

Directional valves ► Pneumatically operated

Series 740

Brochure



Directional valves ► Pneumatically operated

Series 740

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Directional valves ► Pneumatically operated

5/2-directional valve, Series 740

► Qn = 700 - 950 l/min ► pipe connection ► compressed air connection output: Ø 8x1 - Ø 10x1 ► Can be assembled into blocks ► Manual override: without ► suitable for ATEX



00134170

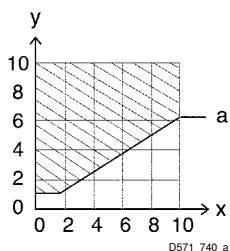
Version	Diaphragm poppet valve
Pilot	internal
Sealing principle	Soft sealing
Mounting on manifold strip	PRS strip
Working pressure min./max.	1.5 bar / 10 bar
Ambient temperature min./max.	-15 °C / +60 °C
Medium temperature min./max.	-15 °C / +60 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 mg/m³ - 5 mg/m³
Materials:	
Housing	Polyoxymethylene; Polyarylamide
Seals	Acrylonitrile Butadiene Rubber

Technical Remarks

- The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
- The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C.
- The oil content of compressed air must remain constant during the life cycle.
- Use only the approved oils from AVENTICS, see chapter „Technical information“.

		Compressed air connection				Flow rate value	Weight	Part No.
	Blocking principle	Input	Output	Exhaust	Pilot control exhaust			
						[l/min]	[kg]	
	Single base plate principle, Plate principle	Ø 8x1	Ø 8x1	M14x1	Ø 8x1	700	0.18	5717400000
		Ø 10x1	Ø 10x1			950		5717450000
Nominal flow Qn at p1 = 6.3 bar and Δp = 1 bar with throttle								

Pilot pressure range



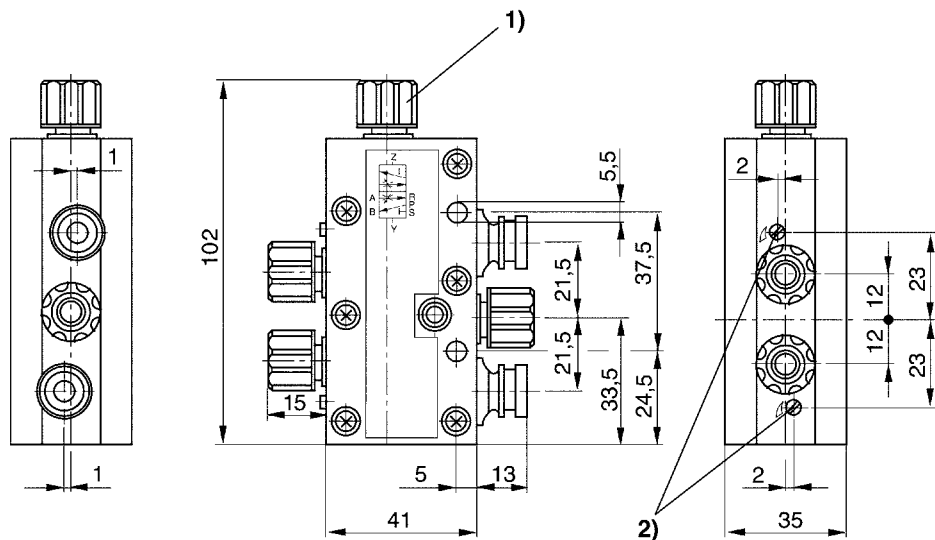
x: Working pressure (bar)

y: Pilot pressure (bar)

a: Min. pilot pressure at port 14 (Z) depending on working pressure

5/2-directional valve, Series 740

► $Q_n = 700 - 950 \text{ l/min}$ ► pipe connection ► compressed air connection output: $\varnothing 8 \times 1 - \varnothing 10 \times 1$ ► Can be assembled into blocks ► Manual override: without ► suitable for ATEX

Dimensions


1) for pipe $\varnothing 8 \times 1$

2) flow control screw for exhausts 5 (R) and 3 (S)

D571_740

Directional valves ► Pneumatically operated

5/2-directional valve, Series 740-CP

► Qn = 950 l/min ► pipe connection ► compressed air connection output: Ø 10x1 ► Can be assembled into blocks ► corrosion-protected ► Manual override: without ► suitable for ATEX



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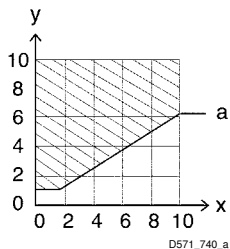
Version	Diaphragm poppet valve
Pilot	internal
Sealing principle	Soft sealing
Mounting on manifold strip	PRS strip
Working pressure min./max.	2 bar / 10 bar
Ambient temperature min./max.	-15 °C / +60 °C
Medium temperature min./max.	-15 °C / +60 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 mg/m³ - 5 mg/m³
Materials:	
Housing	Polyoxymethylene
Seals	Acrylonitrile Butadiene Rubber
Front plate	Polyarylamide

Technical Remarks

- The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
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- The oil content of compressed air must remain constant during the life cycle.
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		Compressed air connection				Flow rate value	Weight	Note	Part No.
	Blocking principle	Input	Output	Exhaust	Pilot control exhaust				
						[l/min]	[kg]		
	Single base plate principle, Plate principle	Ø 10x1	Ø 10x1	M14x1	Ø 8x1	950	0.18	1)	5717451000
1) See diagram Nominal flow Qn at p1 = 6.3 bar and Δp = 1 bar with throttle									

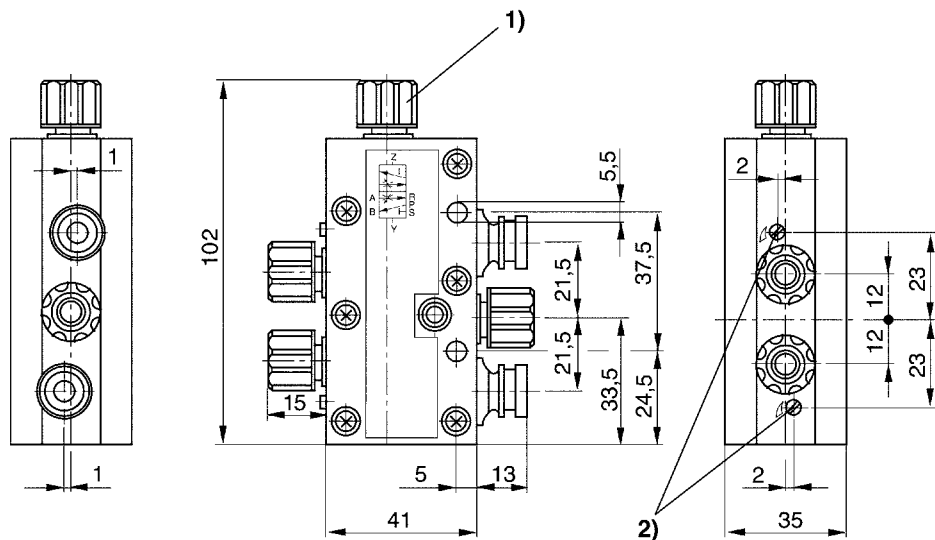
Pilot pressure range



x: Working pressure (bar)
y: Pilot pressure (bar)
a: Min. pilot pressure at port 14 (Z) depending on working pressure

5/2-directional valve, Series 740-CP

► $Q_n = 950 \text{ l/min}$ ► pipe connection ► compressed air connection output: $\varnothing 10 \times 1$ ► Can be assembled into blocks ► corrosion-protected ► Manual override: without ► suitable for ATEX

Dimensions


D571_740

 1) for pipe $\varnothing 8 \times 1$

2) flow control screw for exhausts 5 (R) and 3 (S)

Directional valves ► Pneumatically operated

5/2-directional valve, Series 740

► Qn = 700 - 950 l/min ► pipe connection ► compressed air connection output: Ø 8x1 - Ø 10x1 ► Can be assembled into blocks ► Manual override: with detent ► suitable for ATEX

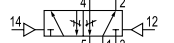


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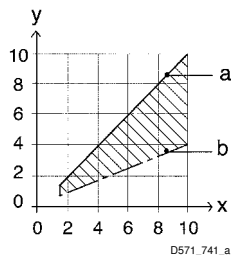
Version	Diaphragm poppet valve
Pilot	internal
Sealing principle	Soft sealing
Mounting on manifold strip	PRS strip
Working pressure min./max.	1.5 bar / 10 bar
Ambient temperature min./max.	-15 °C / +60 °C
Medium temperature min./max.	-15 °C / +60 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 mg/m³ - 5 mg/m³
Materials:	
Housing	Polyoxymethylene
Seals	Acrylonitrile Butadiene Rubber

Technical Remarks

- The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
- The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C.
- The oil content of compressed air must remain constant during the life cycle.
- Use only the approved oils from AVENTICS, see chapter „Technical information“.

		Compressed air connection				Flow rate value	Weight	Note	Part No.
	Blocking principle	Input	Output	Exhaust	Pilot control exhaust				
						[l/min]	[kg]		
	Single base plate principle, Plate principle	Ø 8x1	Ø 8x1	M14x1	Ø 8x1	700	0.23	1)	5717410000
		Ø 10x1	Ø 10x1			950			5717460000
1) See diagram Nominal flow Qn at p1 = 6.3 bar and Δp = 1 bar with throttle									

Pilot pressure range



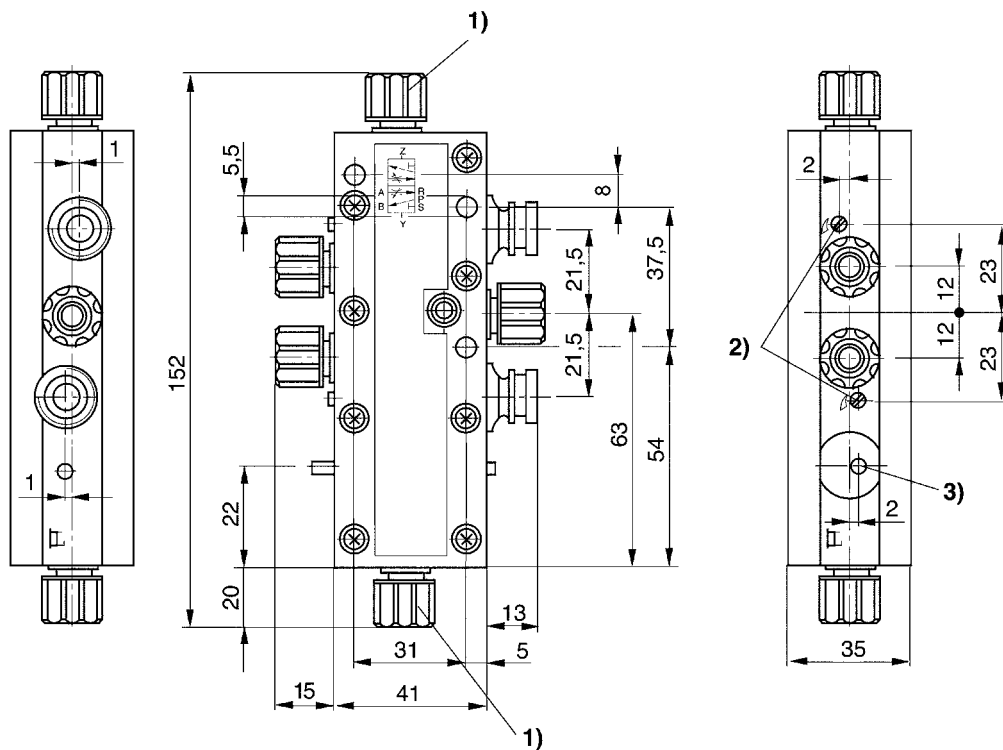
D571_741_a

x: operating pressure (bar) y: control pressure (bar)
 a: maximum control pressure depending on operating pressure
 b: minimum control pressure depending on operating pressure

5/2-directional valve, Series 740

► Qn = 700 - 950 l/min ► pipe connection ► compressed air connection output: Ø 8x1 - Ø 10x1 ► Can be assembled into blocks ► Manual override: with detent ► suitable for ATEX

Dimensions



1) for pipe $\varnothing 8 \times 1$

2) flow control screw for exhausts 5 (R) and 3 (S)

3) position indicator

D571_746

Directional valves ► Pneumatically operated

5/2-directional valve, Series 740-CP

► $Q_n = 950$ l/min ► pipe connection ► compressed air connection output: Ø 10x1 ► Can be assembled into blocks ► corrosion-protected ► Manual override: with detent ► suitable for ATEX



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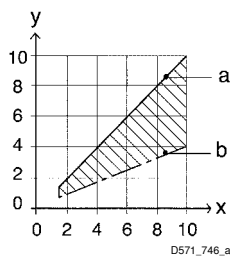
Version	Diaphragm poppet valve
Pilot	internal
Sealing principle	Soft sealing
Mounting on manifold strip	PRS strip
Working pressure min./max.	2 bar / 10 bar
Ambient temperature min./max.	-15 °C / +60 °C
Medium temperature min./max.	-15 °C / +60 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 mg/m³ - 5 mg/m³
Materials:	
Housing	Polyoxymethylene
Seals	Acrylonitrile Butadiene Rubber
Front plate	Polyarylamide

Technical Remarks

- The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
- The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C.
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		Compressed air connection				Flow rate value	Weight	Note	Part No.
	Blocking principle	Input	Output	Exhaust	Pilot control exhaust				
						[l/min]	[kg]		
	Single base plate principle, Plate principle	Ø 10x1	Ø 10x1	M14x1	Ø 8x1	950	0.23	1)	5717461000
1) See diagram Nominal flow Q_n at $p_1 = 6.3$ bar and $\Delta p = 1$ bar with throttle									

Pilot pressure range

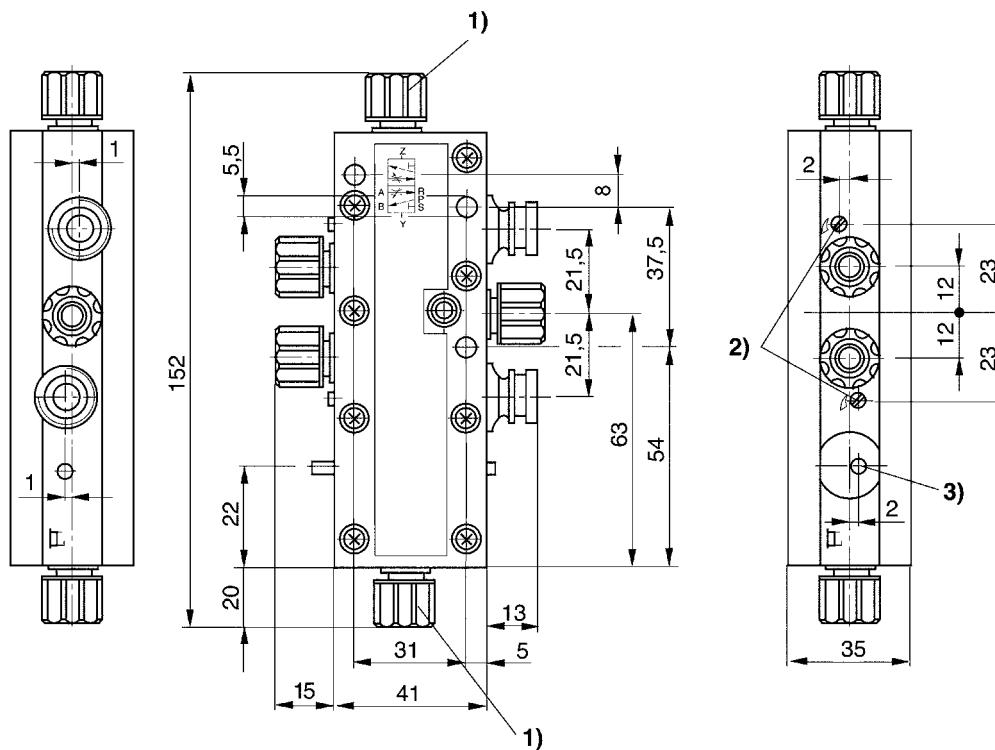


D571_746_a

x: operating pressure (bar) y: control pressure (bar)
a: maximum control pressure depending on operating pressure
b: minimum control pressure depending on operating pressure

5/2-directional valve, Series 740-CP

► $Q_n = 950 \text{ l/min}$ ► pipe connection ► compressed air connection output: $\varnothing 10 \times 1$ ► Can be assembled into blocks ► corrosion-protected ► Manual override: with detent ► suitable for ATEX

Dimensions


D571_746

- 1) for pipe $\varnothing 8 \times 1$
- 2) flow control screw for exhausts 5 (R) and 3 (S)
- 3) position indicator

Directional valves ► Pneumatically operated

Series 740 Accessories

Subbases and accessories



5727-501

Ambient temperature min./max.
Medium
Working pressure min./max.

-15°C / +50°C
Compressed air
See table below

Materials:
Base plate
Seals

Polyoxymethylene
Acrylonitrile Butadiene Rubber

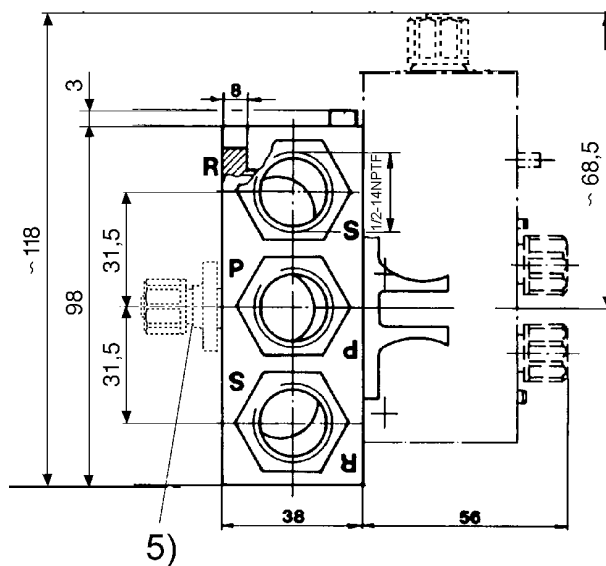
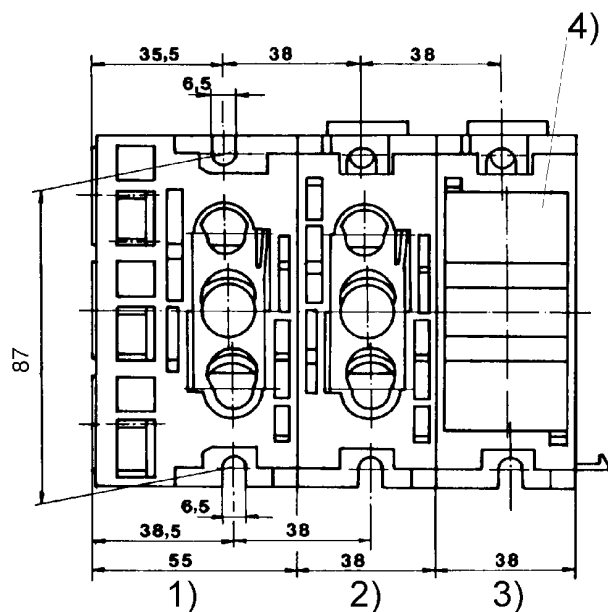
Technical Remarks

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- The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C.
- The oil content of compressed air must remain constant during the life cycle.
- Use only the approved oils from AVENTICS, see chapter „Technical information“.

Type	Working pressure min./max.	Weight [kg]	Part No.
Supply plate, complete with O-rings	0 / 10	0.245	8985003902
Supply plate, corrosion-protected, complete with O-rings	0 / 10	0.237	8985003972
Sandwich plate 740, complete with O-rings.	0 / 10	0.089	8985003922
End plate	0 / 10	0.092	8985003912
Dummy flange for reserve places complete with seals	0 / 10	0.033	5727406012
Adapter for separate air supply	-	0.008	8939102500
Sealing kit: 10 O-rings, connection "R" and "S", 5 O-rings, connection "P" Ø 8 mm, 5 O-rings, connection "P" Ø 10 mm	0 / 10	0.009	5727400092

Series 740 Accessories

Dimensions



Tightening torque for all screws max. 35 Nm

- 1) Inlet plate
- 2) Through plate
- 3) End plate
- 4) Dummy flange
- 5) Adapter for separate air supply

D898_397_NPTF

Directional valves ► Pneumatically operated

Series 740 Accessories

Fittings - Accessories, Series 740



p893_900

Fig. 1

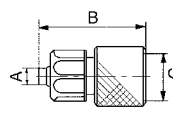


Fig. 2

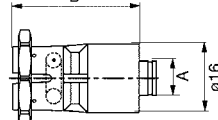


Fig. 3

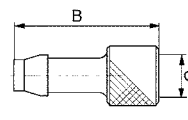


Fig. 4

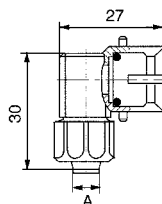


Fig. 5

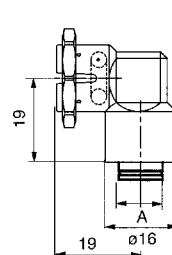


Fig. 6

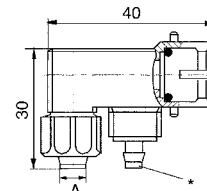


Fig. 7

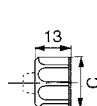


Fig. 8

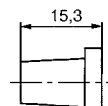


Fig. 9

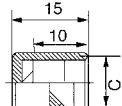
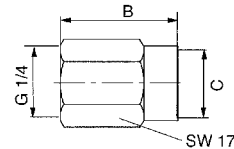


Fig. 10



D893_900

Part No.	Type	Ø A	B	C	Fig.				
8939008500	Reducing fitting Ø 8x1 to Ø 6x incl. O-ring	4	25	M12x1	Fig. 1				
8939008510	Reducing fitting Ø 10x1 to Ø 6x1 incl. O-ring	4	26	M14x1	Fig. 1				
8939008520	Reducing fitting Ø 10x1 to Ø 8x1 incl. O-ring	6	27	M14x1	Fig. 1				
8938000910	Reducing fitting Ø 8x1 to Ø 6x1, push-in incl. O-ring	6	29.5	–	Fig. 2				
8938000920	Reducing fitting Ø 8x1 to Ø 8x1, push-in incl. O-ring	8	29.5	–	Fig. 2				
8939008800	fitting, for port R and S for 8x1	6	24	M14x1	Fig. 1				
8931220200	Tubing connector for fabric-reinforced tubing Ø 8x3, incl. O-Ring	8	33	M12x1	Fig. 3				
8938306520	elbow fitting Ø 10x1 to Ø 6x1, incl. O-ring	4	–	–	Fig. 4				
8938306530	elbow fitting Ø 10x1 to Ø 8x1, incl. O-ring	6	–	–	Fig. 4				
8938306540	elbow fitting Ø 10x1 to Ø 10x1, incl. O-ring	8	–	–	Fig. 4				
8938306550	elbow fitting Ø 8x1 to Ø 6x1, push-in, incl. O-ring	6	–	–	Fig. 5				
8938306560	elbow fitting Ø 8x1 to Ø 8x1, push-in, incl. O-ring	8	–	–	Fig. 5				
8919905404	tube nut, Ø 8x1	–	–	M12x1	Fig. 7				
8919905414	tube nut, Ø 10x1	–	–	M14x1	Fig. 7				
8993809904	Silencers	–	–	–	Fig. 8				
8919905502	Screw plug, Ø 8x1	–	–	M12x1	Fig. 9				
8919905512	Screw plug, Ø 10x1	–	–	M14x1	Fig. 9				
8932404100	Adapter, Ø 8x1, G 1/4, incl. O-ring	–	27	M12x1	Fig. 10				

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27-07-2016

An example configuration is depicted on the title page. The delivered product may thus vary from that in the illustration. Subject to change. © AVENTICS S.à r.l.
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