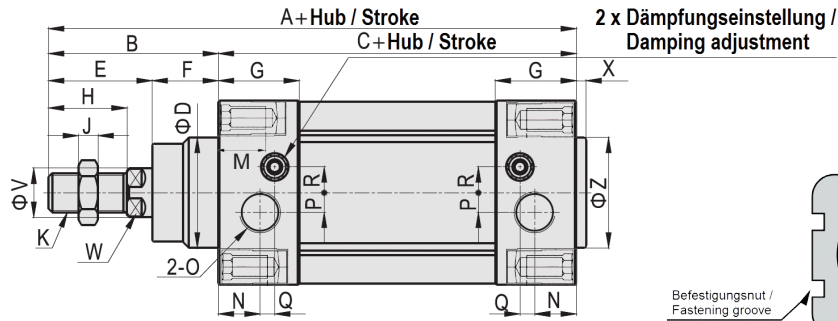
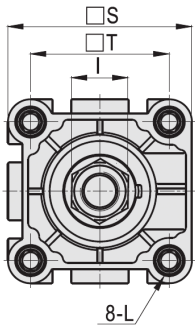
| Kolbendurchmesser / Piston bore size | 32mm | 40mm | 50mm | 63mm | 80mm | 100mm | 125mm |
|--|---------------|------|------|------|------|-------|---------------|
| Geschwindigkeitsbereich / Speed range | 30 - 800 mm/s | | | | | | 30 - 500 mm/s |
| Luftanschlussgewinde / Air connection thread | 1/8" | 1/4" | 1/4" | 3/8" | 3/8" | 1/2" | 1/2" |
| Dämpfungskolbenhub / Cushion stroke | 27mm | 27mm | 30mm | 30mm | 36mm | 36mm | 40mm |

| Kolbendurchmesser / Piston bore size | Standardhub in mm / Standard stroke in mm |
|--------------------------------------|--|
| 32mm | 25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 |
| 40mm | 25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 |
| 50mm | 25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000 |
| 63mm | 25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000 |
| 80mm | 25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000 |
| 100mm | 25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000 |
| 125mm | 25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000 |

Auf Anfrage max. Hub 1800mm / On request max. stroke 1800mm

Standardzylinder ISO15552 - QD Serie

Standard cylinder ISO15552 - QD series



| Kolbendurchmesser / Piston bore size | A | B | C | D | E | F | G | H | I | J | K | L | M |
|--------------------------------------|-----|-----|-----|----|----|----|------|----|----|------|----------|-----|------|
| 32mm | 142 | 48 | 94 | 30 | 29 | 19 | 27,5 | 22 | 17 | 6 | M10x1,25 | M6 | 16,1 |
| 40mm | 159 | 54 | 105 | 35 | 33 | 21 | 32 | 24 | 17 | 7 | M12x1,25 | M6 | 17,1 |
| 50mm | 175 | 69 | 106 | 40 | 42 | 27 | 31 | 32 | 23 | 8 | M16x1,5 | M8 | 17,1 |
| 63mm | 190 | 69 | 121 | 45 | 42 | 27 | 33 | 32 | 23 | 8 | M16x1,5 | M8 | 17,1 |
| 80mm | 214 | 86 | 128 | 45 | 53 | 33 | 33 | 40 | 26 | 10 | M20x1,5 | M10 | 19,1 |
| 100mm | 229 | 91 | 138 | 55 | 55 | 36 | 37 | 40 | 26 | 10 | M20x1,5 | M10 | 19,1 |
| 125mm | 279 | 119 | 160 | 60 | 74 | 45 | 46 | 54 | 41 | 13,5 | M27x2 | M12 | 21,5 |

| Kolbendurchmesser / Piston bore size | N | O | P | Q | R | S | T | V | W | X | Z |
|--------------------------------------|------|------|-----|-----|------|------|------|----|----|-----|----|
| 32mm | 13,5 | 1/8" | 5,8 | 6 | 6,3 | 46,5 | 32,5 | 12 | 10 | 3 | 30 |
| 40mm | 17,5 | 1/4" | 6 | 5,5 | 9 | 54 | 38 | 16 | 13 | 3,5 | 35 |
| 50mm | 14 | 1/4" | 8 | 5 | 10,5 | 64 | 46,5 | 20 | 17 | 3,5 | 40 |
| 63mm | 17 | 3/8" | 8 | 6 | 10,5 | 75 | 56,5 | 20 | 17 | 4 | 45 |
| 80mm | 16,5 | 3/8" | 8 | 8,5 | 12,5 | 93 | 72 | 25 | 22 | 4 | 45 |
| 100mm | 19,5 | 1/2" | 10 | 7 | 12 | 110 | 89 | 25 | 22 | 4 | 55 |
| 125mm | 23 | 1/2" | 11 | 12 | 11 | 134 | 110 | 32 | 27 | 4 | 60 |

Alle Werte in mm, außer O in Zoll / All values in mm, except O in inches

Notizen

Notes

Standardzylinder ISO15552 - PD Serie

Standard cylinder ISO15552 - PD series

Allgemeine Informationen

General information

Einleitung / Introduction

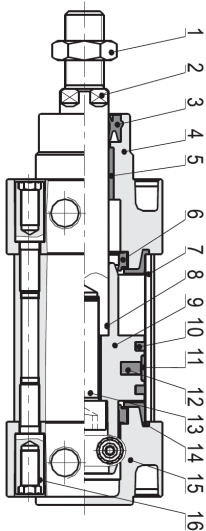
Dieser Teil des Katalogs umfasst unser Angebot über Standardpneumatikzylinder, welche der ISO15552 sowie der VDMA24562 entsprechen. Die einzelnen Bauteile werden mit hoher Präzision gefertigt. Diese Vorgehensweise garantiert minimale Reibungsverluste, sowie geringen Verschleiß und damit eine lange Haltbarkeit.

This part of the catalog contains our offer of standard pneumatic cylinders, which match the ISO15552 and VDMA24562. The individual parts are produced with high precision. This approach guarantees minimal friction losses as well as minor wear and therefore a long life time.

Technische Daten / Technical data

| | |
|--|--|
| Medium Fluid | Druckluft (gefiltert - 40µm) Compressed air (filtered - 40µm) |
| Betriebsdruck / Operating pressure | 1 - 10 bar |
| Temperaturbereich / Temperature range | -20°C...+80°C |
| Wirkprinzip / Acting type | Doppeltwirkend / Double acting |
| Dämpfungstyp / Damping system type | Einstellbar / Adjustable |
| Luftanschlussgewinde / Air connection thread | G-Gewinde / G-thread |

Werkstoff / Material

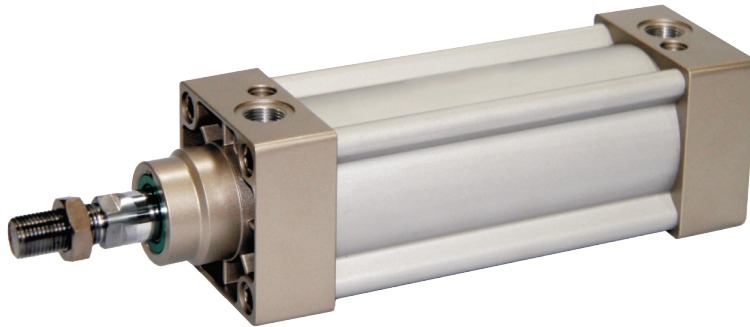


| Nr. | Bauteil / Part | Werkstoff / Material |
|-----|--|---|
| 1 | Kolbenstangenmutter / Piston rod nut | Stahl / steel |
| 2 | Kolbenstange / Piston rod | Stahl verchromt / Chrome plated steel; 1.4028; 1.4301 |
| 3 | Kolbenstangendichtung / Piston rod seal | TPU |
| 4 | Zylinderdeckel / Cylinder cover | Aluminiumlegierung / Aluminium alloy |
| 5 | Führungsbuchse / Bushing | Verschleißfestes Material / Wear resistant material |
| 6 | Dichtring / Cushing O-Ring | TPU |
| 7 | Gehäuse / Barrel | Aluminiumlegierung / Aluminium alloy |
| 8 | O-Ring | NBR |
| 9 | Kolben / Piston | Aluminiumlegierung / Aluminium alloy |
| 10 | Kolben O-Ring / Piston O-Ring | TPU |
| 11 | Führungsring / Guide ring | Verschleißfestes Material / Wear resistant material |
| 12 | Magnet | Kunststoff / Synthetic |
| 13 | Schraube / Bolt | Stahl / Steel |
| 14 | Zylinderdeckeldichtung / Cylinder cover seal | TPU |
| 15 | Zylinderdeckel / Cylinder cover | Aluminiumlegierung / Aluminium alloy |
| 16 | Schraube / Bolt | Stahl / steel |

Standardzylinder ISO15552 - PD Serie

Standard cylinder ISO15552 - PD series

| | | | | | |
|--|-----------|------------|-----------|-----------|-------------|
| Artikel Nr. / Ordering code | 50 | 063 | PD | SE | 0600 |
| Kolbendurchmesser / Piston bore size | ----- | | | | |
| S Kolben mit Magnet / Piston with magnet | | ----- | | | |
| R Kolben ohne Magnet / Piston without magnet | | ----- | | | |
| C Kolbenstange Stahlverchromt / Piston rod chrome plated steel | | | ----- | | |
| E Kolbenstange 1.4028 / Piston rod 1.4028 | | | ----- | | |
| D Kolbenstange 1.4301 / Piston rod 1.4301 | | | ----- | | |
| Hub / Stroke | ----- | | | | |



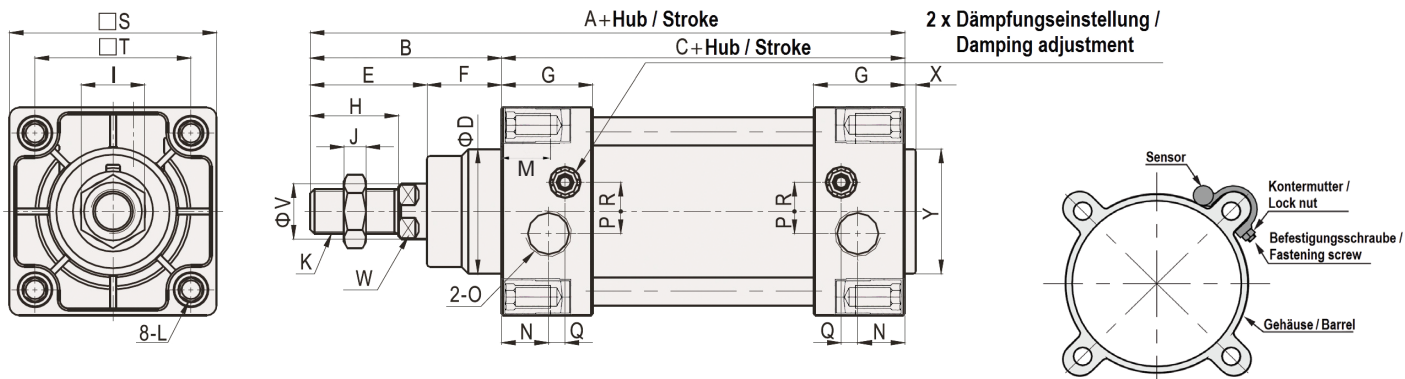
| Kolbendurchmesser / Piston bore size | 32mm | 40mm | 50mm | 63mm | 80mm | 100mm | 125mm | 160mm | 200mm |
|--|---------------|------|------|------|------|-------|---------------|-------|-------|
| Geschwindigkeitsbereich / Speed range | 30 - 800 mm/s | | | | | | 30 - 500 mm/s | | |
| Luftanschlussgewinde / Air connection thread | 1/8" | 1/4" | 1/4" | 3/8" | 3/8" | 1/2" | 1/2" | 3/4" | 3/4" |
| Dämpfungskolbenhub / Cushion stroke | 27mm | 27mm | 30mm | 30mm | 36mm | 36mm | 40mm | 50mm | 50mm |

| Kolbendurchmesser / Piston bore size | Standardhub in mm / Standard stroke in mm |
|--------------------------------------|--|
| 32mm | 25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 |
| 40mm | 25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 |
| 50mm | 25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000 |
| 63mm | 25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000 |
| 80mm | 25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000 |
| 100mm | 25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000 |
| 125mm | 25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000 |
| 160mm | 25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000 |
| 200mm | 25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000 |

Auf Anfrage max. Hub 2000mm / On request max. stroke 2000mm

Standardzylinder ISO15552 - PD Serie

Standard cylinder ISO15552 - PD series



| Kolbendurchmesser / Piston bore size | A | B | C | D | E | F | G | H | I | J | K | L | M |
|--------------------------------------|-----|-----|-----|----|-----|----|------|----|----|------|----------|-----|------|
| 32mm | 142 | 48 | 94 | 30 | 29 | 19 | 27,5 | 22 | 17 | 6 | M10x1,25 | M6 | 16,1 |
| 40mm | 159 | 54 | 105 | 35 | 33 | 21 | 32 | 24 | 17 | 7 | M12x1,25 | M6 | 17,1 |
| 50mm | 175 | 69 | 106 | 40 | 42 | 27 | 31 | 32 | 23 | 8 | M16x1,5 | M8 | 17,1 |
| 63mm | 190 | 69 | 121 | 45 | 42 | 27 | 33 | 32 | 23 | 8 | M16x1,5 | M8 | 17,1 |
| 80mm | 214 | 86 | 128 | 45 | 53 | 33 | 33 | 40 | 26 | 10 | M20x1,5 | M10 | 19,1 |
| 100mm | 229 | 91 | 138 | 55 | 55 | 36 | 37 | 40 | 26 | 10 | M20x1,5 | M10 | 19,1 |
| 125mm | 279 | 119 | 160 | 60 | 74 | 45 | 46 | 54 | 41 | 13,5 | M27x2 | M12 | 21,5 |
| 160mm | 332 | 152 | 180 | 65 | 94 | 58 | 50 | 72 | 55 | 18 | M36x2 | M16 | |
| 200mm | 347 | 167 | 180 | 75 | 100 | 67 | 50 | 72 | 55 | 18 | M36x2 | M16 | |

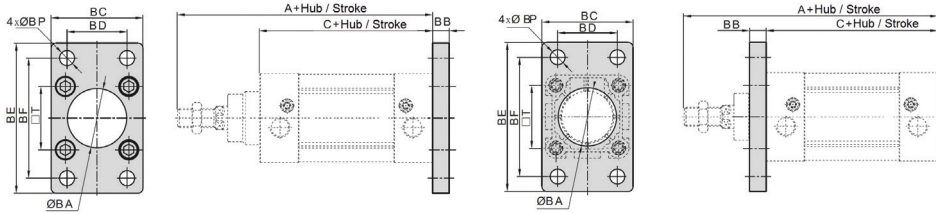
| Kolbendurchmesser / Piston bore size | N | O | P | Q | R | S | T | V | W | X | Z |
|--------------------------------------|------|------|-----|-----|------|-----|------|----|----|-----|----|
| 32mm | 13 | 1/8" | 5,5 | 6 | 6 | 47 | 32,5 | 12 | 10 | 3 | 30 |
| 40mm | 17 | 1/4" | 6 | 7,5 | 8,5 | 53 | 38 | 16 | 13 | 3,5 | 35 |
| 50mm | 15,5 | 1/4" | 7,5 | 6,5 | 9,5 | 65 | 46,5 | 20 | 17 | 3,5 | 40 |
| 63mm | 16,5 | 3/8" | 7,5 | 7,5 | 11,5 | 75 | 56,5 | 20 | 17 | 4 | 45 |
| 80mm | 16,5 | 3/8" | 9 | 7,5 | 13,5 | 95 | 72 | 25 | 22 | 4 | 45 |
| 100mm | 18,5 | 1/2" | 9,5 | 8,5 | 13,5 | 115 | 89 | 25 | 22 | 4 | 55 |
| 125mm | 23 | 1/2" | 14 | 12 | 14 | 140 | 110 | 32 | 27 | 4 | 60 |
| 160mm | 25 | 3/4" | 15 | 12 | 20 | 180 | 140 | 40 | 36 | 4 | 65 |
| 200mm | 25 | 3/4" | 15 | 12 | 20 | 220 | 175 | 40 | 36 | 5 | 75 |

Alle Werte in mm, außer O in Zoll / All values in mm, except O in inches

Zubehör für Standardzylinder ISO1552

Accessories for standard cylinder ISO1552

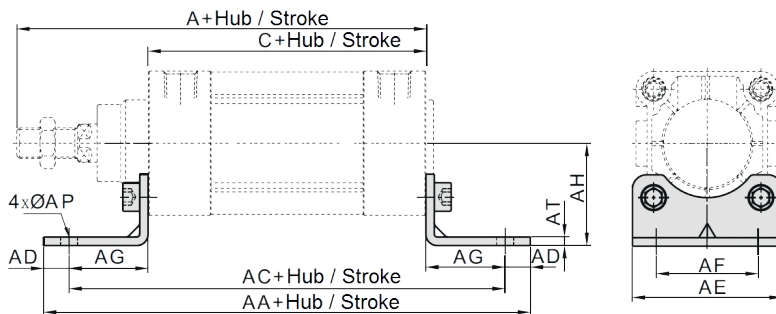
Flansch / Flange



| Artikel Nr. / Ordering code | Kolbendurchmesser / Piston bore size | A | C | BA | BB | BC | BD | BE | BF | BP | T | Werkstoff / Material |
|--------------------------------|---|-----|-----|------|----|-----|-----|-----|-----|------|------|--------------------------------------|
| 51 032 UF SA | 32mm | 142 | 94 | 30,5 | 10 | 47 | 32 | 80 | 64 | 7 | 32,5 | Aluminiumlegierung / Aluminium alloy |
| 51 040 UF SA | 40mm | 159 | 105 | 35,5 | 10 | 53 | 36 | 90 | 72 | 9 | 38 | Aluminiumlegierung / Aluminium alloy |
| 51 050 UF SA | 50mm | 175 | 106 | 40,5 | 12 | 65 | 45 | 108 | 90 | 9 | 46,5 | Aluminiumlegierung / Aluminium alloy |
| 51 063 UF SA | 63mm | 190 | 121 | 45,5 | 12 | 75 | 50 | 118 | 100 | 9 | 56,5 | Aluminiumlegierung / Aluminium alloy |
| 51 080 UF SA | 80mm | 214 | 128 | 45,5 | 16 | 95 | 63 | 150 | 126 | 12,5 | 72 | Aluminiumlegierung / Aluminium alloy |
| 51 100 UF SA | 100mm | 229 | 138 | 55,5 | 16 | 115 | 75 | 176 | 150 | 14,5 | 89 | Aluminiumlegierung / Aluminium alloy |
| 51 125 UF ST | 125mm | 279 | 160 | 60,5 | 20 | 139 | 90 | 218 | 180 | 16,5 | 110 | Stahlguss / Steel casting |
| 51 160 UF ST | 160mm | 332 | 180 | 65,5 | 20 | 180 | 115 | 280 | 230 | 18,5 | 140 | Stahlguss / Steel casting |
| 51 200 UF ST | 200mm | 347 | 180 | 75,5 | 25 | 220 | 135 | 320 | 270 | 24 | 175 | Stahlguss / Steel casting |

Alle Werte in mm / All values in mm

Fußbefestigung / Low-Rise pedestal



| Artikel Nr. / Ordering code | Kolbendurchmesser / Piston bore size | A | C | AA | AC | AD | AE | AF | AG | AH | AP | AT | Werkstoff / Material |
|--------------------------------|---|-----|-----|-----|-----|----|-----|-----|----|-----|------|----|---------------------------|
| 51 032 UE SS | 32mm | 142 | 94 | 158 | 142 | 8 | 47 | 32 | 24 | 32 | 7 | 3 | Stahl / Steel |
| 51 040 UE SS | 40mm | 159 | 105 | 179 | 161 | 9 | 53 | 36 | 28 | 36 | 9 | 3 | Stahl / Steel |
| 51 050 UE SS | 50mm | 175 | 106 | 190 | 170 | 10 | 65 | 45 | 32 | 45 | 9 | 3 | Stahl / Steel |
| 51 063 UE SS | 63mm | 190 | 121 | 209 | 185 | 12 | 75 | 50 | 32 | 50 | 9 | 3 | Stahl / Steel |
| 51 080 UE SS | 80mm | 214 | 128 | 248 | 210 | 19 | 95 | 63 | 41 | 63 | 12,5 | 4 | Stahl / Steel |
| 51 100 UE SS | 100mm | 229 | 138 | 266 | 228 | 19 | 115 | 75 | 45 | 71 | 14,5 | 4 | Stahl / Steel |
| 51 125 UE ST | 125mm | 279 | 160 | 290 | 250 | 20 | 140 | 90 | 45 | 90 | 16,5 | 8 | Stahlguss / Steel casting |
| 51 160 UE ST | 160mm | 332 | 180 | 340 | 300 | 20 | 180 | 115 | 60 | 115 | 18,5 | 8 | Stahlguss / Steel casting |
| 51 200 UE ST | 200mm | 347 | 180 | 380 | 320 | 30 | 220 | 135 | 70 | 135 | 24 | 9 | Stahlguss / Steel casting |

Alle Werte in mm / All values in mm

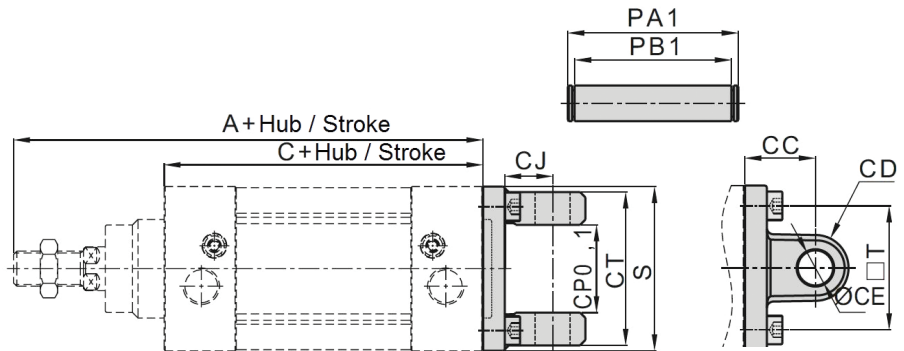
Oberfläche galvanisiert / Surface galvanised

Wir bieten diesen Artikel standardmäßig als Set (2 Stück) an / We offer this article standardly as a set (2 parts)

Zubehör für Standardzylinder ISO1552

Accessories for standard cylinder ISO1552

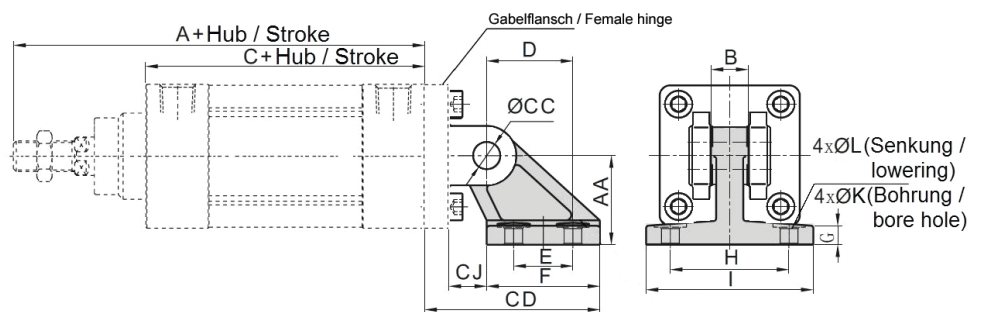
Gabelflansch / Female hinge



| Artikel Nr. / Ordering code | Kolbendurchmesser / Piston bore size | A | C | CC | CD | CE | CJ | CP | CT | PA1 | PB1 | S | T | Werkstoff / Material |
|--------------------------------|---|-----|-----|----|------|----|------|----|-----|-----|-------|------|------|---------------------------|
| 51 032 UD DT | 32mm | 142 | 94 | 22 | 10,5 | 10 | 13 | 26 | 45 | 51 | 45,5 | 46,5 | 32,5 | Eisenguss / Iron casting |
| 51 040 UD DT | 40mm | 159 | 105 | 25 | 12 | 12 | 16 | 28 | 52 | 59 | 52,5 | 54 | 38 | Eisenguss / Iron casting |
| 51 050 UD DT | 50mm | 175 | 106 | 27 | 12 | 12 | 17 | 32 | 60 | 67 | 60,5 | 64 | 46,5 | Eisenguss / Iron casting |
| 51 063 UD DT | 63mm | 190 | 121 | 32 | 15 | 16 | 22 | 40 | 70 | 77 | 70,5 | 75 | 56,5 | Eisenguss / Iron casting |
| 51 080 UD DT | 80mm | 214 | 128 | 36 | 15,5 | 16 | 22 | 50 | 90 | 97 | 90,5 | 93 | 72 | Eisenguss / Iron casting |
| 51 100 UD DT | 100mm | 229 | 138 | 41 | 20 | 20 | 27 | 60 | 110 | 119 | 110,5 | 110 | 89 | Eisenguss / Iron casting |
| 51 125 UD DT | 125mm | 279 | 160 | 50 | 24 | 25 | 33 | 70 | 130 | 139 | 130,5 | 134 | 110 | Stahlguss / Steel casting |
| 51 160 UD DT | 160mm | 332 | 180 | 55 | 30 | 30 | 35,5 | 90 | 170 | 181 | 170,5 | 180 | 140 | Stahlguss / Steel casting |
| 51 200 UD DT | 200mm | 347 | 180 | 60 | 30 | 30 | 36 | 90 | 170 | 181 | 170,5 | 220 | 175 | Stahlguss / Steel casting |

Alle Werte in mm / All values in mm

Lagerbock / Square joint



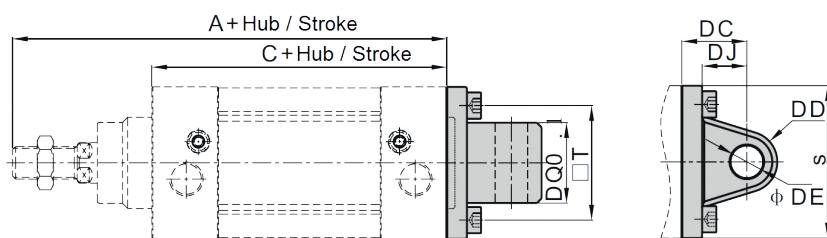
| Artikel Nr. / Ordering code | Kolbendurchmesser / Piston bore size | A | AA | B | C | CC | CD | CJ | D | E | F | G | H | I | K | L | Werkstoff / Material |
|--------------------------------|---|-----|-----|----|-----|-----|-----|----|-----|----|-----|----|-----|-----|-----|----|---------------------------|
| 51 032 UA TT | 32mm | 142 | 32 | 26 | 94 | 10 | 50 | 10 | 21 | 18 | 31 | 8 | 38 | 51 | 6,6 | - | Eisenguss / Iron casting |
| 51 040 UA TT | 40mm | 159 | 36 | 28 | 105 | 121 | 56 | 12 | 24 | 22 | 35 | 10 | 41 | 54 | 6,6 | - | Eisenguss / Iron casting |
| 51 050 UA TT | 50mm | 175 | 45 | 32 | 106 | 12 | 68 | 13 | 33 | 30 | 45 | 12 | 50 | 65 | 9 | - | Eisenguss / Iron casting |
| 51 063 UA TT | 63mm | 190 | 50 | 40 | 121 | 16 | 77 | 17 | 37 | 35 | 50 | 12 | 52 | 67 | 9 | - | Eisenguss / Iron casting |
| 51 080 UA TT | 80mm | 214 | 63 | 50 | 128 | 16 | 93 | 19 | 47 | 40 | 60 | 14 | 66 | 86 | 11 | 18 | Eisenguss / Iron casting |
| 51 100 UA TT | 100mm | 229 | 71 | 60 | 138 | 20 | 106 | 22 | 55 | 50 | 70 | 15 | 76 | 96 | 11 | 18 | Eisenguss / Iron casting |
| 51 125 UA TT | 125mm | 279 | 90 | 70 | 160 | 25 | 135 | 26 | 70 | 60 | 90 | 20 | 94 | 124 | 14 | 20 | Stahlguss / Steel casting |
| 51 160 UA TT | 160mm | 332 | 115 | 90 | 180 | 30 | 171 | 25 | 97 | 88 | 126 | 25 | 118 | 156 | 14 | 20 | Stahlguss / Steel casting |
| 51 200 UA TT | 200mm | 347 | 135 | 90 | 180 | 30 | 185 | 31 | 105 | 90 | 130 | 30 | 122 | 162 | 18 | 26 | Stahlguss / Steel casting |

Alle Werte in mm / All values in mm

Zubehör für Standardzylinder ISO15552

Accessories for standard cylinder ISO15552

Gegenlager / Male hinge



| Artikel Nr. / Ordering code | Kolbendurchmesser / Piston bore size | A | C | S | T | DC | DD | DE | DJ | DQ | Werkstoff / Material |
|--------------------------------|---|-----|-----|------|------|----|------|----|------|------|---------------------------|
| 51 032 UL ST | 32mm | 142 | 94 | 46,5 | 32,5 | 22 | 10,5 | 10 | 13 | 25,8 | Eisenguss / Iron casting |
| 51 040 UL ST | 40mm | 159 | 105 | 54 | 38 | 25 | 12 | 12 | 16 | 27,8 | Eisenguss / Iron casting |
| 51 050 UL ST | 50mm | 175 | 106 | 64 | 46,5 | 27 | 12 | 12 | 17 | 31,7 | Eisenguss / Iron casting |
| 51 063 UL ST | 63mm | 190 | 121 | 75 | 56,5 | 32 | 15 | 16 | 22 | 39,7 | Eisenguss / Iron casting |
| 51 080 UL ST | 80mm | 214 | 128 | 93 | 72 | 36 | 15,5 | 16 | 22 | 49,7 | Eisenguss / Iron casting |
| 51 100 UL ST | 100mm | 229 | 138 | 110 | 89 | 41 | 20 | 20 | 27 | 59,7 | Eisenguss / Iron casting |
| 51 125 UL ST | 125mm | 279 | 160 | 134 | 110 | 50 | 24 | 25 | 33 | 69,7 | Stahlguss / Steel casting |
| 51 160 UL ST | 160mm | 332 | 180 | 180 | 140 | 55 | 30 | 30 | 35,5 | 89,7 | Stahlguss / Steel casting |
| 51 200 UL ST | 200mm | 347 | 180 | 220 | 175 | 60 | 30 | 30 | 37 | 89,7 | Stahlguss / Steel casting |

Alle Werte in mm / All values in mm

Rundzylinder ISO6432

Round cylinder ISO6432

Allgemeine Informationen

General information

Einleitung / Introduction

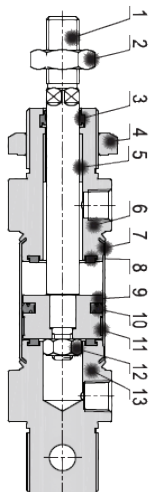
Dieser Teil des Katalogs umfasst unser Angebot über Rundpneumatikzylinder, welche der ISO6432 entsprechen. Die einzelnen Bauteile werden mit hoher Präzision gefertigt. Diese Vorgehensweise garantiert minimale Reibungsverluste, sowie geringen Verschleiß und damit eine lange Haltbarkeit.

This part of the catalog contains our offer of round pneumatic cylinders, which match the ISO6432. The individual parts are produced with high precision. This approach guarantees minimal friction losses as well as minor wear and therefore a long life time.

Technische Daten / Technical data

| | |
|--|--|
| Medium Fluid | Druckluft (gefiltert - 40µm) Compressed air (filtered - 40µm) |
| Betriebsdruck / Operating pressure | |
| Doppeltwirkend / Double acting | 1 - 10 bar |
| Einfachwirkend / Single acting | 2 - 10 bar |
| Temperaturbereich / Temperature range | -20°C...+70°C |
| Dämpfungstyp / Damping system type | |
| Doppeltwirkend (Ø8-12mm), Einfachwirkend | Anschlaggummi / Bumper |
| Doppeltwirkend (Ø16-40mm) | Einstellbar / Adjustable |
| Geschwindigkeitsbereich / Speed range | |
| Doppeltwirkend / Double acting | 30 - 800 mm/s |
| Einfachwirkend / Single acting | 50 - 800 mm/s |

Werkstoff / Material



| Nr. | Bauteil / Part | Werkstoff / Material |
|-----|---|--|
| 1 | Kolbenstange / Piston rod | 1.4301 |
| 2 | Kolbenstangenmutter / Piston rod nut | Stahl / steel |
| 3 | Kolbenstangendichtung / Piston rod seal | NBR |
| 4 | Zylinderdeckelschraube / Cylinder cover nut | Stahl / steel |
| 5 | Führungsbuchse / Bushing | Verschleißfestes Material / Wear resistant material |
| 6 | Zylinderdeckel / Cylinder cover | Aluminiumlegierung / Aluminium alloy |
| 7 | Gehäuse / Barrel | 1.4301 |
| 8 | Dichtring / Cushing O-Ring | TPU |
| 9 | Kolben / Piston | Aluminiumlegierung / Aluminium alloy; (Ø8-12mm 1.4301) |
| 10 | Kolben O-Ring / Piston O-Ring | NBR |
| 11 | Führungsring / Guide ring | Verschleißfestes Material / Wear resistant material |
| 12 | Schraube / Bolt | Stahl / Steel |
| 13 | Zylinderdeckel / Cylinder cover | Aluminiumlegierung / Aluminium alloy |

Rundzylinder ISO6432

Round cylinder ISO6432

Artikel Nr. / Ordering code 50 016 MDA SE 0050

Kolbendurchmesser / Piston bore size

- A Doppeltwirkend, ohne einstellbare Dämpfung (Ø8-40mm)
- D Doppeltwirkend, einstellbare Dämpfung (Ø16-40mm)
- M Einfachwirkend, Feder hinten / Single acting, Pull
- N Einfachwirkend, Feder vorne / Single acting, Push

- A Schwenkausführung / Pivot type
- B Flacher Zylinderboden / Perpendicular type
- C Axialer Luftanschluss / Axial air connection
- D Zylinderboden mit Gewinde / Round end type

- S Kolben mit Magnet / Piston with magnet
- R Kolben ohne Magnet / Piston without magnet

Hub / Stroke



| Kolbendurchmesser / Piston bore size | 8mm | 10mm | 12mm | 16mm | 20mm | 25mm | 32mm | 40mm |
|--|----------|------|------|------|------|------|------|------|
| Luftanschlussgewinde / Air connection thread | M5 x 0,8 | | | | 1/8" | | | 1/4" |

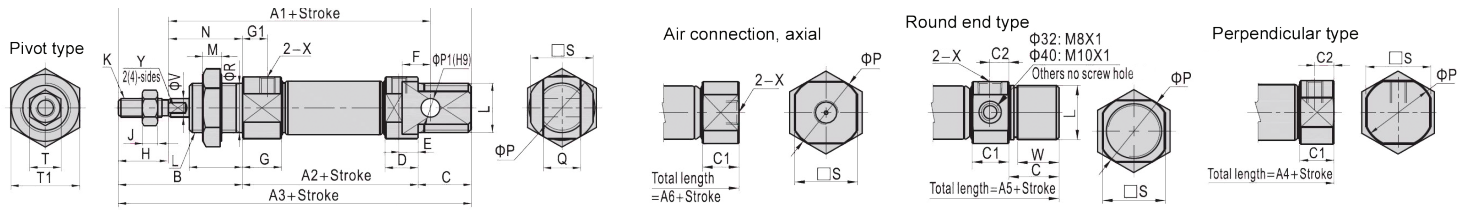
| Kolbendurchmesser / Piston bore size | Wirkprinzip / Acting type | Standardhub in mm / Standard stroke in mm |
|--------------------------------------|--------------------------------|---|
| 8mm | Doppeltwirkend / Double acting | 10 15 20 25 30 40 50 60 75 80 100 125 150 |
| 10mm | | 10 15 20 25 30 40 50 60 75 80 100 125 150 160 175 200 |
| 12mm | | 10 15 20 25 30 40 50 60 75 80 100 125 150 160 175 200 250 |
| 16mm | | 10 15 20 25 30 40 50 60 75 80 100 125 150 160 175 200 250 300 |
| 20mm | | 10 15 20 25 30 40 50 60 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 |
| 25mm | | 10 15 20 25 30 40 50 60 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 |
| 32mm | | 10 15 20 25 30 40 50 60 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 |
| 40mm | | 10 15 20 25 30 40 50 60 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 |
| 8mm | Einfachwirkend / Single acting | 10 15 20 25 30 40 50 |
| 10mm | | 10 15 20 25 30 40 50 |
| 12mm | | 10 15 20 25 30 40 50 |
| 16mm | | 10 15 20 25 30 40 50 60 75 80 100 |
| 20mm | | 10 15 20 25 30 40 50 60 75 80 100 125 150 |
| 25mm | | 10 15 20 25 30 40 50 60 75 80 100 125 150 |
| 32mm | | 10 15 20 25 30 40 50 60 75 80 100 125 150 |
| 40mm | | 10 15 20 25 30 40 50 60 75 80 100 125 150 |

Abweichende Modelle auf Anfrage / Divergent models on request

Rundzylinder ISO6432

Round cylinder ISO6432

Doppeltwirkend, ohne einstellbare Dämpfung

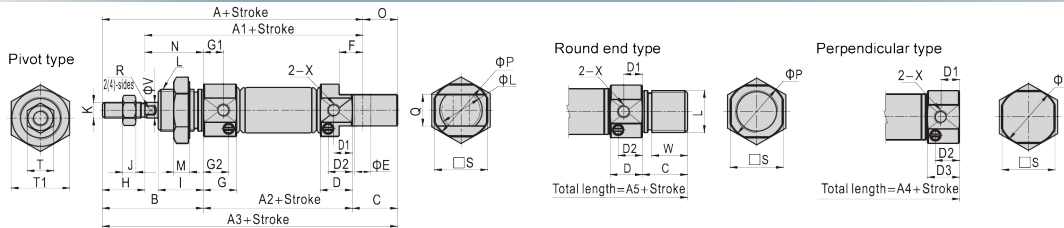


| Kolbendurchmesser / Piston bore size | A | A1 | A2 | A3 | A4 | A5 | A6 | B | C | C1 | C2 | D | E | F | G | G1 | H | I | J | K |
|--------------------------------------|-----|-----|----|-----|-------|-----|-----|----|----|------|-----|------|-----|----|------|-----|----|----|-----|----------|
| 8mm | 76 | 64 | 46 | 86 | 74 | - | - | 28 | 12 | 9,5 | 5 | 9,5 | 5 | 6 | 11,5 | 7 | 12 | 12 | 2,2 | M4x0,7 |
| 10mm | 76 | 64 | 46 | 86 | 74 | - | - | 28 | 12 | 9,5 | 5 | 9,5 | 5 | 6 | 11,5 | 7 | 12 | 12 | 2,2 | M4x0,7 |
| 12mm | 91 | 75 | 50 | 105 | 88 | - | - | 38 | 17 | 10,5 | 6 | 10,5 | 6 | 9 | 12,5 | 8 | 16 | 17 | 5 | M6x1,0 |
| 16mm | 98 | 82 | 56 | 111 | 94 | 111 | 94 | 38 | 17 | 10,5 | 6 | 10,5 | 6 | 9 | 12,5 | 8 | 16 | 17 | 5 | M6x1,0 |
| 20mm | 115 | 95 | 62 | 126 | 106 | 126 | 106 | 44 | 20 | 14,5 | 7,5 | 14,5 | 7,5 | 12 | 14,5 | 7,5 | 20 | 20 | 6 | M8x1,25 |
| 25mm | 126 | 104 | 65 | 137 | 114,5 | 137 | 115 | 50 | 22 | 16 | 8 | 16 | 8 | 12 | 16 | 8 | 22 | 22 | 6 | M10x1,25 |
| 32mm | - | - | - | - | 125 | 140 | 126 | 58 | 14 | 16,5 | 9 | - | - | - | 16,5 | 9 | 20 | 30 | 6 | M10x1,25 |
| 40mm | - | - | - | - | 158 | 174 | 158 | 69 | 16 | 22 | 12 | - | - | - | 22 | 12 | 24 | 35 | 7 | M12x1,25 |

| Kolbendurchmesser / Piston bore size | L | M | N | O | P | P1 | Q | R | S | T | T1 | X | V | W | Y |
|--------------------------------------|----------|---|----|----|------|----|----|----|------|----|----|--------|----|------|----|
| 8mm | M12x1,25 | 6 | 16 | 10 | 17 | 4 | 8 | 12 | 15 | 7 | 17 | M5x0,8 | 4 | - | - |
| 10mm | M12x1,25 | 6 | 16 | 10 | 17 | 4 | 8 | 12 | 15 | 7 | 17 | M5x0,8 | 4 | - | - |
| 12mm | M16x1,5 | 6 | 22 | 14 | 20 | 6 | 12 | 16 | 18 | 10 | 22 | M5x0,8 | 6 | - | 5 |
| 16mm | M16x1,5 | 6 | 22 | 13 | 22 | 6 | 12 | 16 | 20 | 10 | 22 | M5x0,8 | 6 | 13,5 | 5 |
| 20mm | M22x1,5 | 7 | 24 | 11 | 29 | 8 | 16 | 22 | 25 | 12 | 29 | 1/8" | 8 | 16,5 | 6 |
| 25mm | M22x1,5 | 7 | 28 | 11 | 33,5 | 8 | 16 | 22 | 30 | 17 | 29 | 1/8" | 10 | 18,5 | 8 |
| 32mm | M30x1,5 | 7 | 38 | - | 37,5 | - | - | 30 | 34,5 | 17 | 36 | 1/8" | 12 | 10,5 | 10 |
| 40mm | M38x1,5 | 8 | 45 | - | 46,5 | - | - | 38 | 42,5 | 17 | 46 | 1/4" | 16 | 12,5 | 14 |

Alle Werte in mm, außer X teilweise in Zoll / All values in mm, except X partly in inches

Doppeltwirkend, einstellbare Dämpfung; Ø16mm - 25mm



| Kolbendurchmesser / Piston bore size | A | A1 | A2 | A3 | A4 | A5 | B | C | D | D1 | D2 | D3 | E | F | G | G1 | G2 | H | I | J |
|--------------------------------------|-----|-----|----|-----|-------|-----|----|----|------|-----|------|------|---|----|------|-----|------|----|----|---|
| 16mm | 98 | 82 | 56 | 111 | 94 | 111 | 38 | 17 | 12,1 | 7 | 9 | 12,1 | 6 | 9 | 12,5 | 7,5 | 9,5 | 16 | 17 | 5 |
| 20mm | 115 | 95 | 62 | 126 | 106 | 126 | 44 | 20 | 14,5 | 7,5 | 10,5 | 14,5 | 8 | 12 | 14,5 | 7,5 | 10,5 | 20 | 20 | 6 |
| 25mm | 126 | 104 | 65 | 137 | 113,5 | 137 | 50 | 22 | 16 | 8 | 10,5 | 14,5 | 8 | 12 | 16 | 8 | 12 | 22 | 22 | 6 |

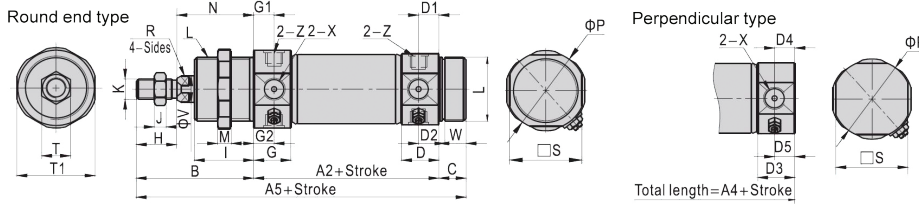
| Kolbendurchmesser / Piston bore size | K | L | M | N | O | P | Q | R | S | T | T1 | X | V | W |
|--------------------------------------|----------|---------|---|----|----|------|----|---|----|----|----|--------|----|------|
| 16mm | M6x1,0 | M16x1,5 | 6 | 22 | 13 | 22 | 12 | 5 | 20 | 10 | 22 | M5x0,8 | 6 | 13,5 |
| 20mm | M8x1,25 | M22x1,5 | 7 | 24 | 11 | 29 | 16 | 6 | 25 | 12 | 29 | 1/8" | 8 | 16,5 |
| 25mm | M10x1,25 | M22x1,5 | 7 | 28 | 11 | 33,5 | 16 | 8 | 30 | 17 | 29 | 1/8" | 10 | 18,5 |

Alle Werte in mm, außer X teilweise in Zoll / All values in mm, except X partly in inches

Rundzylinder ISO6432

Round cylinder ISO6432

Doppeltwirkend, einstellbare Dämpfung; Ø32mm - 40mm

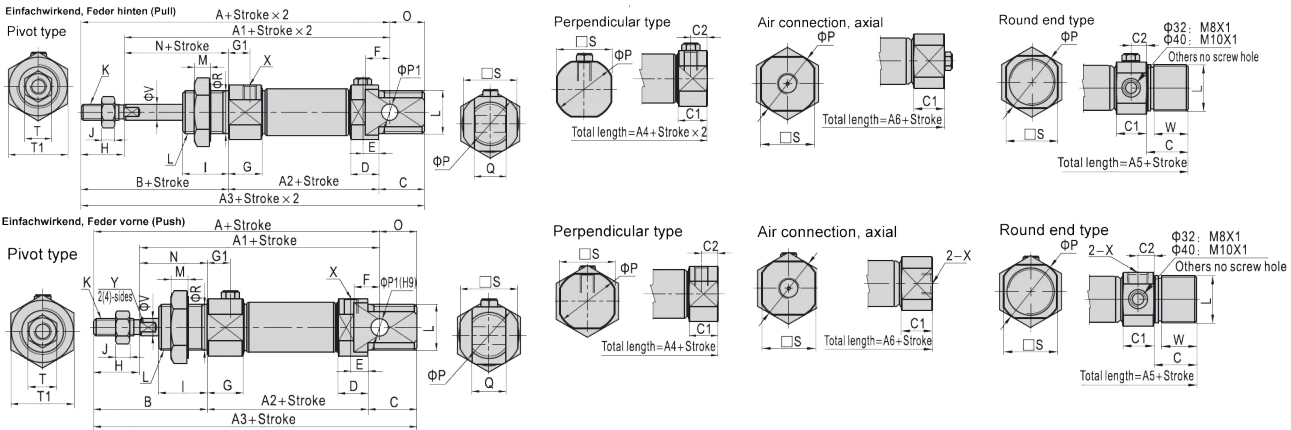


| Kolbendurchmesser / Piston bore size | A2 | A4 | A5 | B | C | D | D1 | D2 | D3 | D4 | D5 | G | G1 | G2 | H | I | J | K |
|--------------------------------------|----|-------|-----|----|----|------|----|------|------|------|----|------|----|------|----|----|---|----------|
| 32mm | 68 | 124 | 140 | 58 | 14 | 16,5 | 9 | 11,5 | 14,5 | 7,5 | 11 | 16,5 | 9 | 11,8 | 20 | 30 | 6 | M10x1,25 |
| 40mm | 89 | 157,5 | 174 | 69 | 16 | 22 | 12 | 12 | 21,5 | 11,5 | 14 | 22 | 12 | 12 | 24 | 35 | 7 | M12x1,25 |

| Kolbendurchmesser / Piston bore size | L | M | N | P | S | T | T1 | V | W | X |
|--------------------------------------|---------|---|----|------|------|----|----|----|------|------|
| 32mm | M30x1,5 | 7 | 38 | 37,5 | 34,5 | 17 | 36 | 12 | 10,5 | 1/8" |
| 40mm | M38x1,5 | 8 | 45 | 46,5 | 42,5 | 17 | 46 | 16 | 12,5 | 1/4" |

Alle Werte in mm, außer X in Zoll / All values in mm, except X in inches

Einfachwirkend



| Kolbendurchmesser / Piston bore size | A | | | A1 | | | A2 | | | A3 | | | A4 | | | A5 | | | A6 | | | B | C | C1 | C2 |
|--------------------------------------|------|--------|---------|------|--------|---------|------|--------|---------|------|--------|---------|-------|--------|---------|------|--------|---------|------|--------|---------|----|----|------|-----|
| | 0-50 | 51-100 | 101-150 | 0-50 | 51-100 | 101-150 | 0-50 | 51-100 | 101-150 | 0-50 | 51-100 | 101-150 | 0-50 | 51-100 | 101-150 | 0-50 | 51-100 | 101-150 | 0-50 | 51-100 | 101-150 | | | | |
| 8mm | 101 | - | - | 89 | - | - | 71 | - | - | 111 | - | - | 99 | - | - | - | - | - | - | - | - | 28 | 12 | 9,5 | 5 |
| 10mm | 101 | - | - | 89 | - | - | 71 | - | - | 111 | - | - | 99 | - | - | - | - | - | - | - | - | 28 | 12 | 9,5 | 5 |
| 12mm | 116 | - | - | 100 | - | - | 75 | - | - | 130 | - | - | 113 | - | - | - | - | - | - | - | - | 38 | 17 | 10,5 | 6 |
| 16mm | 123 | 148 | - | 107 | 132 | - | 81 | 106 | - | 136 | 161 | - | 119 | 144 | - | 136 | 161 | - | 119 | 144 | - | 38 | 17 | 10,5 | 6 |
| 20mm | 140 | 165 | 190 | 120 | 145 | 170 | 87 | 112 | 137 | 151 | 176 | 201 | 131 | 156 | 181 | 151 | 176 | 201 | 131 | 156 | 181 | 44 | 20 | 14,5 | 7,5 |
| 25mm | 151 | 176 | 201 | 129 | 154 | 179 | 90 | 115 | 140 | 162 | 187 | 212 | 139,5 | 164,5 | 189,5 | 162 | 187 | 212 | 140 | 165 | 190 | 50 | 22 | 16 | 8 |
| 32mm | - | - | - | - | - | - | - | - | - | - | - | - | 150 | 175 | 200 | 165 | 190 | 215 | 151 | 176 | 201 | 58 | 14 | 16,5 | 9 |
| 40mm | - | - | - | - | - | - | - | - | - | - | - | - | 183 | 208 | 233 | 199 | 224 | 249 | 183 | 208 | 233 | 69 | 16 | 22 | 12 |

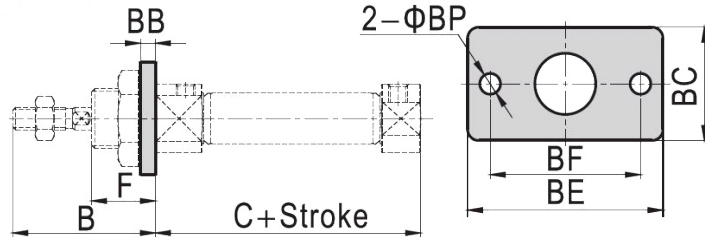
| Kolbendurchmesser | D | E | F | G | G1 | H | I | J | K | L | M | N | O | P | P1 | Q | R | S | T | T1 | X | V | W | Y |
|-------------------|------|-----|----|------|-----|----|----|-----|----------|----------|---|----|----|------|----|----|----|------|----|----|--------|----|------|----|
| 8mm | 9,5 | 5 | 6 | 11,5 | 7 | 12 | 12 | 2,2 | M4x0,7 | M12x1,25 | 6 | 16 | 10 | 17 | 4 | 8 | 12 | 15 | 7 | 17 | M5x0,8 | 4 | - | - |
| 10mm | 9,5 | 5 | 6 | 11,5 | 7 | 12 | 12 | 2,2 | M4x0,7 | M12x1,25 | 6 | 16 | 10 | 17 | 4 | 8 | 12 | 15 | 7 | 17 | M5x0,8 | 4 | - | - |
| 12mm | 10,5 | 6 | 9 | 12,5 | 8 | 16 | 17 | 5 | M6x1,0 | M16x1,5 | 6 | 22 | 14 | 20 | 6 | 12 | 16 | 18 | 10 | 22 | M5x0,8 | 6 | - | 5 |
| 16mm | 10,5 | 6 | 9 | 12,5 | 8 | 16 | 17 | 5 | M6x1,0 | M16x1,5 | 6 | 22 | 13 | 22 | 6 | 12 | 16 | 20 | 10 | 22 | M5x0,8 | 6 | 13,5 | 5 |
| 20mm | 14,5 | 7,5 | 12 | 14,5 | 7,5 | 20 | 20 | 6 | M8x1,25 | M22x1,5 | 7 | 24 | 11 | 29 | 8 | 16 | 22 | 25 | 12 | 29 | 1/8" | 8 | 16,5 | 6 |
| 25mm | 16 | 8 | 12 | 16 | 8 | 22 | 22 | 6 | M10x1,25 | M22x1,5 | 7 | 28 | 11 | 33,5 | 8 | 16 | 22 | 30 | 17 | 29 | 1/8" | 10 | 18,5 | 8 |
| 32mm | - | - | - | 16,5 | 9 | 20 | 30 | 6 | M10x1,25 | M30x1,5 | 7 | 38 | - | 37,5 | - | - | 30 | 34,5 | 17 | 36 | 1/8" | 12 | 10,5 | 10 |
| 40mm | - | - | - | 22 | 12 | 24 | 35 | 7 | M12x1,25 | M38x1,5 | 8 | 45 | - | 46,5 | - | - | 38 | 42,5 | 17 | 46 | 1/4" | 16 | 12,5 | 14 |

Alle Werte in mm, außer X teilweise in Zoll / All values in mm, except X partly in inches

Zubehör für Rundzylinder ISO6432

Accessories for round cylinder ISO6432

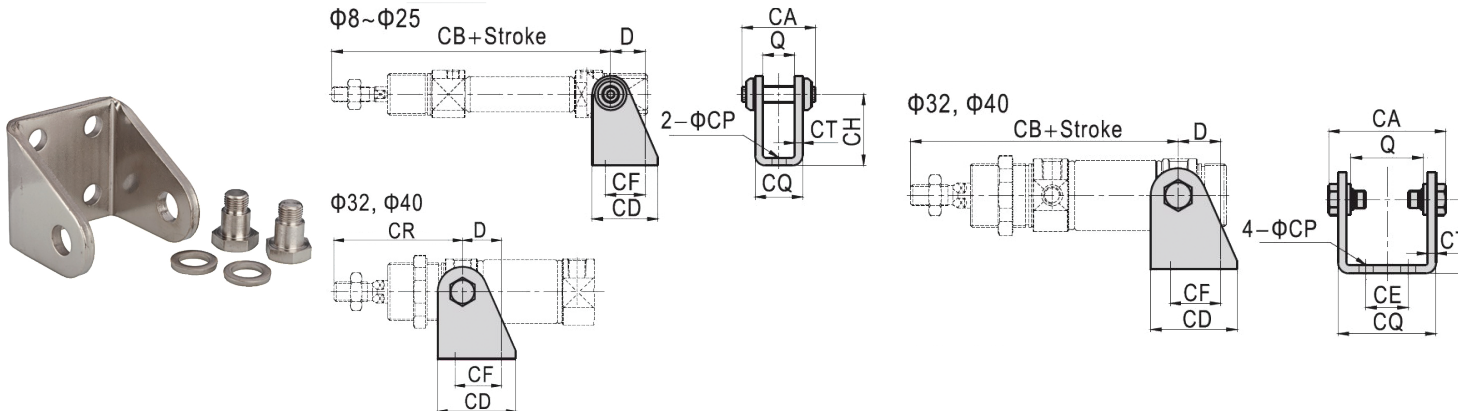
Flansch / Flange



| Artikel Nr. / Ordering code | Kolbendurchmesser / Piston bore size | B | C | BB | BC | BE | BF | BP | F | Werkstoff / Material |
|--------------------------------|---|----|----|----|----|----|----|-----|----|-------------------------|
| 51 008 MF SS | 8mm - 10mm | 28 | 46 | 3 | 22 | 40 | 30 | 4,5 | 12 | Stahl / Steel |
| 51 012 MF SS | 12mm - 16mm | 38 | 50 | 4 | 30 | 52 | 40 | 5,5 | 17 | Stahl / Steel |
| 51 020 MF SS | 20mm - 25mm | 44 | 62 | 5 | 40 | 66 | 50 | 6,6 | 20 | Stahl / Steel |

Alle Werte in mm / All values in mm

Schwenklager / Joint bearing



| Artikel Nr. / Ordering code | Kolbendurchmesser / Piston bore size | D | Q | CA | CB | CD | CE | CF | CH | CP | CQ | CT | CR | Werkstoff / Material |
|--------------------------------|---|----|------|------|-----|----|----|------|----|-----|------|-----|----|-------------------------|
| 51 008 MS DS | 8mm - 10mm | 11 | 8,1 | 18,4 | 76 | 20 | - | 12,5 | 24 | 4,5 | 13,1 | 2,5 | - | Stahl / Steel |
| 51 012 MS DS | 12mm - 16mm | 13 | 12,1 | 28 | 91 | 25 | - | 15 | 27 | 5,5 | 18,1 | 3 | - | Stahl / Steel |
| 51 020 MS DS | 20mm - 25mm | 16 | 16,1 | 38 | 115 | 32 | - | 20 | 30 | 6,6 | 24,1 | 4 | - | Stahl / Steel |
| 51 032 MS DS | 32mm | 20 | 34,6 | 55,5 | 117 | 41 | 20 | 24 | 35 | 7 | 46,6 | 4 | 67 | Stahl / Steel |
| 51 040 MS DS | 40mm | 27 | 42,6 | 69,6 | 146 | 52 | 28 | 30 | 40 | 9 | 58,6 | 5 | 81 | Stahl / Steel |

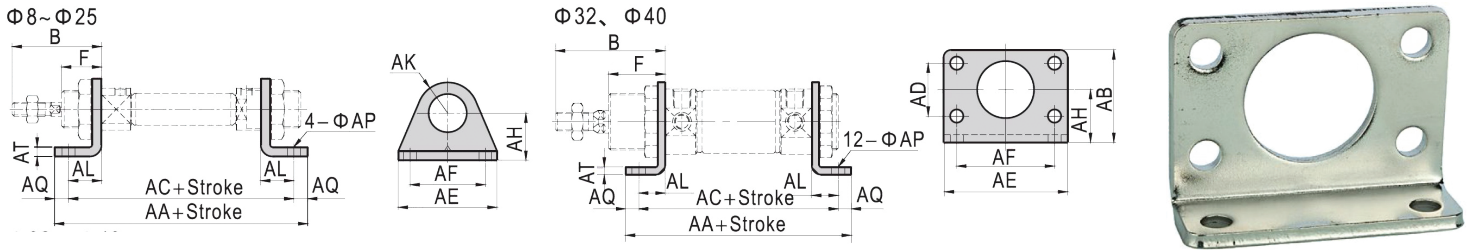
Alle Werte in mm / All values in mm

Oberfläche galvanisiert / Surface galvanised

Zubehör für Rundzylinder ISO6432

Accessories for round cylinder ISO6432

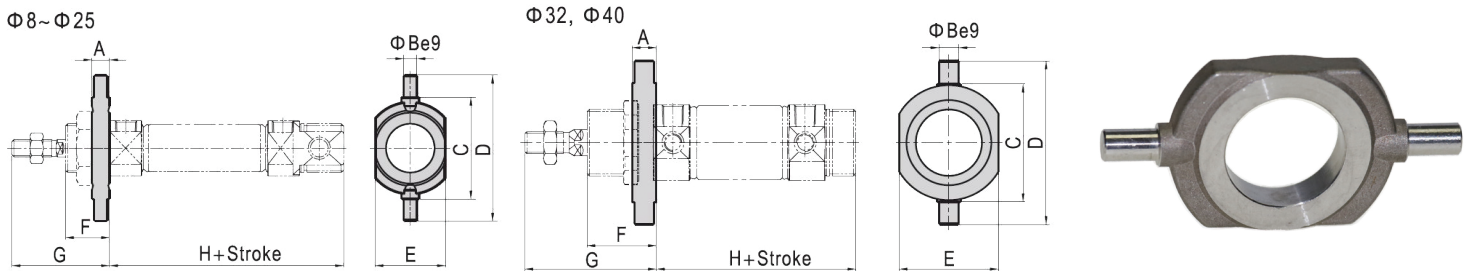
Fußbefestigung / Low-Rise pedestal



| Artikel Nr. / Ordering code | Kolbendurchmesser / Piston bore size | AA | AB | AC | AD | AE | AF | AH | AK | AL | AP | AQ | AT | B | F | Werkstoff / Material |
|--------------------------------|---|-----|----|-----|----|----|----|----|----|----|-----|----|----|----|----|-------------------------|
| 51 008 ME SS | 8mm - 10mm | 78 | - | 68 | - | 35 | 25 | 16 | 10 | 11 | 4,5 | 5 | 3 | 28 | 12 | Stahl / Steel |
| 51 012 ME SS | 12mm - 16mm | 90 | - | 78 | - | 42 | 32 | 20 | 13 | 14 | 5,5 | 6 | 4 | 38 | 17 | Stahl / Steel |
| 51 020 ME SS | 20mm - 25mm | 112 | - | 96 | - | 54 | 40 | 25 | 20 | 17 | 6,6 | 8 | 5 | 44 | 20 | Stahl / Steel |
| 51 032 ME SS | 32mm | 110 | 49 | 96 | 28 | 66 | 52 | 28 | - | 14 | 7 | 7 | 4 | 58 | 30 | Stahl / Steel |
| 51 040 ME SS | 40mm | 149 | 58 | 129 | 30 | 80 | 60 | 33 | - | 20 | 9 | 10 | 5 | 69 | 35 | Stahl / Steel |

Alle Werte in mm / All values in mm
Oberfläche galvanisiert / Surface galvanised

Mittenschwenklager / Middle joint bearing



| Artikel Nr. / Ordering code | Kolbendurchmesser / Piston bore size | A | B | C | D | E | F | G | H | Werkstoff / Material |
|--------------------------------|---|----|----|----|----|----|----|----|-----|-------------------------|
| 51 008 MM SE | 8mm - 10mm | 6 | 4 | 26 | 38 | 20 | 12 | 28 | 58 | 1.4301 |
| 51 012 MM SE | 12mm - 16mm | 8 | 6 | 38 | 58 | 25 | 17 | 38 | 67 | 1.4301 |
| 51 020 MM SE | 20mm - 25mm | 8 | 6 | 46 | 66 | 32 | 20 | 44 | 82 | 1.4301 |
| 51 032 MM SE | 32mm | 11 | 9 | 54 | 74 | 45 | 30 | 58 | 82 | 1.4301 |
| 51 040 MM SE | 40mm | 12 | 10 | 64 | 84 | 55 | 35 | 69 | 101 | 1.4301 |

Alle Werte in mm / All values in mm

Kurzhubzylinder

Short stroke cylinder

Allgemeine Informationen

General information

Einleitung / Introduction

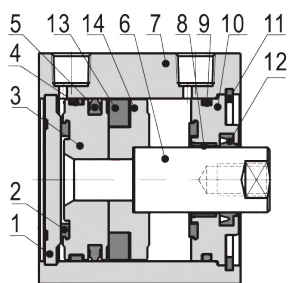
Dieser Teil des Katalogs umfasst unser Angebot über Kurzhubpneumatikzylinder. Die einzelnen Bauteile werden mit hoher Präzision gefertigt. Diese Vorgehensweise garantiert minimale Reibungsverluste, sowie geringen Verschleiß und damit eine lange Haltbarkeit.

This part of the catalog contains our offer of short stroke pneumatic cylinders. The individual parts are produced with high precision. This approach guarantees minimal friction losses as well as minor wear and therefore a long life time.

Technische Daten / Technical data

| | |
|---------------------------------------|--|
| Medium Fluid | Druckluft (gefiltert - 40µm) Compressed air (filtered - 40µm) |
| Betriebsdruck / Operating pressure | |
| Doppeltwirkend / Double acting | 1 - 10 bar |
| Einfachwirkend / Single acting | 2 - 10 bar |
| Temperaturbereich / Temperature range | -20°C...+80°C |
| Dämpfungstyp / Damping system type | Anschlaggummi / Bumper |
| Geschwindigkeitsbereich / Speed range | |
| Doppeltwirkend / Double acting | 30 - 500 mm/s |
| Einfachwirkend / Single acting | 50 - 500 mm/s |

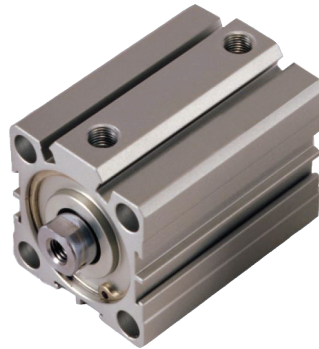
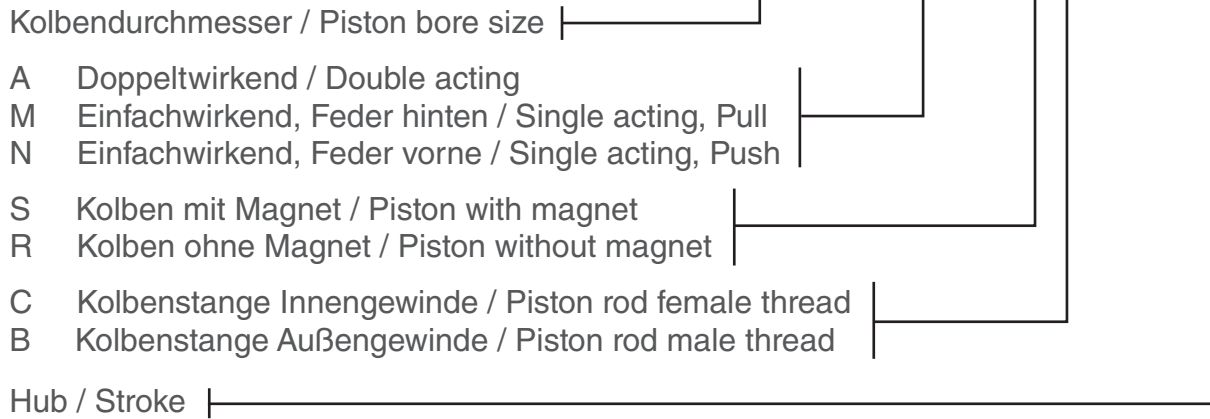
Werkstoff / Material



| Nr. | Bauteil / Part | Werkstoff / Material |
|-----|---|---|
| 1 | Zylinderdeckel / Cylinder cover | Aluminiumlegierung / Aluminium alloy, Keinen / None (Ø12, 16mm) |
| 2 | Anschlaggummi / Bumper | NBR; TPU (Ø12-25mm) |
| 3 | Kolben / Piston | Aluminiumlegierung / Aluminium alloy; Messing / Brass (Ø12, 16mm) |
| 4 | Führungsring / Guide ring | Verschleißfestes Material / Wear resistant material; Keinen / None (Ø12-32mm) |
| 5 | Kolbenstangendichtung / Piston rod seal | NBR |
| 6 | Kolbenstange / Piston rod | Stahl verchromt / Chrome plated steel |
| 7 | Gehäuse / Barrel | Aluminiumlegierung / Aluminium alloy |
| 8 | Führungsbuchse / Bushing | Verschleißfestes Material / Wear resistant material; Keinen / None (Ø12-32mm) |
| 9 | Kolben O-Ring / Piston O-Ring | NBR |
| 10 | Zylinderdeckel / Cylinder cover | Aluminiumlegierung / Aluminium alloy |
| 11 | Sprengtring / C-Clip | Federstahl / Spring steel |
| 12 | Abstreifring / Scraper ring | NBR |
| 13 | Magnet | Kunststoff / Synthetic; Metall gesintert / Metall sintered (Ø12-25mm) |
| 14 | Magnethalter / Magnet holder | Aluminiumlegierung / Aluminium alloy; Messing / Brass (Ø12, 16mm) |

Kurzhubzylinder Short stroke cylinder

Artikel Nr. / Ordering code **50** **040** **LA** **SC** **0025**



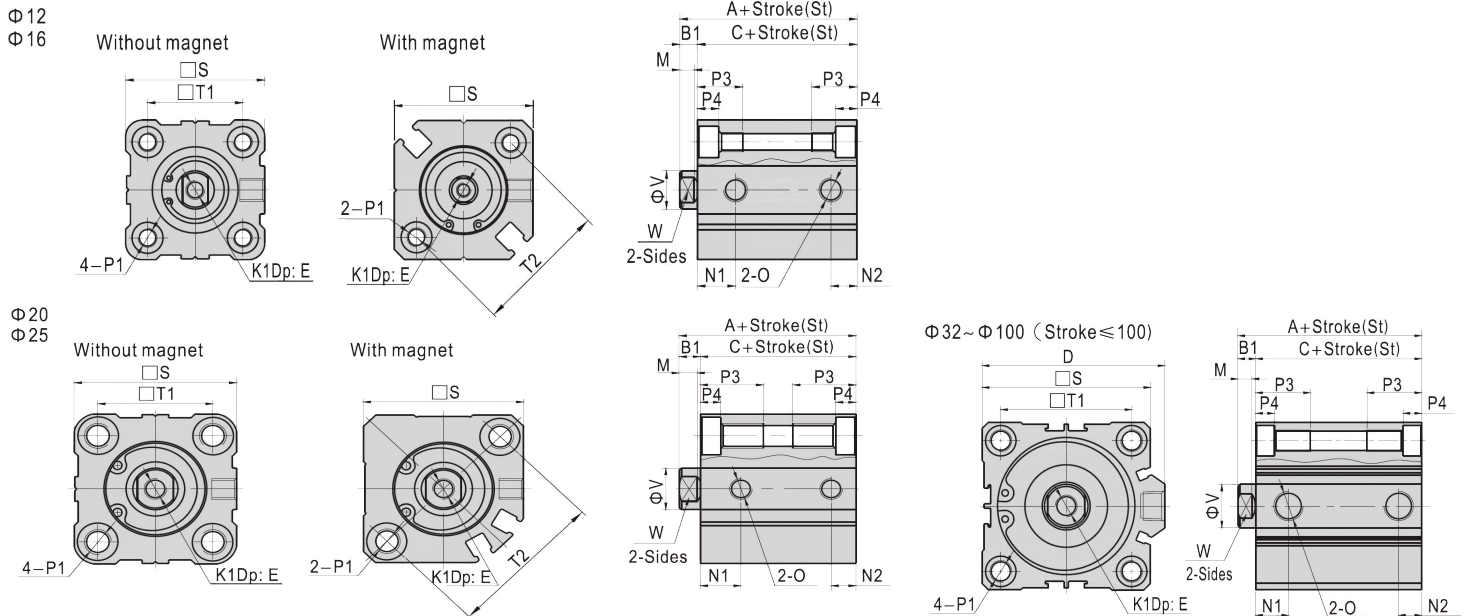
| | | | | | | | | | | |
|--|----------|------|------|------|------|------|------|------|------|-------|
| Kolbendurchmesser / Piston bore size | 12mm | 16mm | 20mm | 25mm | 32mm | 40mm | 50mm | 63mm | 80mm | 100mm |
| Luftanschlussgewinde / Air connection thread | M5 x 0,8 | | | 1/8" | | 1/4" | | 3/8" | | |

| Kolbendurchmesser / Piston bore size | Wirkprinzip / Acting type | Standardhub in mm / Standard stroke in mm |
|--------------------------------------|--------------------------------|---|
| 12mm | Doppeltwirkend / Double acting | 5 10 15 20 25 30 35 40 45 50 |
| 16mm | | 5 10 15 20 25 30 35 40 45 50 55 60 |
| 20mm | | 5 10 15 20 25 30 35 40 45 50 60 70 75 80 90 100 |
| 25mm | | 5 10 15 20 25 30 35 40 45 50 60 70 75 80 90 100 |
| 32mm | | 5 10 15 20 25 30 35 40 45 50 60 70 75 80 90 100 |
| 40mm | | 5 10 15 20 25 30 35 40 45 50 60 70 75 80 90 100 |
| 50mm | | 5 10 15 20 25 30 35 40 45 50 60 70 75 80 90 100 |
| 63mm | | 5 10 15 20 25 30 35 40 45 50 60 70 75 80 90 100 |
| 80mm | | 5 10 15 20 25 30 35 40 45 50 60 70 75 80 90 100 |
| 100mm | | 5 10 15 20 25 30 35 40 45 50 60 70 75 80 90 100 |
| 12mm | Einfachwirkend / Single acting | 5 10 15 20 |
| 16mm | | 5 10 15 20 |
| 20mm | | 5 10 15 20 25 30 |
| 25mm | | 5 10 15 20 25 30 |
| 32mm | | 5 10 15 20 25 30 |
| 40mm | | 5 10 15 20 25 30 |
| 50mm | | 5 10 15 20 25 30 |
| 63mm | 5 10 15 20 25 30 | |

Abweichende Modelle auf Anfrage / Divergent models on request

Kurzhubzylinder Short stroke cylinder

Doppeltwirkend / Double acting



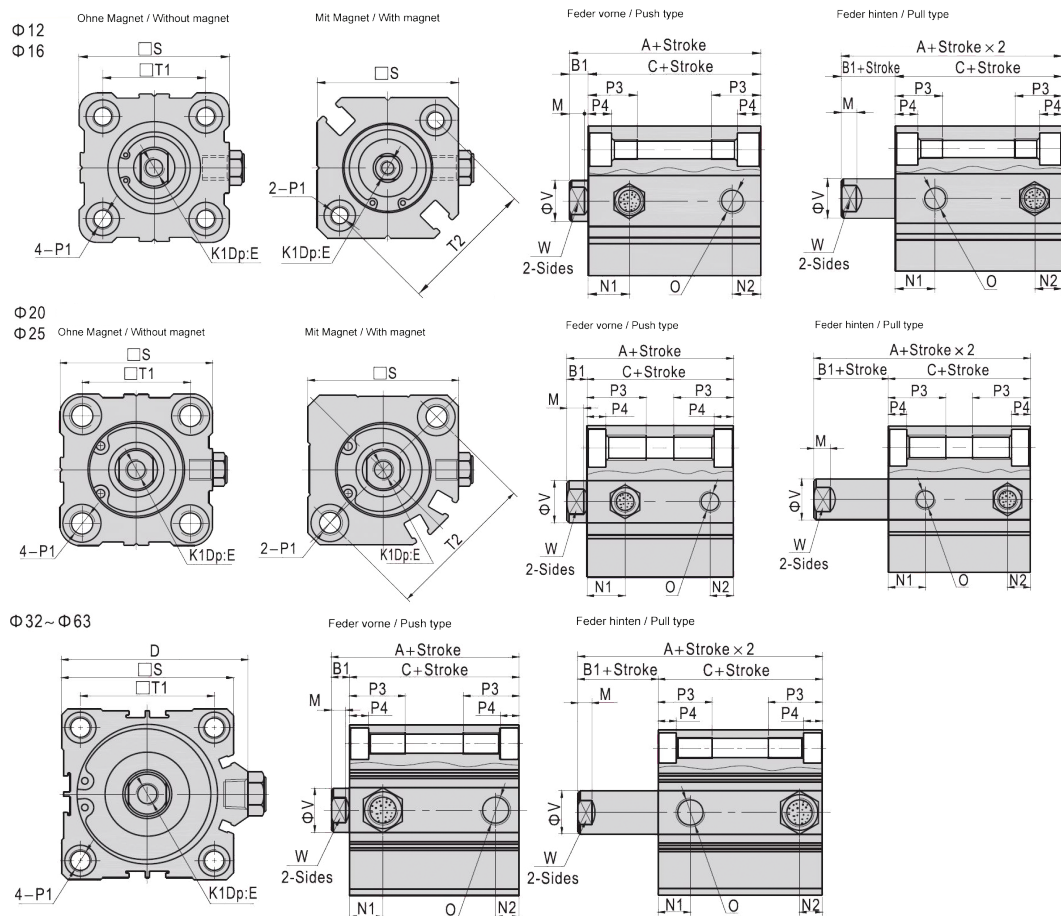
| Modell | Kolbendurchmesser / Piston bore size | Ohne Magnet / Without magnet | | | | | | Mit Magnet / With magnet | | | | | | | | | | |
|--------|--------------------------------------|------------------------------|-----|------|------|------|------|--------------------------|------|------|------|------|------|-----|-------|----|-----|---------|
| | | A | | | C | | | N1 | N2 | A | C | N1 | N2 | B1 | D | E | M | K1 |
| | Hub / Stroke | ≤50 | =55 | ≥60 | ≤50 | =55 | ≥60 | | | | | | | | | | | |
| 12mm | - | 20,5 | - | - | 17 | - | - | 7,5 | 5 | 31,5 | 28 | 9 | 7 | 3,5 | - | 6 | 3,5 | M3x0,5 |
| 16mm | - | 22 | 22 | - | 18,5 | 18,5 | - | 8 | 5,5 | 34 | 30,5 | 9,5 | 5,5 | 3,5 | - | 8 | 3 | M4x0,7 |
| 20mm | - | 24 | - | 34 | 19,5 | - | 29,5 | 9 | 5,5 | 36 | 31,5 | 9,5 | 5,5 | 4,5 | - | 7 | 4 | M5x0,8 |
| 25mm | - | 27,5 | - | 37,5 | 22,5 | - | 32,5 | 11 | 5,5 | 37,5 | 32,5 | 11 | 5,5 | 5 | - | 12 | 4,5 | M6x1,0 |
| 32mm | =5 | | | | | | | 7,5 | 6,5 | | | | | | | | | |
| | >5 | 30 | - | 40 | 23 | - | 33 | 10,5 | 7,5 | 40 | 33 | 10,5 | 7,5 | 7 | 49,5 | 13 | 6 | M8x1,25 |
| 40mm | - | 36,5 | - | 46,5 | 29,5 | - | 39,5 | 11 | 8 | 46,5 | 39,5 | 11 | 8 | 7 | 57 | 13 | 6 | M8x1,25 |
| 50mm | =5 | | | | | | | 9 | 9 | | | | | | | | | |
| | >5 | 38,5 | - | 48,5 | 30,5 | - | 40,5 | 10,5 | 10,5 | 48,5 | 40,5 | 10,5 | 10,5 | 8 | 71 | 15 | 6,5 | M10x1,5 |
| 63mm | =5 | | | | | | | 14 | 9,5 | | | | | | | | | |
| | >5 | 44 | - | 54 | 36 | - | 46 | 15 | 10,5 | 54 | 46 | 15 | 10,5 | 8 | 84 | 15 | 6,5 | M10x1,5 |
| 80mm | - | 53,5 | - | 63,5 | 43,5 | - | 53,5 | 16 | 14 | 63,5 | 53,5 | 16 | 14 | 10 | 104 | 20 | 8,5 | M16x2,0 |
| 100mm | - | 65 | - | 75 | 53 | - | 63 | 20 | 17,5 | 75 | 63 | 20 | 17,5 | 12 | 123,5 | 26 | 9,5 | M20x2,5 |

| Kolbendurchmesser / Piston bore size | O | P1 | P3 | P4 | S | T1 | T2 | V | W |
|--------------------------------------|--------|---|------|------|-----|------|----|----|----|
| 12mm | M5x0,8 | Ø6,5mm (P4); M4x0,7 (P3); Ø3,4mm (Kernloch / Core hole) | 11 | 3,5 | 25 | 15,5 | 22 | 6 | 5 |
| 16mm | M5x0,8 | Ø6,5mm (P4); M4x0,7 (P3); Ø3,4mm (Kernloch / Core hole) | 11 | 3,5 | 29 | 20 | 28 | 8 | 6 |
| 20mm | M5x0,8 | Ø9mm (P4); M6x1,0 (P3); Ø5,2mm (Kernloch / Core hole) | 17 | 7 | 36 | 25,5 | 36 | 10 | 8 |
| 25mm | M5x0,8 | Ø9mm (P4); M6x1,0 (P3); Ø5,2mm (Kernloch / Core hole) | 17 | 7 | 40 | 28 | 40 | 12 | 10 |
| 32mm | 1/8" | Ø9mm (P4); M6x1,0 (P3); Ø5,2mm (Kernloch / Core hole) | 17 | 7 | 45 | 34 | - | 16 | 14 |
| 40mm | 1/8" | Ø9mm (P4); M6x1,0 (P3); Ø5,2mm (Kernloch / Core hole) | 17 | 7 | 53 | 40 | - | 16 | 14 |
| 50mm | 1/4" | Ø11mm (P4); M8x1,25 (P3); Ø6,8mm (Kernloch / Core hole) | 22 | 8 | 64 | 50 | - | 20 | 17 |
| 63mm | 1/4" | Ø14mm (P4); M10x1,5 (P3); Ø8,5mm (Kernloch / Core hole) | 28,5 | 10,5 | 77 | 60 | - | 20 | 17 |
| 80mm | 3/8" | Ø17,5mm (P4); M12x1,75 (P3); Ø10,3mm (Kernloch / Core hole) | 35,5 | 13,5 | 98 | 77 | - | 25 | 22 |
| 100mm | 3/8" | Ø17,5mm (P4); M12x1,75 (P3); Ø10,3mm (Kernloch / Core hole) | 35,5 | 13,5 | 117 | 94 | - | 32 | 27 |

Alle Werte in mm, außer O teilweise in Zoll / All values in mm, except O partly in inches

Kurzhubzylinder Short stroke cylinder

Einfachwirkend / Single acting



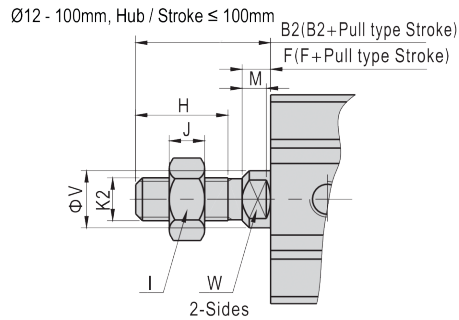
| Modell Kolbendurchmesser / Piston bore size | Ohne Magnet / Without magnet | | | | | | | | | Mit Magnet / With magnet | | | | | | | | | |
|--|------------------------------|--------|--------|-------|--------|--------|------|------|-----|--------------------------|----|-------|--------|--------|-------|--------|--------|------|------|
| | A | | | C | | | N1 | N2 | B1 | D | E | A | | | C | | | N1 | N2 |
| Hub / Stroke | 5, 10 | 15, 20 | 25, 30 | 5, 10 | 15, 20 | 25, 30 | | | | | | 5, 10 | 15, 20 | 25, 30 | 5, 10 | 15, 20 | 25, 30 | | |
| 12mm | 25,5 | 30,5 | - | 22 | 27 | - | 7,5 | 5 | 3,5 | - | 6 | 36,5 | 41,5 | - | 33 | 38 | - | 9 | 7 |
| 16mm | 27 | 32 | - | 23,5 | 28,5 | - | 8 | 5,5 | 3,5 | - | 8 | 39 | 44 | - | 35,5 | 40,5 | - | 9,5 | 5,5 |
| 20mm | 29 | 34 | 39 | 24,5 | 29,5 | 34,5 | 9 | 5,5 | 4,5 | - | 7 | 41 | 46 | 51 | 36,5 | 41,5 | 46,5 | 9,5 | 5,5 |
| 25mm | 32,5 | 37,5 | 42,5 | 27,5 | 32,5 | 37,5 | 11 | 5,5 | 5 | - | 12 | 42,5 | 47,5 | 52,5 | 37,5 | 42,5 | 47,5 | 11 | 5,5 |
| 32mm | 35 | 40 | 45 | 28 | 33 | 38 | 10,5 | 7,5 | 7 | 49,5 | 13 | 45 | 50 | 55 | 38 | 43 | 48 | 10,5 | 7,5 |
| 40mm | 41,5 | 46,5 | 51,5 | 34,5 | 39,5 | 44,5 | 11 | 8 | 7 | 57 | 13 | 51,5 | 56,5 | 61,5 | 44,5 | 49,5 | 54,5 | 11 | 8 |
| 50mm | 48,5 | 53,5 | 58,5 | 40,5 | 45,5 | 50,5 | 10,5 | 10,5 | 8 | 71 | 15 | 58,5 | 63,5 | 68,5 | 50,5 | 55,5 | 60,5 | 10,5 | 10,5 |
| 63mm | 54 | 59 | 64 | 46 | 51 | 56 | 15 | 10,5 | 8 | 84 | 15 | 64 | 69 | 74 | 56 | 61 | 66 | 15 | 10,5 |

| Kolbendurchmesser / Piston bore size | K1 | O | P1 | | | P3 | P4 | M | S | T1 | T2 | V | W |
|--------------------------------------|---------|--------|---|--|--|------|------|-----|----|------|----|----|----|
| 12mm | M3x0,5 | M5x0,8 | Ø6,5mm (P4); M4x0,7 (P3); Ø3,4mm (Kernloch / Core hole) | | | 11 | 3,5 | 3,5 | 25 | 15,5 | 22 | 6 | 5 |
| 16mm | M4x0,7 | M5x0,8 | Ø6,5mm (P4); M4x0,7 (P3); Ø3,4mm (Kernloch / Core hole) | | | 11 | 3,5 | 3 | 29 | 20 | 28 | 8 | 6 |
| 20mm | M5x0,8 | M5x0,8 | Ø9mm (P4); M6x1,0 (P3); Ø5,2mm (Kernloch / Core hole) | | | 17 | 7 | 4 | 36 | 25,5 | 36 | 10 | 8 |
| 25mm | M6x1,0 | M5x0,8 | Ø9mm (P4); M6x1,0 (P3); Ø5,2mm (Kernloch / Core hole) | | | 17 | 7 | 4,5 | 40 | 28 | 40 | 12 | 10 |
| 32mm | M8x1,25 | 1/8" | Ø9mm (P4); M6x1,0 (P3); Ø5,2mm (Kernloch / Core hole) | | | 17 | 7 | 6 | 45 | 34 | - | 16 | 14 |
| 40mm | M8x1,25 | 1/8" | Ø9mm (P4); M6x1,0 (P3); Ø5,2mm (Kernloch / Core hole) | | | 17 | 7 | 6 | 53 | 40 | - | 16 | 14 |
| 50mm | M10x1,5 | 1/4" | Ø11mm (P4); M8x1,25 (P3); Ø6,8mm (Kernloch / Core hole) | | | 22 | 8 | 6,5 | 64 | 50 | - | 20 | 17 |
| 63mm | M10x1,5 | 1/4" | Ø14mm (P4); M10x1,5 (P3); Ø8,5mm (Kernloch / Core hole) | | | 28,5 | 10,5 | 6,5 | 77 | 60 | - | 20 | 17 |

Alle Werte in mm, außer O teilweise in Zoll / All values in mm, except O partly in inches

Zubehör für Kurzhubzylinder Accessories for short stroke cylinder

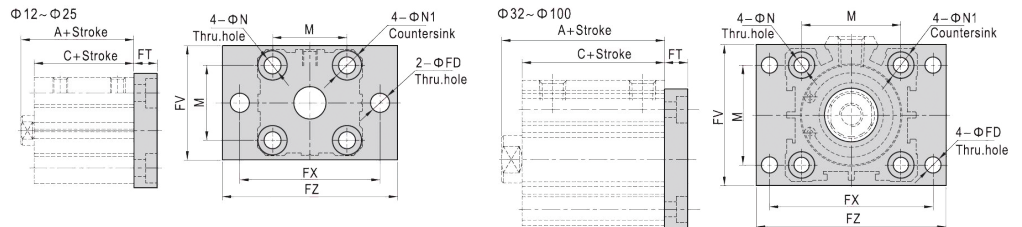
Kurzhubzylinder mit Außengewinde / Short stroke cylinder with male thread



| Kolbendurchmesser / Piston bore size | B2 | F | H | I | J | K2 | M | V | W |
|--------------------------------------|------|-----|------|----|----|----------|-----|----|----|
| 12mm | 14 | 3,5 | 9 | 8 | 4 | M5x0,8 | 3,5 | 6 | 5 |
| 16mm | 15,5 | 3,5 | 10 | 10 | 5 | M6x1,0 | 3 | 8 | 6 |
| 20mm | 18,5 | 4,5 | 12 | 12 | 6 | M8x1,25 | 4 | 10 | 8 |
| 25mm | 22,5 | 5 | 15 | 17 | 6 | M10x1,25 | 4,5 | 12 | 10 |
| 32mm | 28,5 | 5 | 20,5 | 19 | 8 | M14x1,5 | 4 | 16 | 14 |
| 40mm | 28,5 | 5 | 20,5 | 19 | 8 | M14x1,5 | 4 | 16 | 14 |
| 50mm | 33,5 | 5 | 26 | 27 | 11 | M18x1,5 | 4 | 20 | 17 |
| 63mm | 33,5 | 5 | 26 | 27 | 11 | M18x1,5 | 4 | 20 | 17 |
| 80mm | 43,5 | 8 | 32,5 | 32 | 13 | M22x1,5 | 6 | 25 | 22 |
| 100mm | 43,5 | 8 | 32,5 | 36 | 13 | M26x1,5 | 5,5 | 32 | 27 |

Alle Werte in mm / All values in mm

Flansch / Flange



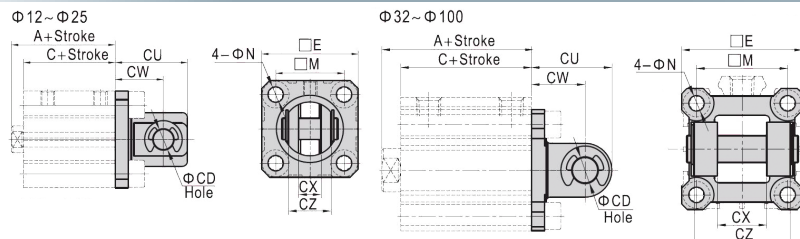
| Modell | | Ohne Magnet / Without magnet | | | Mit Magnet / With magnet | | | Ohne Magnet / Without magnet | | | Mit Magnet / With magnet | | | M | N | N1 | FD | FT | FV | FX | FZ |
|-----------------------------|--------------------------------------|------------------------------|----|------|--------------------------|------|------|------------------------------|------|------|--------------------------|------|-----|-----|-----|-----|-----|----|----|----|----|
| Hub / Stroke | | ≤50 | 55 | ≥60 | - | | | ≤50 | 55 | ≥60 | - | | | | | | | | | | |
| Artikel Nr. / Ordering code | Kolbendurchmesser / Piston bore size | A | | | | | | C | | | | | | | | | | | | | |
| 51 012 LF SA | 12mm | 20,5 | - | - | 31,5 | 17 | - | - | 28 | 15,5 | 4,5 | 7,5 | 4,5 | 5,5 | 25 | 45 | 55 | | | | |
| 51 016 LF SA | 16mm | 22 | 22 | - | 34 | 18,5 | 18,5 | - | 30,5 | 20 | 4,5 | 7,5 | 4,5 | 5,5 | 30 | 45 | 55 | | | | |
| 51 020 LF ST | 20mm | 24 | - | 34 | 36 | 19,5 | - | 29,5 | 31,5 | 25,5 | 6,5 | 10,5 | 6,5 | 8 | 39 | 48 | 60 | | | | |
| 51 025 LF ST | 25mm | 27,5 | - | 37,5 | 37,5 | 22,5 | - | 32,5 | 32,5 | 28 | 6,5 | 10,5 | 6,5 | 8 | 42 | 52 | 64 | | | | |
| 51 032 LF ST | 32mm | 30 | - | 40 | 40 | 23 | - | 33 | 33 | 34 | 6,5 | 10,5 | 5,5 | 8 | 48 | 56 | 65 | | | | |
| 51 040 LF ST | 40mm | 36,5 | - | 46,5 | 46,5 | 29,5 | - | 39,5 | 39,5 | 40 | 6,5 | 10,5 | 5,5 | 8 | 54 | 62 | 72 | | | | |
| 51 050 LF ST | 50mm | 38,5 | - | 48,5 | 48,5 | 30,5 | - | 40,5 | 40,5 | 50 | 8,5 | 13,5 | 6,5 | 9 | 67 | 76 | 89 | | | | |
| 51 063 LF ST | 63mm | 44 | - | 54 | 54 | 36 | - | 46 | 46 | 60 | 10,5 | 16,5 | 9 | 9 | 80 | 92 | 108 | | | | |
| 51 080 LF ST | 80mm | 53,5 | - | 63,5 | 63,5 | 43,5 | - | 53,5 | 53,5 | 77 | 12,5 | 18,5 | 11 | 11 | 99 | 116 | 134 | | | | |
| 51 100 LF ST | 100mm | 65 | - | 75 | 75 | 53 | - | 63 | 63 | 94 | 12,5 | 18,5 | 11 | 11 | 117 | 136 | 154 | | | | |

Alle Werte in mm / All values in mm

Werkstoff / Material: Ø12mm, 16mm (Aluminiumlegierung / Aluminium alloy); Ø20mm - 100mm (Eisenguss / Iron casting)

Zubehör für Kurzhubzylinder Accessories for short stroke cylinder

Gabelflansch / Female hinge

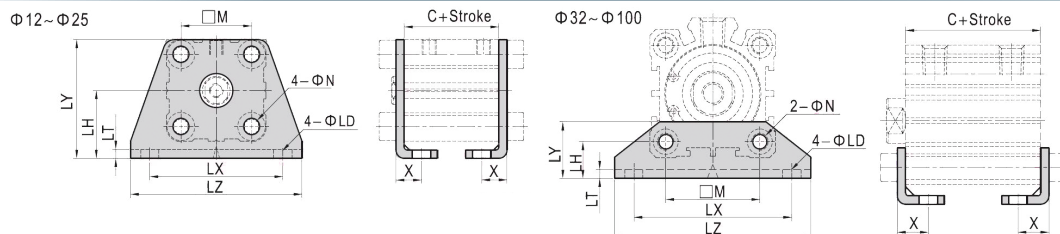


| Modell | | Ohne Magnet / Without magnet | | | Mit Magnet / With magnet | | | Ohne Magnet / Without magnet | | | Mit Magnet / With magnet | | | E | M | N | CD | CU | CW | CX | CZ | | |
|-----------------------------|--------------------------------------|------------------------------|----|------|--------------------------|------|------|------------------------------|------|-------|--------------------------|------|----|----|----|------|------|----|----|----|----|--|--|
| Hub / Stroke | | ≤50 | 55 | ≥60 | - | | | ≤50 | 55 | ≥60 | - | | | | | | | | | | | | |
| Artikel Nr. / Ordering code | Kolbendurchmesser / Piston bore size | A | | | | | | C | | | | | | | | | | | | | | | |
| 51 012 LD DA | 12mm | 20,5 | - | - | 31,5 | 17 | - | - | 28 | 25 | 15,5 | 4,5 | 5 | 20 | 14 | 5,3 | 9,8 | | | | | | |
| 51 016 LD DA | 16mm | 22 | 22 | - | 34 | 18,5 | 18,5 | - | 30,5 | 29 | 20 | 4,5 | 5 | 21 | 15 | 6,8 | 11,8 | | | | | | |
| 51 020 LD DA | 20mm | 24 | - | 34 | 36 | 19,5 | - | 29,5 | 31,5 | 36 | 25,5 | 6,5 | 8 | 27 | 18 | 8,3 | 15,8 | | | | | | |
| 51 025 LD DA | 25mm | 27,5 | - | 37,5 | 37,5 | 22,5 | - | 32,5 | 32,5 | 40 | 28 | 6,5 | 10 | 30 | 20 | 10,3 | 19,8 | | | | | | |
| 51 032 LD DT | 32mm | 30 | - | 40 | 40 | 23 | - | 33 | 33 | 45,5 | 34 | 6,5 | 10 | 30 | 20 | 18,3 | 35,8 | | | | | | |
| 51 040 LD DT | 40mm | 36,5 | - | 46,5 | 46,5 | 29,5 | - | 39,5 | 39,5 | 53,5 | 40 | 6,5 | 10 | 32 | 22 | 18,3 | 35,8 | | | | | | |
| 51 050 LD DT | 50mm | 38,5 | - | 48,5 | 48,5 | 30,5 | - | 40,5 | 40,5 | 64,5 | 50 | 8,5 | 14 | 42 | 28 | 22,3 | 43,8 | | | | | | |
| 51 063 LD DT | 63mm | 44 | - | 54 | 54 | 36 | - | 46 | 46 | 77,5 | 60 | 10,5 | 14 | 44 | 30 | 22,3 | 43,8 | | | | | | |
| 51 080 LD DT | 80mm | 53,5 | - | 63,5 | 63,5 | 43,5 | - | 53,5 | 53,5 | 98,5 | 77 | 12,5 | 18 | 56 | 38 | 28,3 | 55,8 | | | | | | |
| 51 100 LD DT | 100mm | 65 | - | 75 | 75 | 53 | - | 63 | 63 | 117,5 | 94 | 12,5 | 22 | 67 | 45 | 32,3 | 63,8 | | | | | | |

Alle Werte in mm / All values in mm

Werkstoff / Material: Ø12mm - 25mm (Aluminiumlegierung / Aluminium alloy); Ø32mm - 100mm (Eisguss / Iron casting)

Fußbefestigung / Low-Rise pedestal



| Modell | | Ohne Magnet / Without magnet | | | Mit Magnet / With magnet | | | M | N | X | LD | LH | LT | LX | LY | LZ |
|-----------------------------|--------------------------------------|------------------------------|------|------|--------------------------|------|------|------|------|------|-----|-----|------|-----|----|----|
| Hub / Stroke | | ≤50 | 55 | ≥60 | - | | | | | | | | | | | |
| Artikel Nr. / Ordering code | Kolbendurchmesser / Piston bore size | C | | | | | | | | | | | | | | |
| 51 012 LE SS | 12mm | 17 | - | - | 28 | 15,5 | 4,5 | 8 | 4,5 | 17 | 2 | 34 | 29,5 | 44 | | |
| 51 016 LE SS | 16mm | 18,5 | 18,5 | - | 30,5 | 20 | 4,5 | 8 | 4,5 | 19 | 2 | 38 | 33,5 | 48 | | |
| 51 020 LE SS | 20mm | 19,5 | - | 29,5 | 31,5 | 25,5 | 6,5 | 9,2 | 6,5 | 24 | 3 | 48 | 42 | 62 | | |
| 51 025 LE SS | 25mm | 22,5 | - | 32,5 | 32,5 | 28 | 6,5 | 10,7 | 6,5 | 26 | 3 | 52 | 46 | 66 | | |
| 51 032 LE SS | 32mm | 23 | - | 33 | 33 | 34 | 6,5 | 11,2 | 6,5 | 13 | 3 | 57 | 20 | 71 | | |
| 51 040 LE SS | 40mm | 29,5 | - | 39,5 | 39,5 | 40 | 6,5 | 11,2 | 6,5 | 13 | 3 | 64 | 20 | 78 | | |
| 51 050 LE SS | 50mm | 30,5 | - | 40,5 | 40,5 | 50 | 8,5 | 12,2 | 8,5 | 14 | 3 | 79 | 22 | 95 | | |
| 51 063 LE SS | 63mm | 36 | - | 46 | 46 | 60 | 10,5 | 13,7 | 10,5 | 16 | 3 | 95 | 26 | 113 | | |
| 51 080 LE SS | 80mm | 43,5 | - | 53,5 | 53,5 | 77 | 13 | 16,5 | 13 | 20,5 | 4,5 | 118 | 32 | 140 | | |
| 51 100 LE SS | 100mm | 53 | - | 63 | 63 | 94 | 13 | 23 | 13 | 24 | 6 | 137 | 36 | 162 | | |

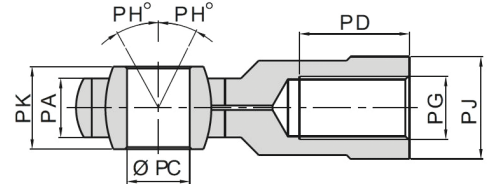
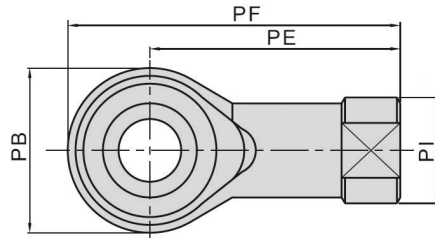
Alle Werte in mm / All values in mm

Werkstoff / Material: Stahl / Steel

Oberfläche galvanisiert / Surface galvanised

Zubehör für Zylinder Accessories for cylinder

Gelenkauge / Ball joint

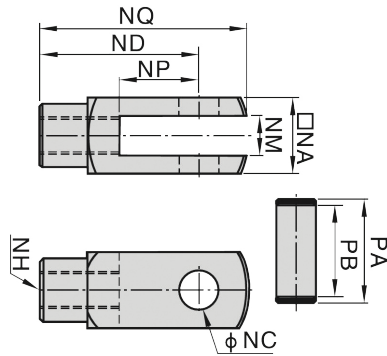


| Artikel Nr. / Ordering code | Kolbendurchmesser / Piston bore size | | | | PA | PB | PC | PD | PE | PF | PG | PH | PI | PJ | PK | Werkstoff / Material |
|--------------------------------|--------------------------------------|------------------------------|----------------------------|----------------------------|------|----|----|----|-----|-----|----------|----|------|----|----|-------------------------|
| | QD-Zylinder / QD-cylinder | PD-Zylinder / PD-cylinder | M-Zylinder / M-cylinder | L-Zylinder / L-cylinder | | | | | | | | | | | | |
| 51 008 UN LS | - | - | 8 - 10mm | - | 6 | 18 | 5 | 10 | 27 | 36 | M4x0,7 | 13 | 12,5 | 10 | 8 | Stahl / Steel |
| 51 012 UN LS | - | - | - | 12mm | 6 | 18 | 5 | 10 | 27 | 36 | M5x0,8 | 13 | 12,5 | 10 | 8 | Stahl / Steel |
| 51 016 UN LS | - | - | 12 - 16mm | 16mm | 6,8 | 20 | 6 | 12 | 30 | 40 | M6x1,0 | 13 | 13 | 11 | 9 | Stahl / Steel |
| 51 020 UN LS | - | - | 20mm | 20mm | 9 | 24 | 8 | 16 | 36 | 48 | M8x1,25 | 13 | 16 | 14 | 12 | Stahl / Steel |
| 51 025 UN LS | 32mm | 32mm | 25 - 32mm | 25mm | 11 | 26 | 10 | 20 | 43 | 56 | M10x1,25 | 13 | 19 | 17 | 14 | Stahl / Steel |
| 51 032 UN LS | 40mm | 40mm | 40mm | - | 12 | 32 | 12 | 22 | 50 | 66 | M12x1,25 | 13 | 22 | 19 | 16 | Stahl / Steel |
| 51 040 UN LS | - | - | - | 32 - 40mm | 14 | 36 | 14 | 28 | 57 | 75 | M14x1,5 | 13 | 25 | 22 | 19 | Stahl / Steel |
| 51 050 UN LS | 50 - 63mm | 50 - 63mm | - | - | 15 | 40 | 16 | 28 | 64 | 84 | M16x1,5 | 15 | 27 | 22 | 21 | Stahl / Steel |
| 51 063 UN LS | - | - | - | 50 - 63mm | 16,5 | 46 | 18 | 30 | 71 | 94 | M18x1,5 | 15 | 31 | 27 | 23 | Stahl / Steel |
| 51 080 UN LS | 80 - 100mm | 80 - 100mm | - | - | 18 | 46 | 20 | 33 | 77 | 100 | M20x1,5 | 15 | 34 | 30 | 25 | Stahl / Steel |
| 51 125 UN LS | 125mm | 125mm | - | - | 25 | 70 | 30 | 51 | 110 | 145 | M27x2,0 | 15 | 50 | 41 | 37 | Stahl / Steel |
| 51 160 UN LS | - | 160 - 200mm | - | - | 27,5 | 80 | 35 | 56 | 125 | 165 | M36x2,0 | 15 | 57,5 | 50 | 43 | Stahl / Steel |

Alle Werte in mm / All values in mm
Oberfläche galvanisiert / Surface galvanised

Zubehör für Zylinder Accessories for cylinder

Gabelkopf / Rod fork



| Artikel Nr. / Ordering code | Kolbendurchmesser / Piston bore size | | | | NA | NC | ND | NP | NQ | NM | NH | PA | PB | Werkstoff / Material |
|--------------------------------|--------------------------------------|------------------------------|----------------------------|----------------------------|------|----|-----|-----|------|----|----------|------|------|-------------------------|
| | QD-Zylinder / QD-cylinder | PD-Zylinder / PD-cylinder | M-Zylinder / M-cylinder | L-Zylinder / L-cylinder | | | | | | | | | | |
| 51 016 UG DS | - | - | 12 - 16mm | 16mm | 12 | 5 | 21 | 8,5 | 27,4 | 6 | M6x1,0 | 16,8 | 12,4 | Stahl / Steel |
| 51 020 UG DS | - | - | 20mm | 20mm | 16 | 8 | 30 | 15 | 40 | 8 | M8x1,25 | 21,6 | 16,8 | Stahl / Steel |
| 51 032 UG DS | 32mm | 32mm | 25 - 32mm | 25mm | 19 | 10 | 40 | 20 | 52 | 10 | M10x1,25 | 25,6 | 19,8 | Stahl / Steel |
| 51 040 UG DS | 40mm | 40mm | 40mm | - | 25,4 | 12 | 48 | 24 | 62 | 12 | M12x1,25 | 32,4 | 26,2 | Stahl / Steel |
| 51 050 UG DS | 50 - 63mm | 50 - 63mm | - | 32 - 40mm | 32 | 16 | 64 | 32 | 80 | 16 | M16x1,5 | 39 | 32,8 | Stahl / Steel |
| 51 080 UG DS | 80 - 100mm | 80 - 100mm | - | - | 44,4 | 20 | 80 | 40 | 102 | 20 | M20x1,5 | 53,4 | 45,2 | Stahl / Steel |
| 51 125 UG DS | 125mm | 125mm | - | - | 54 | 30 | 110 | 55 | 139 | 30 | M27x2,0 | 64,2 | 54,8 | Stahl / Steel |
| 51 160 UG DS | - | 160 - 200mm | - | - | 70 | 35 | 144 | 73 | 179 | 35 | M36x2,0 | 80,2 | 70,8 | Stahl / Steel |

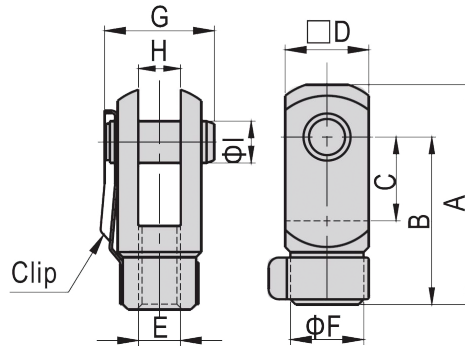
Alle Werte in mm / All values in mm

Oberfläche galvanisiert / Surface galvanised

Der Gabelkopf „51 xxx UG DS“ ist primär für den ISO15552-Zylinder vorgesehen. Der Gabelkopf lässt sich aber selbstverständlich universell verwenden. /
The rod fork „51 xxx UG DS“ is primarily designated to use with the ISO15552-cylinder. Nevertheless it is possible to use the rod fork universal.

Zubehör für Zylinder Accessories for cylinder

Gabelkopf mit Federklappbolzen / Rod fork with spring loaded pin



| Artikel Nr. / Ordering code | Kolbendurchmesser / Piston bore size | | | | A | B | C | D | E | F | G | H | I | Werkstoff / Material |
|--------------------------------|--------------------------------------|------------------------------|----------------------------|----------------------------|-----|----|----|----|----------|----|------|----|----|-------------------------|
| | QD-Zylinder / QD-cylinder | PD-Zylinder / PD-cylinder | M-Zylinder / M-cylinder | L-Zylinder / L-cylinder | | | | | | | | | | |
| 51 008 UG FS | - | - | 8 - 10mm | - | 22 | 16 | 8 | 8 | M4x0,7 | 7 | 11,5 | 4 | 4 | Stahl / Steel |
| 51 012 UG FS | - | - | 12 - 16mm | 16mm | 32 | 24 | 12 | 12 | M6x1,0 | 10 | 16 | 6 | 6 | Stahl / Steel |
| 51 020 UG FS | - | - | 20mm | 20mm | 42 | 32 | 16 | 16 | M8x1,25 | 14 | 21 | 8 | 8 | Stahl / Steel |
| 51 025 UG FS | 32mm | 32mm | 32mm | 25mm | 52 | 40 | 20 | 19 | M10x1,25 | 18 | 25 | 10 | 10 | Stahl / Steel |
| 51 040 UG FS | 40mm | 40mm | 40mm | - | 62 | 48 | 24 | 24 | M12x1,25 | - | - | 12 | 12 | Stahl / Steel |
| 51 050 UG FS | 50 - 63mm | 50 - 63mm | - | - | 82 | 65 | 33 | 32 | M16x1,5 | - | - | 16 | 16 | Stahl / Steel |
| 51 080 UG FS | 80 - 100mm | 80 - 100mm | - | - | 105 | 80 | 40 | 40 | M20x1,5 | - | - | 20 | 20 | Stahl / Steel |

Alle Werte in mm / All values in mm

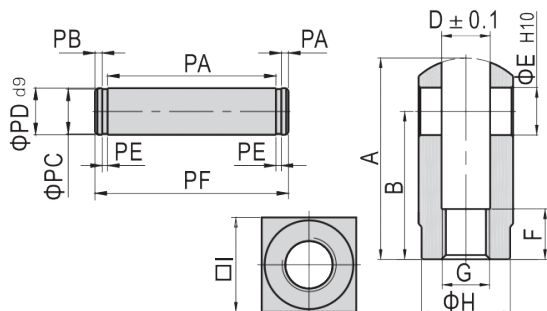
Oberfläche galvanisiert / Surface galvanised

Der Gabelkopf „51 xxx UG FS“ ist primär für den ISO6432-Zylinder vorgesehen. Der Gabelkopf lässt sich aber selbstverständlich universell verwenden. /
The rod fork „51 xxx UG FS“ is primarily designated to use with the ISO6432-cylinder. Nevertheless it is possible to use the rod fork universal.

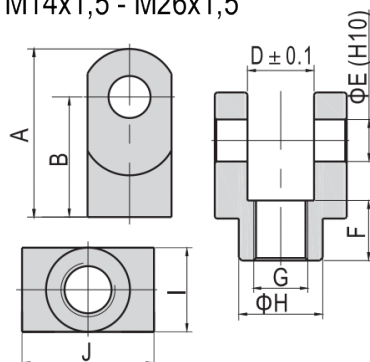
Zubehör für Zylinder Accessories for cylinder

Gabelkopf - Kurze Ausführung / Rod fork - Short version

M5x0,8 - M10x1,25



M14x1,5 - M26x1,5



| Artikel Nr. / Ordering code | Kolbendurchmesser / Piston bore size | | | | A | B | D | E | F | G | H | I | J | PA | PB | PC | PD | PE | PF | Werkstoff / Material |
|--------------------------------|--------------------------------------|------------------------------|----------------------------|----------------------------|----|----|------|----|------|----------|----|----|----|------|-----|----|----|-----|------|-------------------------|
| | QD-Zylinder / QD-cylinder | PD-Zylinder / PD-cylinder | M-Zylinder / M-cylinder | L-Zylinder / L-cylinder | | | | | | | | | | | | | | | | |
| 51 012 LG DS | - | - | - | 12mm | 22 | 16 | 5,3 | 5 | 6 | M5x0,8 | 9 | 10 | - | 10,2 | 1,5 | 4 | 5 | 0,7 | 14,6 | Stahl / Steel |
| 51 016 LG DS | - | - | 12 - 16mm | 16mm | 28 | 21 | 6,6 | 5 | 11 | M6x1,0 | 11 | 12 | - | 12,4 | 1,5 | 4 | 5 | 0,7 | 16,8 | Stahl / Steel |
| 51 020 LG DS | - | - | 20mm | 20mm | 34 | 25 | 8,3 | 8 | 8,5 | M8x1,25 | 15 | 16 | - | 16,2 | 1,5 | 7 | 8 | 0,9 | 21 | Stahl / Steel |
| 51 025 LG DS | 32mm | 32mm | 25mm | 25mm | 41 | 30 | 10,3 | 10 | 10,5 | M10x1,25 | 19 | 20 | - | 20,2 | 2 | 8 | 10 | 1,1 | 26,4 | Stahl / Steel |
| 51 032 LG DS | - | - | - | 32 - 40mm | 42 | 30 | 18,4 | 10 | 16 | M14x1,5 | 22 | 22 | 36 | 36,2 | 2 | 8 | 10 | 1,1 | 42,4 | Stahl / Steel |
| 51 050 LG DS | - | - | - | 50 - 63mm | 56 | 40 | 22,4 | 14 | 20 | M18x1,5 | 28 | 28 | 44 | 44,2 | 2 | 12 | 14 | 1,1 | 50,4 | Stahl / Steel |
| 51 080 LG DS | - | - | - | 80mm | 71 | 50 | 28,4 | 18 | 23 | M22x1,5 | 38 | 38 | 56 | 56,2 | 2 | 15 | 18 | 1,7 | 63,6 | Stahl / Steel |
| 51 100 LG DS | - | - | - | 100mm | 79 | 55 | 32,4 | 22 | 24 | M26x1,5 | 44 | 44 | 64 | 64,2 | 2,5 | 19 | 22 | 1,7 | 72,6 | Stahl / Steel |

Alle Werte in mm / All values in mm

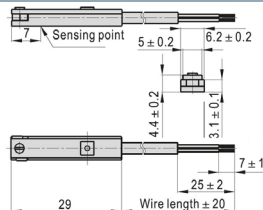
Oberfläche galvanisiert / Surface galvanised

Der Gabelkopf „51 xxx LG DS“ ist primär für den Kurzhubzylinder vorgesehen. Der Gabelkopf lässt sich aber selbstverständlich universell verwenden. /

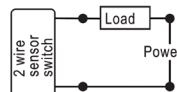
The rod fork „51 xxx LG DS“ is primarily designated to use with the short stroke cylinder. Nevertheless it is possible to use the rod fork universal.

Zubehör für Zylinder Accessories for cylinder

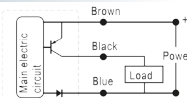
Sensorschalter - Universal / Sensor switch - Universal



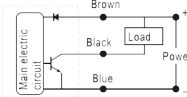
REED und
2-adrig
2-pol. / 2-wire



Hall, PNP



Hall, NPN

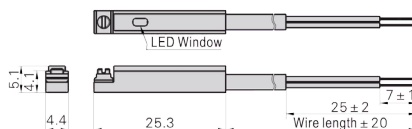


| Artikel Nr. / Ordering code | 51 000 UR AX | 51 000 UH AX | 51 000 UH AK | 51 000 UH AL |
|---|---|---|---|---|
| Schaltprinzip / Switch logic | REED, NO STSP | 2-adrig / Two lines type | Hall, NO, PNP | Hall, NO, NPN |
| Sensor Typ / Sensor type | REED-Kontaktschalter / REED-Contact-Switch | Optionaler Typ 2-adrig / Option type two lines | Standard Typ PNP / Standard type PNP | Optionaler Typ NPN / Option type NPN |
| Betriebsspannung / Operating voltage | 5-240V AC/DC | 10-28V DC | | 5-30V DC |
| Max. Schaltstrom / Max. switching current | 100mA | 50mA | | 200mA |
| Schaltspannung / Switching voltage | max. 10W | max. 1,4W | | max. 6W |
| Stromaufnahme / Power consumption | NO | 12(40)µA max. bei / at 24V | | 15mA max. bei / at 24V |
| Spannungsabfall / Voltage drop | 2,5V max. bei / at 100mA DC | 2,65V max. bei / at 50mA DC | | 0,5V max. bei / at 200mA DC |
| Kabel / Cable | Ø 2,8; 2C, grau / grey; ölbeständig / oil resistant, PVC | Ø 2,8; 2C | | Ø 3,3; 3C |
| Kontrollanzeige / Control indicator | | LED, rot / red | | |
| Verluststrom / Leakage current | NO | 20(90)µA max. bei / at 28V | | 0,01mA max. |
| Empfindlichkeit / Sensitivity | 45-55 Gauss | 25-700 Gauss | | 45-55 Gauss |
| Max. Frequenz / Max. Frequency | 200Hz | | 1000Hz | |
| Stoßbelastung / Shock load | 300m/s ² | | 500m/s ² | |
| Vibration | | 90m/s ² | | |
| Temperaturbereich / Temperature range | | -10°C...+70°C | | |
| Schutzart / Protection classification | | IP67 (NEMA6) | | |
| Schutzschaltung / Protection circuit | NO | | Verpolungssicher / Reverse polarity protected Überspannungsschutz / Overvoltage protection | |

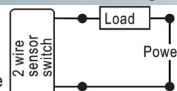
Verwendbar für QD Serie / Suitable for QD series

Verwendbar für PD Serie- und Rundzylinder mit passendem Sensorhalter / Suitable for PD series and round cylinder with appropriate sensor clip

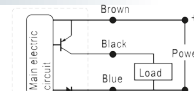
Sensorschalter - Kurzhubzylinder / Sensor switch - Short stroke cylinder



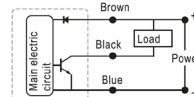
REED und
2-adrig
2-pol. / 2-wire



Hall, PNP



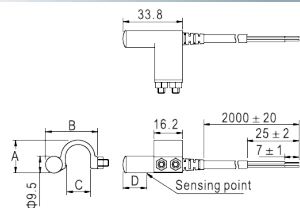
Hall, NPN



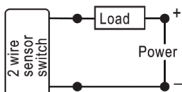
| Artikel Nr. / Ordering code | 51 000 LR AX | 51 000 LH AX | 51 000 LH AK | 51 000 LH AL |
|---|---|---|---|---|
| Schaltprinzip / Switch logic | REED, NO STSP | 2-adrig / Two lines type | Hall, NO, PNP | Hall, NO, NPN |
| Sensor Typ / Sensor type | REED-Kontaktschalter / REED-Contact-Switch | Optionaler Typ 2-adrig / Option type two lines | Standard Typ PNP / Standard type PNP | Optionaler Typ NPN / Option type NPN |
| Betriebsspannung / Operating voltage | 5-240V AC/DC | 10-28V DC | | 5-30V DC |
| Max. Schaltstrom / Max. switching current | 100mA | 50mA | | 200mA |
| Schaltspannung / Switching voltage | max. 10W | max. 1,4W | | max. 6W |
| Stromaufnahme / Power consumption | NO | 12(40)µA max. bei / at 24V | | 15mA max. bei / at 24V |
| Spannungsabfall / Voltage drop | 2,5V max. bei / at 100mA DC | 2,65V max. bei / at 50mA DC | | 0,5V max. bei / at 200mA DC |
| Kabel / Cable | Ø 2,8; 2C, grau / grey; ölbeständig / oil resistant, PVC | Ø 2,8; 2C | | Ø 3,3; 3C |
| Kontrollanzeige / Control indicator | | LED, rot / red | | |
| Verluststrom / Leakage current | NO | 20(90)µA max. bei / at 28V | | 0,01mA max. |
| Empfindlichkeit / Sensitivity | 60-75 Gauss | 25-700 Gauss | | 60-75 Gauss |
| Max. Frequenz / Max. Frequency | 200Hz | | 1000Hz | |
| Stoßbelastung / Shock load | 300m/s ² | | 500m/s ² | |
| Vibration | | 90m/s ² | | |
| Temperaturbereich / Temperature range | | -10°C...+70°C | | |
| Schutzart / Protection classification | IP67 (NEMA6) | | IP67 (NEMA6) | |
| Schutzschaltung / Protection circuit | NO | | Verpolungssicher / Reverse polarity protected Überspannungsschutz / Overvoltage protection | |

Zubehör für Zylinder Accessories for cylinder

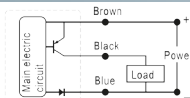
Sensorschalter - PD Serie Ø160-200mm / Sensor switch - PD series Ø160-200mm



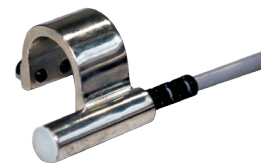
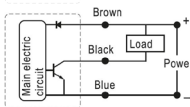
REED und
2-adrig
2-pol. / 2-wire



Hall, PNP



Hall, NPN



| Baureihe | 51 160 PR AX / 51 200 PR AX | 51 160 PH AX / 51 200 PH AX | 51 160 PH AK / 51 200 PH AK | 51 160 PH AL / 51 200 PH AL |
|---|---|--|---|--|
| Schaltprinzip / Switch logic | REED, NO STSP | 2-adrig / Two lines type | Hall, NO, PNP | Hall, NO, NPN |
| Sensor Typ / Sensor type | REED-Kontaktschalter / REED-Contact-Switch | Im Ruhezustand geöffnet / Normally open Optionaler Typ 2-adrig / Option type two lines | Standard Typ PNP / Stan- dard type PNP | Optionaler Typ NPN / Opti- on type NPN |
| Betriebsspannung / Operating voltage | 5-240V AC/DC | 10-28V DC | | 5-30V DC |
| Max. Schaltstrom / Max. switching current | 100mA | 50mA | | 200mA |
| Schaltspannung / Switching voltage | max. 10W | max. 1.4W | | max. 6W |
| Stromaufnahme / Power consumption | NO | 12(40)µA max. bei / at 24V | | 15mA max. bei / at 24V |
| Spannungsabfall / Voltage drop | 2,5V max. bei / at 100mA DC | 2,65V max. bei / at 50mA DC | | 0,5V max. bei / at 200mA DC |
| Kabel / Cable | Ø 4; 2C, grau / grey; ölbeständig / oil resistant, PVC | Ø 4; 2C, schwarz / black; öl- beständig / oil resistant, PVC | | Ø 4; 3C, schwarz / black; ölbeständig / oil resistant, PVC |
| Kontrollanzeige / Control indicator | | LED, rot / red | | |
| Verluststrom / Leakage current | NO | 20(90)µA max. bei / at 28V | | 0,01mA max. |
| Empfindlichkeit / Sensitivity | 60-75 Gauss | 25-700 Gauss | | 60-75 Gauss |
| Max. Frequenz / Max. Frequency | 200Hz | | 1000Hz | |
| Stoßbelastung / Shock load | 300m/s ² | | 500m/s ² | |
| Vibration | | 90m/s ² | | |
| Temperaturbereich / Temperature range | | -10°C...+70°C | | |
| Schutzart / Protection classification | | IP67 (NEMA6) | | |
| Schutzschaltung / Protection circuit | NO | | Verpolungssicher / Reverse polarity protected Überspannungsschutz / Overvoltage protection | |

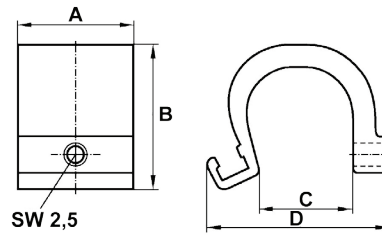
| Artikel Nr. / Ordering code | Kolbendurchmesser / Piston bore size | A | B | C | D |
|--------------------------------|---|------|------|----|----|
| 51 160 P△ A□ | 160mm | 39,4 | 44,5 | 26 | 13 |
| 51 200 P△ A□ | 200mm | 46,4 | 44,5 | 26 | 13 |

△ | R = Reed
H = Hall

□ | X = Reed
K = PNP
L = NPN

Zubehör für Zylinder Accessories for cylinder

Sensorhalter - PD Serie Ø32-125mm / Sensor clip - PD series Ø32-125mm



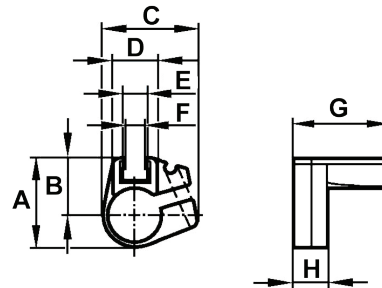
| Artikel Nr. / Ordering code | Kolbendurchmesser / Piston bore size | A | B | C | D |
|--------------------------------|---|----|------|------|------|
| 51 032 PX XA | 32mm - 40mm | 25 | 22,8 | 11,3 | 30,2 |
| 51 050 PX XA | 50mm - 63mm | 25 | 25,9 | 15,3 | 34,2 |
| 51 080 PX XA | 80mm - 125mm | 25 | 31,1 | 20,3 | 39,6 |

Alle Werte in mm / All values in mm

Werkstoff / Material: Gehäuse / Housing (Aluminium); Schraube / Bolt (Edelstahl / Stainless steel)

Verwendbar mit Sensorschalter - Universal / Suitable with sensor switch - Universal

Sensorhalter - Rundzylinder / Sensor clip - Round cylinder



| Artikel Nr. / Ordering code | Kolbendurchmesser / Piston bore size | A | B | C | D | E | F | G | H |
|--------------------------------|---|------|------|------|------|-----|-----|----|---|
| 51 012 MX XB | 12mm | 22,9 | 14,6 | 24,4 | 12 | 6,5 | 5,4 | 25 | 9 |
| 51 016 MX XB | 16mm | 27 | 16,5 | 29,2 | 12,5 | 6,5 | 5,4 | 25 | 9 |
| 51 020 MX XB | 20mm | 31,5 | 18,5 | 33,4 | 13,9 | 6,5 | 5,4 | 25 | 9 |
| 51 025 MX XB | 25mm | 36,8 | 21,3 | 38,1 | 13,7 | 6,5 | 5,4 | 25 | 9 |
| 51 032 MX XB | 32mm | 46,8 | 26,4 | 49,8 | 13,9 | 6,5 | 5,4 | 25 | 9 |
| 51 040 MX XB | 40mm | 55,8 | 30,9 | 56,2 | 13,9 | 6,5 | 5,4 | 25 | 9 |

Alle Werte in mm / All values in mm

Werkstoff / Material: Gehäuse / Housing (POM); Halteelement / Fixture (Aluminium); Schraube / Bolt (Edelstahl / Stainless steel)

Verwendbar mit Sensorschalter - Universal / Suitable with sensor switch - Universal

Anwendungsorientierte Innovation

Druckluftzylinder der Serie Lubrimaster vermeiden Produktionsausfälle

Eine größere Leistungsdichte, schnellere Zykluszeiten und höhere Zuverlässigkeit sind nach wie vor die Trends in der Automatisierungstechnik. Eine zusätzliche Anforderung an die technischen Komponenten ist die Reduzierung von Service- oder Ausfallkosten sowie die Einbringung anwendungsorientierter, innovativer Lösungen um Störungen und Produktionsausfälle zu vermeiden.



Mit der Entwicklung der Lubrimaster-Zylinder geht die Unimatic GmbH auch im Bereich der Pneumatik Zylinder weiter konsequent den Weg der Schaffung kundenorientierter Lösungen. Aufgrund der Nachschmierbarkeit und der individuellen Abstimmung des Dichtungsmaterials sind diese Zylinder ideal geeignet, um Anwendungen zu erfüllen, in denen konventio-

Alternative zu sonst notwendigen, aufwendigen Komponenten

nelle Produkte mit hohem Ausfallrisiko behaftet sind. Im Zuge der durch die Anwender gestellten Aufgaben, wurden die Zylinder der Lubrimaster-Serie entwickelt und werden mittlerweile in Serie gefertigt. Es handelt sich hierbei um Profilrohrzylinder, die sich in Anlehnung an die ISO 15552 bzw. VDMA 24562 insbesondere durch ihre sehr hohe Korrosionsbeständigkeit auszeichnen. Die Zylinder können sowohl gegen bereits vorhandene ISO- bzw. VDMA-Zylinder aus-

getauscht, als auch für Neukonstruktionen eingesetzt werden.

Zylinderkopf und Zylinderboden sind zur Erhöhung der Korrosionsbeständigkeit aus Kunststoff gefertigt. Am Zylinderkopf besteht über einen Schmiernippel die Möglichkeit einer sehr einfach zu realisierenden Nachschmierung. Hierbei können Schmiermittel nach Vorgabe eingesetzt werden, z. B. um die Forderungen einer Lebensmitteleignung zu erfüllen.

Aufgrund der besonderen Bauform des Zylinderkopfes kann der Abstreifer, ohne negativen Einfluss auf die Zylinderdichtungen, ideal auf die Umgebungsbedingungen abgestimmt werden. Zur weiteren Erhöhung der Lebensdauer sind die Edelstahl-Kolbenstangen zusätzlich verchromt. Hierdurch wird sowohl hinsichtlich der Korrosionsbeständigkeit, als auch der Laufleistung ein Optimum erzielt. Die Zylinder können mit den gängigen Zylindersensoren über den serienmäßig vorhandenen Magnetkolben abgefragt werden.

Zusammengefasst dargestellt wurden hier Bauteile geschaffen, die eine sehr preiswerte Alternative zu sonst notwendigen,



Am Zylinderkopf besteht über einen Schmiernippel die Möglichkeit der Nachschmierung

Zum Unternehmen

Die Unimatic GmbH (www.unimatic.de) ist seit über 35 Jahren sehr erfolgreich am Markt aktiv und zeichnet sich hierbei insbesondere bei der Entwicklung anwendungsorientierter, innovativer Lösungen aus. Ursprünglich aus dem technischen Großhandel kommend, werden hierbei sowohl existente Komponenten als auch Eigenprodukte verwendet. Die jeweiligen Applikationen werden vor Ort durch den qualifizierten Außendienst gemeinsam mit dem Kunden erarbeitet und dann im eigenen Hause detailliert konstruiert. Die Verwendung von 3D-Technologie ist hierbei selbstverständlich.

aufwendigen Komponenten insbesondere bei komplexen Anwendungen bieten. Es liegen mittlerweile Referenzen vor, die besonders die Einsatzmöglichkeit bei aggressiven Umgebungsbedingungen belegen. Ein weiterer Anwendungsbereich besteht überall dort, wo der für einen störungsfreien Einsatz der Zylinderdichtungen notwendige Schmierfilm regelmäßig abgewaschen wird. Ein Einsatz z. B. in Waschstraßen oder in Applikationen, bei denen regelmäßig Dampfstrahler zum Einsatz kommen, ist daher als unproblematisch zu bezeichnen.

Der vorstehende Beitrag basiert auf einer Presseinformation der Unimatic GmbH.

UNIMATIC 26326110

www.vfv1.de/26326110

Werkbilder: Unimatic GmbH, 22851 Norderstedt

Steckanschlüsse, Kunststoff

Push-In fittings, synthetic

Allgemeine Informationen

General information

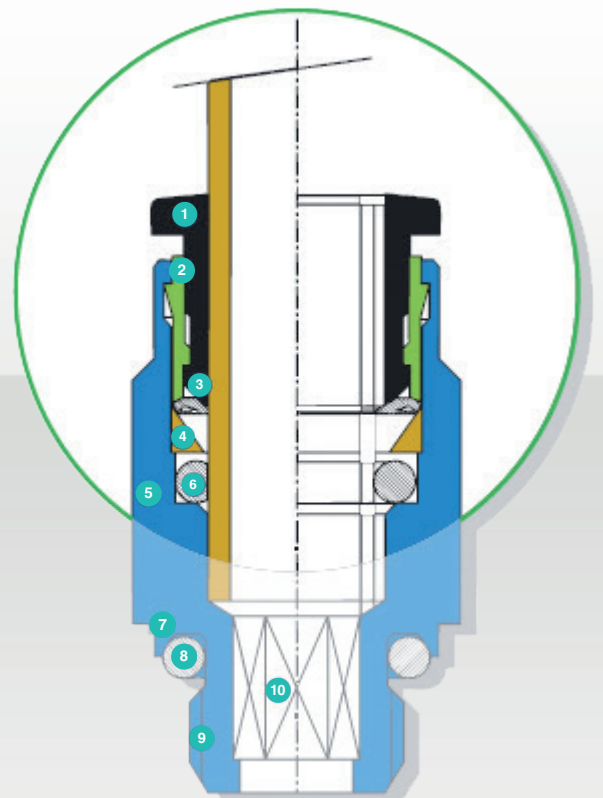
Einleitung / Introduction

Das Programm der Kunststoff Steckanschlüsse wurde für den Einsatz in der Pneumatik für Druckluft und Vakuum konzipiert. Es hat sich seitdem über viele Jahre hinweg bewährt und ist für Anwendungen in Industrie und Handwerk unentbehrlich. Die Steckanschlüsse erlauben eine schnelle Montage und Demontage und gewährleisten einen vollen Rohrdurchgang bei optimaler Abdichtung des Rohres. Alle Anschlüsse mit zylindrischem Gewinde sind selbstdichtend über einen unverlierbaren gekammerten O-Ring. Durch ihre geringen Einbaumasse sind sie auch unter beengten Platzverhältnissen einsetzbar.

The programme of synthetic Push-In fittings was designed for implementation in pneumatics for compressed air and vacuum. Since then, it has proven itself over many years and is essential for industrial and trade applications. The Push-In fittings allow quick assembly and dismantling and ensure a full pipe channel with optimum sealing of the pipe. All connectors with a cylindrical thread are self-sealing using a permanently connected, chambered O-ring. Due to their small installation dimensions, they can easily be implemented where space is limited.



- 1 Druckring
Thrust ring
- 2 Haltering
Block ring
- 3 Spannzange
Clamp
- 4 Distanzring
Distance ring
- 5 Gehäuse
Barrel
- 6 O-Ring
O-Ring
- 7 Abschlusskante
Spot-facing surface
- 8 O-Ring
O-Ring
- 9 Gewinde
Threading
- 10 Innensechskant
Internal hexagon



Steckanschlüsse, Kunststoff

Push-In fittings, synthetic

Allgemeine Informationen

General information

Serie 35

Technische Daten / Technical Data

| | |
|--|---|
| Max. Betriebsdruck für Steckanschlüsse Ø 4 mm bis Ø 8 mm Max. operating pressure for Push-In fittings Ø 4 mm up to Ø 8 mm | 12 bar |
| Max. Betriebsdruck für Steckanschlüsse Ø 10 mm bis Ø 14 mm Max. operating pressure for Push-In fittings Ø 10 mm up to Ø 14 mm | 10 bar |
| Temperaturbereich / Temperature range | -20°C...+50°C |
| Medium Fluid | Druckluft und Vakuum (andere Medien auf Anfrage) Compressed air and vacuum (other fluids on request) |
| Gewinde Threading | Zylindrisch BSP mit O-Ring Cylindrical BSP with O-Ring |

Werkstoff / Material

| | |
|--------------------------|--|
| Gehäuse Barrel | Kunststoff / Messing vernickelt technopolymer / nickel-plated brass |
| Dichtung Seal | NBR (silikonfrei) NBR (silicone-free) |
| Spannzange Clamp | AISI 304 AISI 304 |
| Druckring Thrust ring | Kunststoff Synthetic |

Toleranzen / Tolerances

| | | |
|--|----------|----------|
| Schlauchtoleranzen für Rohre Ø 4 mm bis Ø 14 mm Tolerances for pipes Ø 4 mm up to Ø 14 mm | +0,15 mm | -0,10 mm |
|--|----------|----------|

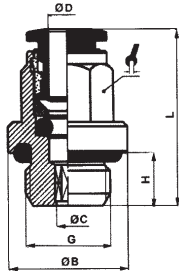
Steckanschlüsse, Kunststoff

Push-In fittings, synthetic

Serie 35 042

Gerade Einschraubanschlüsse

Male connector

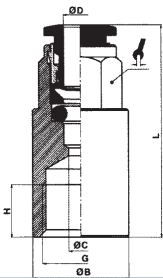


| Artikel Nr. / Ordering code | ØD | G | ØC | ØB | H | L | |
|--------------------------------|----|-------|------|------|------|------|----|
| 35 042 04 05 | 4 | M5 | 2,6 | 9,0 | 4,0 | 20,5 | 9 |
| 35 042 04 10 | 4 | G1/8" | 2,6 | 13,5 | 5,5 | 20,0 | 9 |
| 35 042 04 13 | 4 | G1/4" | 2,6 | 17,0 | 6,5 | 21,0 | 9 |
| 35 042 06 05 | 6 | M5 | 2,6 | 11,0 | 4,0 | 22,8 | 11 |
| 35 042 06 10 | 6 | G1/8" | 4,2 | 13,5 | 5,5 | 25,3 | 11 |
| 35 042 06 13 | 6 | G1/4" | 4,2 | 17,0 | 6,5 | 24,3 | 11 |
| 35 042 08 10 | 8 | G1/8" | 5,2 | 12,8 | 5,5 | 27,0 | 13 |
| 35 042 08 13 | 8 | G1/4" | 6,2 | 17,0 | 6,5 | 25,5 | 13 |
| 35 042 08 17 | 8 | G3/8" | 6,2 | 20,0 | 7,5 | 25,5 | 13 |
| 35 042 10 13 | 10 | G1/4" | 7,3 | 16,0 | 6,5 | 30,4 | 16 |
| 35 042 10 17 | 10 | G3/8" | 8,3 | 21,0 | 7,5 | 30,9 | 16 |
| 35 042 10 21 | 10 | G1/2" | 14,1 | 23,0 | 10,0 | 24,7 | 17 |
| 35 042 12 13 | 12 | G1/4" | 7,3 | 16,0 | 6,5 | 33,2 | 19 |
| 35 042 12 17 | 12 | G3/8" | 10,3 | 22,0 | 7,5 | 33,2 | 19 |
| 35 042 12 21 | 12 | G1/2" | 10,3 | 24,0 | 9,0 | 33,2 | 19 |
| 35 042 14 17 | 14 | G3/8" | 10,3 | 21,0 | 7,5 | 35,0 | 19 |
| 35 042 14 21 | 14 | G1/2" | 12,3 | 25,0 | 9,0 | 35,0 | 19 |

Serie 35 052

Gerade Aufschraubanschlüsse

Female connector

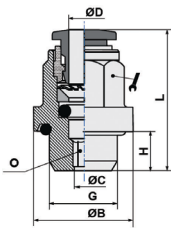


| Artikel Nr. / Ordering code | ØD | G | ØC | ØB | H | L | |
|--------------------------------|----|-------|-----|------|------|------|----|
| 35 052 04 05 | 4 | M5 | 5,0 | 9,0 | 4,5 | 23,0 | 9 |
| 35 052 04 10 | 4 | G1/8" | 3,0 | 12,0 | 6,5 | 26,5 | 9 |
| 35 052 04 13 | 4 | G1/4" | 3,0 | 17,0 | 10,0 | 29,5 | 9 |
| 35 052 06 10 | 6 | G1/8" | 5,0 | 12,0 | 6,5 | 28,3 | 11 |
| 35 052 06 13 | 6 | G1/4" | 5,0 | 17,0 | 10,0 | 31,3 | 11 |
| 35 052 08 10 | 8 | G1/8" | 7,0 | 12,0 | 6,5 | 28,5 | 13 |
| 35 052 08 13 | 8 | G1/4" | 7,0 | 17,0 | 10,0 | 32,5 | 13 |

Serie 35 049

Gerade Einschraubanschlüsse

Male connector

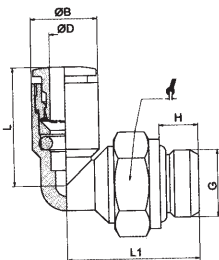


| Artikel Nr. / Ordering code | ØD | G | ØC | ØB | H | L | |
|--------------------------------|----|-------|-----|------|-----|------|----|
| 35 049 04 10 | 4 | G1/8" | 2,5 | 14,0 | 5,5 | 19,0 | 10 |
| 35 049 04 13 | 4 | G1/4" | 2,5 | 17,5 | 6,5 | 20,8 | 10 |
| 35 049 06 10 | 6 | G1/8" | 4,0 | 14,0 | 5,5 | 24,5 | 12 |
| 35 049 06 13 | 6 | G1/4" | 4,0 | 17,5 | 6,5 | 26,0 | 12 |
| 35 049 08 10 | 8 | G1/8" | 5,0 | 14,0 | 5,5 | 25,7 | 14 |
| 35 049 08 13 | 8 | G1/4" | 6,0 | 17,5 | 6,5 | 27,2 | 14 |
| 35 049 10 13 | 10 | G1/4" | 7,0 | 17,5 | 6,5 | 28,7 | 18 |

Serie 35 098

Winkelschraubanschlüsse

Male elbow




| Artikel Nr. / Ordering code | ØD | G | ØB | H | L | L1 | |
|--------------------------------|----|-------|------|-----|------|------|----|
| 35 098 04 05 | 4 | M5 | 9,5 | 4,0 | 17,2 | 17,0 | 8 |
| 35 098 04 10 | 4 | G1/8" | 9,5 | 5,5 | 17,2 | 18,5 | 13 |
| 35 098 04 13 | 4 | G1/4" | 9,5 | 6,5 | 17,2 | 20,4 | 16 |
| 35 098 06 05 | 6 | M5 | 11,5 | 4,0 | 20,8 | 17,0 | 8 |
| 35 098 06 10 | 6 | G1/8" | 11,5 | 5,5 | 20,8 | 18,5 | 13 |
| 35 098 06 13 | 6 | G1/4" | 11,5 | 6,5 | 20,8 | 20,4 | 16 |
| 35 098 08 10 | 8 | G1/8" | 13,5 | 5,5 | 23,0 | 20,0 | 13 |
| 35 098 08 13 | 8 | G1/4" | 13,5 | 6,5 | 23,0 | 20,4 | 16 |
| 35 098 08 17 | 8 | G3/8" | 13,5 | 9,0 | 23,0 | 24,8 | 18 |
| 35 098 10 13 | 10 | G1/4" | 17,0 | 6,5 | 26,4 | 23,2 | 16 |
| 35 098 10 17 | 10 | G3/8" | 17,0 | 7,5 | 26,4 | 24,8 | 18 |
| 35 098 10 21 | 10 | G1/2" | 17,0 | 9,0 | 26,4 | 31,1 | 21 |
| 35 098 12 13 | 12 | G1/4" | 20,0 | 6,5 | 28,9 | 24,2 | 16 |
| 35 098 12 17 | 12 | G3/8" | 20,0 | 7,5 | 28,9 | 26,3 | 18 |
| 35 098 12 21 | 12 | G1/2" | 20,0 | 9,0 | 28,9 | 31,1 | 21 |

Steckanschlüsse, Kunststoff

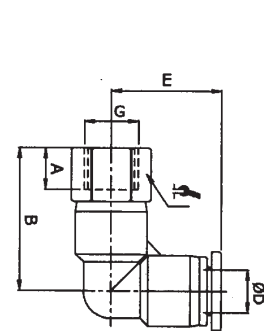
Push-In fittings, synthetic

Winkelaufschraubanschlüsse

Female elbow


| Artikel Nr. / Ordering code | ØD | G | A | B | E | |  |
|--------------------------------|----|-------|------|------|------|--|---|
| 35 398 04 05 | 4 | M5 | 5,5 | 20,5 | 19,0 | | 10 |
| 35 398 04 10 | 4 | G1/8" | 8,5 | 24,0 | 19,0 | | 14 |
| 35 398 04 13 | 4 | G1/4" | 11,0 | 27,0 | 19,0 | | 17 |
| 35 398 06 05 | 6 | M5 | 6,0 | 20,7 | 19,2 | | 12 |
| 35 398 06 10 | 6 | G1/8" | 8,5 | 24,2 | 19,2 | | 14 |
| 35 398 06 13 | 6 | G1/4" | 11,0 | 27,2 | 19,2 | | 17 |
| 35 398 06 17 | 6 | G3/8" | 12,0 | 28,7 | 19,2 | | 21 |
| 35 398 08 10 | 8 | G1/8" | 8,0 | 27,0 | 23,0 | | 14 |
| 35 398 08 13 | 8 | G1/4" | 11,0 | 30,5 | 23,0 | | 17 |
| 35 398 08 17 | 8 | G3/8" | 12,0 | 32,0 | 23,0 | | 21 |
| 35 398 10 13 | 10 | G1/4" | 11,0 | 34,3 | 28,2 | | 17 |
| 35 398 10 17 | 10 | G3/8" | 12,0 | 35,8 | 28,2 | | 21 |
| 35 398 10 21 | 10 | G1/2" | 14,0 | 38,8 | 28,2 | | 24 |
| 35 398 12 13 | 12 | G1/4" | 11,0 | 37,0 | 29,5 | | 21 |
| 35 398 12 17 | 12 | G3/8" | 12,0 | 38,0 | 29,5 | | 21 |
| 35 398 12 21 | 12 | G1/2" | 14,0 | 40,5 | 29,5 | | 24 |

Serie 35 398

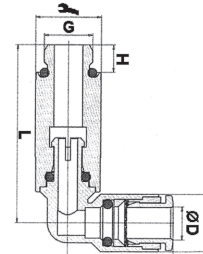


Winkelschraubanschlüsse, verlängert

Extended male elbow


| Artikel Nr. / Ordering code | ØD | G | ØB | H | L | L1 |  |
|--------------------------------|----|-------|------|-----|------|------|---|
| 35 388 04 10 | 4 | G1/8" | 9,5 | 6,0 | 35,7 | 17,2 | 13 |
| 35 388 06 05 | 6 | M5 | 13,0 | 3,5 | 36,4 | 19,2 | 10 |
| 35 388 06 10 | 6 | G1/8" | 11,5 | 6,0 | 35,7 | 20,8 | 13 |
| 35 388 08 10 | 8 | G1/8" | 13,5 | 6,0 | 38,0 | 23,0 | 13 |
| 35 388 08 13 | 8 | G1/4" | 15,0 | 7,5 | 43,3 | 22,5 | 16 |

Serie 35 388

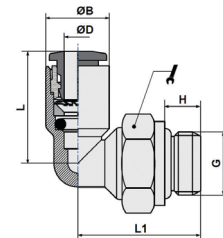


Winkeleinschraubanschlüsse

Male elbow


| Artikel Nr. / Ordering code | ØD | G | ØB | H | L | L1 |  |
|--------------------------------|----|-------|------|-----|------|------|---|
| 35 099 04 10 | 4 | G1/8" | 9,5 | 5,5 | 17,2 | 18,5 | 14 |
| 35 099 04 13 | 4 | G1/4" | 9,5 | 6,5 | 17,2 | 20,4 | 16 |
| 35 099 06 10 | 6 | G1/8" | 11,5 | 5,5 | 20,8 | 18,5 | 14 |
| 35 099 06 13 | 6 | G1/4" | 11,5 | 6,5 | 20,8 | 20,4 | 16 |
| 35 099 08 10 | 8 | G1/8" | 13,5 | 5,5 | 23,0 | 20,0 | 14 |
| 35 099 08 13 | 8 | G1/4" | 13,5 | 6,5 | 23,0 | 20,4 | 16 |
| 35 099 10 13 | 10 | G1/4" | 17,0 | 6,5 | 26,4 | 23,2 | 16 |
| 35 099 12 13 | 12 | G1/4" | 20,0 | 6,5 | 28,9 | 24,2 | 16 |

Serie 35 099

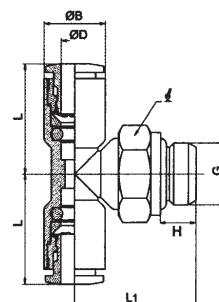


T-Einschraubanschlüsse

T-male connector

| Artikel Nr. / Ordering code | ØD | G | ØB | H | L | L1 |  |
|--------------------------------|----|-------|------|------|------|------|---|
| 35 128 04 05 | 4 | M5 | 9,5 | 4,0 | 17,2 | 17,0 | 8 |
| 35 128 04 10 | 4 | G1/8" | 9,5 | 5,5 | 17,2 | 18,5 | 13 |
| 35 128 04 13 | 4 | G1/4" | 9,5 | 7,5 | 17,2 | 20,4 | 16 |
| 35 128 06 05 | 6 | M5 | 9,5 | 4,0 | 20,8 | 17,0 | 8 |
| 35 128 06 10 | 6 | G1/8" | 11,5 | 5,5 | 20,8 | 18,5 | 13 |
| 35 128 06 13 | 6 | G1/4" | 11,5 | 7,5 | 20,8 | 20,4 | 16 |
| 35 128 08 10 | 8 | G1/8" | 13,5 | 5,5 | 23,0 | 20,0 | 13 |
| 35 128 08 13 | 8 | G1/4" | 13,5 | 6,5 | 23,0 | 20,4 | 16 |
| 35 128 08 17 | 8 | G3/8" | 13,5 | 7,5 | 23,0 | 24,8 | 18 |
| 35 128 10 13 | 10 | G1/4" | 17,0 | 7,5 | 26,4 | 23,2 | 16 |
| 35 128 10 17 | 10 | G3/8" | 19,0 | 10,5 | 28,5 | 38,0 | 18 |
| 35 128 10 21 | 10 | G1/2" | 17,0 | 9,0 | 26,4 | 31,1 | 21 |
| 35 128 12 17 | 12 | G3/8" | 20,0 | 7,5 | 28,9 | 26,3 | 18 |
| 35 128 12 21 | 12 | G1/2" | 20,0 | 11,0 | 28,9 | 29,3 | 21 |

Serie 35 128

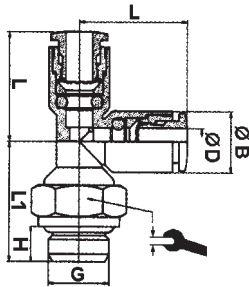


Steckanschlüsse, Kunststoff

Push-In fittings, synthetic

Serie 35 148 L-Einschraubanschlüsse

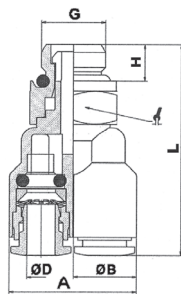
L-male connector



| Artikel Nr. / Ordering code | ØD | G | ØB | H | L | L1 | |
|--------------------------------|----|-------|------|------|------|------|----|
| 35 148 04 05 | 4 | M5 | 9,5 | 4,0 | 12,2 | 17,0 | 8 |
| 35 148 04 10 | 4 | G1/8" | 9,5 | 5,5 | 17,2 | 18,5 | 13 |
| 35 148 04 13 | 4 | G1/4" | 9,5 | 7,5 | 17,2 | 20,4 | 16 |
| 35 148 06 10 | 6 | G1/8" | 11,5 | 5,5 | 20,8 | 18,5 | 13 |
| 35 148 06 13 | 6 | G1/4" | 11,5 | 7,5 | 20,8 | 20,4 | 16 |
| 35 148 08 10 | 8 | G1/8" | 13,5 | 5,5 | 23,0 | 20,0 | 13 |
| 35 148 08 13 | 8 | G1/4" | 13,5 | 7,5 | 23,0 | 20,4 | 16 |
| 35 148 08 17 | 8 | G3/8" | 13,5 | 9,0 | 23,0 | 24,8 | 18 |
| 35 148 10 13 | 10 | G1/4" | 17,0 | 6,5 | 26,4 | 23,2 | 16 |
| 35 148 10 17 | 10 | G3/8" | 19,0 | 7,5 | 28,5 | 38,5 | 17 |
| 35 148 10 21 | 10 | G1/2" | 17,0 | 10,0 | 26,4 | 31,1 | 21 |
| 35 148 12 13 | 12 | G1/4" | 21,0 | 7,5 | 29,5 | 36,0 | 21 |
| 35 148 12 17 | 12 | G3/8" | 20,0 | 7,5 | 28,9 | 26,3 | 18 |
| 35 148 12 21 | 12 | G1/2" | 20,0 | 9,0 | 28,9 | 31,1 | 21 |

Serie 35 188 Y-Einschraubanschlüsse

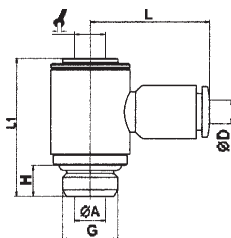
Y-male connector



| Artikel Nr. / Ordering code | ØD | G | ØB | H | A | L | |
|--------------------------------|----|-------|------|------|------|------|----|
| 35 188 04 05 | 4 | M5 | 9,5 | 4,0 | 19,0 | 39,1 | 9 |
| 35 188 04 10 | 4 | G1/8" | 9,5 | 5,5 | 19,0 | 20,5 | 13 |
| 35 188 04 13 | 4 | G1/4" | 11,0 | 7,5 | 22,0 | 45,5 | 17 |
| 35 188 06 10 | 6 | G1/8" | 11,5 | 5,5 | 23,0 | 34,8 | 13 |
| 35 188 06 13 | 6 | G1/4" | 11,5 | 6,5 | 23,0 | 36,4 | 16 |
| 35 188 08 10 | 8 | G1/8" | 13,5 | 5,5 | 27,0 | 37,5 | 13 |
| 35 188 08 13 | 8 | G1/4" | 13,5 | 6,5 | 27,0 | 38,6 | 16 |
| 35 188 08 17 | 8 | G3/8" | 14,4 | 7,5 | 29,4 | 50,5 | 20 |
| 35 188 10 13 | 10 | G1/4" | 18,4 | 7,5 | 36,4 | 58,9 | 17 |
| 35 188 10 17 | 10 | G3/8" | 18,4 | 7,5 | 36,4 | 58,9 | 20 |
| 35 188 10 21 | 10 | G1/2" | 18,4 | 10,0 | 36,4 | 62,4 | 24 |
| 35 188 12 21 | 12 | G1/2" | 21,0 | 10,0 | 42,0 | 65,3 | 24 |

Serie 35 198 Ringverschraubung

Single banjo




| Artikel Nr. / Ordering code | ØD | G | ØA | H | L | L1 | |
|--------------------------------|----|-------|------|-----|------|------|-----|
| 35 198 04 05 | 4 | M5 | 2,0 | 4,0 | 17,8 | 19,5 | 2,5 |
| 35 198 04 10 | 4 | G1/8" | 5,5 | 5,5 | 24,5 | 21,1 | 3 |
| 35 198 06 10 | 6 | G1/8" | 5,5 | 5,5 | 24,5 | 24,3 | 3 |
| 35 198 06 13 | 6 | G1/4" | 7,8 | 6,5 | 28,0 | 25,5 | 4 |
| 35 198 08 10 | 8 | G1/8" | 5,5 | 5,5 | 24,5 | 24,8 | 3 |
| 35 198 08 13 | 8 | G1/4" | 7,8 | 6,5 | 28,0 | 26,5 | 4 |
| 35 198 08 17 | 8 | G3/8" | 10,0 | 7,5 | 32,5 | 28,0 | 5 |
| 35 198 10 13 | 10 | G1/4" | 7,8 | 6,5 | 28,0 | 28,4 | 4 |
| 35 198 10 17 | 10 | G3/8" | 10,0 | 7,5 | 32,5 | 29,9 | 5 |
| 35 198 10 21 | 10 | G1/2" | 12,0 | 9,0 | 38,8 | 30,0 | 8 |
| 35 198 12 17 | 12 | G3/8" | 10,0 | 7,5 | 32,5 | 31,4 | 5 |
| 35 198 12 21 | 12 | G1/2" | 12,0 | 9,0 | 38,8 | 34,9 | 8 |

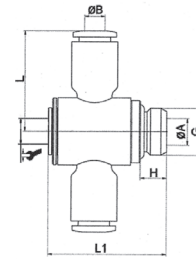
Steckanschlüsse, Kunststoff

Push-In fittings, synthetic


T-Ringverschraubung T-banjo

| Artikel Nr. / Ordering code | ØB | G | ØA | H | L | L1 |  |
|--------------------------------|----|-------|------|-----|------|------|---|
| 35 208 04 05 | 4 | M5 | 2,0 | 4,0 | 17,8 | 19,5 | 2,5 |
| 35 208 04 10 | 4 | G1/8" | 5,5 | 5,5 | 24,5 | 21,1 | 3 |
| 35 208 06 10 | 6 | G1/8" | 5,5 | 5,5 | 24,5 | 24,3 | 3 |
| 35 208 06 13 | 6 | G1/4" | 7,8 | 6,5 | 28,0 | 25,5 | 4 |
| 35 208 08 10 | 8 | G1/8" | 5,5 | 5,5 | 24,5 | 24,8 | 3 |
| 35 208 08 13 | 8 | G1/4" | 7,8 | 6,5 | 28,0 | 26,5 | 4 |
| 35 208 08 17 | 8 | G3/8" | 10,0 | 7,5 | 32,5 | 28,0 | 5 |
| 35 208 10 13 | 10 | G1/4" | 7,8 | 6,5 | 28,0 | 28,4 | 4 |
| 35 208 10 17 | 10 | G3/8" | 10,0 | 7,5 | 32,5 | 29,9 | 5 |
| 35 208 10 21 | 10 | G1/2" | 12,0 | 9,0 | 38,8 | 30,0 | 8 |
| 35 208 12 17 | 12 | G3/8" | 10,0 | 7,5 | 32,5 | 31,4 | 5 |
| 35 208 12 21 | 12 | G1/2" | 12,0 | 9,0 | 38,8 | 34,9 | 8 |

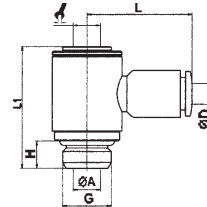
Serie 35 208




Y-Ringverschraubung Y-banjo

| Artikel Nr. / Ordering code | ØD | G | ØA | H | L | L1 |  |
|--------------------------------|----|-------|------|-----|------|------|---|
| 35 428 04 05 | 4 | M5 | 2,0 | 4,0 | 17,8 | 19,5 | 2,5 |
| 35 428 06 10 | 6 | G1/8" | 5,5 | 5,5 | 24,5 | 24,3 | 3 |
| 35 428 08 13 | 8 | G1/4" | 7,8 | 6,5 | 28,0 | 26,5 | 4 |
| 35 428 10 17 | 10 | G3/8" | 10,0 | 7,5 | 32,5 | 29,9 | 5 |
| 35 428 12 21 | 12 | G1/2" | 12,0 | 9,0 | 38,8 | 34,9 | 8 |

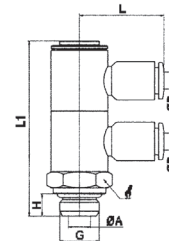
Serie 35 428




Ringverschraubung 2-fach Double banjo

| Artikel Nr. / Ordering code | ØD | G | H | ØA | L1 | L |  |
|--------------------------------|----|-------|-----|-----|------|------|---|
| 35 438 04 10 | 4 | G1/8" | 5,5 | 5,5 | 43,3 | 21,1 | 14 |
| 35 438 06 10 | 6 | G1/8" | 5,5 | 5,5 | 43,3 | 24,3 | 14 |
| 35 438 06 13 | 6 | G1/4" | 7,8 | 6,5 | 50,0 | 25,5 | 18 |
| 35 438 08 10 | 8 | G1/8" | 5,5 | 5,5 | 43,3 | 24,8 | 14 |
| 35 438 08 13 | 8 | G1/4" | 7,8 | 6,5 | 50,0 | 26,5 | 18 |
| 35 438 10 13 | 10 | G1/4" | 7,8 | 6,5 | 50,0 | 28,4 | 18 |

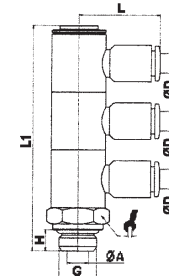
Serie 35 438




Ringverschraubung 3-fach Triple banjo

| Artikel Nr. / Ordering code | ØD | G | H | ØA | L1 | L |  |
|--------------------------------|----|-------|-----|-----|------|------|---|
| 35 448 04 10 | 4 | G1/8" | 5,5 | 5,5 | 58,4 | 21,1 | 14 |
| 35 448 06 10 | 6 | G1/8" | 5,5 | 5,5 | 58,4 | 24,3 | 14 |
| 35 448 06 13 | 6 | G1/4" | 7,8 | 6,5 | 67,0 | 25,5 | 18 |
| 35 448 08 10 | 8 | G1/8" | 5,5 | 5,5 | 58,4 | 24,8 | 14 |
| 35 448 08 13 | 8 | G1/4" | 7,8 | 6,5 | 67,0 | 26,5 | 18 |
| 35 448 10 13 | 10 | G1/4" | 7,8 | 6,5 | 67,0 | 28,4 | 18 |

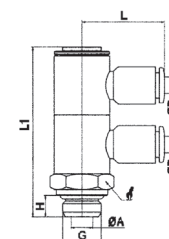
Serie 35 448



Y-Ringverschraubung 2-fach Double Y-banjo

| Artikel Nr. / Ordering code | ØD | G | H | ØA | L1 | L |  |
|--------------------------------|----|-------|-----|-----|------|------|---|
| 35 458 06 10 | 6 | G1/8" | 5,5 | 5,5 | 43,3 | 24,3 | 14 |
| 35 458 08 13 | 8 | G1/4" | 7,8 | 6,5 | 50,0 | 26,5 | 18 |

Serie 35 458

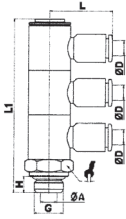


Steckanschlüsse, Kunststoff

Push-In fittings, synthetic

Serie 35 468 Y-Ringverschraubung 3-fach

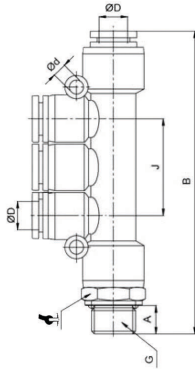
Triple Y-banjo



| Artikel Nr. / Ordering code | ØD | G | H | ØA | L1 | L | |
|--------------------------------|----|-------|-----|-----|------|------|----|
| 35 468 06 10 | 6 | G1/8" | 5,5 | 5,5 | 58,4 | 24,3 | 14 |
| 35 468 08 13 | 8 | G1/4" | 7,8 | 6,5 | 67,0 | 26,5 | 18 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Serie 35 478 L-Einschraubverteiler 3-fach

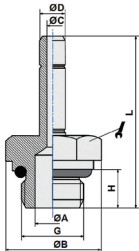
Male triple branch



| Artikel Nr. / Ordering code | ØD | G | A | B | J | Ød | |
|--------------------------------|----|-------|-----|------|------|-----|----|
| 35 478 04 10 | 4 | G1/8" | 5,5 | 68,0 | 26,0 | 3,2 | 14 |
| 35 478 04 13 | 4 | G1/4" | 7,5 | 70,0 | 26,0 | 3,2 | 17 |
| 35 478 06 10 | 6 | G1/8" | 5,5 | 68,0 | 26,0 | 3,2 | 14 |
| 35 478 06 13 | 6 | G1/4" | 7,5 | 70,0 | 26,0 | 3,2 | 17 |
| 35 478 06 17 | 6 | G3/8" | 7,5 | 70,5 | 26,0 | 3,2 | 20 |
| 35 478 08 10 | 8 | G1/8" | 5,5 | 87,0 | 29,0 | 3,2 | 15 |
| 35 478 08 13 | 8 | G1/4" | 7,5 | 89,0 | 29,0 | 3,2 | 17 |
| 35 478 08 17 | 8 | G3/8" | 7,5 | 89,5 | 29,0 | 3,2 | 20 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Serie 35 249 Einschraubsteckstutzen

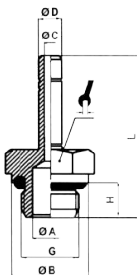
Male standpipe



| Artikel Nr. / Ordering code | ØD | G | ØC | ØB | H | L | ØA | |
|--------------------------------|----|-------|-----|------|-----|------|-----|----|
| 35 249 04 10 | 4 | G1/8" | 2,0 | 14,0 | 5,5 | 28,7 | 6,0 | 14 |
| 35 249 04 13 | 4 | G1/4" | 2,0 | 18,0 | 6,5 | 30,7 | 8,0 | 16 |
| 35 249 06 10 | 6 | G1/8" | 4,0 | 14,0 | 5,5 | 31,5 | 6,0 | 14 |
| 35 249 06 13 | 6 | G1/4" | 4,0 | 18,0 | 6,5 | 33,5 | 7,8 | 16 |
| 35 249 08 10 | 8 | G1/8" | 6,0 | 14,0 | 5,5 | 33,0 | 6,0 | 14 |
| 35 249 08 13 | 8 | G1/4" | 6,0 | 18,0 | 6,5 | 35,0 | 8,0 | 16 |
| 35 249 10 10 | 10 | G1/8" | 6,0 | 14,0 | 5,5 | 35,5 | 6,0 | 14 |
| 35 249 10 13 | 10 | G1/4" | 8,0 | 18,0 | 6,5 | 38,0 | 8,0 | 16 |
| 35 249 12 13 | 12 | G1/4" | 9,0 | 18,0 | 6,5 | 39,0 | 8,0 | 16 |
| | | | | | | | | |

Serie 35 242 Einschraubsteckstutzen / Messing vernickelt

Male standpipe / nickel-plated brass




| Artikel Nr. / Ordering code | ØD | G | ØC | ØB | H | L | |
|--------------------------------|----|-------|------|------|-----|------|----|
| 35 242 04 05 | 4 | M5 | 2,0 | 8,0 | 4,0 | 24,7 | 8 |
| 35 242 04 10 | 4 | G1/8" | 2,0 | 13,0 | 5,5 | 27,7 | 13 |
| 35 242 04 13 | 4 | G1/4" | 2,0 | 16,0 | 6,5 | 29,2 | 13 |
| 35 242 06 05 | 6 | M5 | 2,6 | 8,0 | 4,0 | 27,5 | 8 |
| 35 242 06 10 | 6 | G1/8" | 4,0 | 13,0 | 5,5 | 30,5 | 13 |
| 35 242 06 13 | 6 | G1/4" | 4,0 | 16,0 | 6,5 | 33,5 | 13 |
| 35 242 08 10 | 8 | G1/8" | 6,0 | 13,0 | 5,5 | 32,0 | 13 |
| 35 242 08 13 | 8 | G1/4" | 6,0 | 16,0 | 6,5 | 33,5 | 13 |
| 35 242 08 17 | 8 | G3/8" | 6,0 | 20,0 | 7,5 | 33,5 | 13 |
| 35 242 10 10 | 10 | G1/8" | 6,0 | 13,0 | 5,5 | 35,0 | 13 |
| 35 242 10 13 | 10 | G1/4" | 8,0 | 16,0 | 8,0 | 38,0 | 13 |
| 35 242 10 17 | 10 | G3/8" | 8,0 | 20,0 | 7,5 | 39,5 | 13 |
| 35 242 12 13 | 12 | G1/4" | 8,0 | 16,0 | 6,5 | 37,5 | 13 |
| 34 242 12 17 | 12 | G3/8" | 10,0 | 20,0 | 7,5 | 40,5 | 13 |
| 35 242 12 21 | 12 | G1/2" | 10,0 | 24,0 | 9,0 | 42,0 | 16 |
| 35 242 14 17 | 14 | G3/8" | 12,0 | 20,0 | 7,5 | 43,0 | 16 |
| 35 242 14 21 | 14 | G1/2" | 12,0 | 24,0 | 9,0 | 44,5 | 16 |

Steckanschlüsse, Kunststoff

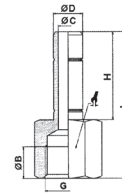
Push-In fittings, synthetic

Aufschraubsteckstutzen / Messing vernickelt

Female standpipe / nickel-plated brass


| Artikel Nr. / Ordering code | ØD | G | ØC | ØB | H | L |  |
|--------------------------------|----|-------|-----|-----|------|------|---|
| 35 402 04 10 | 4 | G1/8" | 2,0 | 7,0 | 16,7 | 29,7 | 12 |
| 35 402 06 10 | 6 | G1/8" | 4,0 | 7,0 | 19,5 | 32,5 | 12 |
| 35 402 06 13 | 6 | G1/4" | 4,0 | 8,0 | 19,5 | 35,5 | 17 |
| 35 402 08 13 | 8 | G1/4" | 6,0 | 8,0 | 21,0 | 37,0 | 17 |

Serie 35 402

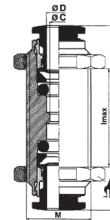


Gerade Schottanschlüsse

Bulkhead connector


| Artikel Nr. / Ordering code | ØD | ØC | L | M | lmax |  |
|--------------------------------|----|----|------|------|------|---|
| 35 072 04 00 | 4 | 3 | 32,0 | 11x1 | 8,0 | 14 |
| 35 072 06 00 | 6 | 5 | 36,1 | 14x1 | 8,0 | 17 |
| 35 072 08 00 | 8 | 7 | 38,0 | 16x1 | 10,0 | 18 |
| 35 072 10 00 | 10 | 9 | 42,3 | 18x1 | 12,0 | 21 |
| 35 072 12 00 | 12 | 11 | 45,8 | 22x1 | 17,0 | 24 |
| 35 072 14 00 | 14 | 13 | 47,5 | 24x1 | 18,0 | 27 |

Serie 35 072

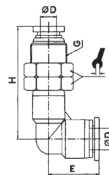


Winkel-Schottanschlüsse

Bulkhead elbow

| Artikel Nr. / Ordering code | ØD | G | H | E |  |
|--------------------------------|----|-------|------|------|---|
| 35 418 04 00 | 4 | M12x1 | 28,5 | 19,0 | 14 |
| 35 418 06 00 | 6 | M14x1 | 32,1 | 19,2 | 17 |
| 35 418 08 00 | 8 | M16x1 | 39,4 | 23,0 | 19 |
| 35 418 10 00 | 10 | M20x1 | 44,8 | 28,2 | 24 |
| 35 418 12 00 | 12 | M22x1 | 46,6 | 29,5 | 27 |

Serie 35 418

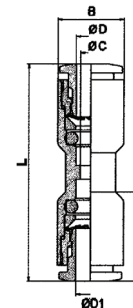


Gerade Verbindungsanschlüsse

Straight connector

| Artikel Nr. / Ordering code | ØD | ØD1 | B | ØC | E | L |
|--------------------------------|----|-----|------|----|------|------|
| 35 068 04 00 | 4 | 4 | 9,5 | 3 | 9,5 | 32,0 |
| 35 068 04 06 | 4 | 6 | 9,5 | 3 | 11,5 | 32,5 |
| 35 068 06 00 | 6 | 6 | 11,5 | 5 | 11,5 | 35,6 |
| 35 068 06 08 | 6 | 8 | 11,5 | 5 | 13,5 | 36,0 |
| 35 068 08 00 | 8 | 8 | 13,5 | 7 | 13,5 | 38,0 |
| 35 068 08 10 | 8 | 10 | 13,5 | 7 | 17,0 | 32,5 |
| 35 068 10 00 | 10 | 10 | 17,0 | 9 | 17,0 | 42,3 |
| 35 068 10 12 | 10 | 12 | 17,0 | 9 | 20,0 | 44,0 |
| 35 068 12 00 | 12 | 12 | 20,0 | 10 | 20,0 | 46,2 |

Serie 35 068

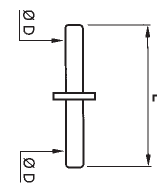


Doppelstecknippel

Plug-in connector

| Artikel Nr. / Ordering code | ØD | L |
|--------------------------------|----|------|
| 35 262 04 00 | 4 | 34,5 |
| 35 262 06 00 | 6 | 38,5 |
| 35 262 08 00 | 8 | 41,0 |
| 35 262 10 00 | 10 | 51,5 |

Serie 35 262

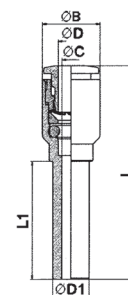


Reduzierung

Reducer

| Artikel Nr. / Ordering code | ØD1 | ØD | ØB | ØC | L | L1 |
|--------------------------------|-----|----|------|----|------|------|
| 35 278 06 04 | 6 | 4 | 9,5 | 3 | 35,5 | 19,5 |
| 35 278 08 04 | 8 | 4 | 9,5 | 3 | 37,0 | 21,0 |
| 35 278 08 06 | 8 | 6 | 11,5 | 5 | 39,0 | 23,0 |
| 35 278 10 04 | 10 | 4 | 9,5 | 3 | 40,0 | 24,0 |
| 35 278 10 06 | 10 | 6 | 11,5 | 5 | 42,0 | 24,0 |
| 35 278 10 08 | 10 | 8 | 13,5 | 7 | 43,0 | 26,3 |
| 35 278 12 04 | 12 | 4 | 9,5 | 3 | 41,0 | 25,0 |
| 35 278 12 06 | 12 | 6 | 11,5 | 5 | 43,0 | 25,0 |
| 35 278 12 08 | 12 | 8 | 13,5 | 7 | 44,0 | 25,0 |
| 35 278 12 10 | 12 | 10 | 17,0 | 9 | 46,2 | 27,6 |

Serie 35 278

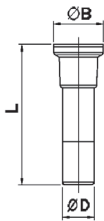


Steckanschlüsse, Kunststoff

Push-In fittings, synthetic

Serie 35 256

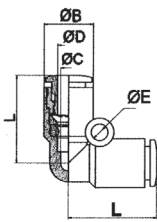
Stopfen
Plug



| Artikel Nr. / Ordering code | ØD | ØB | L | | | | |
|--------------------------------|----|------|------|--|--|--|--|
| 35 256 04 00 | 4 | 7,0 | 25,0 | | | | |
| 35 256 06 00 | 6 | 9,5 | 27,5 | | | | |
| 35 256 08 00 | 8 | 12,0 | 30,0 | | | | |
| 35 256 10 00 | 10 | 14,0 | 32,5 | | | | |
| 35 256 12 00 | 12 | 16,0 | 35,0 | | | | |

Serie 35 108

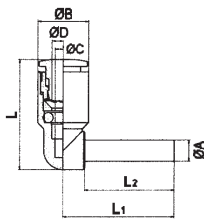
Winkelanschlüsse
Elbow connector



| Artikel Nr. / Ordering code | ØD | ØC | ØB | ØE | L | | |
|--------------------------------|----|----|------|-----|------|--|--|
| 35 108 04 00 | 4 | 3 | 9,5 | 3,2 | 17,2 | | |
| 35 108 06 00 | 6 | 5 | 11,5 | 3,2 | 20,8 | | |
| 35 108 08 00 | 8 | 7 | 13,5 | 3,2 | 23,0 | | |
| 35 108 10 00 | 10 | 9 | 17,0 | 4,3 | 26,4 | | |
| 35 108 12 00 | 12 | 10 | 20,0 | 4,2 | 28,9 | | |

Serie 35 498

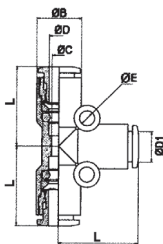
Winkelsteckanschlüsse
Plug-in elbow



| Artikel Nr. / Ordering code | ØD | ØC | ØB | ØA | L | L1 | L2 |
|--------------------------------|----|----|------|----|------|------|------|
| 35 498 04 00 | 4 | 3 | 9,5 | 4 | 17,2 | 20,8 | 16,7 |
| 35 498 06 00 | 6 | 5 | 11,5 | 6 | 20,8 | 24,3 | 19,5 |
| 35 498 08 00 | 8 | 7 | 13,5 | 8 | 23,0 | 27,3 | 21,0 |
| 35 498 10 00 | 10 | 9 | 17,0 | 10 | 26,4 | 31,8 | 24,0 |
| 35 498 12 00 | 12 | 10 | 20,0 | 12 | 28,9 | 36,0 | 25,0 |

Serie 35 158

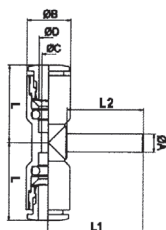
T-Anschlüsse
T-connector



| Artikel Nr. / Ordering code | ØD | ØD1 | ØC | ØB | L | ØE | |
|--------------------------------|----|-----|------|------|------|-----|--|
| 35 158 04 00 | 4 | 4 | 3,0 | 9,5 | 17,2 | 3,2 | |
| 35 158 06 04 | 6 | 4 | 5,3 | 13,0 | 19,2 | 3,2 | |
| 35 158 06 00 | 6 | 6 | 5,0 | 11,5 | 20,8 | 3,2 | |
| 35 158 08 06 | 8 | 6 | 7,1 | 14,4 | 22,7 | 3,2 | |
| 35 158 08 00 | 8 | 8 | 7,0 | 13,5 | 23,0 | 3,2 | |
| 35 158 10 08 | 10 | 8 | 9,3 | 18,4 | 27,9 | 4,2 | |
| 35 158 10 00 | 10 | 10 | 9,0 | 17,0 | 26,4 | 4,2 | |
| 35 158 12 10 | 12 | 10 | 10,0 | 21,0 | 29,9 | 4,2 | |
| 35 158 12 00 | 12 | 12 | 10,0 | 20,0 | 28,9 | 4,2 | |

Serie 35 508

T-Steckanschlüsse
Plug-in-T



| Artikel Nr. / Ordering code | ØD | ØC | ØB | ØA | L | L1 | L2 |
|--------------------------------|----|----|------|----|------|------|------|
| 35 508 04 00 | 4 | 3 | 9,5 | 4 | 17,2 | 20,8 | 16,7 |
| 35 508 06 00 | 6 | 5 | 11,5 | 6 | 20,8 | 24,3 | 19,5 |
| 35 508 08 00 | 8 | 7 | 13,5 | 8 | 23,0 | 27,3 | 21,0 |
| 35 508 10 00 | 10 | 9 | 17,0 | 10 | 26,4 | 31,8 | 24,0 |
| 35 508 12 00 | 12 | 10 | 20,0 | 12 | 28,9 | 36,0 | 25,0 |

Steckanschlüsse, Kunststoff

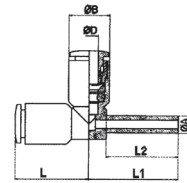
Push-In fittings, synthetic

L-Steckanschlüsse

Plug-in-L

| Artikel Nr. / Ordering code | ØD | ØB | ØA | L | L1 | L2 | |
|--------------------------------|----|------|----|------|------|------|--|
| 35 518 04 00 | 4 | 9,5 | 4 | 17,2 | 20,8 | 16,7 | |
| 35 518 06 00 | 6 | 11,5 | 6 | 20,8 | 24,3 | 19,5 | |
| 35 518 08 00 | 8 | 13,5 | 8 | 23,0 | 27,3 | 21,0 | |
| 35 518 10 00 | 10 | 17,0 | 10 | 26,4 | 31,8 | 24,0 | |
| 35 518 12 00 | 12 | 20,0 | 12 | 28,9 | 36,0 | 25,0 | |

Serie 35 518

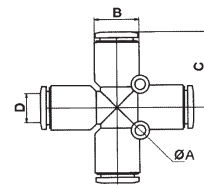


Kreuzverbinder

Cross connector

| Artikel Nr. / Ordering code | D | B | ØA | C | | |
|--------------------------------|----|------|-----|------|--|--|
| 35 528 04 00 | 4 | 11,3 | 3,2 | 19,0 | | |
| 35 528 06 00 | 6 | 12,9 | 3,2 | 19,6 | | |
| 35 528 08 00 | 8 | 14,9 | 3,2 | 22,5 | | |
| 35 528 10 00 | 10 | 18,5 | 4,3 | 28,5 | | |

Serie 35 528

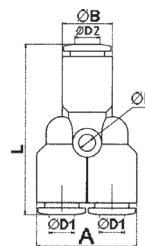


Y-Anschlüsse

Y-connector

| Artikel Nr. / Ordering code | ØD1 | ØD2 | ØE | ØB | L | A |
|--------------------------------|-----|-----|-----|------|------|------|
| 35 168 04 00 | 4 | 4 | 2,4 | 9,5 | 33,0 | 19,0 |
| 35 168 04 06 | 4 | 6 | 2,4 | 11,5 | 35,8 | 19,0 |
| 35 168 06 00 | 6 | 6 | 2,6 | 11,5 | 38,6 | 23,0 |
| 35 168 06 08 | 6 | 8 | 3,2 | 13,5 | 39,8 | 23,0 |
| 35 168 08 00 | 8 | 8 | 2,8 | 16,5 | 42,5 | 27,0 |
| 35 168 08 10 | 8 | 10 | 3,2 | 17,0 | 44,4 | 27,0 |
| 35 168 10 00 | 10 | 10 | 4,3 | 20,0 | 50,8 | 34,0 |
| 35 168 10 12 | 10 | 12 | 4,3 | 20,0 | 50,8 | 34,0 |
| 35 168 12 00 | 12 | 12 | 4,2 | 20,0 | 53,2 | 40,0 |

Serie 35 168

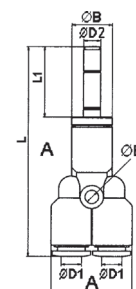


Y-Steckanschlüsse

Plug-in-Y

| Artikel Nr. / Ordering code | ØD1 | ØD2 | ØE | ØB | L | L1 | A |
|--------------------------------|-----|-----|-----|------|------|------|------|
| 35 538 04 00 | 4 | 4 | 2,4 | 9,5 | 50,0 | 16,7 | 19,0 |
| 35 538 06 00 | 6 | 6 | 2,6 | 11,5 | 58,1 | 19,5 | 23,0 |
| 35 538 08 00 | 8 | 8 | 2,8 | 13,5 | 63,5 | 21,0 | 27,0 |
| 35 538 10 00 | 10 | 10 | 4,3 | 17,0 | 74,8 | 24,0 | 34,0 |
| 35 538 12 00 | 12 | 12 | 4,2 | 20,0 | 78,2 | 25,0 | 40,0 |

Serie 35 538

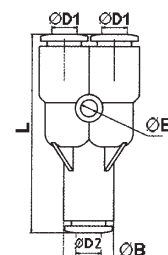


Y-Anschlüsse 4-fach

Double-Y

| Artikel Nr. / Ordering code | ØD1 | ØD2 | ØE | ØB | L | |
|--------------------------------|-----|-----|-----|------|------|--|
| 35 548 04 00 | 4 | 4 | 3,2 | 9,5 | 34,5 | |
| 35 548 04 06 | 4 | 6 | 3,2 | 13,0 | 35,5 | |
| 35 548 06 00 | 6 | 6 | 3,2 | 11,5 | 39,6 | |
| 35 548 06 08 | 6 | 8 | 3,2 | 13,5 | 41,8 | |
| 35 548 08 00 | 8 | 8 | 3,5 | 15,0 | 42,0 | |
| 35 548 08 10 | 8 | 10 | 3,2 | 17,0 | 46,5 | |

Serie 35 548

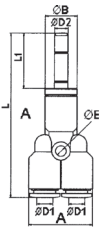


Steckanschlüsse, Kunststoff

Push-In fittings, synthetic

Serie 35 558

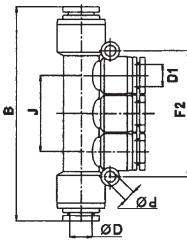
Y-Steckanschlüsse 4-fach
Double-Y plug-in



| Artikel Nr. / Ordering code | ØD1 | ØD2 | ØE | ØB | L | L1 | A |
|--------------------------------|-----|-----|-----|------|------|------|------|
| 35 558 04 00 | 4 | 4 | 2,4 | 9,5 | 51,2 | 16,7 | 19,0 |
| 35 558 06 00 | 6 | 6 | 2,6 | 11,5 | 59,1 | 19,5 | 23,0 |
| 35 558 08 00 | 8 | 8 | 2,8 | 13,5 | 67,5 | 21,0 | 27,0 |

Serie 35 488

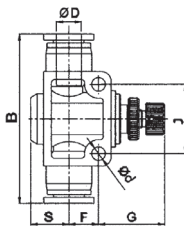
T-Verteiler 3-fach
Triple Branch



| Artikel Nr. / Ordering code | ØD | D1 | J | B | Ød | F2 |
|--------------------------------|----|----|------|------|-----|------|
| 35 488 06 04 | 6 | 4 | 22,0 | 58,0 | 3,2 | 36,0 |
| 35 488 08 04 | 8 | 4 | 26,0 | 63,4 | 3,2 | 42,0 |
| 35 488 08 06 | 8 | 6 | 26,0 | 63,4 | 3,2 | 42,0 |
| 35 488 10 06 | 10 | 6 | 29,0 | 83,8 | 4,2 | 48,0 |
| 35 488 10 08 | 10 | 8 | 29,0 | 83,8 | 4,2 | 48,0 |

Serie 36 008

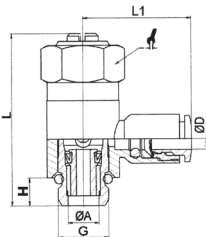
Drosselrückschlagventile für Leitungseinbau
Unidirectional flow regulators, in-line, manually adjustable




| Artikel Nr. / Ordering code | ØD | B | G | F | S | Ød | J |
|--------------------------------|----|------|------|------|------|-----|------|
| 36 008 04 00 | 4 | 40,5 | 14,4 | 6,5 | 6,5 | 3,2 | 14,0 |
| 36 008 06 00 | 6 | 48,7 | 25,3 | 8,5 | 11,0 | 4,3 | 20,0 |
| 36 008 08 00 | 8 | 54,4 | 25,1 | 9,5 | 12,0 | 4,3 | 22,0 |
| 36 008 10 00 | 10 | 64,3 | 28,8 | 10,5 | 12,5 | 4,3 | 26,0 |
| 36 008 12 00 | 12 | 74,6 | 26,1 | 13,0 | 16,0 | 4,3 | 32,0 |

Serie 36 018

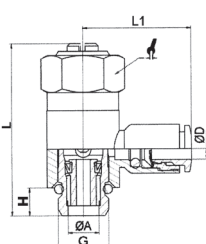
Drosselrückschlagventile, Abluft, einstellbar mit Werkzeug
Unidirectional out flow regulators, adjustable with tool




| Artikel Nr. / Ordering code | ØD | G | ØA | H | L1 | L |  |
|--------------------------------|----|-------|-----|-----|------|------|---|
| 36 018 04 10 | 4 | G1/8" | 5,0 | 4,0 | 21,1 | 34,0 | 14 |
| 36 018 06 10 | 6 | G1/8" | 5,0 | 5,5 | 24,3 | 34,0 | 14 |
| 36 018 06 13 | 6 | G1/4" | 6,0 | 6,5 | 25,5 | 42,0 | 17 |
| 36 018 08 10 | 8 | G1/8" | 5,0 | 5,5 | 24,8 | 34,0 | 14 |
| 36 018 08 13 | 8 | G1,4" | 6,0 | 6,5 | 26,5 | 42,0 | 17 |
| 36 018 10 13 | 10 | G1/4" | 6,0 | 6,5 | 28,4 | 42,0 | 17 |

Serie 36 028

Drosselrückschlagventile, Zuluft, einstellbar mit Werkzeug
Unidirectional in flow regulators, adjustable with tools




| Artikel Nr. / Ordering code | ØD | G | ØA | H | L1 | L |  |
|--------------------------------|----|-------|-----|-----|------|------|---|
| 36 028 04 10 | 4 | G1/8" | 5,0 | 5,5 | 21,1 | 34,0 | 14 |
| 36 028 06 10 | 6 | G1/8" | 5,0 | 5,5 | 24,3 | 34,0 | 14 |
| 36 028 06 13 | 6 | G1/4" | 6,0 | 6,5 | 25,5 | 42,0 | 17 |
| 36 028 08 10 | 8 | G1/8" | 5,0 | 5,5 | 24,8 | 34,0 | 14 |
| 36 028 08 13 | 8 | G1/4" | 6,0 | 6,5 | 26,5 | 42,0 | 17 |
| 36 028 10 13 | 10 | G1/4" | 6,0 | 6,5 | 28,4 | 42,0 | 17 |

Steckanschlüsse, Kunststoff

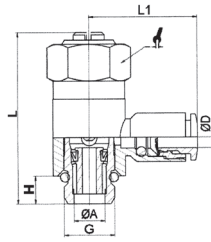
Push-In fittings, synthetic

Drosselventile, einstellbar mit Werkzeug

Bidirectional flow regulators, adjustable with tool


| Artikel Nr. / Ordering code | ØD | G | ØA | H | L1 | L |  |
|--------------------------------|----|-------|-----|-----|------|------|---|
| 36 038 04 10 | 4 | G1/8" | 5,0 | 4,0 | 21,1 | 34,0 | 14 |
| 36 038 06 10 | 6 | G1/8" | 5,0 | 5,5 | 24,3 | 34,0 | 14 |
| 36 038 06 13 | 6 | G1/4" | 6,0 | 6,5 | 25,5 | 42,0 | 17 |
| 36 038 08 10 | 8 | G1/8" | 5,0 | 5,5 | 24,8 | 34,0 | 14 |
| 36 038 08 13 | 8 | G1/4" | 6,0 | 6,5 | 26,5 | 42,0 | 17 |
| 36 038 10 13 | 10 | G1/4" | 6,0 | 6,5 | 28,4 | 42,0 | 17 |
| | | | | | | | |
| | | | | | | | |

Serie 36 038

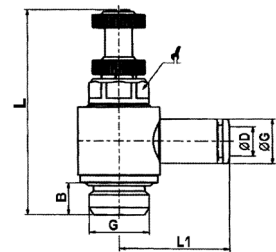


Drosselrückschlagventile, Abluft, einstellbar von Hand

Unidirectional out flow regulators, manually adjustable


| Artikel Nr. / Ordering code | ØD | ØG | B | L | L1 |  |
|--------------------------------|----|-------|-----|------|------|---|
| 36 048 04 10 | 4 | G1/8" | 5,5 | 43,0 | 21,1 | 9 |
| 36 048 06 10 | 6 | G1/8" | 5,5 | 43,0 | 24,3 | 9 |
| 36 048 06 13 | 6 | G1/4" | 6,5 | 50,0 | 25,5 | 12 |
| 36 048 08 10 | 8 | G1/8" | 5,5 | 43,0 | 24,8 | 9 |
| 36 048 08 13 | 8 | G1/4" | 6,5 | 50,0 | 26,5 | 12 |
| 36 048 10 13 | 10 | G1/4" | 6,5 | 50,0 | 28,4 | 12 |
| | | | | | | |
| | | | | | | |

Serie 36 048

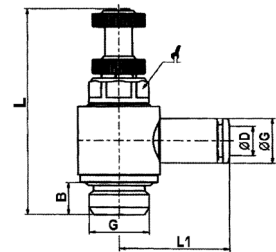


Drosselschlagventile, Zuluft, einstellbar von Hand

Unidirectional in flow regulators, manually adjustable


| Artikel Nr. / Ordering code | ØD | ØG | B | L | L1 |  |
|--------------------------------|----|-------|-----|------|------|---|
| 36 058 04 10 | 4 | G1/8" | 5,5 | 43,0 | 21,1 | 9 |
| 36 058 06 10 | 6 | G1/8" | 5,5 | 43,0 | 24,3 | 9 |
| 36 058 06 13 | 6 | G1/4" | 6,5 | 50,0 | 25,5 | 12 |
| 36 058 08 10 | 8 | G1/8" | 5,5 | 43,0 | 24,8 | 9 |
| 36 058 08 13 | 8 | G1/4" | 6,5 | 50,0 | 26,5 | 12 |
| 36 058 10 13 | 10 | G1/4" | 6,5 | 50,0 | 28,4 | 12 |
| | | | | | | |
| | | | | | | |

Serie 36 058

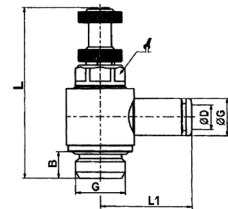


Drosselventile, einstellbar von Hand

Bidirectional flow regulators, manually adjustable

| Artikel Nr. / Ordering code | ØD | ØG | B | L | L1 |  |
|--------------------------------|----|-------|-----|------|------|---|
| 36 068 04 10 | 4 | G1/8" | 5,5 | 43,0 | 21,1 | 9 |
| 36 068 06 10 | 6 | G1/8" | 5,5 | 43,0 | 24,3 | 9 |
| 36 068 06 13 | 6 | G1/4" | 6,5 | 50,0 | 25,5 | 12 |
| 36 068 08 10 | 8 | G1/8" | 5,5 | 43,0 | 24,8 | 9 |
| 36 068 08 13 | 8 | G1/4" | 6,5 | 50,0 | 26,5 | 12 |
| 36 068 10 13 | 10 | G1/4" | 6,5 | 50,0 | 28,4 | 12 |
| | | | | | | |
| | | | | | | |

Serie 36 068



Installationssteckanschlüsse, Messing

Installation Push-In fittings, brass

Allgemeine Informationen

General information

Einleitung / Introduction

Das Programm der Installationssteckanschlüsse wurde für den Einsatz in der Pneumatik für Druckluft und Vakuum konzipiert. Es hat sich seitdem über viele Jahre hinweg bewährt und ist für Anwendungen in Industrie und Handwerk unentbehrlich. Sie sind auch für Heizungs- und Sanitäranlagen geeignet. Die Installationssteckanschlüsse erlauben eine schnelle Montage und Demontage und gewährleisten eine optimale Abdichtung des Rohres. Durch ihre geringen Einbaumasse sind sie auch unter beengten Platzverhältnissen einsetzbar.

The programme of installation Push-In fittings was designed for implementation in pneumatics for compressed air and vacuum. Since then, it has proven itself over many years and is essential for industrial and trade applications. They can also be used for heating and sanitary systems. The installation Push-In fittings allow quick assembly and dismantling and ensure the optimum sealing of the pipe. Due to their small installation dimensions, they can easily be implemented where space is limited.



Installationssteckanschlüsse, Messing

Installation Push-In fittings, brass

Allgemeine Informationen

General information

Serie 02

Technische Daten / Technical Data

Temperaturbereich / Temperature range -20°C...+120°C

Kunststoffummanteltes Rohr / Pipe, plastic-coated

Max. Betriebsdruck
Max. operating pressure 25°C: 12 bar 90°C: 5 bar

Kupferrohr, roh, teilgeglüht oder gegläht (EN 1057) / Cooper pipe (EN 1057)

Max. Betriebsdruck
Max. operating pressure 25°C: 20 bar 90°C: 10 bar

Medium
Fluid Druckluft, Vakuum, Wasser
(andere Medien auf Anfrage)
Compressed air, vacuum, water
(other fluids on request)

Gewinde
Threading ISO 7/1

Werkstoff / Material

Haltemutter
End adapter Poyamid GRIVORY GV-SH
Polyamide GRIVORY GV-SH

Lösebuchse
Release collar Poyamid GRIVORY GV-SH
Polyamide GRIVORY GV-SH

Zahnscheibe
Fastening ring Edelstahl AISI 301
Stainless steel AISI 301

Distanzstück
Spacer GRILON TSS/4
GRILON TSS/4

O-Ring
O-Ring EPDM
EPDM

Körper
Body Messing CW625N
Brass CW625N

Auf Anfrage auch in chemisch vernickeltem Messing erhältlich!
On request also available in chemically nickel-plated brass!

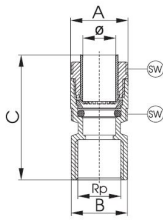
Installationssteckanschlüsse, Messing

Installation Push-In fittings, brass

Serie 02 011

Gerade Aufschraubanschlüsse

Female connector

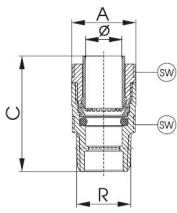


| Artikel Nr. / Ordering code | Ø | G | A | B | C | | ↗ |
|--------------------------------|----|-------|------|------|------|--|----|
| 02 011 12 17 | 12 | G3/8" | 23,0 | 20,5 | 51,0 | | 20 |
| 02 011 15 21 | 15 | G1/2" | 26,0 | 24,5 | 54,5 | | 24 |
| 02 011 18 27 | 18 | G3/4" | 31,5 | 26,5 | 59,6 | | 32 |
| 02 011 22 27 | 22 | G3/4" | 36,0 | 30,5 | 60,9 | | 32 |
| 02 011 28 34 | 28 | G1" | 43,7 | 37,5 | 69,5 | | 40 |

Serie 02 021

Gerade Einschraubanschlüsse

Male connector

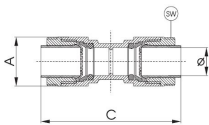


| Artikel Nr. / Ordering code | Ø | G | A | C | | ↗ |
|--------------------------------|----|-------|------|------|--|----|
| 02 021 12 17 | 12 | G3/8" | 23,0 | 40,0 | | 20 |
| 02 021 15 21 | 15 | G1/2" | 26,0 | 44,8 | | 24 |
| 02 021 18 21 | 18 | G1/2" | 31,5 | 55,6 | | 24 |
| 02 021 22 27 | 22 | G3/4" | 36,0 | 59,4 | | 32 |
| 02 021 28 34 | 28 | G1" | 43,7 | 65,8 | | 40 |

Serie 02 031

Gerade Verbindungsanschlüsse

Straight connector

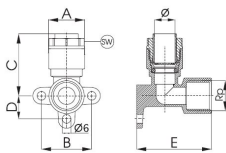


| Artikel Nr. / Ordering code | Ø | A | C | | ↗ |
|--------------------------------|----|------|------|--|----|
| 02 031 12 00 | 12 | 23,0 | 72,0 | | 20 |
| 02 031 15 00 | 15 | 26,0 | 72,0 | | 24 |
| 02 031 18 00 | 18 | 31,5 | 81,2 | | 24 |
| 02 031 22 00 | 22 | 36,0 | 83,8 | | 32 |
| 02 031 28 00 | 28 | 43,7 | 91,0 | | 40 |

Serie 02 041

Wandscheibe mit Innengewinde

Female wall plate connector

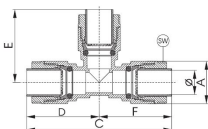


| Artikel Nr. / Ordering code | Ø | G | A | B | C | D | E | ↗ |
|--------------------------------|----|-------|------|------|------|------|------|----|
| 02 041 12 17 | 12 | G3/8" | 23,0 | 35,0 | 42,0 | 16,0 | 47,0 | 20 |
| 02 041 15 21 | 15 | G1/2" | 26,0 | 35,0 | 43,4 | 16,0 | 53,0 | 24 |
| 02 041 22 27 | 22 | G3/4" | 36,0 | 40,0 | 52,9 | 18,0 | 65,0 | 32 |

Serie 02 051

T-Anschlüsse

T-connector



| Artikel Nr. / Ordering code | Ø | A | C | D | E | F | ↗ |
|--------------------------------|----|------|-------|------|------|------|----|
| 02 051 12 00 | 12 | 23,0 | 84,0 | 42,0 | 42,0 | 42,0 | 20 |
| 02 051 15 00 | 15 | 26,0 | 86,8 | 43,4 | 43,4 | 43,4 | 24 |
| 02 051 22 00 | 22 | 36,0 | 105,8 | 52,9 | 52,9 | 52,9 | 32 |
| 02 051 28 00 | 28 | 43,7 | 119,0 | 59,5 | 59,5 | 59,5 | 40 |

Installationssteckanschlüsse, Messing

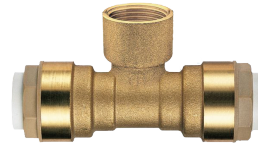
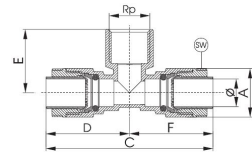
Installation Push-In fittings, brass

T-Aufschraubanschlüsse

Female T-connector

| Artikel Nr. / Ordering code | Ø | G | A | C | D | E | F | |
|--------------------------------|----|-------|------|-------|------|------|------|----|
| 02 061 12 17 | 12 | G3/8" | 23,0 | 84,0 | 42,0 | 28,5 | 42,0 | 20 |
| 02 061 15 21 | 15 | G1/2" | 26,0 | 86,8 | 43,4 | 33,0 | 43,4 | 24 |
| 02 061 22 27 | 22 | G3/4" | 36,0 | 105,8 | 52,9 | 40,0 | 52,9 | 32 |
| 02 061 28 34 | 28 | G1" | 43,7 | 119,0 | 59,5 | 47,2 | 59,5 | 40 |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

Serie 02 061

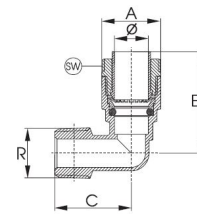


Winkeleinschraubanschlüsse

Male elbow

| Artikel Nr. / Ordering code | Ø | G | A | C | E | | |
|--------------------------------|----|-------|------|------|------|--|----|
| 02 071 12 17 | 12 | G3/8" | 23,0 | 28,0 | 42,0 | | 20 |
| 02 071 15 21 | 15 | G1/2" | 26,0 | 33,0 | 43,4 | | 24 |
| 02 071 22 27 | 22 | G3/4" | 36,0 | 40,0 | 52,9 | | 32 |
| 02 071 28 34 | 28 | G1" | 43,7 | 45,9 | 59,5 | | 40 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Serie 02 071

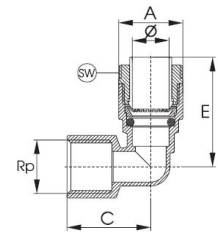


Winkelaufschraubanschlüsse

Female elbow

| Artikel Nr. / Ordering code | Ø | G | A | C | E | | |
|--------------------------------|----|-------|------|------|------|--|----|
| 02 081 12 17 | 12 | G3/8" | 23,0 | 28,5 | 42,0 | | 20 |
| 02 081 15 21 | 15 | G1/2" | 26,0 | 33,0 | 43,4 | | 24 |
| 02 081 22 27 | 22 | G3/4" | 36,0 | 40,0 | 52,9 | | 32 |
| 02 081 28 34 | 28 | G1" | 43,7 | 47,2 | 59,5 | | 40 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Serie 02 081

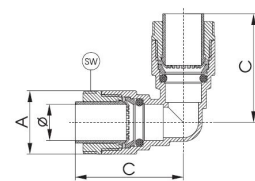


Winkelanschlüsse

Elbow connector

| Artikel Nr. / Ordering code | Ø | A | C | | |
|--------------------------------|----|------|------|--|----|
| 02 091 12 00 | 12 | 23,0 | 42,0 | | 20 |
| 02 091 15 00 | 15 | 26,0 | 43,4 | | 24 |
| 02 091 22 00 | 22 | 36,0 | 52,9 | | 32 |
| 02 091 28 00 | 28 | 43,7 | 59,5 | | 40 |
| | | | | | |
| | | | | | |
| | | | | | |

Serie 02 091

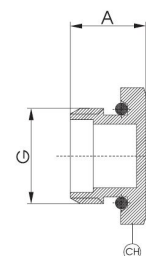


Endstopfen mit O-Ring

External hexagon head plug with O-Ring

| Artikel Nr. / Ordering code | G | A | | |
|--------------------------------|-------|------|--|----|
| 02 111 00 17 | G3/8" | 15,5 | | 20 |
| 02 111 00 21 | G1/2" | 16,5 | | 23 |
| 02 111 00 27 | G3/4" | 17,5 | | 24 |
| 02 111 00 34 | G1" | 18,5 | | 24 |
| | | | | |
| | | | | |
| | | | | |

Serie 02 111

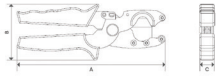


Werkzeuge für Installationssteckanschlüsse

Tools for installation Push-In fittings

Serie 02 130

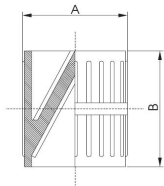
Rohrschneider
Shear for multilayer and PEX pipes



| Artikel Nr. / Ordering code | A | B | C | | | | Ø |
|--------------------------------|-------|------|------|--|--|--|-------|
| 02 130 00 00 | 196,5 | 73,3 | 19,0 | | | | 12-25 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Serie 02 146

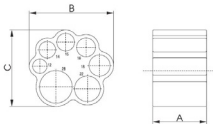
Rohrgrater für das innere und äußere Entgraten
Pipe deburring tool



| Artikel Nr. / Ordering code | A | B | | | | Ø |
|--------------------------------|------|------|--|--|--|------|
| 02 146 00 00 | 52,0 | 57,0 | | | | 3-35 |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

Serie 02 156

Tiefenschablone
Depth gauge



| Artikel Nr. / Ordering code | A | B | C | | | Ø |
|--------------------------------|------|------|------|--|--|-------|
| 02 156 00 00 | 47,0 | 74,0 | 67,0 | | | 12-28 |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

Serie 02 226

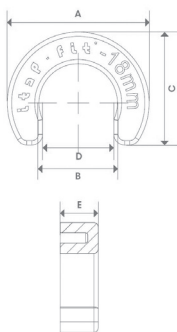
Rohrclip
Pipe clip



| Artikel Nr. / Ordering code | Ø | G | | | | |
|--------------------------------|----|----|--|--|--|--|
| 02 226 12 00 | 12 | M6 | | | | |
| 02 226 15 00 | 15 | M6 | | | | |
| 02 226 22 00 | 22 | M6 | | | | |
| 02 226 28 00 | 28 | M6 | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

Serie 02 586

Lösewerkzeug
Disconnecting clip



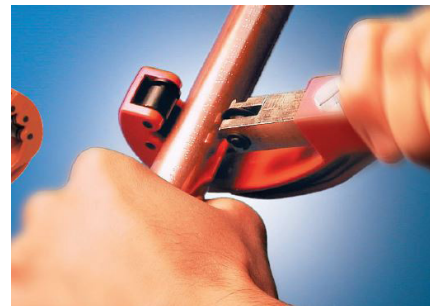
| Artikel Nr. / Ordering code | Größe/ Size | A | B | C | D | E | |
|--------------------------------|----------------|------|------|------|------|------|--|
| 02 586 12 00 | 12 | 26,2 | 12,2 | 21,0 | 11,0 | 8,5 | |
| 02 586 14 00 | 14 | 29,0 | 14,2 | 23,0 | 12,9 | 8,5 | |
| 02 586 15 00 | 15 | 30,0 | 15,2 | 24,0 | 13,7 | 8,5 | |
| 02 586 16 00 | 16 | 31,0 | 16,2 | 25,1 | 14,6 | 8,5 | |
| 02 586 18 00 | 18 | 32,9 | 18,2 | 26,2 | 16,5 | 9,0 | |
| 02 586 20 00 | 20 | 34,0 | 20,2 | 27,2 | 18,6 | 9,5 | |
| 02 586 22 00 | 22 | 37,2 | 22,2 | 29,8 | 20,1 | 9,5 | |
| 02 586 25 00 | 25 | 40,0 | 25,2 | 32,6 | 22,7 | 10,0 | |
| 02 586 28 00 | 28 | 44,0 | 28,2 | 35,2 | 25,5 | 10,0 | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Werkzeuge für Installationssteckanschlüsse

Tools for installation Push-In fittings

Zuschneiden des Rohres

Zunächst muss das Rohr mit dem Rohrschneider (Art. 02 130) abgeschnitten werden. Der Gebrauch von Säen ist nicht zulässig. Sollte das Rohrende verformt sein, muss das Rohr so weit gekürzt werden, bis das Ende bzw. die Oberfläche keine Defekte aufweist. Bei einem Kunststoffummanteltem Rohr muss das Isoliermaterial bis auf die für das Einfügen des Anschlusses erforderliche Länge entfernt werden.



Entgraten

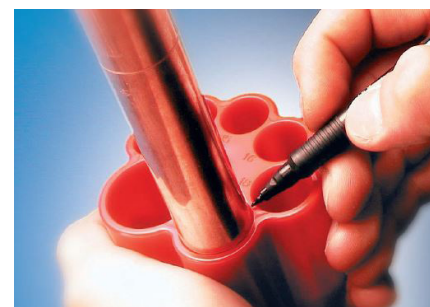
Der nächste Schritt besteht im Entgraten des Rohres. Das Rohr wird mit dem Entgrater (Art. 02 146) innen und außen entgratet, um eine Beschädigung der Dichtungen zu vermeiden.



Messen der Einstecktiefe

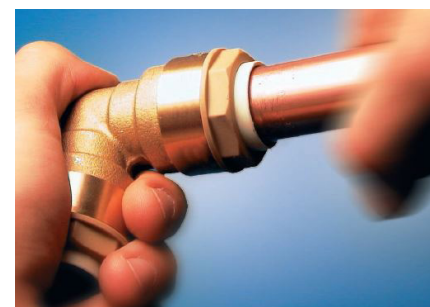
Jetzt muss das für die Verbindung vorbereitete Rohr in die Tiefenlehre (Art. 02 156) eingesteckt und am Rohr die erforderliche Einstecktiefe gekennzeichnet werden.

Dadurch wird sichergestellt, dass bei der späteren Montage die korrekte Einstecktiefe des Rohres in den Anschluß und damit die Dichtigkeit des Systems gewährleistet ist.



Einstecken des Rohres

Den sauberen Anschluß bis zur Markierung auf das Rohr aufstecken.



Lösen der Verbindung

Das Lösen des Anschlusses erfolgt einfach, schnell und hat keine negativen Folgen für Rohr oder Anschluß. Beide können erneut verwendet werden, ohne das weitere Arbeiten erforderlich sind. Um das Rohr vom Anschluß zu lösen, wird mit dem Lösewerkzeug (Art. 02 586) auf den vorstehenden Teil der Lösebuchse gedrückt und das Rohr herausgezogen. Wichtig ist hierbei, dass die Lösebuchse tief genug eingedrückt wird, damit die Zahnscheibe ausreichend weit von der Rohroberfläche entfernt wird. Sollte das Rohr klemmen oder die Verbindung an einer für das Lösewerkzeug unzugänglichen Position platziert sein, kann alternativ die Haltemutter demontiert werden. Die Innenteile können dann mit dem Lösewerkzeug vom Rohr getrennt werden.



Standardverschraubungen, Messing vernickelt

Standard fittings, nickel-plated brass

Allgemeine Informationen

General information

Einleitung / Introduction

Das Programm der Messing Standardverschraubungen wurde für den Einsatz in der Pneumatik für Druckluft und Vakuum konzipiert. Es hat sich seitdem über viele Jahre hinweg bewährt und ist für Anwendungen in Industrie und Handwerk unentbehrlich. Die Standardverschraubungen erlauben eine schnelle Montage und Demontage und gewährleisten einen vollen Rohrdurchgang. Durch ihre geringen Einbaumasse sind sie auch unter beengten Platzverhältnissen einsetzbar.

The programme of brass standard fittings was designed for implementation in pneumatics for compressed air and vacuum. Since then, it has proven itself over many years and is essential in the industrial and craft sector. The standard fittings allow quick assembly and dismantling. Furthermore, they ensure a full pipe channel. Due to their small installation dimensions, they can easily be implemented where space is limited.



Standardverschraubungen, Messing vernickelt

Standard fittings, nickel-plated brass

Allgemeine Informationen

General information

Serie 06

Technische Daten / Technical Data

Max. Betriebsdruck
Max. operating pressure

60 bar

Max. Temperaturbereich
Max. Temperature range

+150°C

Medium
Fluid

Druckluft und Vakuum
(andere Medien auf Anfrage)
Compressed air and vacuum
(other fluids on request)

Gewinde
Threading

Zylindrisch / Cylindrical DIN EN ISO 228
Konisch / Conical DIN EN 10226
Metrisch / Metric DIN ISO 262

Werkstoff / Material

Standardverschraubung
Standard fitting

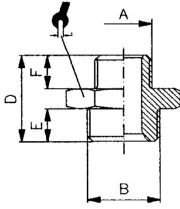
Messing vernickelt
Nickel-plated brass

Standardverschraubungen, Messing vernickelt

Standard fittings, nickel-plated brass

Serie 06 012

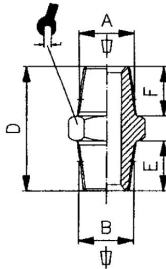
Doppelnippel, zylindrisch Parallel nipple



| Artikel Nr. / Ordering code | A | B | D | E | F | | |
|--------------------------------|-------|-------|------|------|------|--|----|
| 06 012 05 05 | M5 | M5 | 11,5 | 4,0 | 4,0 | | 8 |
| 06 012 05 10 | M5 | G1/8" | 14,5 | 6,0 | 4,0 | | 14 |
| 06 012 10 10 | G1/8" | G1/8" | 16,5 | 6,0 | 6,0 | | 14 |
| 06 012 10 13 | G1/8" | G1/4" | 19,0 | 8,0 | 6,0 | | 17 |
| 06 012 10 17 | G1/8" | G3/8" | 20,0 | 9,0 | 6,0 | | 19 |
| 06 012 13 13 | G1/4" | G1/4" | 21,0 | 8,0 | 8,0 | | 17 |
| 06 012 13 17 | G1/4" | G3/8" | 22,0 | 9,0 | 8,0 | | 19 |
| 06 012 13 21 | G1/4" | G1/2" | 23,5 | 10,0 | 8,0 | | 24 |
| 06 012 17 17 | G3/8" | G3/8" | 23,0 | 9,0 | 9,0 | | 19 |
| 06 012 17 21 | G3/8" | G1/2" | 24,5 | 10,0 | 9,0 | | 24 |
| 06 012 21 21 | G1/2" | G1/2" | 25,5 | 10,0 | 10,0 | | 24 |
| 06 012 21 27 | G1/2" | G3/4" | 27,5 | 11,0 | 10,0 | | 30 |
| 06 012 27 27 | G3/4" | G3/4" | 28,5 | 11,0 | 11,0 | | 30 |
| 06 012 34 34 | G1" | G1" | 35,0 | 14,0 | 14,0 | | 32 |

Serie 06 062

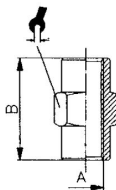
Doppelnippel, konisch Taper nipple



| Artikel Nr. / Ordering code | A | B | D | E | F | | |
|--------------------------------|-------|-------|------|------|------|--|----|
| 06 062 10 10 | R1/8" | R1/8" | 20,0 | 8,0 | 8,0 | | 12 |
| 06 062 10 13 | R1/8" | R1/4" | 24,0 | 11,0 | 8,0 | | 14 |
| 06 062 10 17 | R1/8" | R3/8" | 24,5 | 11,5 | 8,0 | | 17 |
| 06 062 10 21 | R1/8" | R1/2" | 27,5 | 14,0 | 8,0 | | 22 |
| 06 062 13 13 | R1/4" | R1/4" | 27,0 | 11,0 | 11,0 | | 14 |
| 06 062 13 17 | R1/4" | R3/8" | 27,5 | 11,5 | 11,0 | | 17 |
| 06 062 13 21 | R1/4" | R1/2" | 30,5 | 14,0 | 11,0 | | 22 |
| 06 062 17 17 | R3/8" | R3/8" | 28,0 | 11,5 | 11,5 | | 17 |
| 06 062 17 21 | R3/8" | R1/2" | 31,0 | 14,0 | 11,5 | | 22 |
| 06 062 21 21 | R1/2" | R1/2" | 33,5 | 14,0 | 14,0 | | 22 |
| 06 062 21 27 | R1/2" | R3/4" | 37,5 | 16,5 | 14,0 | | 27 |
| 06 062 27 27 | R3/4" | R3/4" | 40,0 | 16,5 | 16,5 | | 27 |
| 06 062 27 34 | R3/4" | R1" | 42,5 | 19,0 | 16,5 | | 34 |
| 06 062 34 34 | R1" | R1" | 45,5 | 19,0 | 19,0 | | 34 |

Serie 06 122

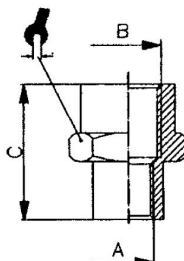
Muffe, zylindrisch Sleeve



| Artikel Nr. / Ordering code | A | B | | | | | |
|--------------------------------|-------|------|--|--|--|--|----|
| 06 122 05 05 | M5 | 11,0 | | | | | 8 |
| 06 122 10 10 | G1/8" | 15,0 | | | | | 14 |
| 06 122 13 13 | G1/4" | 22,0 | | | | | 17 |
| 06 122 17 17 | G3/8" | 23,0 | | | | | 22 |
| 06 122 21 21 | G1/2" | 30,0 | | | | | 26 |
| 06 122 27 27 | G3/4" | 32,0 | | | | | 32 |
| 06 122 34 34 | G1" | 32,0 | | | | | 32 |

Serie 06 121

Reduziermuffe, zylindrisch Reducing sleeve



| Artikel Nr. / Ordering code | A | B | C | | | | |
|--------------------------------|-------|-------|------|--|--|--|----|
| 06 121 05 10 | M5 | G1/8" | 13,5 | | | | 14 |
| 06 121 10 13 | G1/8" | G1/4" | 19,0 | | | | 17 |
| 06 121 10 17 | G1/8" | G3/8" | 20,0 | | | | 22 |
| 06 121 10 21 | G1/8" | G1/2" | 24,0 | | | | 24 |
| 06 121 13 17 | G1/4" | G3/8" | 23,0 | | | | 22 |
| 06 121 13 21 | G1/4" | G1/2" | 25,0 | | | | 24 |
| 06 121 17 21 | G3/8" | G1/2" | 27,5 | | | | 24 |
| 06 121 21 27 | G1/2" | G3/4" | 30,0 | | | | 32 |
| 06 121 21 34 | G1/2" | G1" | 39,0 | | | | 40 |
| 06 121 27 34 | G3/4" | G1" | 41,0 | | | | 40 |

Standardverschraubungen, Messing vernickelt

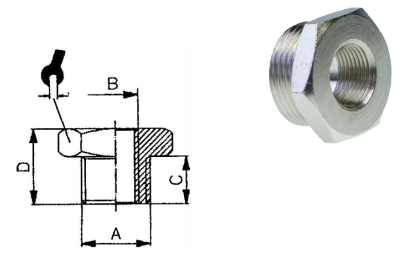
Standard fittings, nickel-plated brass

Reduzierung, zylindrisch

Parallel reducer

Serie 06 162

| Artikel Nr. / Ordering code | A | B | C | D | | | |
|--------------------------------|-------|-------|------|------|--|--|----|
| 06 162 10 05 | G1/8" | M5 | 6,0 | 10,5 | | | 14 |
| 06 162 13 10 | G1/4" | G1/8" | 8,0 | 13,0 | | | 17 |
| 06 162 17 10 | G3/8" | G1/8" | 9,0 | 14,0 | | | 19 |
| 06 162 17 13 | G3/8" | G1/4" | 9,0 | 14,0 | | | 19 |
| 06 162 21 10 | G1/2" | G1/8" | 10,0 | 15,5 | | | 24 |
| 06 162 21 13 | G1/2" | G1/4" | 10,0 | 15,5 | | | 24 |
| 06 162 21 17 | G1/2" | G3/8" | 10,0 | 15,5 | | | 24 |
| 06 162 27 17 | G3/4" | G3/8" | 12,5 | 18,0 | | | 27 |
| 06 162 27 21 | G3/4" | G1/2" | 12,5 | 18,0 | | | 27 |
| 06 162 34 21 | G1" | G1/2" | 11,5 | 18,5 | | | 36 |
| 06 162 34 27 | G1" | G3/4" | 11,5 | 18,5 | | | 36 |

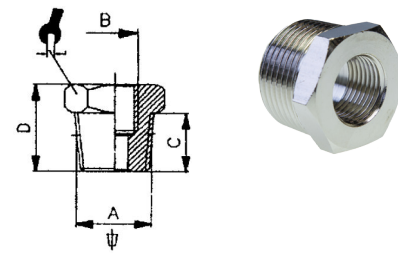


Reduzierung, Innen G-Gewinde, Außen R-Gewinde

Reducer

Serie 06 172

| Artikel Nr. / Ordering code | A | B | C | D | | | |
|--------------------------------|-------|-------|------|------|--|--|----|
| 06 172 13 10 | R1/4" | G1/8" | 11,0 | 16,0 | | | 14 |
| 06 172 17 10 | R3/8" | G1/8" | 11,5 | 16,5 | | | 17 |
| 06 172 17 13 | R3/8" | G1/4" | 11,5 | 16,5 | | | 17 |
| 06 172 21 10 | R1/2" | G1/8" | 14,0 | 19,5 | | | 22 |
| 06 172 21 13 | R1/2" | G1/4" | 14,0 | 19,5 | | | 22 |
| 06 172 21 17 | R1/2" | G3/8" | 14,0 | 19,5 | | | 22 |
| 06 172 27 17 | R3/4" | G3/8" | 16,5 | 23,5 | | | 27 |
| 06 172 27 21 | R3/4" | G1/2" | 16,5 | 23,5 | | | 27 |
| 06 172 34 21 | R1" | G1/2" | 17,0 | 25,0 | | | 34 |
| 06 172 34 27 | R1" | G3/4" | 17,0 | 25,0 | | | 34 |

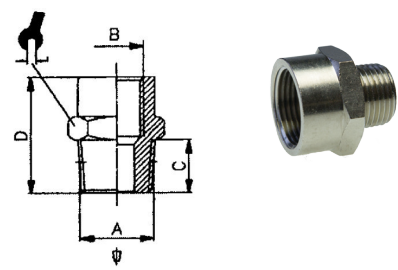


Verlängerung, Innen G-Gewinde, Außen R-Gewinde

Extension

Serie 06 132

| Artikel Nr. / Ordering code | A | B | C | D | | | |
|--------------------------------|-------|-------|------|------|--|--|----|
| 06 132 10 10 | R1/8" | G1/8" | 8,0 | 18,0 | | | 14 |
| 06 132 10 13 | R1/8" | G1/4" | 8,0 | 21,5 | | | 17 |
| 06 132 10 17 | R1/8" | G3/8" | 8,0 | 22,5 | | | 22 |
| 06 132 13 13 | R1/4" | G1/4" | 11,0 | 24,5 | | | 17 |
| 06 132 13 17 | R1/4" | G3/8" | 11,0 | 24,5 | | | 22 |
| 06 132 13 21 | R1/4" | G1/2" | 11,0 | 29,0 | | | 24 |
| 06 132 17 17 | R3/8" | G3/8" | 11,5 | 26,0 | | | 22 |
| 06 132 17 21 | R3/8" | G1/2" | 11,5 | 29,5 | | | 24 |
| 06 132 21 21 | R1/2" | G1/2" | 14,0 | 32,0 | | | 24 |
| 06 132 21 27 | R1/2" | G3/4" | 14,0 | 35,0 | | | 32 |

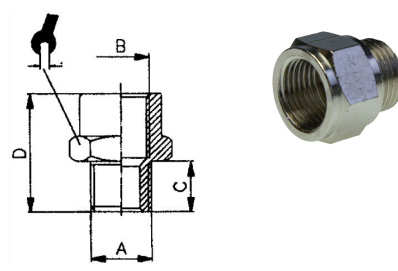


Verlängerung, zylindrisch

Extension

Serie 06 192

| Artikel Nr. / Ordering code | A | B | C | D | | | |
|--------------------------------|-------|-------|------|------|--|--|----|
| 06 192 05 05 | M5 | M5 | 5,0 | 14,0 | | | 8 |
| 06 192 05 10 | M5 | G1/8" | 4,0 | 14,5 | | | 14 |
| 06 192 10 10 | G1/8" | G1/8" | 6,0 | 16,0 | | | 14 |
| 06 192 10 13 | G1/8" | G1/4" | 6,0 | 16,0 | | | 17 |
| 06 192 10 17 | G1/8" | G3/8" | 6,0 | 19,5 | | | 22 |
| 06 192 13 13 | G1/4" | G1/4" | 8,0 | 20,5 | | | 17 |
| 06 192 13 17 | G1/4" | G3/8" | 8,0 | 21,5 | | | 22 |
| 06 192 13 21 | G1/4" | G1/2" | 8,0 | 22,5 | | | 26 |
| 06 192 17 17 | G3/8" | G3/8" | 9,0 | 26,0 | | | 22 |
| 06 192 17 21 | G3/8" | G1/2" | 9,0 | 23,5 | | | 24 |
| 06 192 21 21 | G1/2" | G1/2" | 10,0 | 27,0 | | | 24 |

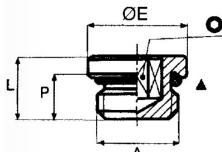


Standardverschraubungen, Messing vernickelt

Standard fittings, nickel-plated brass

Serie 06 572

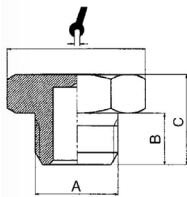
Verschlusschraube mit Innensechskant, zylindrisch
Internal hexagon head plug



| Artikel Nr. / Ordering code | A | P | L | ØE | | | |
|--------------------------------|-------|------|------|------|--|--|-----|
| 06 572 00 05 | M5 | 4,0 | 5,5 | 8,0 | | | 2,5 |
| 06 572 00 10 | G1/8" | 6,0 | 8,0 | 14,0 | | | 4 |
| 06 572 00 13 | G1/4" | 8,0 | 10,0 | 17,0 | | | 6 |
| 06 572 00 17 | G3/8" | 9,0 | 12,0 | 20,0 | | | 8 |
| 06 572 00 21 | G1/2" | 11,0 | 14,0 | 24,0 | | | 10 |

Serie 06 642

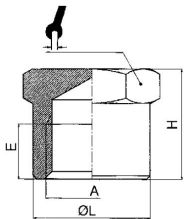
Verschlusschraube, zylindrisch
External hexagon head plug



| Artikel Nr. / Ordering code | A | B | C | | | | |
|--------------------------------|-------|------|------|--|--|--|----|
| 06 642 00 10 | G1/8" | 6,0 | 10,5 | | | | 14 |
| 06 642 00 13 | G1/4" | 8,0 | 13,0 | | | | 17 |
| 06 642 00 17 | G3/8" | 9,0 | 14,0 | | | | 19 |
| 06 642 00 21 | G1/2" | 10,0 | 15,5 | | | | 24 |
| 06 642 00 27 | G3/4" | 11,0 | 16,5 | | | | 30 |
| 06 642 00 34 | G1" | 13,0 | 19,0 | | | | 38 |

Serie 06 582

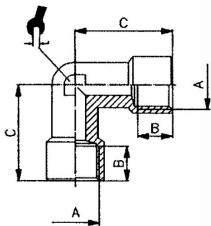
Verschlussstopfen mit Innengewinde, zylindrisch
Female external hexagon head plug



| Artikel Nr. / Ordering code | A | E | H | ØL | | | |
|--------------------------------|-------|------|------|------|--|--|----|
| 06 582 00 10 | G1/8" | 7,0 | 13,0 | 11,8 | | | 12 |
| 06 582 00 13 | G1/4" | 8,0 | 16,0 | 13,8 | | | 14 |
| 06 582 00 17 | G3/8" | 10,0 | 20,0 | 16,8 | | | 17 |
| 06 582 00 21 | G1/2" | 11,0 | 23,5 | 23,8 | | | 24 |

Serie 06 222

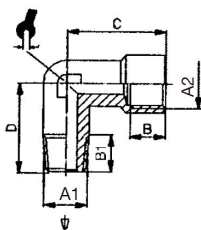
Winkelverschraubung, Innengewinde, zylindrisch
Female elbow



| Artikel Nr. / Ordering code | A | B | C | | | | |
|--------------------------------|-------|------|------|--|--|--|----|
| 06 222 10 10 | G1/8" | 7,0 | 20,0 | | | | 10 |
| 06 222 13 13 | G1/4" | 8,0 | 25,5 | | | | 13 |
| 06 222 17 17 | G3/8" | 10,0 | 29,0 | | | | 17 |
| 06 222 21 21 | G1/2" | 11,0 | 35,0 | | | | 20 |
| 06 222 27 27 | G3/4" | 16,0 | 36,0 | | | | 25 |
| 06 222 34 34 | G1" | 19,0 | 44,0 | | | | 30 |

Serie 06 232

Winkelverschraubung, Innen G-Gewinde / Außen R-Gewinde und M5
Male / female elbow



| Artikel Nr. / Ordering code | A1 | A2 | B | B1 | C | D | |
|--------------------------------|-------|-------|------|------|------|------|----|
| 06 232 05 05 | M5 | M5 | 4,0 | 4,0 | 11,0 | 11,5 | 9 |
| 06 232 10 10 | R1/8" | G1/8" | 7,0 | 8,0 | 20,0 | 19,0 | 10 |
| 06 232 10 13 | R1/8" | G1/4" | 8,0 | 8,0 | 25,5 | 23,0 | 13 |
| 06 232 13 13 | R1/4" | G1/4" | 8,0 | 11,0 | 25,5 | 24,0 | 13 |
| 06 232 17 17 | R3/8" | G3/8" | 10,0 | 11,5 | 29,0 | 26,5 | 17 |
| 06 232 21 21 | R1/2" | G1/2" | 11,0 | 14,0 | 35,0 | 31,5 | 20 |
| 06 232 27 27 | R3/4" | G3/4" | 16,0 | 16,0 | 35,0 | 34,5 | 25 |
| 06 232 34 34 | R1" | G1" | 19,0 | 19,0 | 44,0 | 51,0 | 30 |

Standardverschraubungen, Messing vernickelt

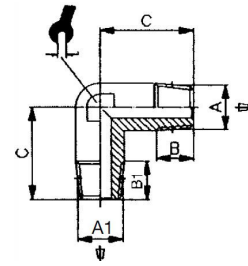
Standard fittings, nickel-plated brass

Winkelverschraubung, konisch

Male elbow

| Artikel Nr. / Ordering code | A | A1 | B | B1 | C | | |
|--------------------------------|-------|-------|------|------|------|--|----|
| 06 242 10 10 | R1/8" | R1/8" | 8,0 | 8,0 | 19,0 | | 10 |
| 06 242 13 13 | R1/4" | R1/4" | 12,5 | 12,5 | 24,0 | | 13 |
| 06 242 17 17 | R3/8" | R3/8" | 13,6 | 13,6 | 26,5 | | 17 |
| 06 242 21 21 | R1/2" | R1/2" | 15,5 | 15,5 | 31,5 | | 20 |
| 06 242 27 27 | R3/4" | R3/4" | 15,0 | 15,0 | 35,5 | | 25 |
| 06 242 34 34 | R1" | R1" | 16,0 | 16,0 | 51,0 | | 30 |

Serie 06 242

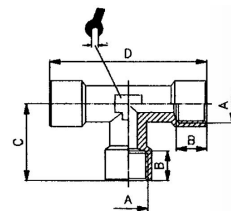


T-Verschraubung, Innengewinde, zylindrisch

Female T-connector

| Artikel Nr. / Ordering code | A | B | C | D | | | |
|--------------------------------|-------|------|------|------|--|--|----|
| 06 332 10 10 | G1/8" | 7,0 | 20,0 | 40,0 | | | 10 |
| 06 332 13 13 | G1/4" | 8,0 | 25,5 | 51,0 | | | 13 |
| 06 332 17 17 | G3/8" | 10,0 | 29,0 | 58,0 | | | 17 |
| 06 332 21 21 | G1/2" | 11,0 | 35,0 | 70,0 | | | 20 |
| 06 332 27 27 | G3/4" | 16,0 | 31,0 | 73,0 | | | 25 |
| 06 332 34 34 | G1" | 19,0 | 49,5 | 90,0 | | | 30 |

Serie 06 332

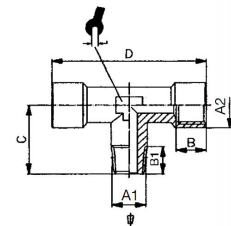


T-Einschraubverschraubung, Innen G-Gewinde, Außen R-Gewinde

T-connector

| Artikel Nr. / Ordering code | A1 | A2 | B | B1 | C | D | | |
|--------------------------------|-------|-------|------|------|------|------|--|----|
| 06 342 10 10 | R1/8" | G1/8" | 7,0 | 8,0 | 19,0 | 40,0 | | 10 |
| 06 342 13 13 | R1/4" | G1/4" | 8,0 | 11,0 | 24,0 | 51,0 | | 13 |
| 06 342 17 17 | R3/8" | G3/8" | 10,0 | 13,6 | 26,5 | 58,0 | | 17 |
| 06 342 21 21 | R1/2" | G1/2" | 11,0 | 15,5 | 31,5 | 72,0 | | 20 |
| 06 342 27 27 | R3/4" | G3/4" | 16,0 | 15,0 | 31,0 | 73,0 | | 25 |
| 06 342 34 34 | R1" | G1" | 19,0 | 16,0 | 38,0 | 90,0 | | 30 |

Serie 06 342

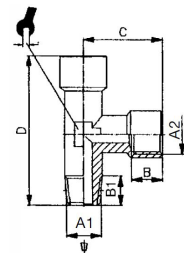


L-Einschraubverschraubung, Innen G-Gewinde, Außen R-Gewinde

L-connector

| Artikel Nr. / Ordering code | A1 | A2 | B | B1 | C | D | | |
|--------------------------------|-------|-------|------|------|------|------|--|----|
| 06 362 10 10 | R1/8" | G1/8" | 7,0 | 8,0 | 20,0 | 39,0 | | 10 |
| 06 362 13 13 | R1/4" | G1/4" | 8,0 | 11,0 | 25,5 | 49,5 | | 13 |
| 06 362 17 17 | R3/8" | G3/8" | 10,0 | 13,6 | 29,0 | 55,5 | | 17 |
| 06 362 21 21 | R1/2" | G1/2" | 11,0 | 15,5 | 35,0 | 65,0 | | 20 |
| 06 362 27 27 | R3/4" | G3/4" | 16,0 | 15,0 | 31,0 | 67,0 | | 25 |
| 06 362 34 34 | R1" | G1" | 19,0 | 16,0 | 44,0 | 84,0 | | 30 |

Serie 06 362

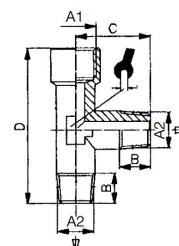


L-Aufschraubverschraubung, Innen G-Gewinde, Außen R-Gewinde

L-connector

| Artikel Nr. / Ordering code | A1 | A2 | B | C | D | | | |
|--------------------------------|-------|-------|------|------|------|--|--|----|
| 06 352 10 10 | G1/8" | R1/8" | 8,0 | 19,0 | 39,0 | | | 10 |
| 06 352 13 13 | G1/4" | R1/4" | 12,5 | 24,0 | 49,5 | | | 13 |
| 06 352 17 17 | G3/8" | R3/8" | 13,6 | 26,5 | 55,5 | | | 17 |
| 06 352 21 21 | G1/2" | R1/2" | 15,5 | 31,5 | 67,5 | | | 20 |
| 03 352 27 27 | G3/4" | R3/4" | 15,0 | 34,5 | 69,0 | | | 25 |
| 06 352 34 34 | G1" | R1" | 16,0 | 38,0 | 84,0 | | | 30 |

Serie 06 352

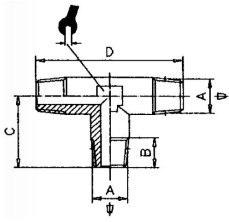


Standardverschraubungen, Messing vernickelt

Standard fittings, nickel-plated brass

Serie 06 322

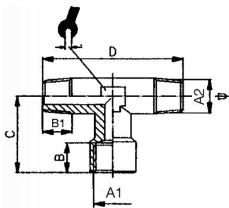
T-Verschraubung, konisch
Male T-connector



| Artikel Nr. / Ordering code | A | B | C | D | | | |
|--------------------------------|-------|------|------|------|--|--|----|
| 06 322 10 10 | R1/8" | 8,0 | 19,0 | 38,0 | | | 10 |
| 06 322 13 13 | R1/4" | 12,5 | 24,0 | 48,0 | | | 13 |
| 06 322 17 17 | R3/8" | 13,6 | 26,5 | 53,0 | | | 17 |
| 06 322 21 21 | R1/2" | 15,5 | 31,5 | 63,0 | | | 20 |
| 06 322 27 27 | R3/4" | 15,0 | 35,5 | 66,0 | | | 25 |
| 06 322 34 34 | R1" | 16,0 | 40,5 | 78,0 | | | 30 |

Serie 06 402

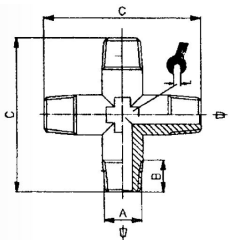
T-Aufschraubverschraubung, Innen G-Gewinde, Außen R-Gewinde
T-connector



| Artikel Nr. / Ordering code | A1 | A2 | B | B1 | C | D | |
|--------------------------------|-------|-------|------|------|------|------|----|
| 06 402 10 10 | G1/8" | R1/8" | 7,0 | 8,0 | 20,0 | 38,0 | 10 |
| 06 402 13 13 | G1/4" | R1/4" | 8,0 | 12,5 | 25,5 | 48,0 | 13 |
| 06 402 17 17 | G3/8" | R3/8" | 10,0 | 13,6 | 29,0 | 53,0 | 17 |
| 06 402 21 21 | G1/2" | R1/2" | 11,0 | 15,5 | 36,0 | 63,0 | 20 |
| 06 402 27 27 | G3/4" | R3/4" | 16,0 | 15,0 | 34,5 | 66,0 | 25 |
| 06 402 34 34 | G1" | R1" | 19,0 | 16,0 | 46,5 | 78,0 | 30 |

Serie 06 432

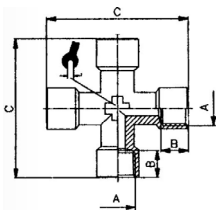
Kreuzverschraubung, Außengewinde, konisch
Male cross connector



| Artikel Nr. / Ordering code | A | B | C | | | | |
|--------------------------------|-------|------|------|--|--|--|----|
| 06 432 10 10 | R1/8" | 8,0 | 38,0 | | | | 10 |
| 06 432 13 13 | R1/4" | 12,5 | 48,0 | | | | 13 |
| 06 432 21 21 | R1/2" | 15,5 | 63,0 | | | | 20 |

Serie 06 442

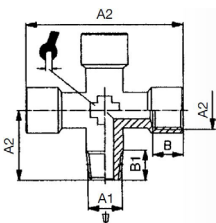
Kreuzverschraubung, zylindrisch
Female cross connector



| Artikel Nr. / Ordering code | A | B | C | | | | |
|--------------------------------|-------|------|------|--|--|--|----|
| 06 442 10 10 | G1/8" | 7,0 | 40,0 | | | | 10 |
| 06 442 13 13 | G1/4" | 8,0 | 51,0 | | | | 13 |
| 06 442 17 17 | G3/8" | 10,0 | 58,0 | | | | 17 |
| 06 442 21 21 | G1/2" | 11,0 | 72,0 | | | | 20 |

Serie 06 422

Kreuz-Einschraubverschraubung, Innen G-Gewinde, Außen R-Gewinde
Cross connector



| Artikel Nr. / Ordering code | A1 | A2 | B | B1 | C | D | |
|--------------------------------|-------|-------|------|------|------|------|----|
| 06 422 10 10 | R1/8" | G1/8" | 7,0 | 8,0 | 19,0 | 40,0 | 10 |
| 06 422 13 13 | R1/4" | G1/4" | 8,0 | 12,5 | 24,0 | 51,0 | 13 |
| 06 422 17 17 | R3/8" | G3/8" | 10,0 | 13,6 | 26,5 | 58,0 | 17 |
| 06 422 21 21 | R1/2" | G1/2" | 11,0 | 15,5 | 31,5 | 72,0 | 20 |

Standardverschraubungen, Messing vernickelt

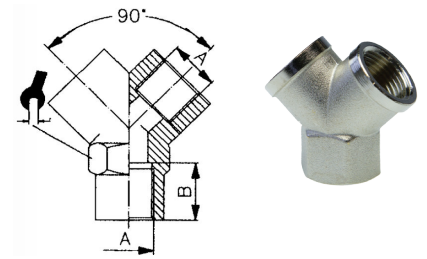
Standard fittings, nickel-plated brass

Y-Verschraubung mit Innengewinde, zylindrisch

Female Y-connector

| Artikel Nr. / Ordering code | A | B | | | | | |
|--------------------------------|-------|------|--|--|--|--|----|
| 06 392 10 10 | G1/8" | 8,0 | | | | | 13 |
| 06 392 13 13 | G1/4" | 11,0 | | | | | 17 |
| 06 392 17 17 | G3/8" | 11,0 | | | | | 20 |
| 06 392 21 21 | G1/2" | 14,0 | | | | | 25 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Serie 06 392

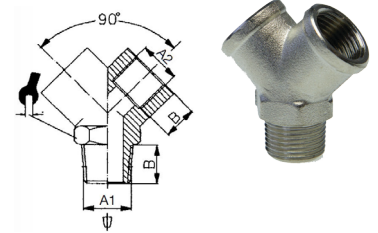


Y-Einschraubverschraubung, Innen G-Gewinde, Außen R-Gewinde

Male / Female Y-connector

| Artikel Nr. / Ordering code | A1 | A2 | B | | | | |
|--------------------------------|-------|-------|------|--|--|--|----|
| 06 382 10 10 | R1/8" | G1/8" | 8,0 | | | | 13 |
| 06 382 13 13 | R1/4" | G1/4" | 11,0 | | | | 17 |
| 06 382 17 17 | R3/8" | G3/8" | 11,5 | | | | 20 |
| 06 382 21 21 | R1/2" | G1/2" | 14,0 | | | | 25 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Serie 06 382

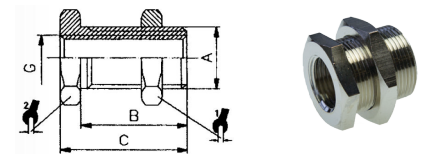


Schottverschraubung, zylindrisch

Bulkhead connector

| Artikel Nr. / Ordering code | G | A | B | C | | | |
|--------------------------------|-------|---------|------|------|--|----|----|
| 06 142 00 05 | M5 | M10x1 | 10,5 | 14,0 | | 14 | 14 |
| 06 142 00 10 | G1/8" | M16x1,5 | 14,0 | 18,0 | | 22 | 19 |
| 06 142 00 13 | G1/4" | M20x1,5 | 21,0 | 25,0 | | 27 | 24 |
| 06 142 00 17 | G3/8" | M26x1,5 | 21,0 | 26,0 | | 32 | 30 |
| 06 142 00 21 | G1/2" | M28x1,5 | 27,0 | 33,0 | | 36 | 32 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Serie 06 142

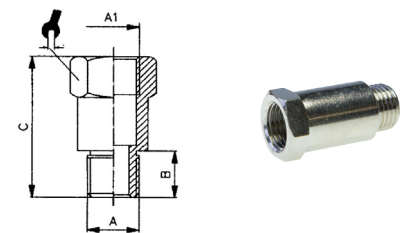


Verlängerung, zylindrisch

Extension

| Artikel Nr. / Ordering code | A | A1 | B | C | | | |
|--------------------------------|-------|-------|-----|------|--|--|----|
| 06 212 10 10 22 | G1/8" | G1/8" | 6,0 | 22,0 | | | 14 |
| 06 212 10 10 32 | G1/8" | G1/8" | 6,0 | 32,0 | | | 14 |
| 06 212 10 10 42 | G1/8" | G1/8" | 6,0 | 42,0 | | | 14 |
| 06 212 10 10 51 | G1/8" | G1/8" | 6,0 | 51,0 | | | 14 |
| 06 212 13 13 28 | G1/4" | G1/4" | 8,0 | 28,0 | | | 17 |
| 06 212 13 13 35 | G1/4" | G1/4" | 8,0 | 35,0 | | | 17 |
| 06 212 13 13 51 | G1/4" | G1/4" | 8,0 | 51,0 | | | 17 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Serie 06 212

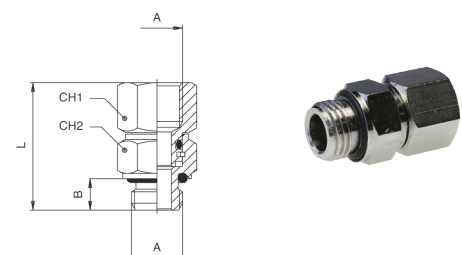


Doppelnippel mit O-Ring, drehbar, zylindrisch

Sleewable parallel nipple with O-Ring

| Artikel Nr. / Ordering code | A | B | CH1 | CH2 | L | | |
|--------------------------------|-------|-----|------|------|------|--|----|
| 06 022 10 10 | G1/8" | 6,0 | 13,0 | 13,0 | 24,5 | | 10 |
| 06 022 13 13 | G1/4" | 8,0 | 16,0 | 16,0 | 31,0 | | 13 |
| 06 022 17 17 | G3/8" | 9,0 | 20,0 | 18,0 | 34,5 | | 17 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Serie 06 022



Max. Betriebsdruck / Max. operating pressure: +15 bar
 Max. Temperaturbereich / Max. temperature range: +80°C

Mini-Kugelhähne

Mini ball valves

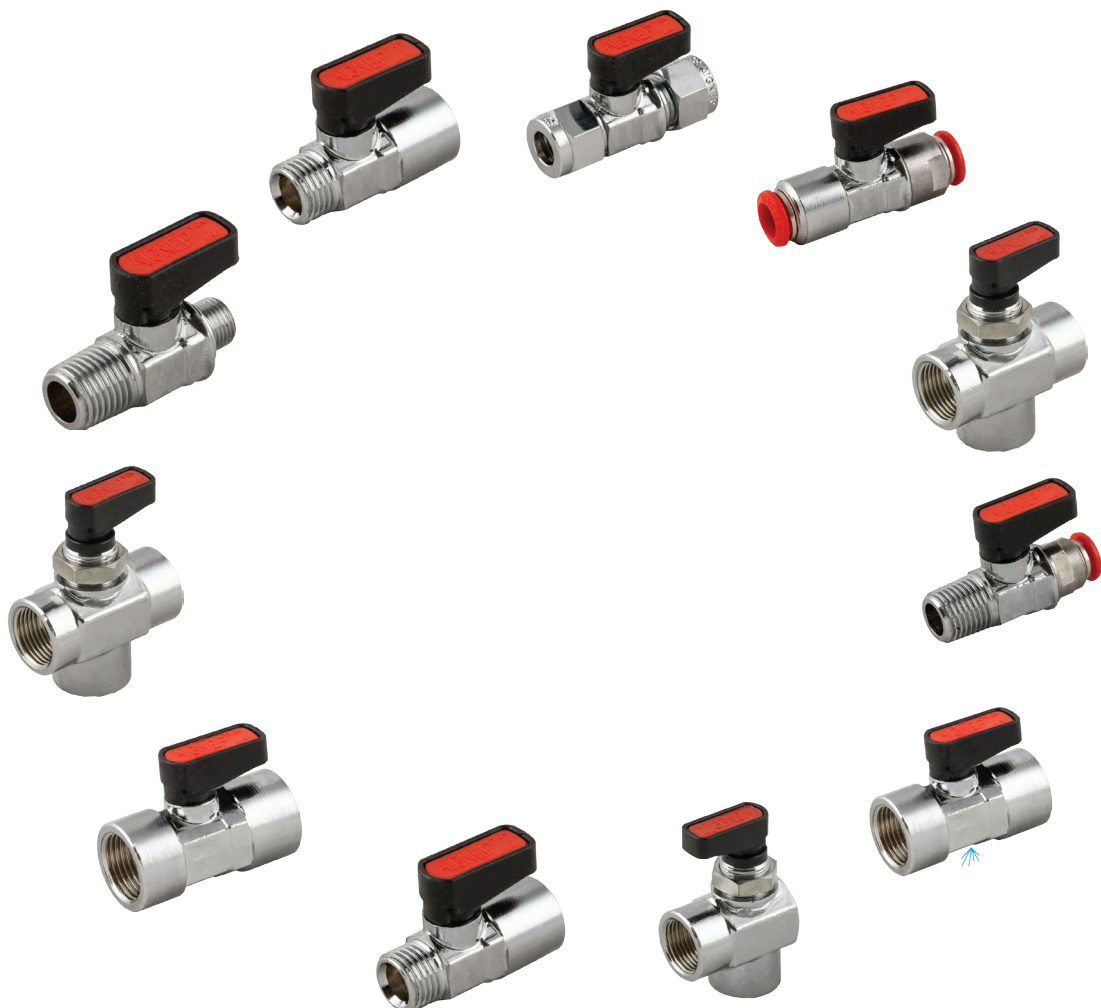
Allgemeine Informationen

General information

Einleitung / Introduction

Das Programm der Mini-Kugelhähne wurde für den Einsatz in der Pneumatik für Druckluft und Vakuum konzipiert. Es hat sich seitdem über viele Jahre hinweg bewährt und ist für Anwendungen in Industrie und Handwerk unentbehrlich. Die Mini-Kugelhähne erlauben eine schnelle Montage und Demontage und gewährleisten einen vollen Rohrdurchgang. Durch ihre geringen Einbaumasse sind sie auch unter beengten Platzverhältnissen einsetzbar.

The programme of mini ball valves was designed for implementation in pneumatics for compressed air and vacuum. Since then, it has proven itself over many years and is essential in the industrial and craft sector. The mini ball valves allow quick assembly and dismantling. Furthermore, they ensure a full pipe channel. Due to their small installation dimensions, they can easily be implemented where space is limited.



Mini-Kugelhähne

Mini ball valves

Allgemeine Informationen

General information

Serie 33

Technische Daten / Technical Data

| | |
|---|---|
| Max. Betriebsdruck Max. operating pressure | 20 bar |
| Temperaturbereich Temperature range | -18°C...+80°C |
| Medium Fluid | Druckluft und Vakuum (andere Medien auf Anfrage) Compressed air and vacuum (other fluids on request) |
| Gewinde Threading | Zylindrisch / Cylindrical DIN EN ISO 228 Konisch / Conical DIN EN 10226 |

Werkstoff / Material

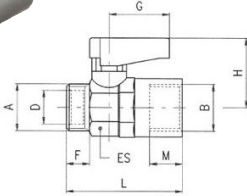
| | |
|----------------------|---|
| Körper / Body | Messing vernickelt und verchromt / chrome-nickel-plated brass |
| Klemmring / Olive | Messing (PTFE auf Anfrage) / Brass (PTFE on request) |
| Überwurfmutter / Nut | Messing vernickelt und verchromt / chrome-nickel-plated brass |
| Sitz / Seat | PTFE |
| Dichtung / Seal | NBR 70 (Viton auf Anfrage) / NBR 70 (Viton on request) |
| Welle / Spindle | Messing vernickelt und verchromt / chrome-nickel-plated brass |
| Griff / Handle | PA66 glasfaserverstärkt / PA66 glass reinforced |
| Griffeinsatz / Plate | PA6 |
| Schraube / Screw | Stahl / Steel |
| Kugel / Ball | Messing vernickelt und verchromt / chrome-nickel-plated brass |
| O-Ring / O-Ring | NBR 70 (Viton auf Anfrage) / NBR 70 (Viton on request) |
| Fitting / Fitting | Messing vernickelt und verchromt / chrome-nickel-plated brass |

Mini-Kugelhähne

Mini ball valves

Serie 33 032

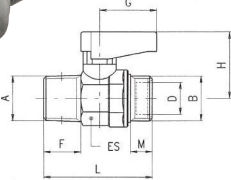
Mini-Kugelhahn, kon. Innengewinde / zyl. Außengewinde
Mini ball valve, taper female / parallel male thread



| Artikel Nr. / Ordering code | A | B | DN | F | M | L | G | H |
|--------------------------------|-------|-------|-----|------|------|------|------|------|
| 33 032 10 10 | R1/8" | R1/8" | 5,5 | 7,0 | 7,4 | 34,5 | 19,0 | 21,0 |
| 33 032 13 10 | R1/4" | R1/4" | 5,5 | 8,0 | 7,4 | 35,5 | 19,0 | 21,0 |
| 33 032 13 13 | R1/4" | R1/4" | 5,5 | 8,0 | 11,0 | 38,0 | 19,0 | 21,0 |
| 33 032 17 17 | R3/8" | R3/8" | 8 | 9,0 | 11,4 | 41,5 | 19,0 | 22,0 |
| 33 032 21 21 | R1/2" | R1/2" | 10 | 10,0 | 15,0 | 50,0 | 26,0 | 30,5 |
| 33 032 27 27 | R3/4" | R3/4" | 14 | 12,0 | 16,3 | 56,5 | 26,0 | 33,0 |

Serie 33 042

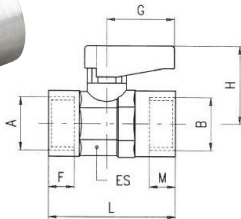
Mini-Kugelhahn, kon. Außengewinde / zyl. Außengewinde
Mini ball valve, taper male / parallel male thread



| Artikel Nr. / Ordering code | A | B | DN | D | F | M | L | G | H |
|--------------------------------|-------|-------|-----|------|------|------|------|------|------|
| 33 042 10 10 | R1/8" | G1/8" | 5,5 | 6,2 | 7,4 | 7,0 | 33,5 | 19,0 | 21,0 |
| 33 042 10 13 | R1/8" | G1/4" | 5,5 | 8,2 | 7,4 | 8,0 | 33,5 | 19,0 | 21,0 |
| 33 042 13 10 | R1/4" | G1/8" | 5,5 | 8,2 | 11,0 | 8,0 | 38,0 | 19,0 | 21,0 |
| 33 042 13 13 | R1/4" | G1/4" | 5,5 | 6,2 | 11,0 | 7,0 | 38,0 | 19,0 | 21,0 |
| 33 042 17 17 | R3/8" | G3/8" | 8 | 10,2 | 11,4 | 9,0 | 41,5 | 19,0 | 22,0 |
| 33 042 21 21 | R1/2" | G1/2" | 10 | 15,2 | 15,0 | 10,0 | 49,0 | 26,0 | 30,5 |
| 33 042 27 27 | R3/4" | G3/4" | 14 | 18,2 | 16,3 | 12,0 | 55,5 | 26,0 | 33,0 |

Serie 33 072

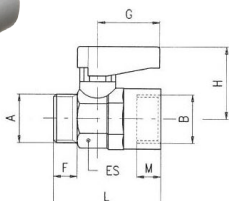
Mini-Kugelhahn, beidseitig zyl. Innengewinde
Mini ball valve, parallel female / parallel female thread



| Artikel Nr. / Ordering code | A | B | DN | F | M | L | G | H |
|--------------------------------|-------|-------|-----|------|------|------|------|------|
| 33 072 10 10 | G1/8" | G1/8" | 5,5 | 7,0 | 7,0 | 35,0 | 19,0 | 21,0 |
| 33 072 13 13 | G1/4" | G1/4" | 5,5 | 8,0 | 8,0 | 37,0 | 19,0 | 21,0 |
| 33 072 17 17 | G3/8" | G3/8" | 8 | 9,0 | 9,0 | 42,0 | 19,0 | 22,0 |
| 33 072 21 21 | G1/2" | G1/2" | 10 | 10,0 | 10,0 | 49,0 | 26,0 | 30,5 |
| 33 072 27 27 | G3/4" | G3/4" | 14 | 12,0 | 12,0 | 58,0 | 26,0 | 33,0 |

Serie 33 082

Mini-Kugelhahn, zyl. Innengewinde / zyl. Außengewinde
Mini ball valve, parallel female / parallel male thread



| Artikel Nr. / Ordering code | A | B | DN | F | M | L | G | H |
|--------------------------------|-------|-------|-----|------|------|------|------|------|
| 33 082 10 10 | G1/8" | G1/8" | 5,5 | 7,0 | 7,0 | 34,0 | 19,0 | 21,0 |
| 33 082 13 10 | G1/4" | G1/4" | 5,5 | 8,0 | 7,0 | 35,0 | 19,0 | 21,0 |
| 33 082 13 13 | G1/4" | G1/4" | 5,5 | 8,0 | 8,0 | 35,0 | 19,0 | 21,0 |
| 33 082 17 17 | G3/8" | G3/8" | 8 | 9,0 | 9,0 | 39,0 | 19,0 | 22,0 |
| 33 082 21 21 | G1/2" | G1/2" | 10 | 10,0 | 10,0 | 45,0 | 26,0 | 30,5 |
| 33 082 27 27 | G3/4" | G3/4" | 14 | 12,0 | 12,0 | 52,0 | 50,0 | 33,0 |

Hinweis: Standardmäßig werden die Kugelhähne mit blauem Griffesatz geliefert.
Note: By default the mini ball valves will be delivered with blue plate.

Mini-Kugelhähne

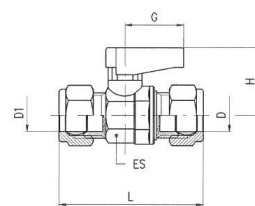
Mini ball valves

Mini-Kugelhahn, beidseitig Klemmring

Mini ball valve, tube connector / tube connector

Serie 33 132

| Artikel Nr. / Ordering code | D1 | D | DN | L | G | H | | |
|--------------------------------|----|----|----|------|------|------|--|--|
| 33 132 06 06 | 6 | 6 | 6 | 46,0 | 19,0 | 21,0 | | |
| 33 132 06 08 | 6 | 8 | 6 | 48,0 | 19,0 | 21,0 | | |
| 33 132 08 08 | 8 | 8 | 6 | 48,0 | 19,0 | 21,0 | | |
| 33 132 10 08 | 10 | 8 | 6 | 51,0 | 19,0 | 21,0 | | |
| 33 132 10 10 | 10 | 10 | 8 | 55,0 | 19,0 | 22,0 | | |
| 33 132 10 12 | 10 | 12 | 8 | 56,0 | 19,0 | 22,0 | | |
| 33 132 12 12 | 12 | 12 | 8 | 57,0 | 19,0 | 22,0 | | |

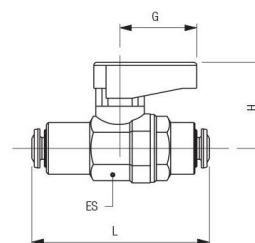


Mini-Kugelhahn, beidseitig Steckanschluss

Mini ball valve, Push-In fitting / Push-In fitting

Serie 33 182

| Artikel Nr. / Ordering code | Ø1 | Ø2 | DN | L | G | H | | |
|--------------------------------|----|----|-----|------|------|------|--|--|
| 33 182 04 04 | 4 | 4 | 3 | 44,0 | 19,0 | 21,0 | | |
| 33 182 06 06 | 6 | 6 | 5 | 48,0 | 19,0 | 21,0 | | |
| 33 182 08 08 | 8 | 8 | 5,5 | 48,0 | 19,0 | 21,0 | | |

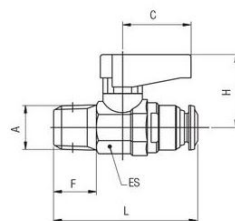


Mini-Kugelhahn, kon. Außengewinde / Steckanschluss

Mini ball valve, taper male thread / Push-In fitting

Serie 33 312

| Artikel Nr. / Ordering code | Ø | A | DN | L | C | H | | |
|--------------------------------|---|-------|-----|------|------|------|--|--|
| 33 312 04 10 | 4 | R1/8" | 8,5 | 35,0 | 19,0 | 21,0 | | |
| 33 312 06 10 | 6 | R1/8" | 8,5 | 40,0 | 19,0 | 21,0 | | |
| 33 312 06 13 | 6 | R1/4" | 12 | 38,5 | 19,0 | 21,0 | | |
| 33 312 08 10 | 8 | R1/8" | 8,5 | 41,5 | 19,0 | 21,0 | | |
| 33 312 08 13 | 8 | R1/8" | 12 | 45,5 | 19,0 | 21,0 | | |

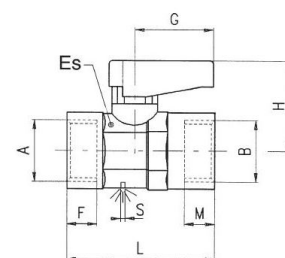


Mini-Kugelhahn, beidseitig zyl. Innengewinde, mit Entlüftungsbohrung

Mini ball valve, double-sided parallel female thread, with exhaust hole

Serie 33 192

| Artikel Nr. / Ordering code | A | B | DN | F | M | L | G | H | S |
|--------------------------------|-------|-------|-----|------|------|------|------|------|-----|
| 33 192 10 10 | G1/8" | G1/8" | 5,5 | 7,4 | 7,4 | 36,0 | 19,0 | 21,0 | 2,5 |
| 33 192 13 13 | G1/4" | G1/4" | 5,5 | 11,0 | 11,0 | 43,0 | 19,0 | 21,0 | 2,5 |
| 33 192 17 17 | G3/8" | G3/8" | 8 | 11,4 | 11,4 | 47,0 | 19,0 | 22,0 | 3,0 |



Hinweis: Standardmäßig werden die Kugelhähne mit blauem Griffesatz geliefert.

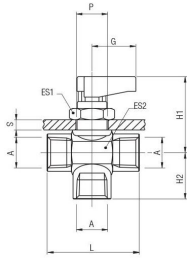
Note: By default the mini ball valves will be delivered with blue plate.

Mini-Kugelhähne

Mini ball valves

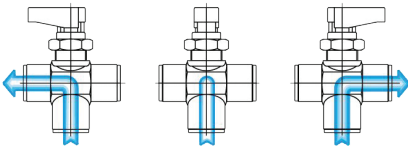
Serie 33 282

Mini-Kugelhahn, 3-Wege, Mittelstellung geschlossen, zyl. Innengewinde
Mini ball valve, 3-ways, central position closed, parallel female thread



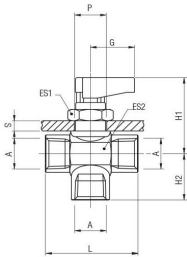
| Artikel Nr. / Ordering code | A | DN | L | G | H1 | H2 | P |
|--------------------------------|-------|-----|------|------|------|------|------|
| 33 282 10 10 | G1/8" | 5,5 | 35,0 | 19,0 | 33,5 | 15,5 | 14,5 |
| 33 282 13 13 | G1/4" | 5,5 | 37,0 | 19,0 | 33,5 | 17,5 | 14,5 |
| 33 282 17 17 | G3/8" | 7,0 | 42,0 | 19,0 | 35,0 | 19,5 | 14,5 |

max. Wandstärke für Schalttafeleinbau: 4,5 mm
max. panel thickness for panel mounting: 4,5 mm



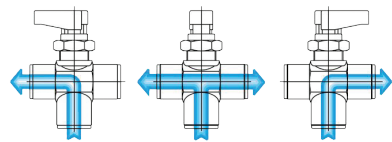
Serie 33 292

Mini-Kugelhahn, 3-Wege, Mittelstellung offen, zyl. Innengewinde
Mini ball valve, 3-ways, central position open, parallel female thread



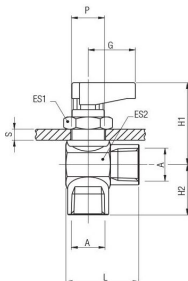
| Artikel Nr. / Ordering code | A | DN | L | G | H1 | H2 | P |
|--------------------------------|-------|-----|------|------|------|------|------|
| 33 292 10 10 | G1/8" | 5,5 | 35,0 | 19,0 | 33,5 | 15,5 | 14,5 |
| 33 292 13 13 | G1/4" | 5,5 | 37,0 | 19,0 | 33,5 | 17,5 | 14,5 |
| 33 292 17 17 | G3/8" | 7 | 42,0 | 19,0 | 35,0 | 19,5 | 14,5 |

max. Wandstärke für Schalttafeleinbau: 4,5 mm
max. panel thickness for panel mounting: 4,5 mm



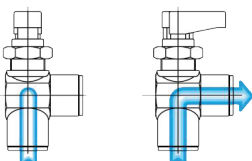
Serie 33 302

Mini-Kugelhahn, Winkelausführung, zyl. Innengewinde
Mini ball valve, elbow, parallel female thread



| Artikel Nr. / Ordering code | A | DN | L | G | H1 | H2 | P |
|--------------------------------|-------|-----|------|------|------|------|------|
| 33 302 10 10 | G1/8" | 5,5 | 28,5 | 19,0 | 33,5 | 15,5 | 14,5 |
| 33 302 13 13 | G1/4" | 5,5 | 28,5 | 19,0 | 33,5 | 17,5 | 14,5 |
| 33 302 17 17 | G3/8" | 7 | 31,0 | 19,0 | 35,0 | 19,5 | 14,5 |

max. Wandstärke für Schalttafeleinbau: 4,5 mm
max. panel thickness for panel mounting: 4,5 mm



Hinweis: Standardmäßig werden die Kugelhähne mit blauem Griffesatz geliefert.
Note: By default the mini ball valves will be delivered with blue plate.

Zubehör für Mini-Kugelhähne

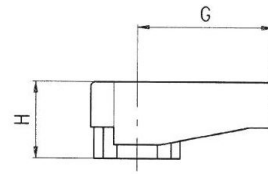
Accessories for mini ball valves

Standard-Griff für Mini-Kugelhahn

Standard handle for mini ball valve

Serie 33 202

| Artikel Nr. / Ordering code | G | H | für / for |
|--------------------------------|------|------|------------------|
| 33 202 0A 00 | 19,0 | 11,0 | 1/8", 1/4", 3/8" |
| 33 202 0B 00 | 26,0 | 15,0 | 1/2", 3/4" |
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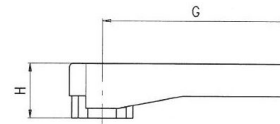


Langer Griff für Mini-Kugelhahn

Long handle for mini ball valve

Serie 33 212

| Artikel Nr. / Ordering code | G | H | für / for |
|--------------------------------|------|------|------------------|
| 33 212 0A 00 | 35,0 | 11,0 | 1/8", 1/4", 3/8" |
| 33 212 0B 00 | 50,0 | 15,0 | 1/2", 3/4" |
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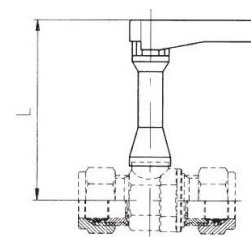
Winkelverlängerung für Mini-Kugelhahn

Spindle extension for mini ball valve

Serie 33 222

| Artikel Nr. / Ordering code | L | für / for |
|--------------------------------|------|-----------|
| 33 222 0A 10 | 58,0 | 1/8" |
| 33 222 0A 13 | 58,0 | 1/4" |
| 33 222 0A 17 | 59,0 | 3/8" |
| 33 222 0B 21 | 68,0 | 1/2" |
| 33 222 0B 27 | 70,0 | 3/4" |
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Im Lieferumfang sind ein langer Griff, eine Schraube und ein Griffesatz enthalten!
Included in delivery are a long handle, a screw and a plate for the mini ball valve!



Griffeinsatz für Mini-Kugelhahn

Plate for mini ball valve

Serie 33 232

| Artikel Nr. / Ordering code | Farbe / colour | für / for |
|--------------------------------|----------------|------------------|
| 33 232 0A 00 | weiß / white | 1/8", 1/4", 3/8" |
| 33 232 0A 02 | grün / green | 1/8", 1/4", 3/8" |
| 33 232 0A 03 | rot / red | 1/8", 1/4", 3/8" |
| 33 232 0A 04 | blau / blue | 1/8", 1/4", 3/8" |
| 33 232 0A 05 | gelb / yellow | 1/8", 1/4", 3/8" |
| 33 232 0B 00 | weiß / white | 1/2", 3/4" |
| 33 232 0B 02 | grün / green | 1/2", 3/4" |
| 33 232 0B 03 | rot / red | 1/2", 3/4" |
| 33 232 0B 04 | blau / blue | 1/2", 3/4" |
| 33 232 0B 05 | gelb / yellow | 1/2", 3/4" |
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Hinweis: Standardmäßig werden die Kugelhähne mit blauem Griffesatz geliefert.
Note: By default the mini ball valves will be delivered with blue plate.

Kugelhähne und Absperrgeräte, schwere Reihe

Ball valves and gate valves, heavy series

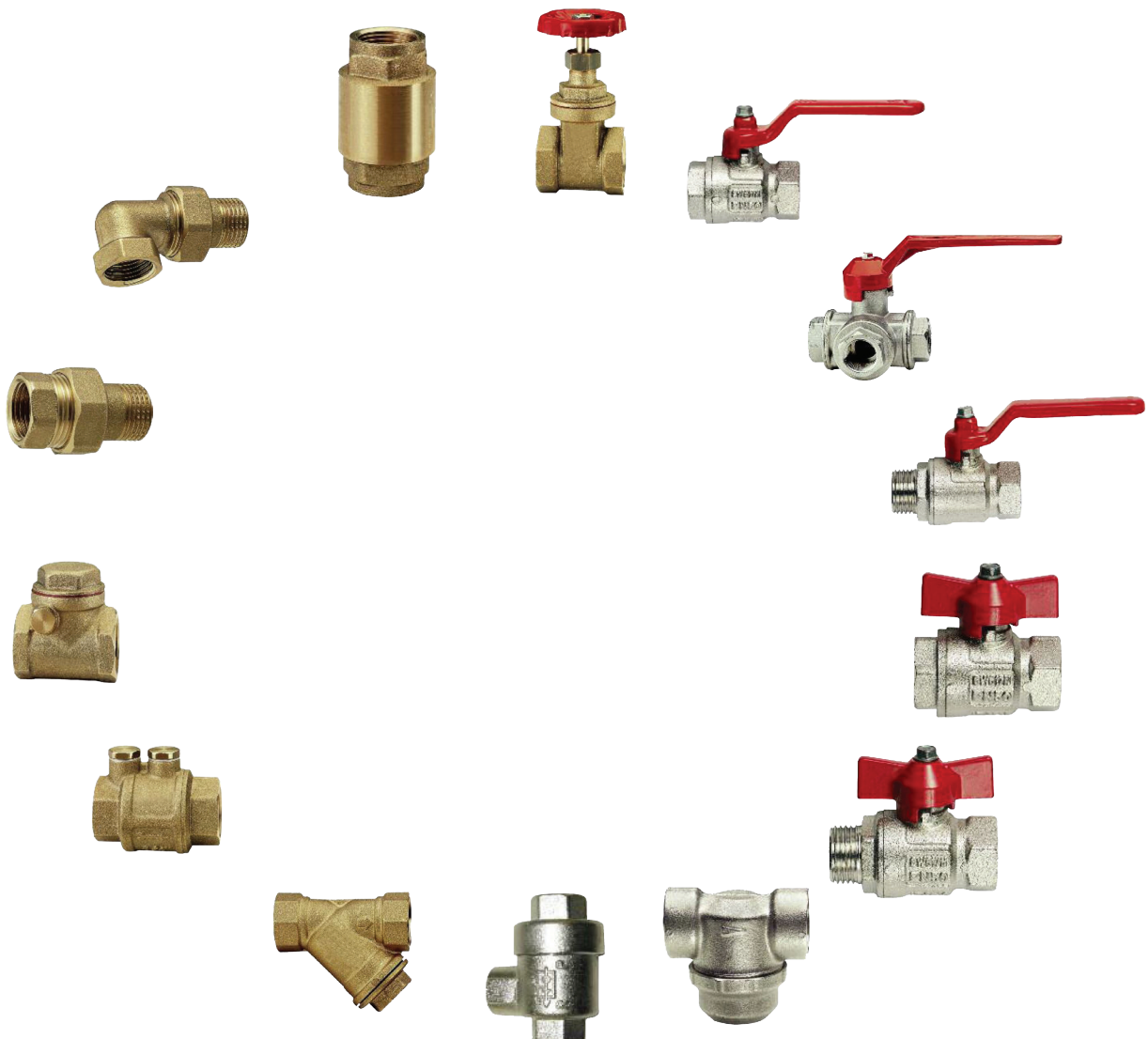
Allgemeine Informationen

General information

Einleitung / Introduction

Das Programm der Kugelhähne und Absperrgeräte wurde für den Einsatz in der Pneumatik für Druckluft und Vakuum konzipiert. Es hat sich seitdem über viele Jahre hinweg bewährt und ist für Anwendungen in Industrie und Handwerk unentbehrlich. Sie sind auch für Wasserversorgungs-, Heizungs- und Klimaanlage geeignet. Die Kugelhähne und Absperrgeräte erlauben eine schnelle Montage und Demontage und gewährleisten einen vollen Rohrdurchgang.

The programme of ball valves and gate valves was designed for implementation in pneumatics for compressed air and vacuum. Since then, it has proven itself over many years and is essential for industrial and trade applications. They can also be used for water services, heating and air-conditioning plants. The ball valves and gate valves allow quick assembly and dismantling. Furthermore, they ensure a full pipe channel.



Kugelhähne und Absperrgeräte, schwere Reihe

Ball valves and gate valves, heavy series

Allgemeine Informationen

General information

Serie 02

Werkstoff / Material

| | Rückschlagventile / Check valves | | | Rückschlagklappe / Swing check valve |
|--|---|---|---|---|
| | YORK | EUROPA | ROMA | |
| Körper / Body | Messing / Brass CW617N | Messing / Brass CW617N | Messing / Brass CW617N | Messing / Brass CW617N |
| Ventilstift / Pin | Messing / Brass CW614N | Messing / Brass CW614N | Messing / Brass CW614N | Messing / Brass CW614N |
| Feder / Spring | Edelstahl / Stainless steel AISI 302 | Edelstahl / Stainless steel AISI 302 | Edelstahl / Stainless steel AISI 302 | - |
| Federteller / Plate | Polymer | Edelstahl / Stainless steel AISI 304 | Edelstahl / Stainless steel AISI 304 | Messing / Brass CW617N |
| Dichtung / Washer | NBR | NBR | Aluminium, Viton | Messing / Brass |
| Zwischenscheibe / Plug | - | Messing / Brass CW614N | Messing / Brass CW614N | Messing / Brass CW614N |
| Endstück / End adapter | Messing / Brass CW617N | Messing / Brass CW617N | Messing / Brass CW617N | Messing / Brass CW617N |
| O-Ring / O-Ring | - | - | - | NBR |
| Sitz / Seat | - | - | - | NBR |
| Schraube / Screw | - | - | - | Messing / Brass CW617N |
| Gewinde / Threads | ISO 228 | ISO 228 | ISO 228 | ISO 228 |
| Temperaturbereich / Temperature range | -20°C...100°C | -20°C...100°C | -20°C...100°C* | 0°C...90°C |

* Temperaturbereich -20°C...150°C bei Flüssigkeiten, Kohlenwasserstoff oder Druckluft
Temperature range -20°C...150°C for fluid, hydrocarbons or compressed air

Kugelhähne, schwere Reihe

Ball valves, heavy series

Schraube: Stahl verzinkt Fe CB4
Screw: zinc-plated steel Fe CB4

Hebel: Stahl verzinkt und lackiert Fe P04
Lever handle: zinc-plated and varnished steel Fe P04

Flügelgriff: Aluminium
Butterfly handle: aluminium

O-Ring: NBR
O-Ring: NBR

O-Ring: Viton
O-Ring: Viton

Endstück: Messing vernickelt CW617N
End-adapter: nickel-plated brass CW617N

Welle: Messing CW614N
Stem: Brass CW614N
Sitze: P.T.F.E
Seat: P.T.F.E

Kugel: Messing verchromt CW617N
Ball: chrome-plated brass CW617N

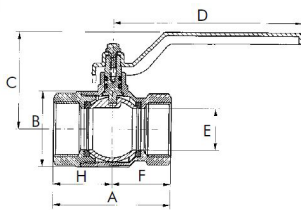
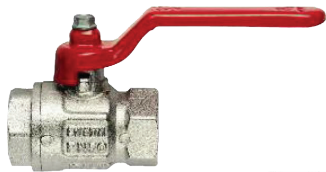
Körper: Messing vernickelt CW617N
Body: nickel-plated brass CW617N

Temperaturbereich (kein Dampf):
Temperatur range (no steam): -20°C...150°C

Gewinde: ISO 228
Thread: ISO 228

Serie 02 272

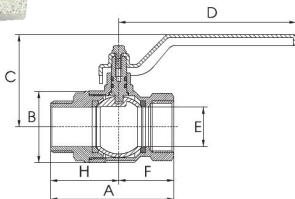
Kugelhahn IDEAL, voller Durchgang, Innengewinde IDEAL ball valve, full flow, female thread



| Artikel Nr. / Ordering code | G | A | B | C | D | E | F | H | Druck in bar |
|--------------------------------|-------|------|------|------|-------|----|------|------|-----------------|
| 02 272 10 13 | G1/4" | 44,4 | 23,5 | 37,0 | 80,0 | 10 | 22,0 | 22,0 | 50 |
| 02 272 10 17 | G3/8" | 44,4 | 24,0 | 37,0 | 80,0 | 10 | 22,0 | 22,0 | 50 |
| 02 272 15 21 | G1/2" | 50,5 | 30,5 | 41,0 | 80,0 | 15 | 25,0 | 26,0 | 50 |
| 02 272 20 27 | G3/4" | 57,5 | 37,0 | 55,0 | 113,0 | 20 | 28,0 | 30,0 | 40 |
| 02 272 25 34 | G1" | 70,0 | 45,5 | 59,0 | 113,0 | 25 | 35,0 | 35,0 | 40 |

Serie 02 282

Kugelhahn IDEAL, voller Durchgang, mit Innen- und Außengewinde IDEAL ball valve, full flow, female / male thread



| Artikel Nr. / Ordering code | R | G | A | B | C | D | E | F | H | Druck in bar |
|--------------------------------|-------|-------|------|------|------|-------|----|------|------|-----------------|
| 02 282 10 13 | R1/4" | G1/4" | 54,0 | 23,5 | 37,0 | 80,0 | 10 | 22,2 | 31,7 | 50 |
| 02 282 10 17 | R3/8" | G3/8" | 54,0 | 24,0 | 37,0 | 80,0 | 10 | 22,2 | 31,7 | 50 |
| 02 282 15 21 | R1/2" | G1/2" | 58,5 | 30,5 | 41,0 | 80,0 | 15 | 25,0 | 33,5 | 50 |
| 02 282 20 27 | R3/4" | G3/4" | 66,5 | 37,0 | 55,0 | 113,0 | 20 | 28,0 | 38,5 | 40 |
| 02 282 25 34 | R1" | G1" | 76,5 | 45,5 | 59,0 | 113,0 | 25 | 35,0 | 41,5 | 40 |

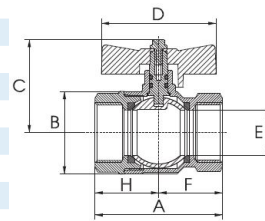
Kugelhähne, schwere Reihe

Ball valves, heavy series

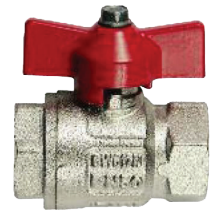
Kugelhahn IDEAL, voller Durchgang, Innengewinde, mt Flügelgriff

IDEAL ball valve, full flow, female thread, with butterfly handle

| Artikel Nr. / Ordering code | G | A | B | C | D | E | F | H | Druck in bar |
|--------------------------------|-------|------|------|------|------|----|------|------|-----------------|
| 02 292 10 13 | G1/4" | 44,0 | 23,5 | 36,5 | 47,0 | 10 | 22,0 | 32,0 | 50 |
| 02 292 10 17 | G3/8" | 44,0 | 24,0 | 36,5 | 47,0 | 10 | 22,0 | 32,0 | 50 |
| 02 292 15 21 | G1/2" | 50,5 | 30,5 | 40,0 | 47,0 | 15 | 25,0 | 34,0 | 50 |
| 02 292 20 27 | G3/4" | 57,5 | 37,0 | 48,0 | 62,0 | 20 | 28,0 | 39,0 | 40 |
| 02 292 25 34 | G1" | 70,0 | 45,5 | 52,0 | 62,0 | 25 | 35,0 | 42,0 | 40 |



Serie 02 292

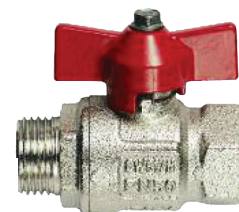
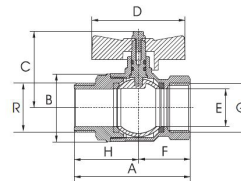


Kugelhahn IDEAL, voller Durchgang, Innen- und Außengewinde und Flügelgriff

IDEAL ball valve, full flow, female / male thread, with butterfly handle

| Artikel Nr. / Ordering code | R | G | A | B | C | D | E | F | H | Druck in bar |
|--------------------------------|-------|-------|------|------|------|------|----|------|------|-----------------|
| 02 302 10 13 | R1/4" | G1/4" | 54,0 | 23,5 | 36,5 | 47,0 | 10 | 22,0 | 32,0 | 50 |
| 02 302 10 17 | R3/8" | G3/8" | 54,0 | 24,0 | 36,5 | 47,0 | 10 | 22,0 | 32,0 | 50 |
| 02 302 15 21 | R1/2" | G1/2" | 58,5 | 30,5 | 40,0 | 47,0 | 15 | 25,0 | 34,0 | 50 |
| 02 302 20 27 | R3/4" | G3/4" | 66,5 | 37,0 | 48,0 | 62,0 | 20 | 28,0 | 39,0 | 40 |
| 02 302 25 34 | R1" | G1" | 76,5 | 45,5 | 52,0 | 62,0 | 25 | 35,0 | 42,0 | 40 |

Serie 02 302



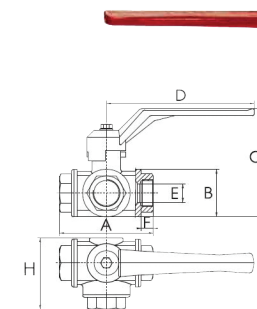
3-Wege-Kugelhahn, T- oder L-Borhung, allseitig dichtend, Innengewinde

3-Way ball valve, available with T- or L-ball, female thread, sealing on all sides

| Artikel Nr. / Ordering code | G | A | B | C | D | E | F | H | Druck in bar |
|--------------------------------|-------|-------|------|-------|-------|----|------|------|-----------------|
| 02 332 10 13 (x) | G1/4" | 77,0 | 39,0 | 85,0 | 125,0 | 10 | 19,0 | 28,0 | 25 |
| 02 332 12 17 (x) | G3/8" | 77,0 | 39,0 | 85,0 | 125,0 | 12 | 19,0 | 28,0 | 25 |
| 02 332 14 21 (x) | G1/2" | 77,0 | 39,0 | 85,0 | 125,0 | 14 | 19,0 | 28,0 | 25 |
| 02 332 18 27 (x) | G3/4" | 92,0 | 47,0 | 107,0 | 145,0 | 18 | 23,0 | 70,0 | 25 |
| 02 332 23 34 (x) | G1" | 104,0 | 55,0 | 124,0 | 170,0 | 23 | 25,0 | 80,0 | 25 |

Bitte bei der Bestellung anstelle des (x) T (T-Bohrung) oder L (L-Bohrung) angeben!
Please specify when ordering instead of the (x) T (T-hole) or L (L-hole)!

Serie 02 332



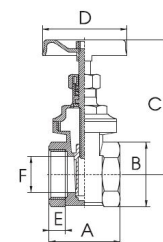
Messing Schieberventil, voller Durchgang, Innengewinde

Brass gate valve, full flow, female thread

| Artikel Nr. / Ordering code | G | A | B | C | D | E | F | Druck in bar |
|--------------------------------|-------|------|------|------|------|------|----|-----------------|
| 02 401 00 21 | G1/2" | 43,0 | 30,0 | 68,0 | 45,0 | 10,0 | 15 | 20 |
| 02 401 00 27 | G3/4" | 46,0 | 36,0 | 78,0 | 45,0 | 11,0 | 19 | 20 |
| 02 401 00 34 | G1" | 52,0 | 44,0 | 93,0 | 50,0 | 13,0 | 24 | 20 |

| | Werkstoff / Material |
|--|-------------------------------------|
| Körper / Body | Messing / Brass CW617N |
| Welle / Stem | Messing / Brass CW617N |
| Handrad / Handle | Stahl / Steel |
| Gewinde / Thread | ISO 228 |
| Temperaturbereich / Temperature range | 0°C...150°C (Kein Dampf / No steam) |

Serie 02 401

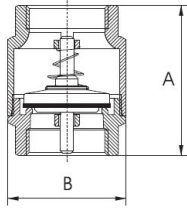


Rückschlagventile, Messing

Check valves, brass

Serie 02 231

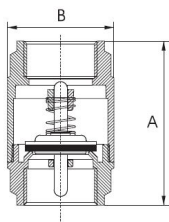
Rückschlagventil YORK YORK Check valve



| Artikel Nr. / Ordering code | G | A | B | Druck in bar | DN | | |
|--------------------------------|-------|------|------|-----------------|----|--|--|
| 02 231 00 17 | G3/8" | 46,5 | 34,5 | 12 | 10 | | |
| 02 231 00 21 | G1/2" | 47,0 | 34,5 | 12 | 15 | | |
| 02 231 00 27 | G3/4" | 53,0 | 42,0 | 12 | 20 | | |
| 02 231 00 34 | G1" | 60,5 | 47,5 | 12 | 25 | | |
| | | | | | | | |
| | | | | | | | |

Serie 02 241

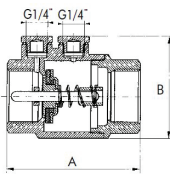
Rückschlagventil EUROPA EUROPA Check valve



| Artikel Nr. / Ordering code | G | A | B | Druck in bar | DN | | |
|--------------------------------|---------|-------|-------|-----------------|-----|--|--|
| 02 241 00 17 | G3/8" | 55,0 | 34,5 | 25 | 10 | | |
| 02 241 00 21 | G1/2" | 58,5 | 34,5 | 25 | 15 | | |
| 02 241 00 27 | G3/4" | 65,0 | 41,5 | 25 | 20 | | |
| 02 241 00 34 | G1" | 74,5 | 48,0 | 25 | 25 | | |
| 02 241 00 49 | G1 1/2" | 93,0 | 71,0 | 18 | 40 | | |
| 02 241 00 48 | G2" | 100,0 | 87,0 | 18 | 50 | | |
| 02 241 00 46 | G3" | 140,0 | 140,0 | 12 | 80 | | |
| 02 241 00 45 | G4" | 158,0 | 172,0 | 12 | 100 | | |

Serie 02 251

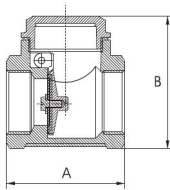
Rückschlagventil ROMA ROMA Check valve



| Artikel Nr. / Ordering code | G | A | B | Druck in bar | DN | | |
|--------------------------------|-------|------|------|-----------------|----|--|--|
| 02 251 00 17 | G3/8" | 63,0 | 48,5 | 25 | 10 | | |
| 02 251 00 21 | G1/2" | 68,5 | 48,5 | 25 | 15 | | |
| 02 251 00 27 | G3/4" | 69,5 | 56,0 | 25 | 20 | | |
| 02 251 00 34 | G1" | 79,0 | 62,0 | 25 | 25 | | |
| | | | | | | | |
| | | | | | | | |

Serie 02 261

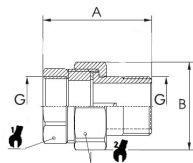
Rückschlagklappe Swing check valve



| Artikel Nr. / Ordering code | G | A | B | Druck in bar | DN | | |
|--------------------------------|---------|------|------|-----------------|----|--|--|
| 02 261 00 17 | G3/8" | 43,0 | 50,0 | 16 | 10 | | |
| 02 261 00 21 | G1/2" | 43,0 | 50,0 | 16 | 15 | | |
| 02 261 00 27 | G3/4" | 52,0 | 59,5 | 16 | 20 | | |
| 02 261 00 34 | G1" | 62,0 | 68,0 | 12 | 25 | | |
| 02 261 00 49 | G1 1/2" | 81,0 | 86,0 | 10 | 40 | | |
| 02 261 00 60 | G2" | 94,0 | 98,7 | 10 | 50 | | |
| | | | | | | | |
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Serie 02 341

Gerade Anschlüsse, 3-teilig, flachdichtend, Messing CW617N 3-piece straight connector, flat sealing, brass CW617N



| Artikel Nr. / Ordering code | G | A | B | Druck in bar | DN | 1 | 2 |
|--------------------------------|-------|------|------|-----------------|----|----|----|
| 02 341 00 17 | G3/8" | 43,0 | 28,0 | 50 | 10 | 21 | 25 |
| 02 341 00 21 | G1/2" | 47,0 | 33,0 | 50 | 15 | 25 | 30 |
| 02 341 00 27 | G3/4" | 52,0 | 41,0 | 40 | 20 | 31 | 37 |
| 02 341 00 34 | G1" | 61,0 | 50,0 | 40 | 25 | 38 | 46 |
| | | | | | | | |
| | | | | | | | |

3-teilige Anschlüsse und Leitungsfiler, Messing

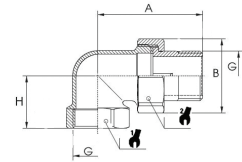
3-piece connectors and line filters, brass

Winkelanschlüsse, 3-teilig, flachdichtend, Messing CW617N

3-piece elbow connector, flat sealing, brass CW617N

Serie 02 351

| Artikel Nr. / Ordering code | G | A | B | Druck in bar | DN | 1 | 2 |
|--------------------------------|-------|------|------|-----------------|----|----|----|
| 02 351 00 17 | G3/8" | 46,5 | 28,0 | 50 | 10 | 21 | 25 |
| 02 351 00 21 | G1/2" | 51,5 | 33,0 | 50 | 15 | 36 | 30 |
| 02 351 00 27 | G3/4" | 59,5 | 40,5 | 40 | 20 | 31 | 37 |
| 02 351 00 34 | G1" | 70,0 | 49,0 | 40 | 25 | 38 | 46 |
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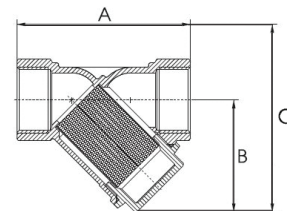


Schmutzfänger, Y-Form, Messing

Y-strainer, brass

Serie 02 361

| Artikel Nr. / Ordering code | G | A | B | C | Druck in bar | DN |
|--------------------------------|-------|-------|------|-------|-----------------|----|
| 02 361 08 13 | G1/4" | 55,0 | 40,0 | 49,7 | 20 | 8 |
| 02 361 10 17 | G3/8" | 55,0 | 40,0 | 51,2 | 20 | 10 |
| 02 361 15 21 | G1/2" | 58,0 | 40,0 | 53,3 | 20 | 15 |
| 02 361 20 27 | G3/4" | 70,0 | 48,0 | 64,6 | 20 | 20 |
| 02 361 25 34 | G1" | 87,0 | 56,0 | 76,4 | 20 | 25 |
| 02 361 42 48 | G2" | 126,0 | 88,5 | 122,0 | 20 | 50 |
| | | | | | | |
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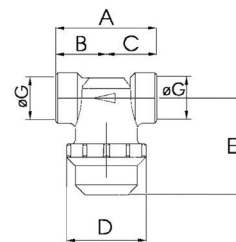
Auf Anfrage auch in Messing vernickelt erhältlich!
On request also available in nickel-plated brass!

Leitungsfiler, T-Form, Messing vernickelt

T-Line Filter, nickel-plated brass

Serie 02 372

| Artikel Nr. / Ordering code | G | A | B | C | D | E | Druck in bar |
|--------------------------------|-------|------|------|------|------|------|-----------------|
| 02 372 00 17 | G3/8" | 50,0 | 25,0 | 25,0 | 42,0 | 51,0 | 16 |
| 02 372 00 21 | G1/2" | 56,0 | 28,0 | 28,0 | 42,0 | 54,0 | 16 |
| 02 372 00 27 | G3/4" | 67,0 | 33,5 | 33,5 | 47,5 | 52,0 | 16 |
| 02 372 00 34 | G1" | 80,0 | 40,0 | 40,0 | 58,0 | 56,0 | 16 |
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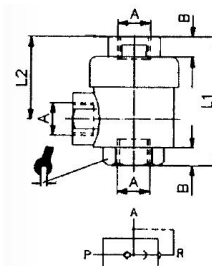


Schnellentlüftungsventil, Messing vernickelt

Quick exhaust valve, nickel-plated brass

Serie 22 012

| Artikel Nr. / Ordering code | A | B | L1 | L2 | 1 |
|--------------------------------|-------|------|------|------|----|
| 22 012 10 10 | G1/8" | 8,0 | 42,0 | 28,0 | 14 |
| 22 012 13 13 | G1/4" | 11,0 | 53,3 | 34,5 | 19 |
| 22 012 17 17 | G1/2" | 12,0 | 61,0 | 39,0 | 22 |
| 22 012 21 21 | G3/8" | 14,0 | 71,1 | 44,0 | 26 |
| | | | | | |
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Schalldämpfer Silencers

Allgemeine Informationen General information

Einleitung / Introduction

Dieser Teil des Katalogs umfasst unser Angebot über Schalldämpfer. Schalldämpfer werden in die Abluftleitungen von pneumatischen Kreisläufen eingebaut, um den Geräuschpegel zu reduzieren. Auf diese Weise tragen sie zu einem deutlich verbesserten Arbeitskomfort bei. Die einzelnen Bauteile werden mit hoher Präzision gefertigt. Diese Vorgehensweise garantiert geringen Verschleiß und damit eine lange Haltbarkeit.

This part of the catalog contains our offer of silencers. Silencers are used as pneumatic exhausts to reduce the noise levels of pneumatic circuits while operating. This improves the user comfort. The individual parts are produced with high precision. This approach guarantees minor wear and therefore a long life time.



Schalldämpfer Silencers

Allgemeine Informationen General information

Serie 06

Technische Daten / Technical Data

| | |
|---|---|
| Filterfeinheit Filter fineness | 5 - 100µ |
| Temperaturbereich (Sinterbronze, Messing) Temperature range (Sintered bronze, brass) | -10°C...+200°C |
| Temperaturbereich (Kunststoff) Temperature range (Synthetic) | -20°C...+70°C |
| Medium Fluid | Druckluft, neutrale Gase, CO ₂ Compressed air, neutral gases, CO ₂ |
| Gewinde Threading | Zylindrisch BSP Cylindrical BSP |
| Porosität Porosity | 35 - 45% |
| Festigkeit Strength | 3 - 6 kp/mm ² |

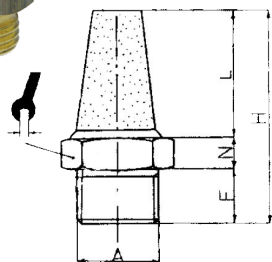
Werkstoff / Material

| | |
|-------------------------------|---|
| Dämpfungsmaterial Silencer | Sinterbronze, Acetalharz, Stahlwolle Sintered bronze, acetal resin, steel wool |
| Gehäuse Barrel | Messing, Acetalharz, Nylon Brass, acetal resin, nylon |

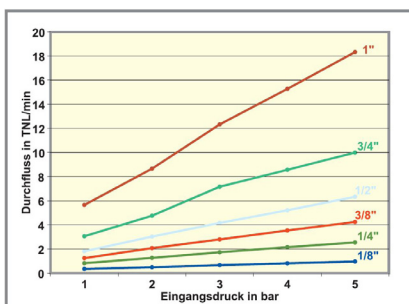
Schalldämpfer Silencers

Serie 06 770

Schalldämpfer Standard Silencer standard

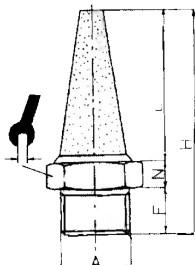


| Artikel Nr. / Ordering code | A | N | F | L | H | Geräuschpegel in dB | | |
|--------------------------------|-------|------|------|------|------|---------------------|-------|----|
| | | | | | | 4 bar | 6 bar | |
| 06 770 00 05 | M5 | 4,0 | 4,0 | 9,0 | 17,0 | - | - | 8 |
| 06 770 00 10 | G1/8" | 8,0 | 6,0 | 15,0 | 29,0 | 70 | 75 | 13 |
| 06 770 00 13 | G1/4" | 8,0 | 7,0 | 17,0 | 32,0 | 75 | 81 | 16 |
| 06 770 00 17 | G3/8" | 7,0 | 8,0 | 25,0 | 40,0 | 78 | 82 | 19 |
| 06 770 00 21 | G1/2" | 9,0 | 9,0 | 27,0 | 45,0 | 81 | 85 | 24 |
| 06 770 00 27 | G3/4" | 10,0 | 9,0 | 37,0 | 56,0 | 83 | - | 30 |
| 06 770 00 34 | G1" | 10,0 | 11,0 | 45,0 | 66,0 | 84 | - | 36 |

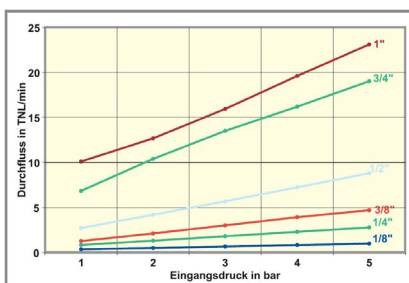


Serie 06 500

Schalldämpfer lang Silencer long

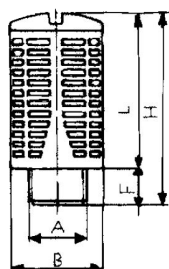


| Artikel Nr. / Ordering code | A | N | F | L | H | Geräuschpegel in dB | | |
|--------------------------------|-------|------|------|------|------|---------------------|-------|----|
| | | | | | | 4 bar | 6 bar | |
| 06 500 00 05 | M5 | 4,0 | 4,0 | 18,0 | 26,0 | - | - | 8 |
| 06 500 00 10 | G1/8" | 8,0 | 6,0 | 30,0 | 44,0 | 73 | 76 | 13 |
| 06 500 00 13 | G1/4" | 8,0 | 7,0 | 35,0 | 50,0 | 73 | 75 | 16 |
| 06 500 00 17 | G3/8" | 7,0 | 8,0 | 39,0 | 54,0 | 85 | 88 | 19 |
| 06 500 00 21 | G1/2" | 9,0 | 9,0 | 49,0 | 67,0 | 84 | 89 | 24 |
| 06 500 00 27 | G3/4" | 10,0 | 9,0 | 46,0 | 65,0 | 82 | - | 30 |
| 06 500 00 34 | G1" | 10,0 | 11,0 | 56,0 | 77,0 | 83 | - | 36 |

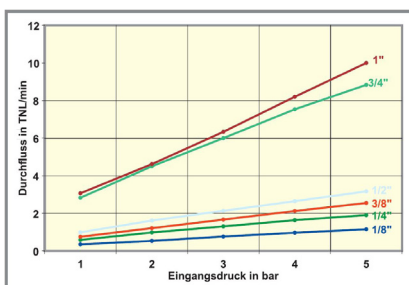


Serie 06 786

Schalldämpfer dynamische Dämpfung Silencer dynamic attenuation



| Artikel Nr. / Ordering code | A | B | F | L | H | Geräuschpegel in dB | |
|--------------------------------|-------|------|------|------|-------|---------------------|-------|
| | | | | | | 4 bar | 6 bar |
| 06 786 00 10 | G1/8" | 15,0 | 8,0 | 27,0 | 35,0 | 84 | 87 |
| 06 786 00 13 | G1/4" | 19,5 | 9,0 | 36,0 | 45,0 | 81 | 84 |
| 06 786 00 17 | G3/8" | 24,5 | 11,0 | 47,0 | 58,0 | 83 | 90 |
| 06 786 00 21 | G1/2" | 24,5 | 11,0 | 47,0 | 58,0 | 83 | 90 |
| 06 786 00 27 | G3/4" | 48,0 | 18,0 | 96,0 | 114,0 | 85 | 91 |
| 06 786 00 34 | G1" | 48,0 | 18,0 | 96,0 | 114,0 | 85 | 90 |



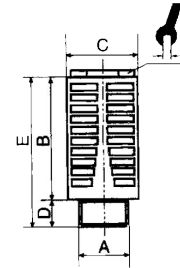
Schalldämpfer Silencers

Schalldämpfer statische Dämpfung Silencer static attenuation

| Artikel Nr. / Ordering code | A | B | C | D | E | Geräuschpegel in dB | | |
|--------------------------------|-------|------|------|------|-------|---------------------|-------|----|
| | | | | | | 4 bar | 6 bar | |
| 06 796 00 10 | G1/8" | 28,0 | 16,0 | 6,0 | 34,0 | 85 | 87 | 10 |
| 06 796 00 13 | G1/4" | 36,0 | 19,0 | 8,0 | 44,0 | 86 | 90 | 12 |
| 06 796 00 17 | G3/8" | 46,0 | 24,0 | 10,0 | 56,0 | 87 | 92 | 17 |
| 06 796 00 21 | G1/2" | 46,0 | 24,0 | 10,0 | 56,0 | 87 | 92 | 17 |
| 06 796 00 27 | G3/4" | 97,0 | 48,0 | 18,0 | 115,0 | - | - | 36 |

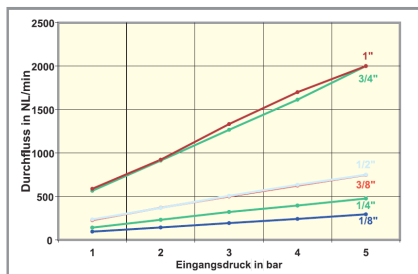


Serie 06 796

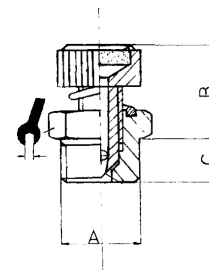


Drosseldämpfer Flow control silencer

| Artikel Nr. / Ordering code | A | Min. B | Max. B | C | Geräuschpegel in dB | | |
|--------------------------------|-------|--------|--------|------|---------------------|-------|----|
| | | | | | 4 bar | 6 bar | |
| 06 530 00 10 | G1/8" | 20,0 | 22,0 | 6,0 | 69 | 72 | 12 |
| 06 530 00 13 | G1/4" | 22,0 | 24,0 | 8,0 | 70 | 73 | 15 |
| 06 530 00 17 | G3/8" | 25,0 | 28,0 | 10,0 | 82 | 84 | 19 |
| 06 530 00 21 | G1/2" | 26,0 | 29,0 | 11,0 | 84 | 88 | 22 |
| 06 530 00 27 | G3/4" | 32,0 | 37,0 | 12,0 | 85 | 88 | 30 |
| 06 530 00 34 | G1" | 32,0 | 37,0 | 12,0 | 85 | 89 | 36 |

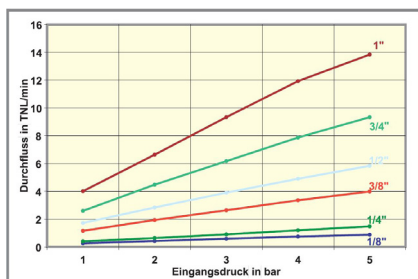


Serie 06 530

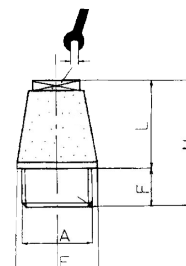


Schalldämpfer kompakt Silencer compact

| Artikel Nr. / Ordering code | A | E | F | L | H | Geräuschpegel in dB | | |
|--------------------------------|-------|------|------|------|------|---------------------|-------|----|
| | | | | | | 4 bar | 6 bar | |
| 06 740 00 10 | G1/8" | 12,0 | 6,0 | 15,0 | 21,0 | 68 | 70 | 7 |
| 06 740 00 13 | G1/4" | 15,0 | 6,0 | 19,0 | 25,0 | 65 | 67 | 9 |
| 06 740 00 17 | G3/8" | 19,0 | 8,0 | 28,0 | 38,0 | 74 | 77 | 10 |
| 06 740 00 21 | G1/2" | 23,0 | 10,0 | 33,0 | 43,0 | 76 | 80 | 14 |
| 06 740 00 27 | G3/4" | 29,0 | 13,0 | 40,0 | 53,0 | 80 | 84 | 17 |
| 06 740 00 34 | G1" | 36,0 | 15,0 | 48,0 | 63,0 | 82 | 85 | 23 |



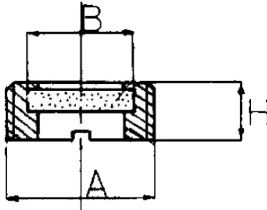
Serie 06 740



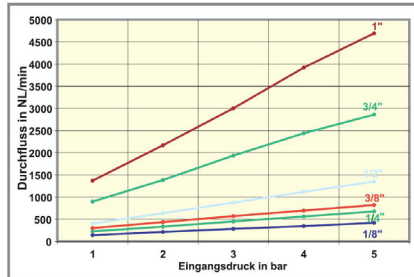
Schalldämpfer Silencers

Serie 06 680

Schalldämpfer Mini Silencer small

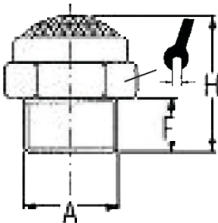


| Artikel Nr. / Ordering code | A | B | H | Geräuschpegel in dB | |
|--------------------------------|-------|------|------|---------------------|-------|
| | | | | 4 bar | 6 bar |
| 06 680 00 10 | G1/8" | 6,0 | 5,0 | 69 | 72 |
| 06 680 00 13 | G1/4" | 8,0 | 6,0 | 70 | 73 |
| 06 680 00 17 | G3/8" | 10,0 | 7,0 | 82 | 84 |
| 06 680 00 21 | G1/2" | 15,0 | 8,0 | 84 | 88 |
| 06 680 00 27 | G3/4" | 20,0 | 9,0 | 85 | 88 |
| 06 680 00 34 | G1" | 26,0 | 10,0 | 85 | 89 |

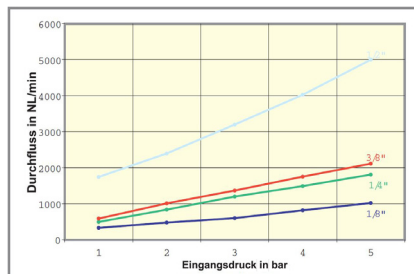


Serie 06 630

Schalldämpfer flach, Kunststoff Silencer flat, synthetic

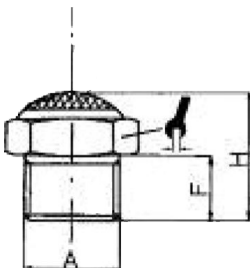


| Artikel Nr. / Ordering code | A | F | H | Geräuschpegel in dB | | |
|--------------------------------|-------|------|------|---------------------|-------|----|
| | | | | 4 bar | 6 bar | |
| 06 630 00 10 | G1/8" | 6,0 | 15,0 | 70 | 74 | 13 |
| 06 630 00 13 | G1/4" | 7,0 | 18,0 | 69 | 72 | 16 |
| 06 630 00 17 | G3/8" | 8,0 | 20,0 | 85 | 88 | 19 |
| 06 630 00 21 | G1/2" | 10,0 | 22,0 | 85 | 90 | 24 |

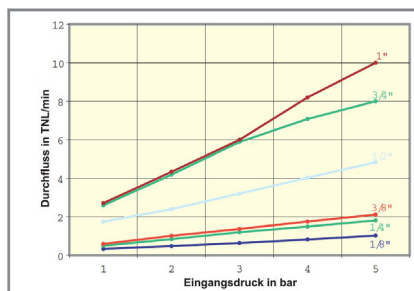


Serie 06 664

Schalldämpfer flach, Edelstahl Silencer flat, stainless steel




| Artikel Nr. / Ordering code | A | F | H | Geräuschpegel in dB | | |
|--------------------------------|-------|------|------|---------------------|-------|----|
| | | | | 4 bar | 6 bar | |
| 06 664 00 10 | G1/8" | 6,0 | 15,0 | 70 | 74 | 13 |
| 06 664 00 13 | G1/4" | 7,0 | 18,0 | 69 | 72 | 16 |
| 06 664 00 17 | G3/8" | 8,0 | 20,0 | 85 | 88 | 19 |
| 06 664 00 21 | G1/2" | 10,0 | 22,0 | 85 | 90 | 24 |
| 06 664 00 27 | G3/4" | 10,0 | 26,0 | 86 | 90 | 30 |
| 06 664 00 34 | G1" | 12,0 | 28,0 | 88 | 92 | 36 |

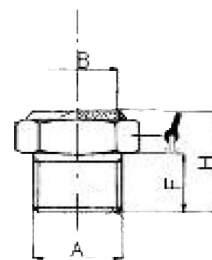
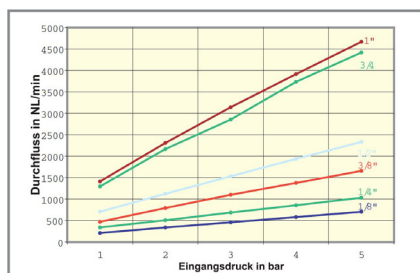


Schalldämpfer Silencers

Schalldämpfer flach, Messing Silencer flat, brass

Serie 06 760

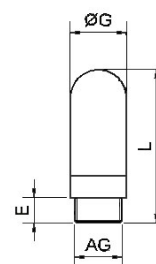
| Artikel Nr. / Ordering code | A | B | F | H | Geräuschpegel in dB | |  |
|--------------------------------|-------|------|------|------|---------------------|-------|---|
| | | | | | 4 bar | 6 bar | |
| 06 760 00 05 | M5 | 7,0 | 5,0 | 12,0 | - | - | 8 |
| 06 760 00 10 | G1/8" | 11,0 | 6,0 | 14,0 | 70 | 73 | 13 |
| 06 760 00 13 | G1/4" | 14,0 | 7,0 | 17,0 | 71 | 74 | 16 |
| 06 760 00 17 | G3/8" | 17,0 | 8,0 | 18,0 | 83 | 85 | 19 |
| 06 760 00 21 | G1/2" | 22,0 | 10,0 | 20,0 | 85 | 89 | 24 |
| 06 760 00 27 | G3/4" | 28,0 | 10,0 | 23,0 | 87 | 89 | 30 |
| 06 760 00 34 | G1" | 35,0 | 12,0 | 25,0 | 87 | 90 | 36 |



Schalldämpfer Polymer Silencer polymer

Serie 06 776

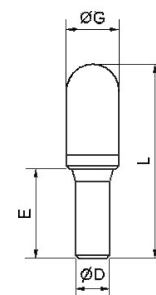
| Artikel Nr. / Ordering code | AG | E | ØG | L | | | |
|--------------------------------|-------|------|------|-------|--|--|--|
| 06 776 00 05 | M5 | 4,0 | 7,0 | 23,0 | | | |
| 06 776 00 10 | G1/8" | 6,0 | 12,5 | 34,0 | | | |
| 06 776 00 13 | G1/4" | 7,0 | 15,5 | 42,5 | | | |
| 06 776 00 17 | G3/8" | 11,5 | 18,5 | 67,5 | | | |
| 06 776 00 21 | G1/2" | 11,0 | 23,5 | 78,0 | | | |
| 06 776 00 27 | G3/4" | 15,5 | 38,5 | 131,0 | | | |
| 06 776 00 34 | G1" | 15,5 | 49,0 | 160,0 | | | |



Schalldämpfer Polymer, Steckanschluss Silencer polymer, Push-In fitting

Serie 06 776

| Artikel Nr. / Ordering code | ØD | E | ØG | L | | | |
|--------------------------------|------|------|------|------|--|--|--|
| 06 776 04 00 | 4,0 | 16,0 | 7,0 | 32,0 | | | |
| 06 776 06 00 | 6,0 | 24,5 | 12,5 | 45,0 | | | |
| 06 776 08 00 | 8,0 | 22,0 | 13,5 | 43,5 | | | |
| 06 776 10 00 | 10,0 | 31,0 | 15,5 | 57,5 | | | |
| 06 776 12 00 | 12,0 | 29,0 | 18,5 | 82,0 | | | |



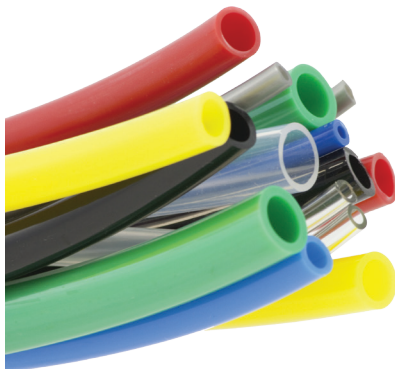
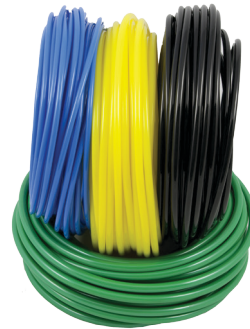
Schläuche Tubes

Allgemeine Informationen General information

Einleitung / Introduction

Dieser Teil des Katalogs umfasst unser Angebot über Schläuche. Unsere Schläuche werden als Verbindungselemente zwischen verschiedenen Pneumatikbauteilen verwendet. Die Schläuche werden mit hoher Präzision gefertigt. Diese Vorgehensweise garantiert geringen Verschleiß und damit eine lange Haltbarkeit.

This part of the catalog contains our offer of tubes. Our tubes are used as a connection between different pneumatic components. The tubes are produced with high precision. This approach guarantees minor wear and therefore a long life time.



Schläuche Tubes

Allgemeine Informationen General information

Druckverluste pro Meter Schlauch / Pressure drop per meter tube

Umgebungsdruck 1 bar / Ambient pressure 1 bar

Überdruck 5,5 bar / Overpressure 5,5 bar

Di = Wanddurchmesser des Schlauches / Wall thickness of the tube

| Normalliter / normal liter | | Druckabfall pro meter / pressure drop per meter | | | | | | |
|----------------------------|---------|---|------------------------|----------------------|----------------------|----------------------|-----------------------|-----------------------|
| Durchfluß / flow [l/s] | [l/min] | Di = 2 mm [bar/m] | Di = 2,7 mm [bar/m] | Di = 4 mm [bar/m] | Di = 6 mm [bar/m] | Di = 8 mm [bar/m] | Di = 10 mm [bar/m] | Di = 12 mm [bar/m] |
| 0,10 | 6,00 | 0,02 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 |
| 0,20 | 12,00 | 0,06 | 0,02 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 |
| 0,30 | 18,00 | 0,13 | 0,03 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 |
| 0,40 | 24,00 | 0,21 | 0,05 | 0,01 | 0,00 | 0,00 | 0,00 | 0,00 |
| 0,50 | 30,00 | 0,31 | 0,08 | 0,01 | 0,00 | 0,00 | 0,00 | 0,00 |
| 0,60 | 36,00 | 0,43 | 0,10 | 0,02 | 0,00 | 0,00 | 0,00 | 0,00 |
| 0,80 | 48,00 | 0,71 | 0,17 | 0,03 | 0,00 | 0,00 | 0,00 | 0,00 |
| 1,00 | 60,00 | 1,05 | 0,25 | 0,04 | 0,01 | 0,00 | 0,00 | 0,00 |
| 1,20 | 72,00 | 1,45 | 0,35 | 0,05 | 0,01 | 0,00 | 0,00 | 0,00 |
| 1,40 | 84,00 | 1,89 | 0,46 | 0,07 | 0,01 | 0,00 | 0,00 | 0,00 |
| 1,60 | 96,00 | - | 0,57 | 0,09 | 0,01 | 0,00 | 0,00 | 0,00 |
| 1,80 | 108,00 | - | 0,71 | 0,11 | 0,02 | 0,00 | 0,00 | 0,00 |
| 2,00 | 120,00 | - | 0,85 | 0,13 | 0,02 | 0,00 | 0,00 | 0,00 |
| 2,50 | 150,00 | - | 1,26 | 0,19 | 0,03 | 0,01 | 0,00 | 0,00 |
| 3,00 | 180,00 | - | 1,73 | 0,27 | 0,04 | 0,01 | 0,00 | 0,00 |
| 3,50 | 210,00 | - | - | 0,35 | 0,06 | 0,01 | 0,00 | 0,00 |
| 4,50 | 270,00 | - | - | 0,54 | 0,09 | 0,02 | 0,01 | 0,00 |
| 5,00 | 300,00 | - | - | 0,65 | 0,11 | 0,02 | 0,01 | 0,00 |
| 5,50 | 330,00 | - | - | 0,77 | 0,12 | 0,03 | 0,01 | 0,00 |
| 6,00 | 360,00 | - | - | 0,90 | 0,14 | 0,03 | 0,01 | 0,00 |
| 6,50 | 390,00 | - | - | 1,03 | 0,17 | 0,04 | 0,01 | 0,01 |
| 7,00 | 420,00 | - | - | 1,18 | 0,19 | 0,04 | 0,02 | 0,01 |
| 7,50 | 450,00 | - | - | 1,33 | 0,21 | 0,05 | 0,02 | 0,01 |
| 8,00 | 480,00 | - | - | 1,49 | 0,24 | 0,06 | 0,02 | 0,01 |
| 8,50 | 510,00 | - | - | 1,65 | 0,27 | 0,06 | 0,02 | 0,01 |
| 9,00 | 540,00 | - | - | 1,83 | 0,29 | 0,07 | 0,02 | 0,01 |
| 10,00 | 600,00 | - | - | - | 0,35 | 0,08 | 0,03 | 0,01 |
| 11,00 | 660,00 | - | - | - | 0,42 | 0,10 | 0,03 | 0,01 |
| 12,00 | 720,00 | - | - | - | 0,49 | 0,11 | 0,04 | 0,02 |
| 13,00 | 780,00 | - | - | - | 0,56 | 0,13 | 0,04 | 0,02 |
| 14,00 | 840,00 | - | - | - | 0,64 | 0,15 | 0,05 | 0,02 |
| 15,00 | 900,00 | - | - | - | 0,72 | 0,17 | 0,06 | 0,02 |
| 16,00 | 960,00 | - | - | - | 0,81 | 0,19 | 0,06 | 0,03 |
| 17,00 | 1020,00 | - | - | - | 0,90 | 0,21 | 0,07 | 0,03 |
| 18,00 | 1080,00 | - | - | - | 0,99 | 0,23 | 0,08 | 0,03 |
| 19,00 | 1140,00 | - | - | - | 1,09 | 0,25 | 0,09 | 0,04 |
| 20,00 | 1200,00 | - | - | - | 1,19 | 0,27 | 0,10 | 0,04 |
| 25,00 | 1500,00 | - | - | - | 1,76 | 0,41 | 0,14 | 0,06 |
| 30,00 | 1800,00 | - | - | - | - | 0,56 | 0,19 | 0,08 |
| 35,00 | 2100,00 | - | - | - | - | 0,73 | 0,25 | 0,11 |
| 40,00 | 2400,00 | - | - | - | - | 0,92 | 0,32 | 0,13 |
| 45,00 | 2700,00 | - | - | - | - | 1,13 | 0,39 | 0,17 |
| 50,00 | 3000,00 | - | - | - | - | 1,36 | 0,47 | 0,20 |
| 55,00 | 3300,00 | - | - | - | - | 1,61 | 0,56 | 0,23 |
| 60,00 | 3600,00 | - | - | - | - | 1,88 | 0,65 | 0,27 |
| 65,00 | 3900,00 | - | - | - | - | - | 0,75 | 0,31 |
| 70,00 | 4200,00 | - | - | - | - | - | 0,85 | 0,36 |
| 80,00 | 4800,00 | - | - | - | - | - | 1,08 | 0,45 |
| 90,00 | 5400,00 | - | - | - | - | - | 1,32 | 0,56 |
| 100,00 | 6000,00 | - | - | - | - | - | 1,59 | 0,67 |

Schläuche Tubes

Charakteristik

PA10.12 ist ein innovatives Polyamid, welches sehr gute Eigenschaften bietet. Es vereint die Vorteile von PA11 und PA12 in einem Produkt. Es bietet:

Characteristic

PA10.12 is an innovative polyamide which offers very good characteristics. The tube combines the advantages of PA11 and PA12 in one product. It offers:

- Hohe Druckfestigkeit / High working pressure
- Gute chemische Beständigkeit / Good chemical resistance
- Sehr gut Hydrolyse beständig / Very good hydrolysis resistance
- Exzellente Formstabilität / Excellent dimension stability
- Gute Temperatur- und UV-Beständigkeit / Good temperature- and UV resistance

Toleranzen nach DIN 73378 / Tolerances according to DIN 73378

4 mm bis / to 10 mm: $\pm 0,10$ mm, ab / from 12 mm: $\pm 0,15$ mm



| Artikel Nr. / Ordering Code | Nennmaße / Sizes | | Betr. Druck / Working pressure 23°C [bar] | Biegeradius / Bending radius [mm] | Gewicht / Weight [g / m] |
|--------------------------------|------------------------------|-----------------------------|--|---|-----------------------------|
| | Ø außen / outside [mm] | Ø innen / inside [mm] | | | |
| 03 PAPA 03 17 0X | 3 | 1,5 | 44 | 15 | 5,4 |
| 03 PAPA 04 02 0X | 4 | 2 | 44 | 15 | 9,7 |
| 03 PAPA 04 25 0X | 4 | 2,5 | 31 | 20 | 7,1 |
| 03 PAPA 06 04 0X | 6 | 4 | 27 | 35 | 16,2 |
| 03 PAPA 08 06 0X | 8 | 6 | 19 | 40 | 22,7 |
| 03 PAPA 10 08 0X | 10 | 8 | 15 | 60 | 29,1 |
| 03 PAPA 12 09 0X | 12 | 9 | 19 | 70 | 51,0 |
| 03 PAPA 12 10 0X | 12 | 10 | 12 | 85 | 35,6 |

Die Schläuche werden als Meterware in Rollen oder auf Trommeln geliefert.
The tubes are delivered by meter as rolls or on hose reels.

| Farben / Colours | | | | | | |
|------------------|---|---|---|---|---|---|
| Code | 0 | 1 | 2 | 3 | 4 | 5 |

Wählen Sie einen Schlauch und eine Farbe und ergänzen Sie den zugehörigen Farbcode in der Bestellnummer.
Choose a tube and a colour and add the colour code to the associated ordering code.

Beispiel / Example

03 PAPA 08 06 0X + = 3 → 03 PAPA 08 06 03

| Tabelle des max. Arbeitsdruckes in Abhängigkeit zur Temperatur / Pressure variation as function of temperature | | | | Temperaturbereich / Temperature range -60°C...+130°C | | |
|---|-------|-------|-------|---|-------|-------|
| -60°...+23°C | +30°C | +40°C | +50°C | +60°C | +70°C | +80°C |
| 100% | 87% | 74% | 64% | 57% | 52% | 47% |

Beispiel: Rohr 8/6 mm – zulässiger Betriebsdruck bei 50°C (19 bar x 64%) = 12 bar

Example: Tube 8/6 mm – allowable working pressure at 50°C (19 bar x 64%) = 12 bar

Schläuche Tubes

Charakteristik

Dieses neuartige und sehr innovative Schlauchmaterial vereint die Vorteile von Polyurethan und Polyamid in einem Produkt. Dieser Schlauch ist insbesondere für den Einsatz in der Pneumatik geeignet und bietet eine Reihe von Vorteilen.

Characteristic

This new and very innovative tube material combines the major advantages of polyurethane and polyamide in one product. This tube is particularly made for the pneumatic market and offers a number of useful benefits.

- Hohe Flexibilität / High flexibility
- Geringer Biegeradius / Excellent bending radius
- Gute chemische Beständigkeit / Good chemical resistance
- Großer Temperaturbereich / Wide temperature range
- Hydrolyse beständig / Hydrolysis resistant

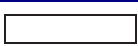






Toleranzen / Tolerances

4 mm bis / to 12 mm: ±0,10 mm
Größer / greater 12 mm: ±0,15 mm



| Artikel Nr. / Ordering Code | Nennmaße / Sizes | | Betr. Druck / Working pressure 23°C [bar] | Biegeradius / Bending radius [mm] | Gewicht / Weight [g / m] |
|--------------------------------|------------------------------|-----------------------------|--|---|-----------------------------|
| | Ø außen / outside [mm] | Ø innen / inside [mm] | | | |
| 03 PUPA 04 25 0X | 4 | 2,5 | 22 | 10 | 8,8 |
| 03 PUPA 06 04 0X | 6 | 4 | 19 | 15 | 18,3 |
| 03 PUPA 08 06 0X | 8 | 6 | 16 | 25 | 25,5 |
| 03 PUPA 10 08 0X | 10 | 8 | 12 | 35 | 33,0 |

Die Schläuche werden als Meterware in Rollen oder auf Trommeln geliefert.
The tubes are delivered by meter as rolls or on hose reels.

| Farben / Colours |  |  |  |  |  |  |  |
|------------------|---|---|---|--|---|---|---|
| Code | 0 | 1 | 2 | 3 | 4 | 5 | 6 |

Wählen Sie einen Schlauch und eine Farbe und ergänzen Sie den zugehörigen Farbcode in der Bestellnummer.
Choose a tube and a colour and add the colour code to the associated ordering code.

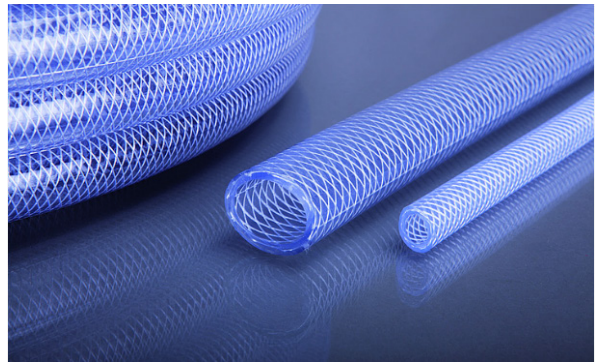
Beispiel / Example
03 PUPA 10 08 0X +  = 1 → 03 PUPA 10 08 01

| Tabelle des max. Arbeitsdruckes in Abhängigkeit zur Temperatur / Pressure variation as function of temperature | | | Temperaturbereich / Temperature range -40°C... +100°C | |
|---|-------|-------|--|-------|
| -40°...+23°C | +30°C | +40°C | +50°C | +60°C |
| 100% | 83% | 71% | 62% | 55% |

Beispiel: Rohr 6/4 mm – zulässiger Betriebsdruck bei 50°C (19 bar x 62%) = 11,7 bar
Example: Tube 6/4 mm – allowable working pressure at 50°C (19 bar x 62%) = 11,7 bar

Schläuche Tubes

| | |
|--|---|
| Werkstoff Material | Weich-PVC Soft-PVC |
| Gewebeeinlage Fabric lining | Polyestergarn Polyester fabric |
| Farbe Colour | Transparent Transparent |
| Temperaturbereich Temperature range | -20°C bis +65°C -20°C to +65°C |
| Toleranz / Tolerance | DIN 16940 |
| Lebensmittel Food approval | Komform nach EU 10/2011 A, B, C conformity to EU 10/2011 A, B, C |
| REACH | Komform nach / Conformity |
| RoHS | Komform nach / Conformity to 2011/65/EU to 1907/2006/EC |

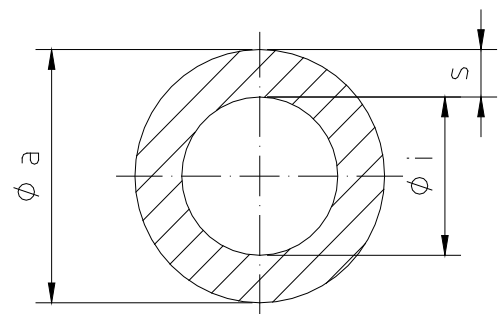


Druckfester PVC-Schlauch (Polyvinylchlorid), fadenarmiert, cadmiumfrei, TÜV geprüft
Pressure-resistant PVC hose (polyvinyl chloride), filament reinforced, free of cadmium, TÜV proofed

| Artikel Nr. / Ordering code | VP | Øi | Øa | s | m | r | PN | PB | 40°C | 60°C |
|--------------------------------|------|----|----|-----|------|-------|------|------|------|------|
| 03.118.04.30 | 50 m | 4 | 10 | 3,0 | 8,4 | 15,0 | 20,0 | 80,0 | 14,6 | 8,0 |
| 03.118.06.30 | 50 m | 6 | 12 | 3,0 | 10,8 | 25,0 | 15,0 | 60,0 | 11,0 | 6,0 |
| 03.118.08.30 | 50 m | 8 | 14 | 3,0 | 13,2 | 30,0 | 15,0 | 60,0 | 11,0 | 6,0 |
| 03.118.09.30 | 50 m | 9 | 15 | 3,0 | 14,4 | 35,0 | 12,0 | 48,0 | 8,8 | 4,8 |
| 03.118.10.30 | 50 m | 10 | 16 | 3,0 | 15,6 | 40,0 | 10,0 | 40,0 | 7,3 | 4,0 |
| 03.118.13.30 | 50 m | 13 | 18 | 3,0 | 18,0 | 55,0 | 10,0 | 40,0 | 7,3 | 4,0 |
| 03.118.15.30 | 50 m | 15 | 19 | 3,0 | 19,2 | 70,0 | 10,0 | 40,0 | 5,8 | 3,2 |
| 03.118.16.30 | 50 m | 16 | 24 | 4,0 | 32,0 | 75,0 | 10,0 | 40,0 | 5,1 | 2,8 |
| 03.118.19.40 | 25 m | 19 | 27 | 4,0 | 36,8 | 130,0 | 7,0 | 28,0 | 4,4 | 2,4 |
| 03.118.25.45 | 25 m | 25 | 34 | 4,5 | 53,1 | 220,0 | 6,0 | 24,0 | 4,4 | 2,4 |
| 03.118.32.45 | 25 m | 32 | 42 | 5,0 | 74,0 | 310,0 | 5,5 | 22,0 | 4,4 | 2,4 |

Erklärungen / Declarations:

VP = Verpackungseinheit (Rolle) / Package unit (reel)
r = Biegeradius [mm] / Bend radius [mm]
m = Gewicht [kg/100 m] / Weight [kg/100 m]
PN = Betriebsdruck bei 20° C [bar] / Nominal pressure at 20° C
PB = Berstdruck [bar] / Cracking pressure [bar]
40° C = Betriebsdruck bei 40° C [bar] / Nominal pressure at 40° C [bar]
60° C = Betriebsdruck bei 60° C [bar] / Nominal pressure at 60° C [bar]



Notizen

Notes



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