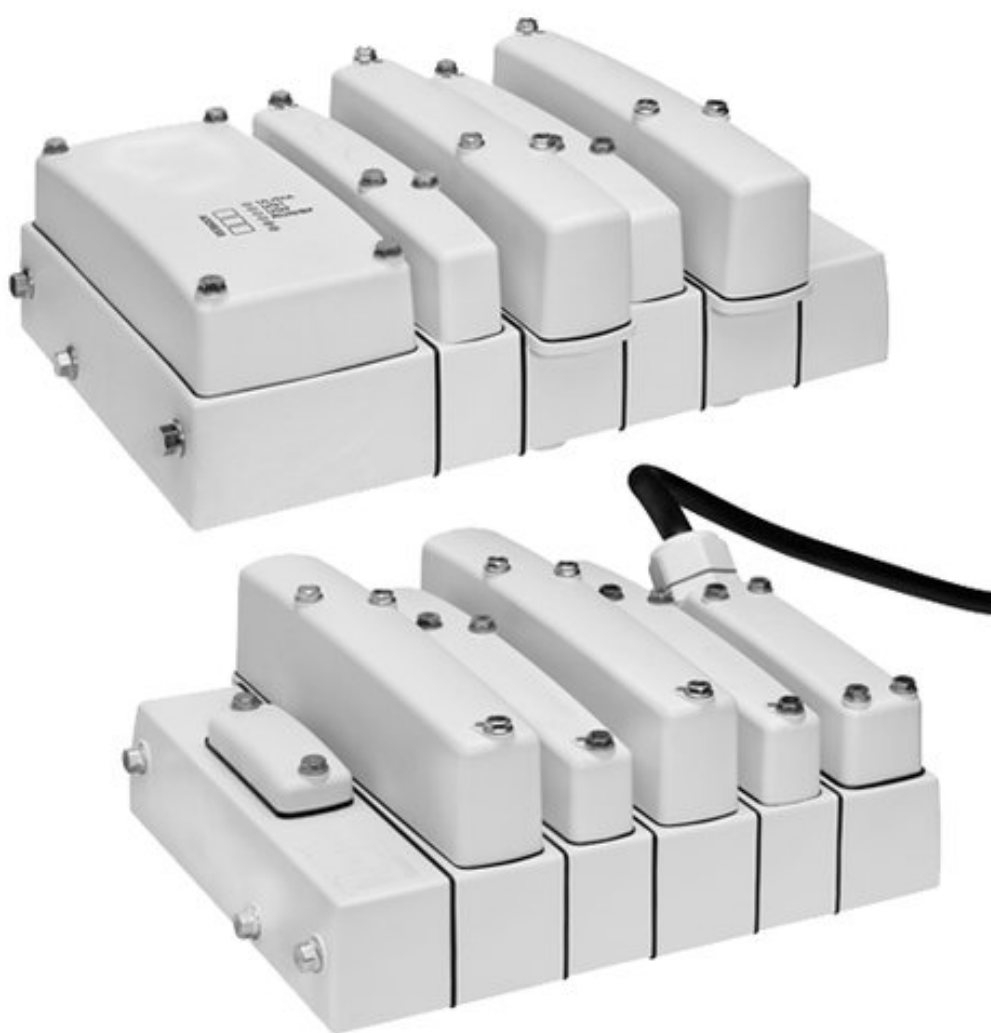


## Series CL03

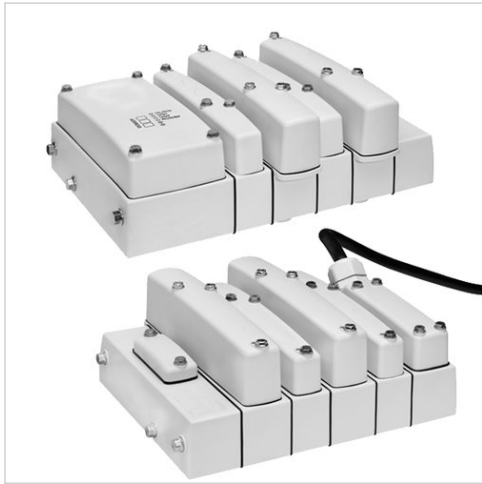


AVENTICS™ Series CL03



# Valve system, Series CL03

- Configurable valve systems, suitable for use in food processing



Blocking principle	Single base plate principle
Certificates	UR (Underwriters Laboratories)
Working pressure min./max.	-0.95 ... 10 bar
Control pressure min./max.	3 ... 10 bar
Ambient temperature min./max.	0 ... 50 °C
Medium temperature min./max.	0 ... 50 °C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 ... 5 mg/m <sup>3</sup>
Nominal flow Qn	1100 l/min
Operational voltage electronics	24 V DC
Number of valve positions max.	18
Protection class with connection	IP65 IP67 IP69K
DC operating voltage	24 V

An example configuration is illustrated.  
The delivered product may thus deviate from the illustration.

## Overview of variants

	Version	You have the following options:
	Multipole	Electrical connection Multipole suitable for use in food processing
	Direct fieldbus connection	Supported fieldbus protocols: PROFIBUS DP CANopen DeviceNet PROFINET IO EtherNET/IP

## Technical information

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. Further information can be found in the "Technical information" document (available in the MediaCentre).  
 See the following pages on the series for technical data on individual components.  
 The pilot valve is UL (Underwriters Laboratories) certified.

## Technical information

Material	
End plate	Polyamide fiber-glass reinforced
Seal	Hydrogenated acrylonitrile butadiene rubber

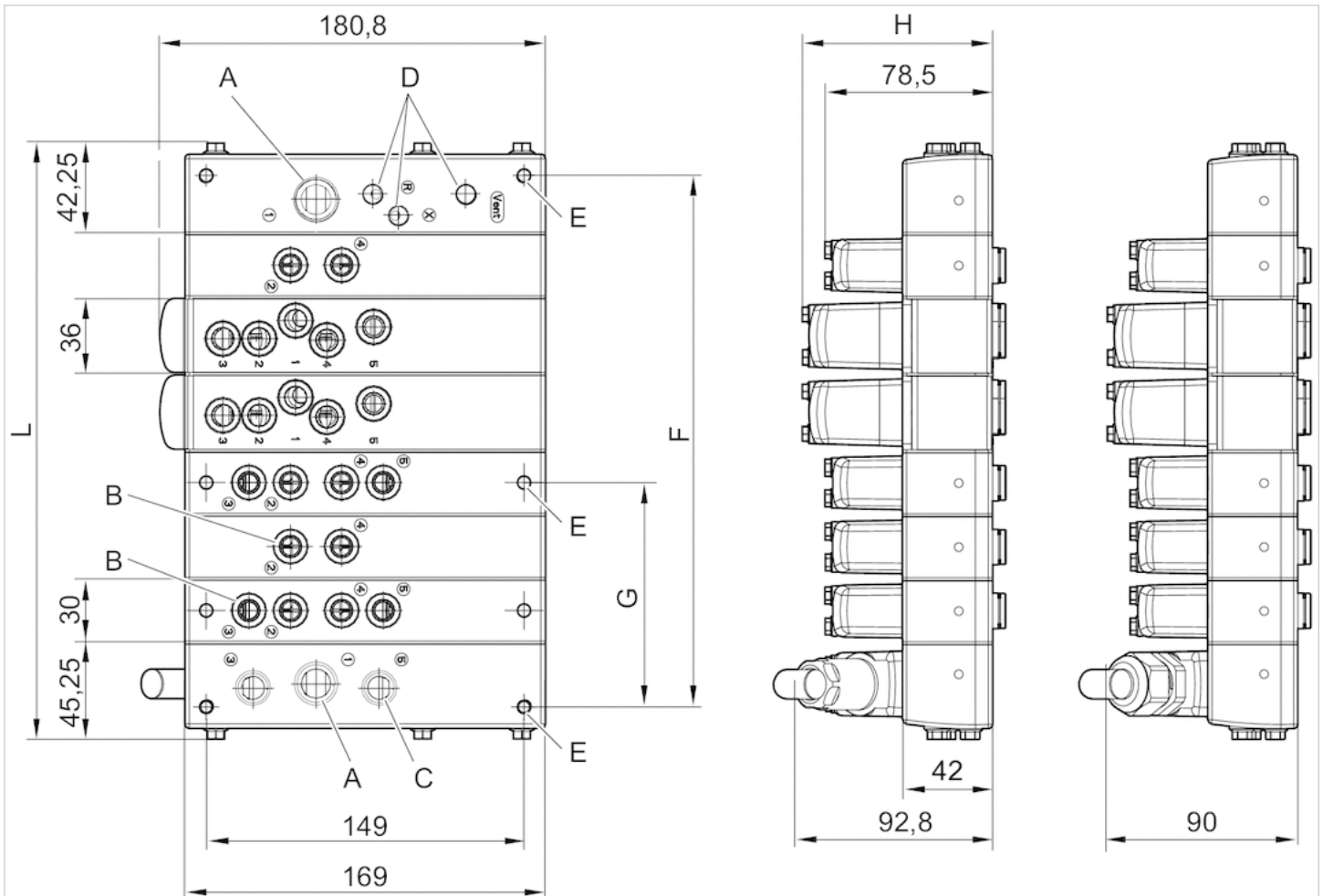
## Material

Base plate

Polyamide fiber-glass reinforced

## Dimensions

## Dimensions in mm, Multipole plug



A = port 1: G 1/2

B = for 2-ported and 4-ported subbases: all ports G 1/4 or push-in 8 mm. For 5-ported subbases: all ports G 1/4 or push-in 10 mm

C = ports 3 and 5: G 3/8

D = external supply and exhaust for pilot valves and ventilation port: G 1/8

E = mounting thread M6, max. thread depth 15 mm

F = 57.25 + (number of 2-ported and 4-ported subbases) \* 30 + (number of 5-ported subbases) \* 36

G = mounting on 4-ported subbase 15.25 + (number of 2-ported and 4-ported subbases) \* 30 + (number of 5-ported subbases) \* 36

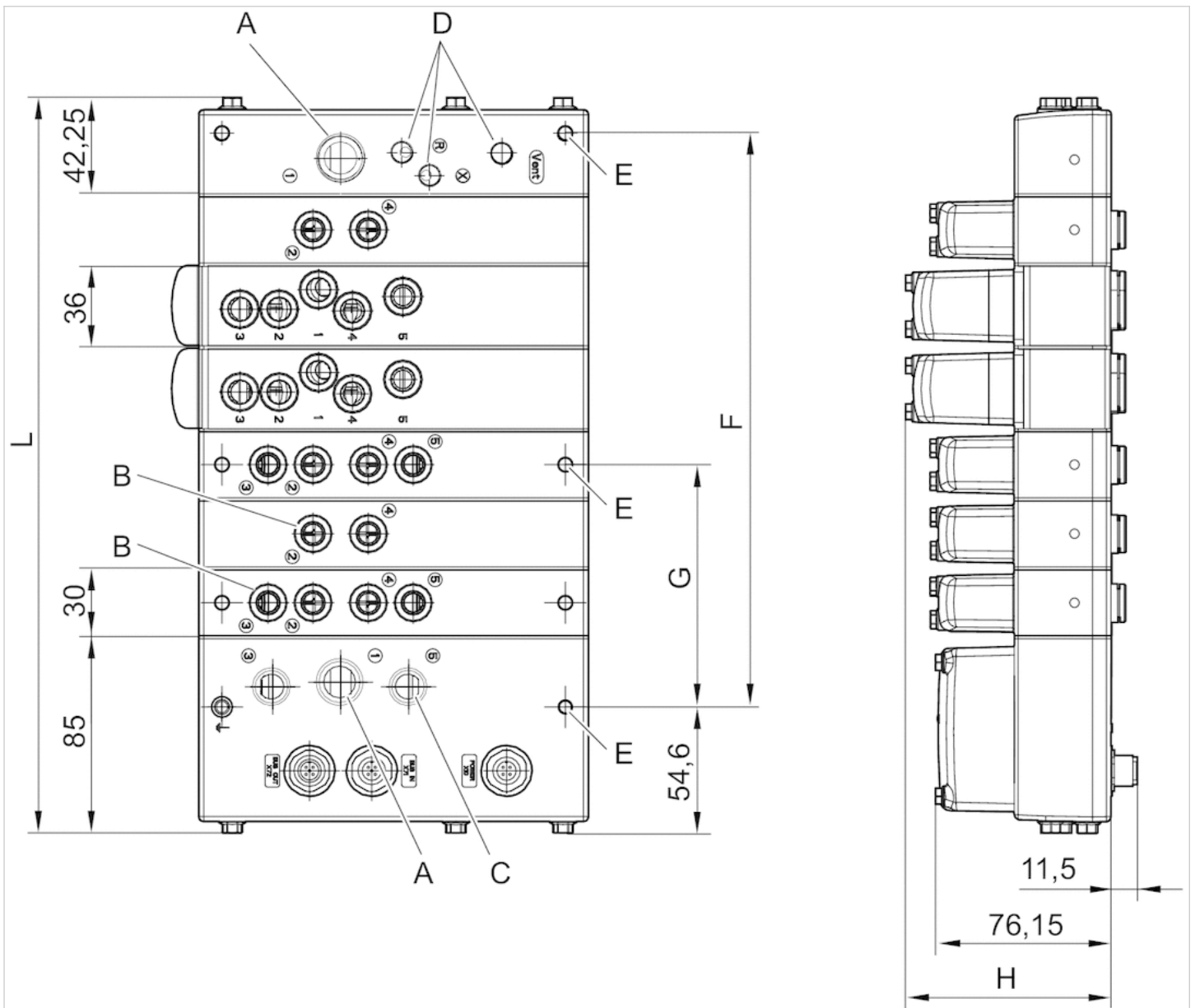
G = mounting on 5-ported subbase 12.25 + (number of 2-ported and 4-ported subbases) \* 30 + (number of 5-ported subbases) \* 36

L = 87.5 + (number of 2-ported and 4-ported subbases) \* 30 + (number of 5-ported subbases) \* 36

H = 89.15 (IP69K version)

An example configuration is illustrated. The delivered product may thus deviate from the illustration.

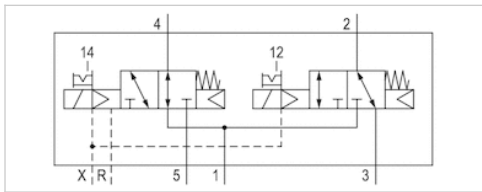
Dimensions in mm, Direct fieldbus connection (BDC)



$G = \text{mounting on 4-ported subbase } 0.60'' + (\text{number of 2-ported and 4-ported subbases}) * 1.18'' + (\text{number of 5-ported subbases}) * 1.42''$   
 $G = \text{mounting on 5-ported subbase } 0.48'' + (\text{number of 2-ported and 4-ported subbases}) * 1.18'' + (\text{number of 5-ported subbases}) * 1.42''$   
 $L = 5.01'' + (\text{number of 2-ported and 4-ported subbases}) * 1.18'' + (\text{number of 5-ported subbases}) * 1.42''$   
 $H = 3.51''$  (IP69K version)  
 An example configuration is illustrated. The delivered product may thus deviate from the illustration.




## 2x3/2-directional valve, Series CL03-EV

- 2x3/2
- $Q_n = 700$  l/min
- Pilot valve width : 16 mm
- NO/NC
- Plate connection
- Compressed air connection output :  $\varnothing 8$  G 1/8
- Manual override : with detent
- Pilot : External
- suitable for use in food processing



Version	Spool valve, positive overlapping
Activation	Electrically
Pilot	External
Sealing principle	Soft sealing
Blocking principle	Single base plate principle
Certificates	UR (Underwriters Laboratories)
Working pressure min./max.	-0.9 ... 10 bar
Control pressure min./max.	3 ... 10 bar
Ambient temperature min./max.	0 ... 50 °C
Medium temperature min./max.	0 ... 50 °C
Medium	Compressed air
Max. particle size	5 $\mu\text{m}$
Oil content of compressed air	0 ... 5 mg/m <sup>3</sup>
Nominal flow $Q_n$	700 l/min
Pilot control exhaust	With collective pilot air exhaust
Protection class with connection	IP65 IP67 IP69K
Protective circuit	Z-diode
Reverse polarity protection	Protected against polarity reversal
LED status display	Yellow
Duty cycle	100 %
Typ. switch-on time	16 ms
Typ. switch-off time	25 ms
mounting screws	M5
Mounting screw tightening torque	2 Nm
Tightening torque tolerance	$\pm 0,2$ mT
Weight	0.165 kg

## Technical data

Part No.	MO		Compressed air connection	
			Input	Output
R412017959		NO/NC	Ø 8	Ø 8
R412017960		NO/NC	Ø 8	Ø 8
R412017961		NO/NC	G 1/8	G 1/8

Part No.	Compressed air connection	
	Exhaust	Pilot Input
R412017959	Ø 8	Ø 4
R412017960	Ø 8	Ø 4
R412017961	G 1/8	M5

Part No.	Compressed air connection		Operational voltage	Voltage tolerance
		Pilot Exhaust		
R412017959	Ø 4	Ø 4	24 V	-15% / +20%
R412017960	Ø 4	Ø 4	24 V	-15% / +20%
R412017961	M5	M5	24 V	-15% / +20%

Part No.	Power consumption	Flow conductance	Flow conductance	push-in fitting
	DC	b	C-value	
R412017959	0.35 W	0.22	2.9 l/(s*bar)	Brass nickel-plated
R412017960	0.35 W	0.22	2.9 l/(s*bar)	Stainless steel
R412017961	0.35 W	0.22	2.9 l/(s*bar)	-

Nominal flow Qn at 6 bar and  $\Delta p = 1$  bar, MO = Manual override

## Technical information

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. Further information can be found in the "Technical information" document (available in the MediaCentre).

For series QR2 fittings, see "Pneumatic connection technologies".

The inner valve can be replaced by all series CL03 valves described under "Valve systems".

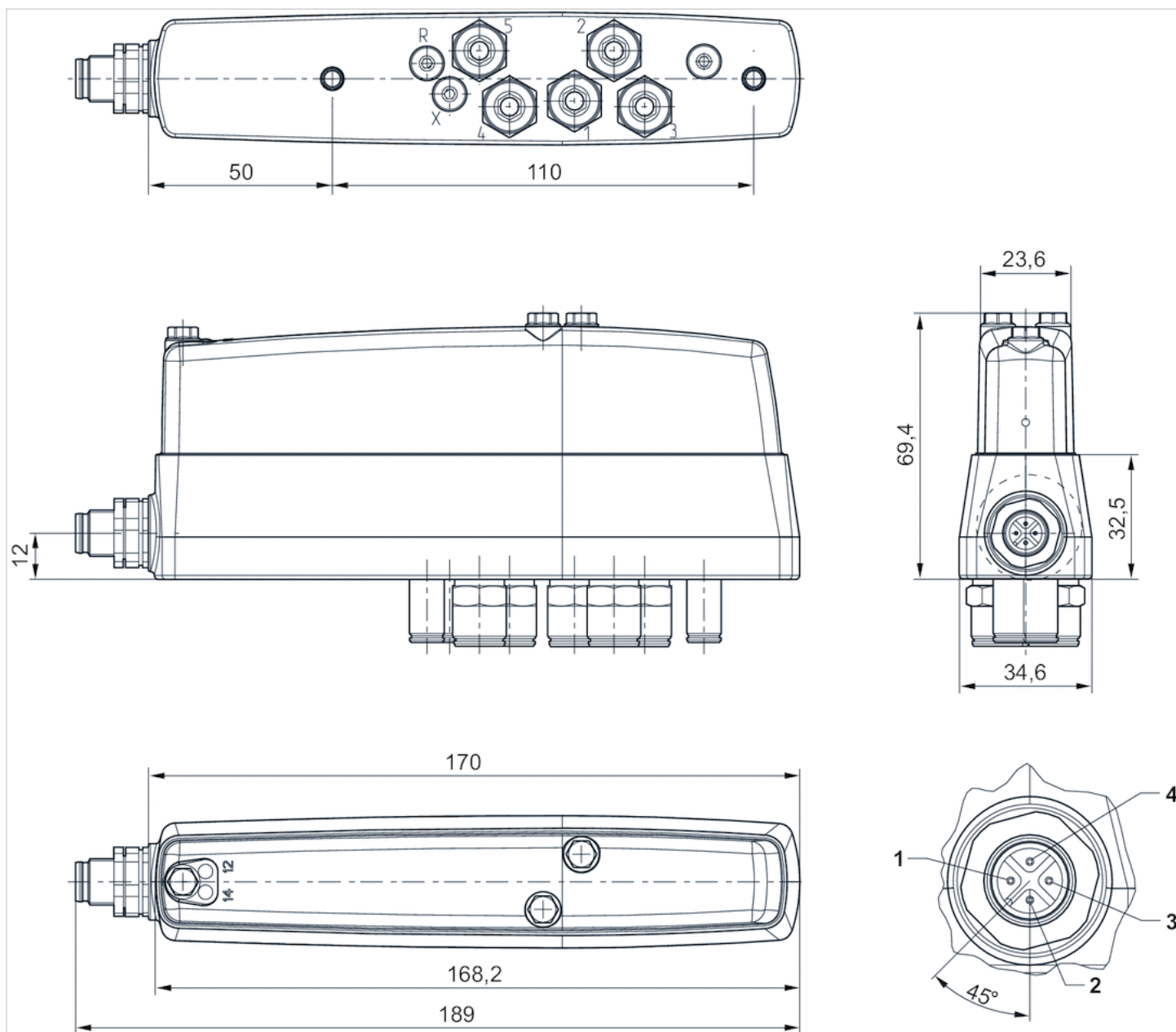
The pilot valve is UL (Underwriters Laboratories) certified.

## Technical information

Material	
Housing	Polyamide fiber-glass reinforced
Seals	Hydrogenated acrylonitrile butadiene rubber
Threaded bushing	Brass, nickel-plated Stainless steel

## Dimensions

### Dimensions

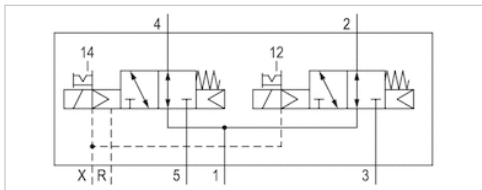


Electrical connection:

- 1) Not connected
- 2) Solenoid 12
- 3) 0 V
- 4) Solenoid 14

## 2x3/2-directional valve, Series CL03-EV




- 2x3/2
- $Q_n = 700$  l/min
- Pilot valve width : 16 mm
- NO/NO
- Plate connection
- Compressed air connection output :  $\varnothing 8$  G 1/8
- Manual override : with detent
- Pilot : External
- suitable for use in food processing



Version	Spool valve, positive overlapping
Activation	Electrically
Pilot	External
Sealing principle	Soft sealing
Blocking principle	Single base plate principle
Certificates	UR (Underwriters Laboratories)
Working pressure min./max.	-0.9 ... 10 bar
Control pressure min./max.	2.5 ... 10 bar
Ambient temperature min./max.	0 ... 50 °C
Medium temperature min./max.	0 ... 50 °C
Medium	Compressed air
Max. particle size	5 $\mu\text{m}$
Oil content of compressed air	0 ... 5 mg/m <sup>3</sup>
Nominal flow $Q_n$	700 l/min
Pilot control exhaust	With collective pilot air exhaust
Protection class with connection	IP65 IP67 IP69K
Protective circuit	Z-diode
Reverse polarity protection	Protected against polarity reversal
LED status display	Yellow
Duty cycle	100 %
Typ. switch-on time	16 ms
Typ. switch-off time	25 ms
mounting screws	M5
Mounting screw tightening torque	2 Nm
Tightening torque tolerance	$\pm 0,2$ mT
Weight	0.165 kg



## Technical data

Part No.	MO		Compressed air connection	
			Input	Output
R412017956		NO/NO	Ø 8	Ø 8
R412017957		NO/NO	Ø 8	Ø 8
R412017958		NO/NO	G 1/8	G 1/8

Part No.	Compressed air connection	
	Exhaust	Pilot Input
R412017956	Ø 8	Ø 4
R412017957	Ø 8	Ø 4
R412017958	G 1/8	M5

Part No.	Compressed air connection		Operational voltage	Voltage tolerance
		Pilot Exhaust		
R412017956	Ø 4	Ø 4	24 V	-15% / +20%
R412017957	Ø 4	Ø 4	24 V	-15% / +20%
R412017958	M5	M5	24 V	-15% / +20%

Part No.	Power consumption	Flow conductance	Flow conductance	push-in fitting
	DC	b	C-value	
R412017956	0.35 W	0.22	2.9 l/(s*bar)	Brass nickel-plated
R412017957	0.35 W	0.22	2.9 l/(s*bar)	Stainless steel
R412017958	0.35 W	0.22	2.9 l/(s*bar)	-

Nominal flow Qn at 6 bar and  $\Delta p = 1$  bar, MO = Manual override

## Technical information

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. Further information can be found in the "Technical information" document (available in the MediaCentre).

For series QR2 fittings, see "Pneumatic connection technologies".

The inner valve can be replaced by all series CL03 valves described under "Valve systems".

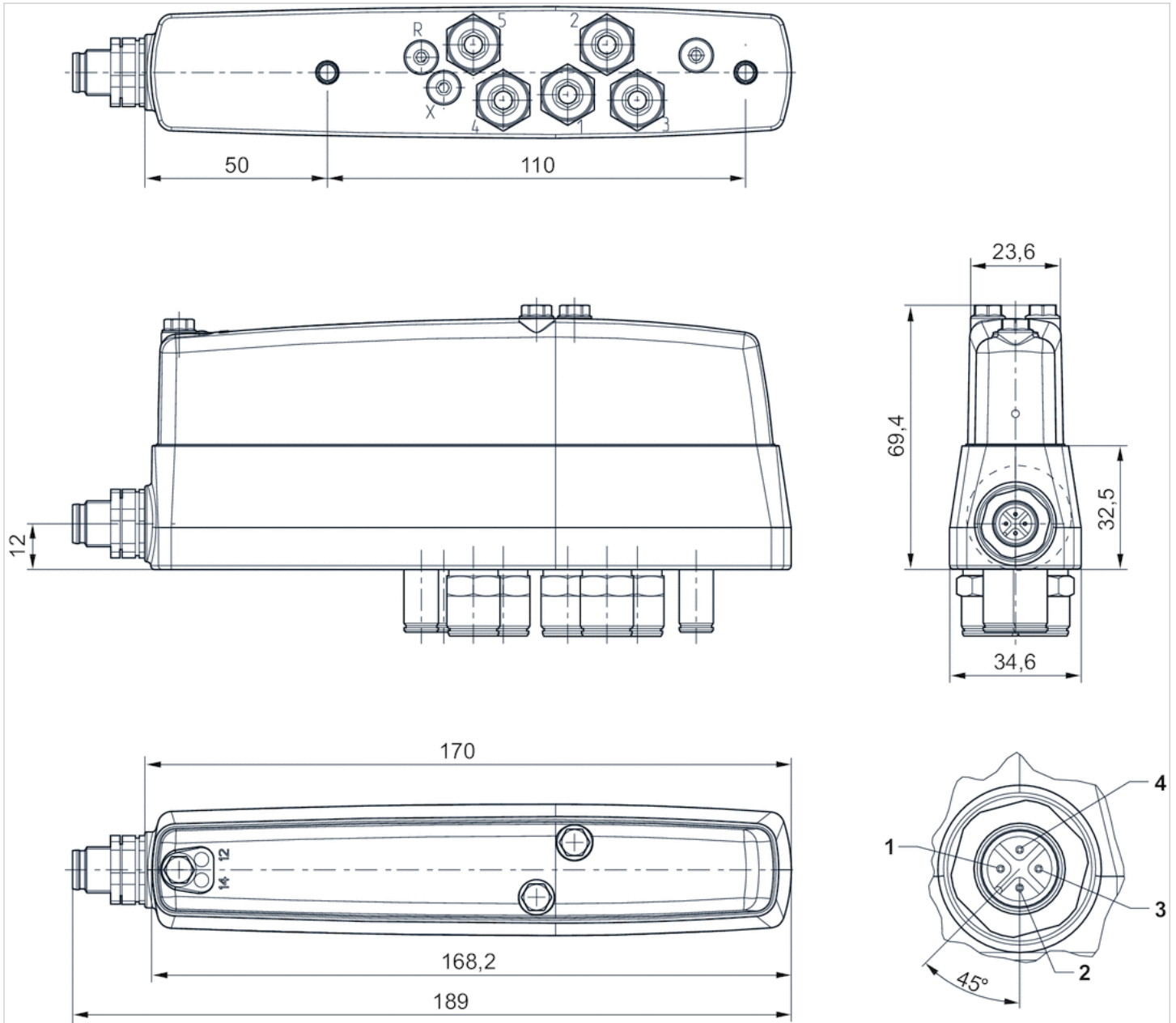
The pilot valve is UL (Underwriters Laboratories) certified.

## Technical information

Material	
Housing	Polyamide fiber-glass reinforced
Seals	Hydrogenated acrylonitrile butadiene rubber
Threaded bushing	Brass, nickel-plated Stainless steel

# Dimensions

## Dimensions

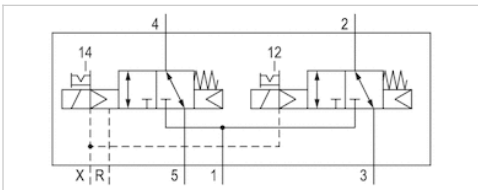


Electrical connection:

- 1) Not connected
- 2) Solenoid 12
- 3) 0 V
- 4) Solenoid 14




## 2x3/2-directional valve, Series CL03-EV

- 2x3/2
- $Q_n = 700$  l/min
- Pilot valve width : 16 mm
- NC/NC
- Plate connection
- Compressed air connection output :  $\varnothing 8$  G 1/8
- Manual override : with detent
- Pilot : External
- suitable for use in food processing



Version	Spool valve, positive overlapping
Activation	Electrically
Pilot	External
Sealing principle	Soft sealing
Blocking principle	Single base plate principle
Certificates	UR (Underwriters Laboratories)
Working pressure min./max.	-0.9 ... 10 bar
Control pressure min./max.	2.5 ... 10 bar
Ambient temperature min./max.	0 ... 50 °C
Medium temperature min./max.	0 ... 50 °C
Medium	Compressed air
Max. particle size	5 $\mu\text{m}$
Oil content of compressed air	0 ... 5 mg/m <sup>3</sup>
Nominal flow $Q_n$	700 l/min
Pilot control exhaust	With collective pilot air exhaust
Protection class with connection	IP65 IP67 IP69K
Protective circuit	Z-diode
Reverse polarity protection	Protected against polarity reversal
LED status display	Yellow
Duty cycle	100 %
Typ. switch-on time	16 ms
Typ. switch-off time	25 ms
mounting screws	M5
Mounting screw tightening torque	2 Nm
Tightening torque tolerance	$\pm 0,2$ mT
Weight	0.165 kg

## Technical data

Part No.	MO		Compressed air connection	
			Input	Output
R412021814		NC/NC	Ø 8	Ø 8
R412021815		NC/NC	Ø 8	Ø 8
R412021816		NC/NC	G 1/8	G 1/8

Part No.	Compressed air connection	
	Exhaust	Pilot Input
R412021814	Ø 8	Ø 4
R412021815	Ø 8	Ø 4
R412021816	G 1/8	M5

Part No.	Compressed air connection		Operational voltage	Voltage tolerance
		Pilot Exhaust		
R412021814	Ø 4	Ø 4	DC	-15% / +20%
R412021815	Ø 4	Ø 4	DC	-15% / +20%
R412021816	M5	M5	DC	-15% / +20%

Part No.	Power consumption	Flow conductance	Flow conductance	push-in fitting
	DC	b	C-value	
R412021814	0.35 W	0.22	2.9 l/(s*bar)	Brass nickel-plated
R412021815	0.35 W	0.22	2.9 l/(s*bar)	Stainless steel
R412021816	0.35 W	0.22	2.9 l/(s*bar)	-

Nominal flow Qn at 6 bar and  $\Delta p = 1$  bar, MO = Manual override

## Technical information

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. Further information can be found in the "Technical information" document (available in the MediaCentre).

For series QR2 fittings, see "Pneumatic connection technologies".

The inner valve can be replaced by all series CL03 valves described under "Valve systems".

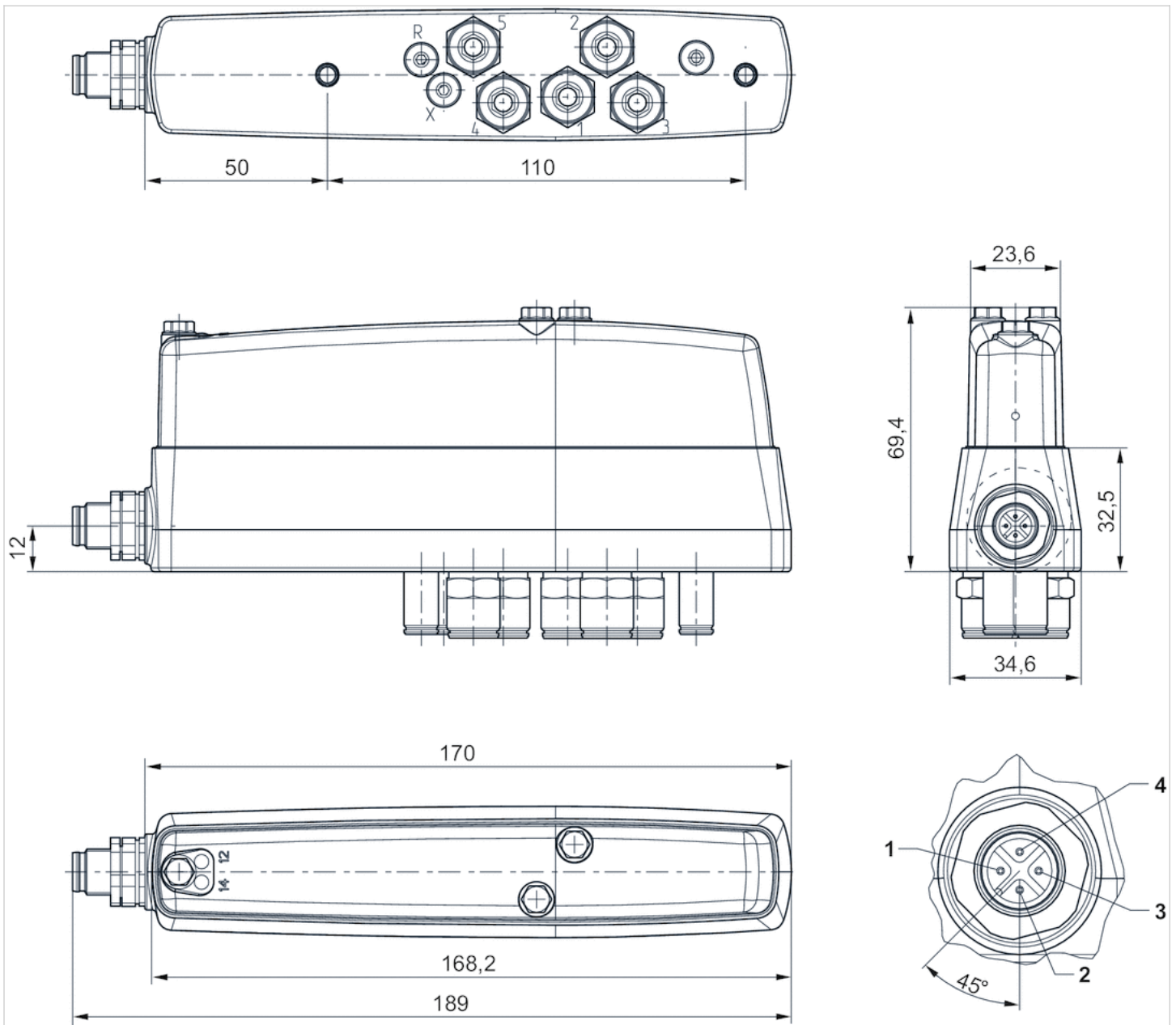
The pilot valve is UL (Underwriters Laboratories) certified.

## Technical information

Material	
Housing	Polyamide fiber-glass reinforced
Seals	Hydrogenated acrylonitrile butadiene rubber
Threaded bushing	Brass, nickel-plated Stainless steel

# Dimensions

## Dimensions

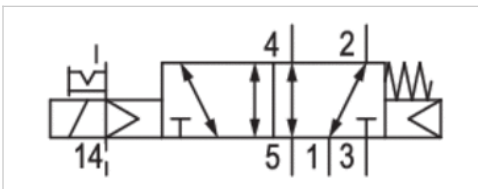


Electrical connection:

- 1) Not connected
- 2) Solenoid 12
- 3) 0 V
- 4) Solenoid 14




# 5/2-directional valve, Series CL03-EV

- 5/2
- $Q_n = 700$  l/min
- Pilot valve width : 16 mm
- Plate connection
- Compressed air connection output :  $\varnothing 8$  G 1/8
- Manual override : with detent
- single solenoid
- With spring/air spring return
- Pilot : External
- suitable for use in food processing



Version	Spool valve, positive overlapping
Activation	Electrically
Pilot	External
Sealing principle	Soft sealing
Blocking principle	Single base plate principle
Certificates	UR (Underwriters Laboratories)
Working pressure min./max.	-0.9 ... 10 bar
Control pressure min./max.	3 ... 10 bar
Ambient temperature min./max.	0 ... 50 °C
Medium temperature min./max.	0 ... 50 °C
Medium	Compressed air
Max. particle size	5 $\mu$ m
Oil content of compressed air	0 ... 5 mg/m <sup>3</sup>
Nominal flow $Q_n$	700 l/min
Pilot control exhaust	With collective pilot air exhaust
Protection class with connection	IP65 IP67 IP69K
Protective circuit	Z-diode
Reverse polarity protection	Protected against polarity reversal
LED status display	Yellow
Duty cycle	100 %
Typ. switch-on time	16 ms
Typ. switch-off time	23 ms
mounting screws	M5
Mounting screw tightening torque	2 Nm
Tightening torque tolerance	$\pm 0,2$ mT
Weight	0.165 kg

## Technical data

Part No.	MO	Compressed air connection	
		Input	Output
R412017962		Ø 8	Ø 8
R412017963		Ø 8	Ø 8
R412017964		G 1/8	G 1/8

Part No.	Compressed air connection	
	Exhaust	Pilot Input
R412017962	Ø 8	Ø 4
R412017963	Ø 8	Ø 4
R412017964	G 1/8	M5

Part No.	Compressed air connection		Operational voltage	Voltage tolerance
	Pilot Exhaust			
R412017962	Ø 4		DC	DC
R412017963	Ø 4		24 V	-15% / +20%
R412017964	M5		24 V	-15% / +20%

Part No.	Power consumption	Flow conductance	Flow conductance	push-in fitting
	DC	b	C-value	
R412017962	0.35 W	0.22	2.9 l/(s*bar)	Brass nickel-plated
R412017963	0.35 W	0.22	2.9 l/(s*bar)	Stainless steel
R412017964	0.35 W	0.22	2.9 l/(s*bar)	-

Nominal flow Qn at 6 bar and  $\Delta p = 1$  bar, MO = Manual override

## Technical information

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. Further information can be found in the "Technical information" document (available in the MediaCentre).

For series QR2 fittings, see "Pneumatic connection technologies".

The inner valve can be replaced by all series CL03 valves described under "Valve systems".

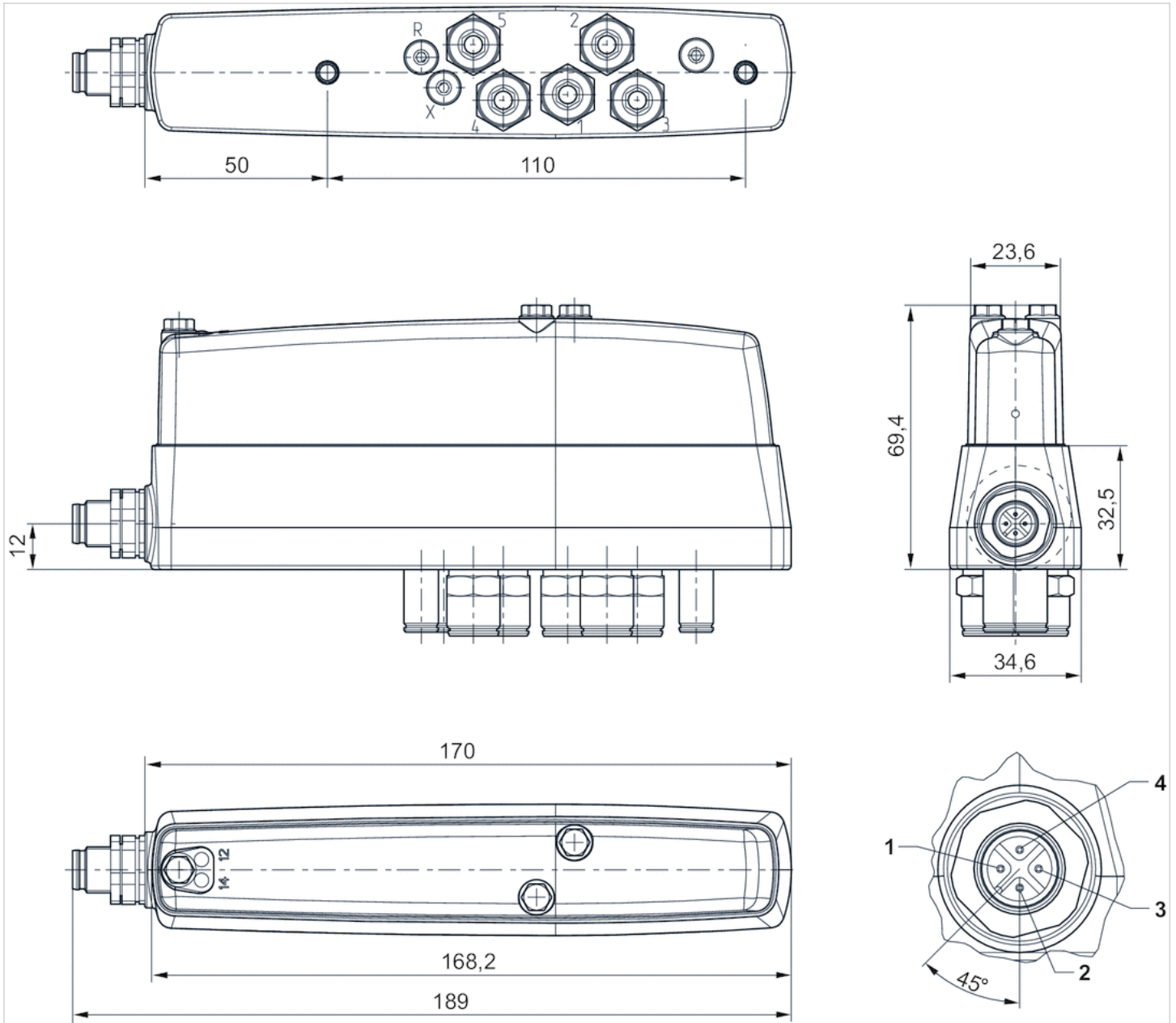
The pilot valve is UL (Underwriters Laboratories) certified.

## Technical information

Material	
Housing	Polyamide fiber-glass reinforced
Seals	Hydrogenated acrylonitrile butadiene rubber
Threaded bushing	Brass, nickel-plated Stainless steel

# Dimensions

## Dimensions



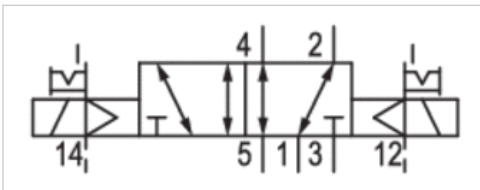
Electrical connection:

- 1) Not connected
- 2) Solenoid 12
- 3) 0 V
- 4) Solenoid 14






# 5/2-directional valve, Series CL03-EV

- 5/2
- $Q_n = 700$  l/min
- Pilot valve width : 16 mm
- Plate connection
- Compressed air connection output :  $\varnothing 8$  G 1/8
- Manual override : with detent
- double solenoid
- Pilot : External
- suitable for use in food processing



Version	Spool valve, positive overlapping
Activation	Electrically
Pilot	External
Sealing principle	Soft sealing
Blocking principle	Single base plate principle
Certificates	UR (Underwriters Laboratories)
Working pressure min./max.	-0.9 ... 10 bar
Control pressure min./max.	3 ... 10 bar
Ambient temperature min./max.	0 ... 50 °C
Medium temperature min./max.	0 ... 50 °C
Medium	Compressed air
Max. particle size	5 $\mu$ m
Oil content of compressed air	0 ... 5 mg/m <sup>3</sup>
Nominal flow $Q_n$	700 l/min
Pilot control exhaust	With collective pilot air exhaust
Protection class with connection	IP65 IP67 IP69K
Protective circuit	Z-diode
Reverse polarity protection	Protected against polarity reversal
LED status display	Yellow
Duty cycle	100 %
Typ. switch-on time	13 ms
Typ. switch-off time	15 ms
mounting screws	M5
Mounting screw tightening torque	2 Nm
Tightening torque tolerance	$\pm 0,2$ mT
Weight	0.165 kg

## Technical data

Part No.	MO	Compressed air connection	
		Input	Output
R412017950		Ø 8	Ø 8
R412017951		Ø 8	Ø 8
R412017952		G 1/8	G 1/8

Part No.	Compressed air connection	
	Exhaust	Pilot Input
R412017950	Ø 8	Ø 4
R412017951	Ø 8	Ø 4
R412017952	G 1/8	M5

Part No.	Compressed air connection		Operational voltage	Voltage tolerance
	Pilot Exhaust	DC		
R412017950	Ø 4	24 V	-15% / +20%	
R412017951	Ø 4	24 V	-15% / +20%	
R412017952	M5	24 V	-15% / +20%	

Part No.	Power consumption	Flow conductance	Flow conductance	push-in fitting
	DC	b	C-value	
R412017950	0.35 W	0.22	2.9 l/(s*bar)	Brass nickel-plated
R412017951	0.35 W	0.22	2.9 l/(s*bar)	Stainless steel
R412017952	0.35 W	0.22	2.9 l/(s*bar)	-

Nominal flow Qn at 6 bar and  $\Delta p = 1$  bar, MO = Manual override

## Technical information

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. Further information can be found in the "Technical information" document (available in the MediaCentre).

For series QR2 fittings, see "Pneumatic connection technologies".

The inner valve can be replaced by all series CL03 valves described under "Valve systems".

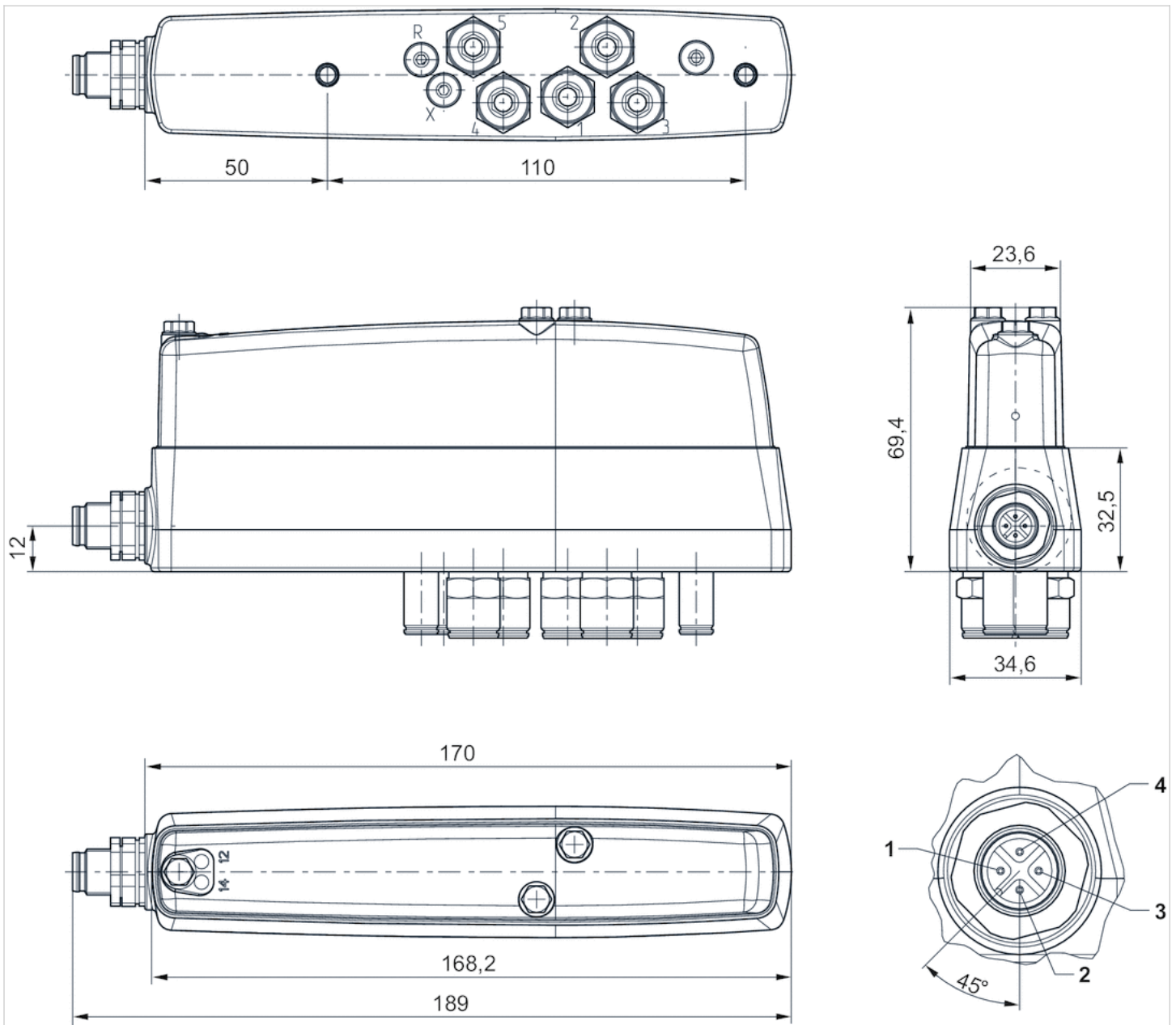
The pilot valve is UL (Underwriters Laboratories) certified.

## Technical information

Material	
Housing	Polyamide fiber-glass reinforced
Seals	Hydrogenated acrylonitrile butadiene rubber
Threaded bushing	Brass, nickel-plated Stainless steel

# Dimensions

## Dimensions

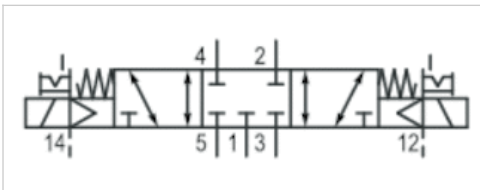


Electrical connection:

- 1) Not connected
- 2) Solenoid 12
- 3) 0 V
- 4) Solenoid 14




# 5/3-directional valve, Series CL03-EV

- 5/3
- $Q_n = 700$  l/min
- Pilot valve width : 16 mm
- closed center
- Plate connection
- Compressed air connection output :  $\varnothing 8$  G 1/8
- Manual override : with detent
- Pilot : External
- suitable for use in food processing



Version	Spool valve, positive overlapping
Activation	Electrically
Pilot	External
Sealing principle	Soft sealing
Blocking principle	Single base plate principle
Certificates	UR (Underwriters Laboratories)
Working pressure min./max.	-0.9 ... 10 bar
Control pressure min./max.	3 ... 10 bar
Ambient temperature min./max.	0 ... 50 °C
Medium temperature min./max.	0 ... 50 °C
Medium	Compressed air
Max. particle size	5 $\mu\text{m}$
Oil content of compressed air	0 ... 5 mg/m <sup>3</sup>
Nominal flow $Q_n$	700 l/min
Pilot control exhaust	With collective pilot air exhaust
Protection class with connection	IP65 IP67 IP69K
Protective circuit	Z-diode
Reverse polarity protection	Protected against polarity reversal
LED status display	Yellow
Duty cycle	100 %
Typ. switch-on time	14 ms
Typ. switch-off time	15 ms
mounting screws	M5
Mounting screw tightening torque	2 Nm
Tightening torque tolerance	$\pm 0,2$ mT
Weight	0.165 kg

## Technical data

Part No.	MO		Compressed air connection	
			Input	
R412017953		closed center	Ø 8	
R412017954		closed center	Ø 8	
R412017955		closed center	G 1/8	

Part No.	Compressed air connection		Compressed air connection	
	Output		Exhaust	
R412017953	Ø 8		Ø 8	
R412017954	Ø 8		Ø 8	
R412017955	G 1/8		G 1/8	

Part No.	Compressed air connection		Compressed air connection	
	Pilot Input		Pilot Exhaust	
R412017953	Ø 4		Ø 4	
R412017954	Ø 4		Ø 4	
R412017955	M5		M5	

Part No.	Operational voltage		Voltage tolerance		Power consumption	
	DC		DC		DC	
R412017953	24 V		-15% / +20%		0.35 W	
R412017954	24 V		-15% / +20%		0.35 W	
R412017955	24 V		-15% / +20%		0.35 W	

Part No.	Flow conductance		Flow conductance		push-in fitting
	b		C-value		
R412017953	0.39		2.5 l/(s*bar)		Brass nickel-plated
R412017954	0.39		2.5 l/(s*bar)		Stainless steel
R412017955	0.39		2.5 l/(s*bar)		-

Nominal flow Qn at 6 bar and  $\Delta p = 1$  bar, MO = Manual override

## Technical information

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. Further information can be found in the "Technical information" document (available in the MediaCentre).

For series QR2 fittings, see "Pneumatic connection technologies".

The inner valve can be replaced by all series CL03 valves described under "Valve systems".

The pilot valve is UL (Underwriters Laboratories) certified.

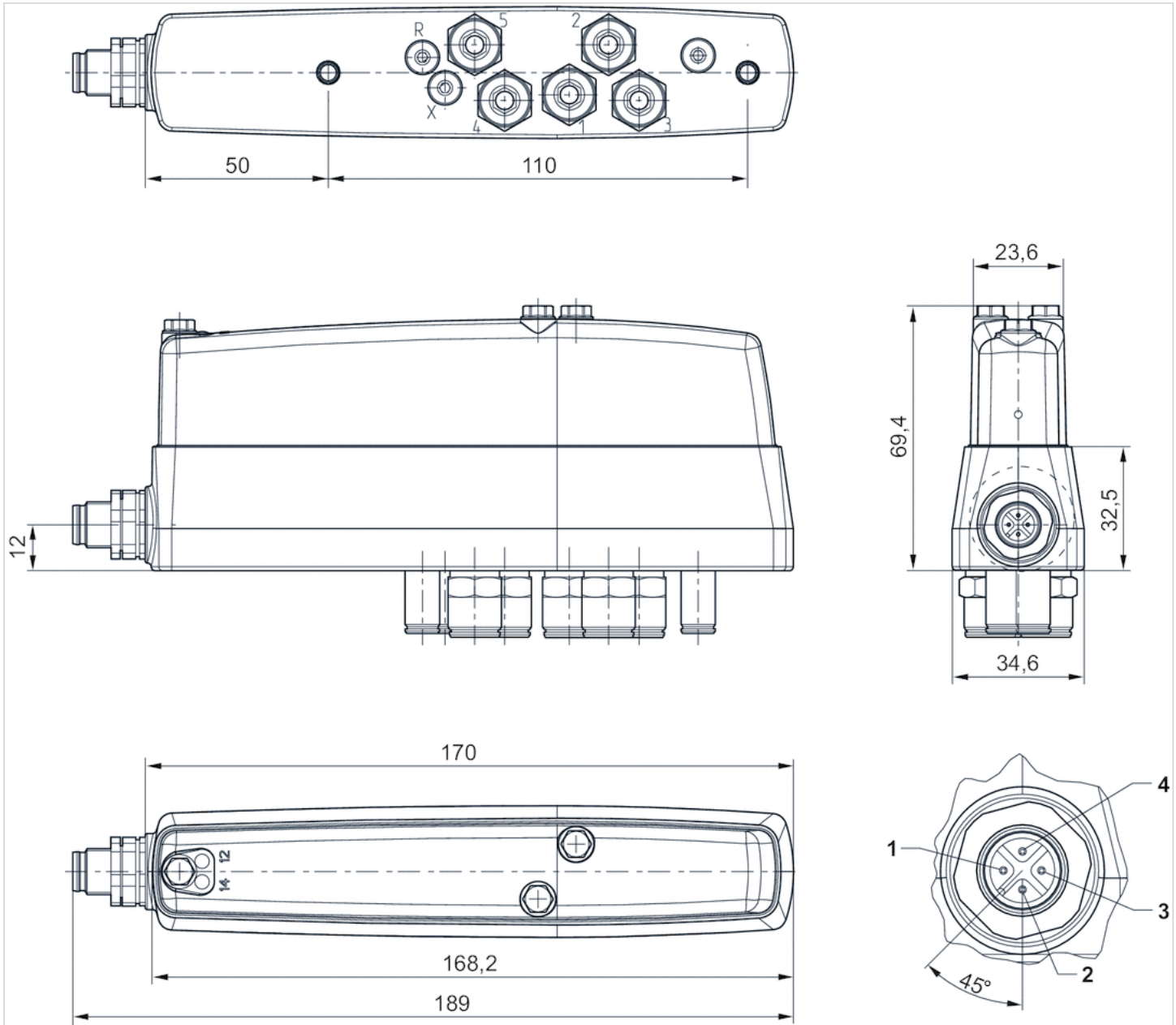
## Technical information

Material	
Housing	Polyamide fiber-glass reinforced
Seals	Acrylonitrile butadiene rubber

Material	
Threaded bushing	Brass, nickel-plated Stainless steel

## Dimensions

### Dimensions



Electrical connection:

- 1) Not connected
- 2) Solenoid 12
- 3) 0 V
- 4) Solenoid 14





## 2x3/2-directional valve, Series HF03-LG

- For series : HF03-LG, CL03
- 2x3/2
- Qn = 850 l/min
- Pilot valve width : 16 mm
- NC/NC NO/NO NC/NO NO/NC
- Plate connection
- Manual override : with detent
- Pilot : External



Version	Spool valve, positive overlapping
Activation	Electrically
Pilot	External
Sealing principle	Soft sealing
Blocking principle	Single base plate principle
Certificates	UR (Underwriters Laboratories)
Working pressure min./max.	-0.9 ... 10 bar
Control pressure min./max.	2.5 ... 10 bar
Ambient temperature min./max.	0 ... 50 °C
Medium temperature min./max.	0 ... 50 °C
Medium	Compressed air
Max. particle size	5 µm
Nominal flow Qn	850 l/min
Pilot control exhaust	With collective pilot air exhaust
Protection class with connection	IP65
Protective circuit	Z-diode
Reverse polarity protection	Protected against polarity reversal
LED status display	Yellow
Duty cycle	100 %
Typ. switch-on time	16 ms
Typ. switch-off time	25 ms
mounting screws	cross recessed DIN EN ISO 4757-Z1
Mounting screw tightening torque	1.3 Nm
Weight	0.082 kg

### Technical data

Part No.	MO	Operational voltage	Voltage tolerance	
			DC	DC
0820055101		24 V	-15% / +20%	
0820055201		24 V	-15% / +20%	
0820055301		24 V	-15% / +20%	
0820055311		24 V	-15% / +20%	

Part No.	Power consumption	Flow conductance	Flow conductance
	DC	b	C-value
0820055101	0.35 W	0.22	2.97 l/(s*bar)
0820055201	0.35 W	0.22	2.97 l/(s*bar)
0820055301	0.35 W	0.22	2.97 l/(s*bar)

Part No.	Power consumption	Flow conductance	Flow conductance
	DC	b	C-value
0820055311	0.35 W	0.22	2.97 l/(s*bar)

Nominal flow Qn at 6 bar and  $\Delta p = 1$  bar, MO = Manual override

## Technical information

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. Further information can be found in the "Technical information" document (available in the MediaCentre).

The pilot type (external/internal) is not implemented in the valve, but in the end plate of the valve system.

The pilot valve is UL (Underwriters Laboratories) certified.

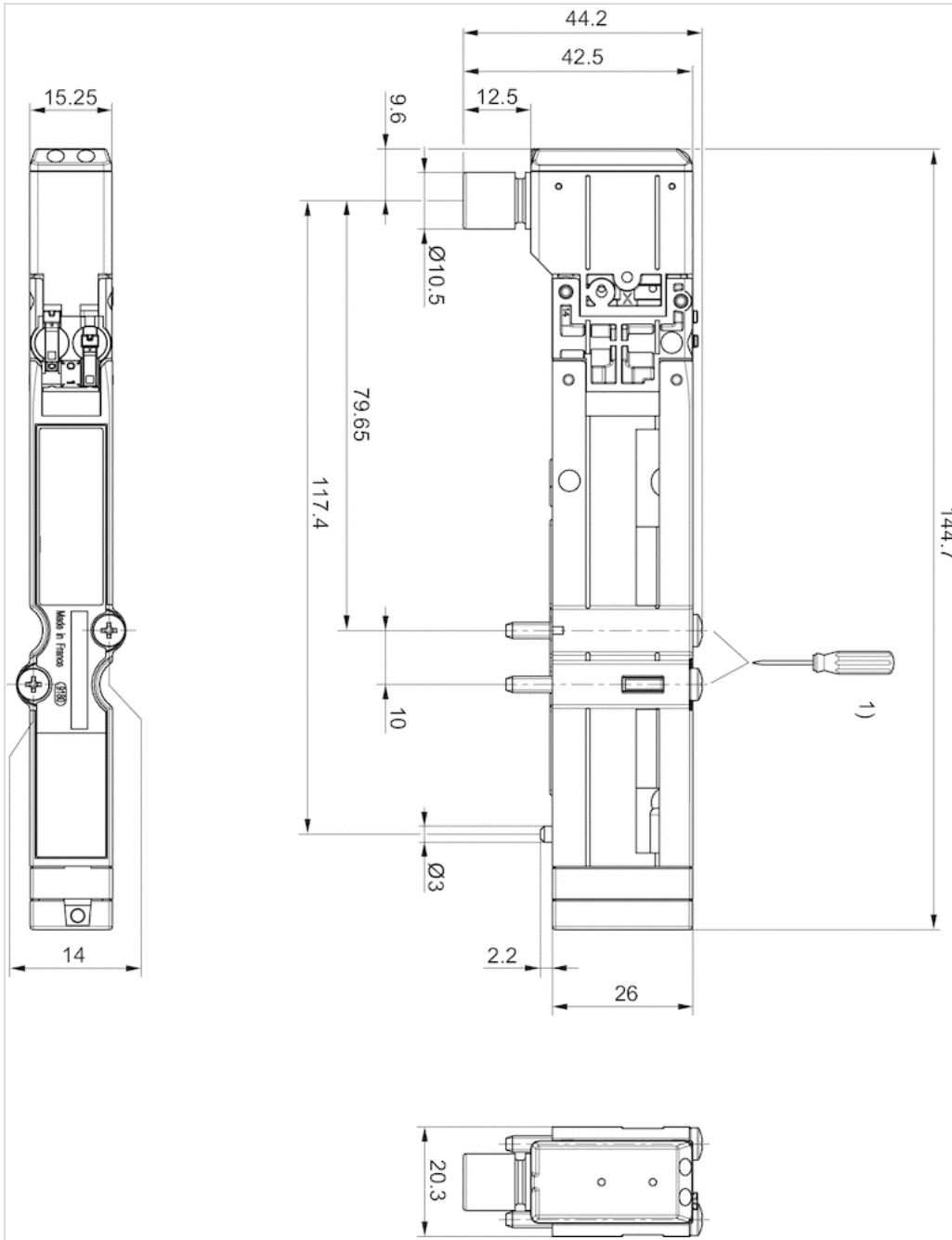
## Technical information

Material	
Housing	Polyamide fiber-glass reinforced
Seals	Acrylonitrile butadiene rubber



# Dimensions

## Dimensions



1) =1.1Nm 800tr/min. max.









## 2x3/2-directional valve, Series HF03-LG

- For series : HF03-LG, CL03
- 2x3/2
- Qn = 850 l/min
- Pilot valve width : 16 mm
- NC/NC NO/NO NC/NO NO/NC
- Plate connection
- Manual override : without detent
- Pilot : External



Version	Spool valve, positive overlapping
Activation	Electrically
Pilot	External
Sealing principle	Soft sealing
Blocking principle	Single base plate principle
Certificates	UR (Underwriters Laboratories)
Working pressure min./max.	-0.9 ... 10 bar
Control pressure min./max.	2.5 ... 10 bar
Ambient temperature min./max.	0 ... 50 °C
Medium temperature min./max.	0 ... 50 °C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 ... 5 mg/m <sup>3</sup>
Nominal flow Qn	850 l/min
Pilot control exhaust	With collective pilot air exhaust
Protection class with connection	IP65
Protective circuit	Z-diode
Reverse polarity protection	Protected against polarity reversal
LED status display	Yellow
Duty cycle	100 %
Typ. switch-on time	16 ms
Typ. switch-off time	25 ms
mounting screws	cross recessed DIN EN ISO 4757-Z1
Mounting screw tightening torque	1.3 Nm
Weight	0.082 kg

### Technical data

Part No.		MO		Operational voltage		Voltage tolerance	
				DC	DC	DC	DC
0820055102			NC/NC	24 V		-15% / +20%	
0820055202			NO/NO	24 V		-15% / +20%	
0820055302			NC/NO	24 V		-15% / +20%	
0820055312			NO/NC	24 V		-15% / +20%	

Part No.	Power consumption		Flow conductance	
	DC		b	C-value
0820055102	0.35 W		0.22	2.97 l/(s*bar)
0820055202	0.35 W		0.22	2.97 l/(s*bar)

Part No.	Power consumption	Flow conductance	Flow conductance
	DC	b	C-value
0820055302	0.35 W	0.22	2.97 l/(s*bar)
0820055312	0.35 W	0.22	2.97 l/(s*bar)

Nominal flow Q<sub>n</sub> at 6 bar and Δp = 1 bar, MO = Manual override

## Technical information

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. Further information can be found in the “Technical information” document (available in the MediaCentre).

The pilot type (external/internal) is not implemented in the valve, but in the end plate of the valve system.

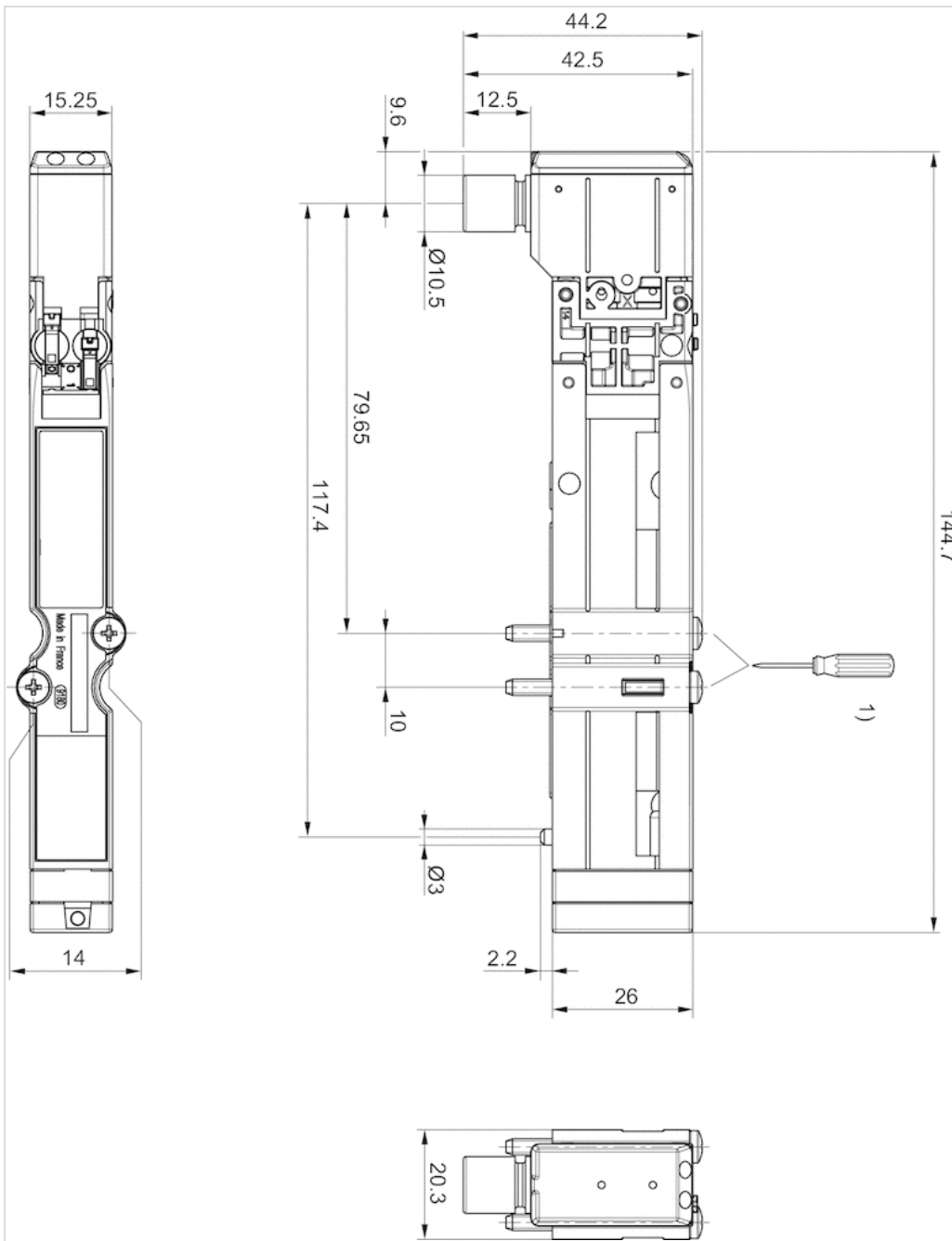
The pilot valve is UL (Underwriters Laboratories) certified.

## Technical information

Material	
Housing	Polyamide fiber-glass reinforced
Seals	Acrylonitrile butadiene rubber

# Dimensions

## Dimensions



1) =1.1Nm 800tr/min. max.







## 2x3/2-directional valve, Series HF02-LG

- For series : HF02-LG, CL03
- 2x3/2
- Qn = 1400 l/min
- Pilot valve width : 16 mm
- NC/NC NO/NO NC/NO
- Plate connection
- Manual override : with detent
- Pilot : External, Internal



Version	Spool valve, positive overlapping
Activation	Electrically
Pilot	External, Internal
Sealing principle	Soft sealing
Blocking principle	Single base plate principle
Certificates	UR (Underwriters Laboratories)
Working pressure min./max.	-0.9 ... 10 bar
Control pressure min./max.	10 bar
Ambient temperature min./max.	0 ... 50 °C
Medium temperature min./max.	0 ... 50 °C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 ... 5 mg/m <sup>3</sup>
Nominal flow Qn	1400 l/min
Pilot control exhaust	With collective pilot air exhaust
Protection class with connection	IP65
Protective circuit	Z-diode
Reverse polarity protection	Protected against polarity reversal
LED status display	Yellow
Duty cycle	100 %
Typ. switch-on time	20 ms
Typ. switch-off time	33 ms
mounting screws	cross recessed DIN EN ISO 4757-Z2
Mounting screw tightening torque	1.3 Nm
Weight	0.144 kg

### Technical data

Part No.		MO		Operational voltage	Voltage tolerance
				DC	DC
R424B10512			NC/NC	24 V	-15% / +20%
R424B10510			NO/NO	24 V	-15% / +20%
R424B10514			NC/NO	24 V	-15% / +20%

Part No.	Power consumption	Flow conductance	Flow conductance
	DC	b	C-value
R424B10512	0.35 W	0.4	5.87 l/(s*bar)
R424B10510	0.35 W	0.4	5.87 l/(s*bar)
R424B10514	0.35 W	0.4	5.87 l/(s*bar)

Nominal flow Qn at 6 bar and  $\Delta p = 1$  bar, MO = Manual override

## Technical information

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. Further information can be found in the “Technical information” document (available in the MediaCentre).

The pilot type (external/internal) is not implemented in the valve, but in the end plate of the valve system.

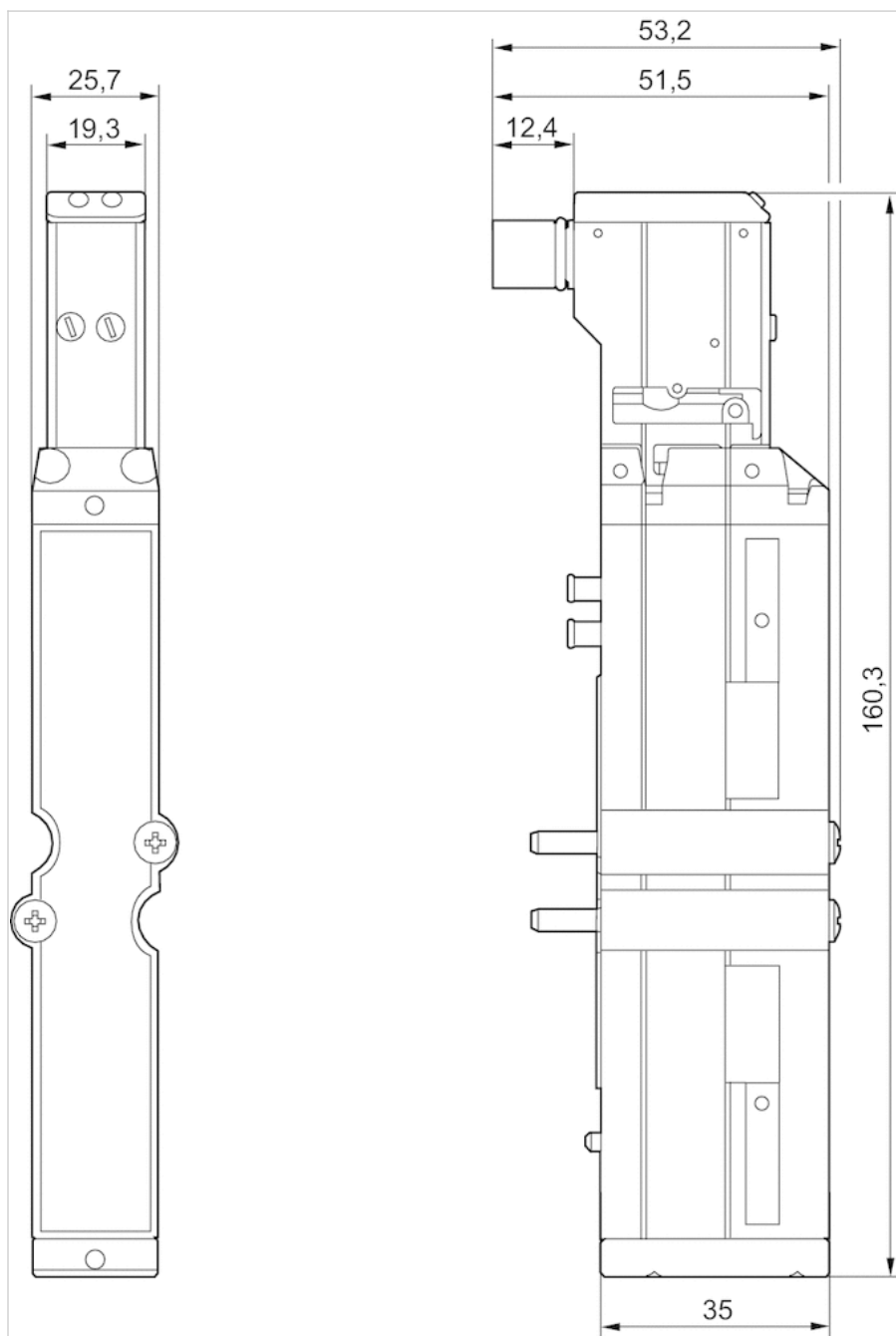
The UL certification refers to the pilot valve.

## Technical information

Material	
Housing	Polyamide
Seals	Acrylonitrile butadiene rubber Hydrogenated acrylonitrile butadiene rubber

## Dimensions

### Dimensions



1) Mounting screw: X-slot DIN EN ISO 4757-Z2  
tightening torque for mounting screw [Nm]: 1.3







# 5/2-directional valve, Series HF03-LG

- For series : HF03-LG, CL03
- 5/2
- Qn = 850 l/min
- Pilot valve width : 16 mm
- Plate connection
- Manual override : with detent
- single solenoid double solenoid
- Pilot : External



Version	Spool valve, positive overlapping
Activation	Electrically
Pilot	External
Sealing principle	Soft sealing
Blocking principle	Single base plate principle
Certificates	UR (Underwriters Laboratories)
Working pressure min./max.	-0.9 ... 10 bar
Control pressure min./max.	2.5 ... 10 bar
Ambient temperature min./max.	0 ... 50 °C
Medium temperature min./max.	0 ... 50 °C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 ... 5 mg/m <sup>3</sup>
Nominal flow Qn	850 l/min
Pilot control exhaust	With collective pilot air exhaust
Protection class with connection	IP65
Protective circuit	Z-diode
Reverse polarity protection	Protected against polarity reversal
LED status display	Yellow
Duty cycle	100 %
mounting screws	cross recessed DIN EN ISO 4757-Z1
Mounting screw tightening torque	1.3 Nm
Weight	0.082 kg

## Technical data

Part No.		MO	Operational voltage		Voltage tolerance
			DC	DC	DC
0820055051			24 V		-15% / +20%
0820055501			24 V		-15% / +20%
0820055001			24 V		-15% / +20%

Part No.	Power consumption	Flow conductance	Flow conductance	Typ. switch-on time
	DC	b	C-value	
0820055051	0.35 W	0.22	2.98 l/(s*bar)	16 ms
0820055501	0.35 W	0.22	2.97 l/(s*bar)	13 ms
0820055001	0.35 W	0.22	2.98 l/(s*bar)	15 ms



Part No.	Typ. switch-off time
0820055051	23 ms
0820055501	15 ms
0820055001	23 ms

Nominal flow  $Q_n$  at 6 bar and  $\Delta p = 1$  bar, MO = Manual override

## Technical information

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. Further information can be found in the "Technical information" document (available in the MediaCentre).

The pilot type (external/internal) is not implemented in the valve, but in the end plate of the valve system.

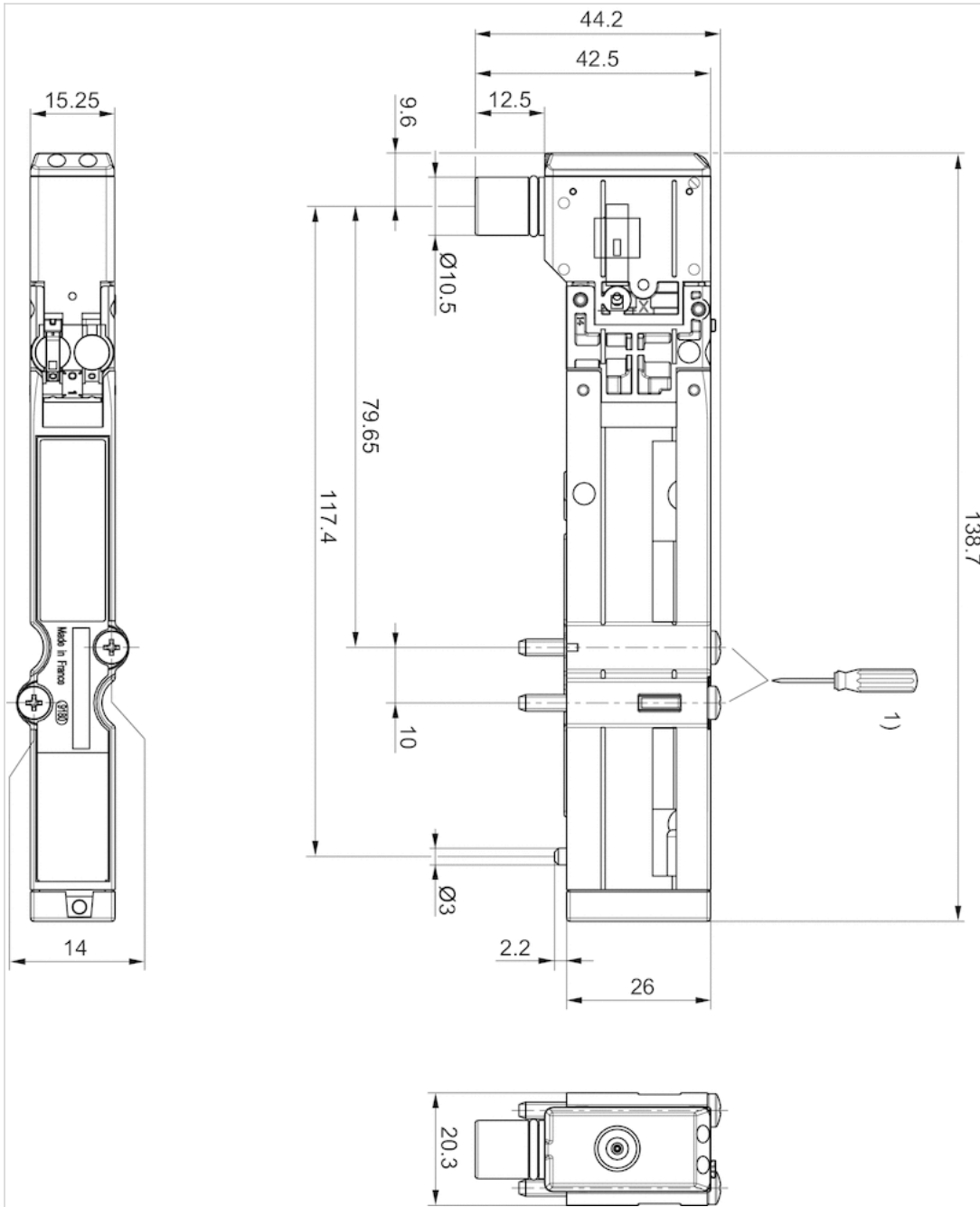
The pilot valve is UL (Underwriters Laboratories) certified.

## Technical information

Material	
Housing	Polyamide fiber-glass reinforced
Seals	Acrylonitrile butadiene rubber

# Dimensions

## Dimensions



1) =1.1Nm 800tr/min. max.




## 2x3/2-directional valve, Series HF02-LG

- For series : HF02-LG, CL03
- 2x3/2
- Qn = 1400 l/min
- Pilot valve width : 16 mm
- NC/NC NO/NO NC/NO
- Plate connection
- Manual override : without detent
- Pilot : External, Internal



Version	Spool valve, positive overlapping
Activation	Electrically
Pilot	External, Internal
Sealing principle	Soft sealing
Blocking principle	Single base plate principle
Certificates	UR (Underwriters Laboratories)
Working pressure min./max.	-0.9 ... 10 bar
Control pressure min./max.	10 bar
Ambient temperature min./max.	0 ... 50 °C
Medium temperature min./max.	0 ... 50 °C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 ... 5 mg/m <sup>3</sup>
Nominal flow Qn	1400 l/min
Pilot control exhaust	With collective pilot air exhaust
Protection class with connection	IP65
Protective circuit	Z-diode
Reverse polarity protection	Protected against polarity reversal
LED status display	Yellow
Duty cycle	100 %
Typ. switch-on time	20 ms
Typ. switch-off time	33 ms
mounting screws	cross recessed DIN EN ISO 4757-Z2
Mounting screw tightening torque	1.3 Nm
Weight	0.144 kg

### Technical data

Part No.	MO	Operational voltage	Voltage tolerance
R424B10511		24 V	-15% / +20%
R424B10339		24 V	-15% / +20%
R424B10513		24 V	-15% / +20%

Part No.	Power consumption	Flow conductance	Flow conductance
	DC	b	C-value
R424B10511	0.35 W	0.4	5.87 l/(s*bar)
R424B10339	0.35 W	0.4	5.87 l/(s*bar)
R424B10513	0.35 W	0.4	5.87 l/(s*bar)

Nominal flow Qn at 6 bar and  $\Delta p = 1$  bar, MO = Manual override

## Technical information

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. Further information can be found in the “Technical information” document (available in the MediaCentre).

The pilot type (external/internal) is not implemented in the valve, but in the end plate of the valve system.

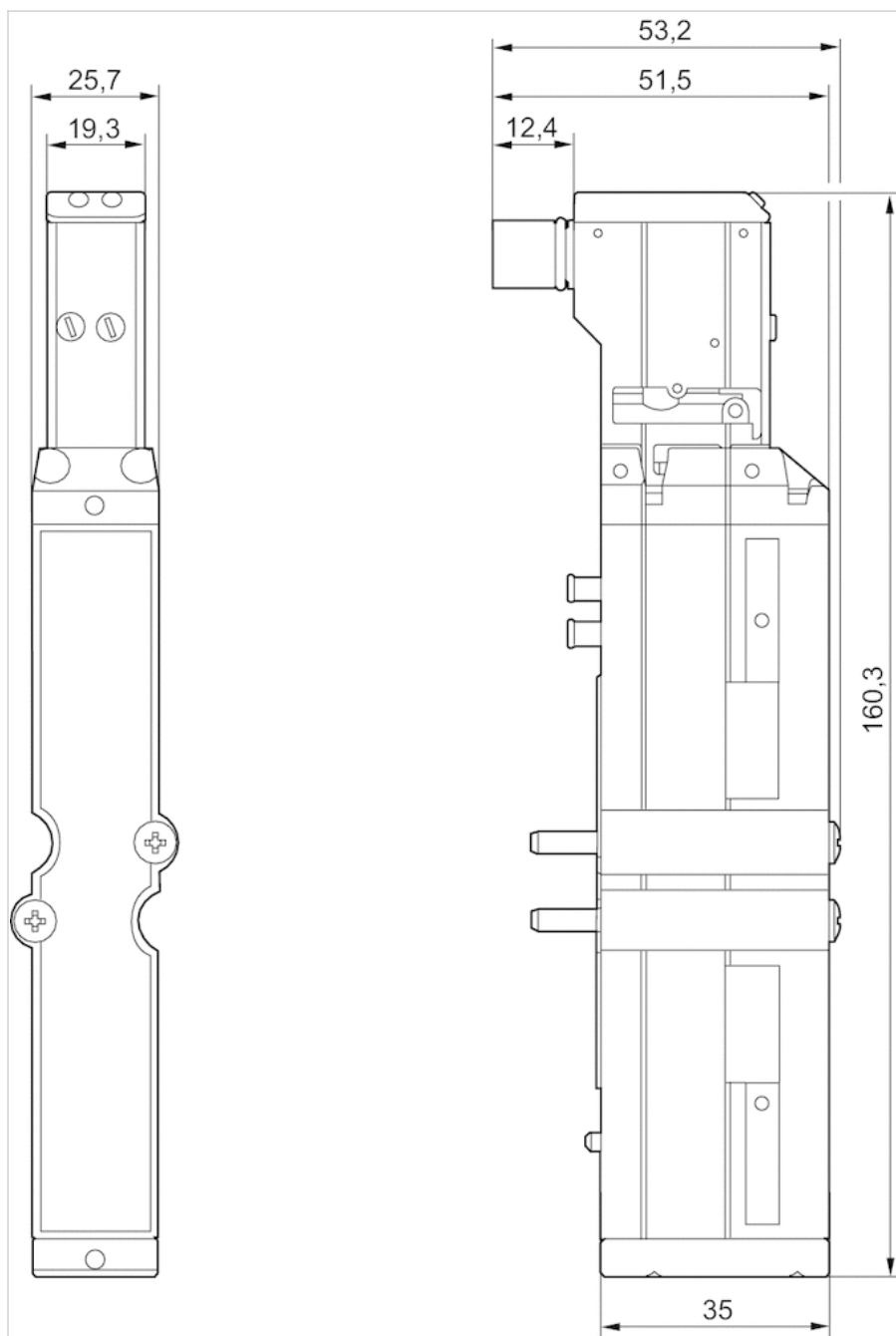
The UL certification refers to the pilot valve.

## Technical information

Material	
Housing	Polyamide
Seals	Acrylonitrile butadiene rubber Hydrogenated acrylonitrile butadiene rubber

## Dimensions

### Dimensions



1) Mounting screw: X-slot DIN EN ISO 4757-Z2  
tightening torque for mounting screw [Nm]: 1.3







# 5/2-directional valve, Series HF03-LG

- For series : HF03-LG, CL03
- 5/2
- Qn = 850 l/min
- Pilot valve width : 16 mm
- Plate connection
- Manual override : without detent
- single solenoid double solenoid
- Pilot : External



Version	Spool valve, positive overlapping
Activation	Electrically
Pilot	External
Sealing principle	Soft sealing
Blocking principle	Single base plate principle
Certificates	UR (Underwriters Laboratories)
Working pressure min./max.	-0.9 ... 10 bar
Control pressure min./max.	2.5 ... 10 bar
Ambient temperature min./max.	0 ... 50 °C
Medium temperature min./max.	0 ... 50 °C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 ... 5 mg/m <sup>3</sup>
Nominal flow Qn	850 l/min
Pilot control exhaust	With collective pilot air exhaust
Protection class with connection	IP65
Protective circuit	Z-diode
Reverse polarity protection	Protected against polarity reversal
LED status display	Yellow
Duty cycle	100 %
mounting screws	cross recessed DIN EN ISO 4757-Z1
Mounting screw tightening torque	1.3 Nm
Weight	0.082 kg

## Technical data

Part No.		MO	Operational voltage	
			DC	DC
0820055052			24 V	-15% / +20%
0820055502			24 V	-15% / +20%
0820055002			24 V	-15% / +20%

Part No.	Power consumption	Flow conductance	Flow conductance	Typ. switch-on time
	DC	b	C-value	
0820055052	0.35 W	0.22	2.98 l/(s*bar)	16 ms
0820055502	0.35 W	0.22	2.97 l/(s*bar)	13 ms
0820055002	0.35 W	0.22	2.98 l/(s*bar)	15 ms

Part No.	Typ. switch-off time
0820055052	23 ms
0820055502	15 ms
0820055002	23 ms

Nominal flow  $Q_n$  at 6 bar and  $\Delta p = 1$  bar, MO = Manual override

## Technical information

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. Further information can be found in the "Technical information" document (available in the MediaCentre).

The pilot type (external/internal) is not implemented in the valve, but in the end plate of the valve system.

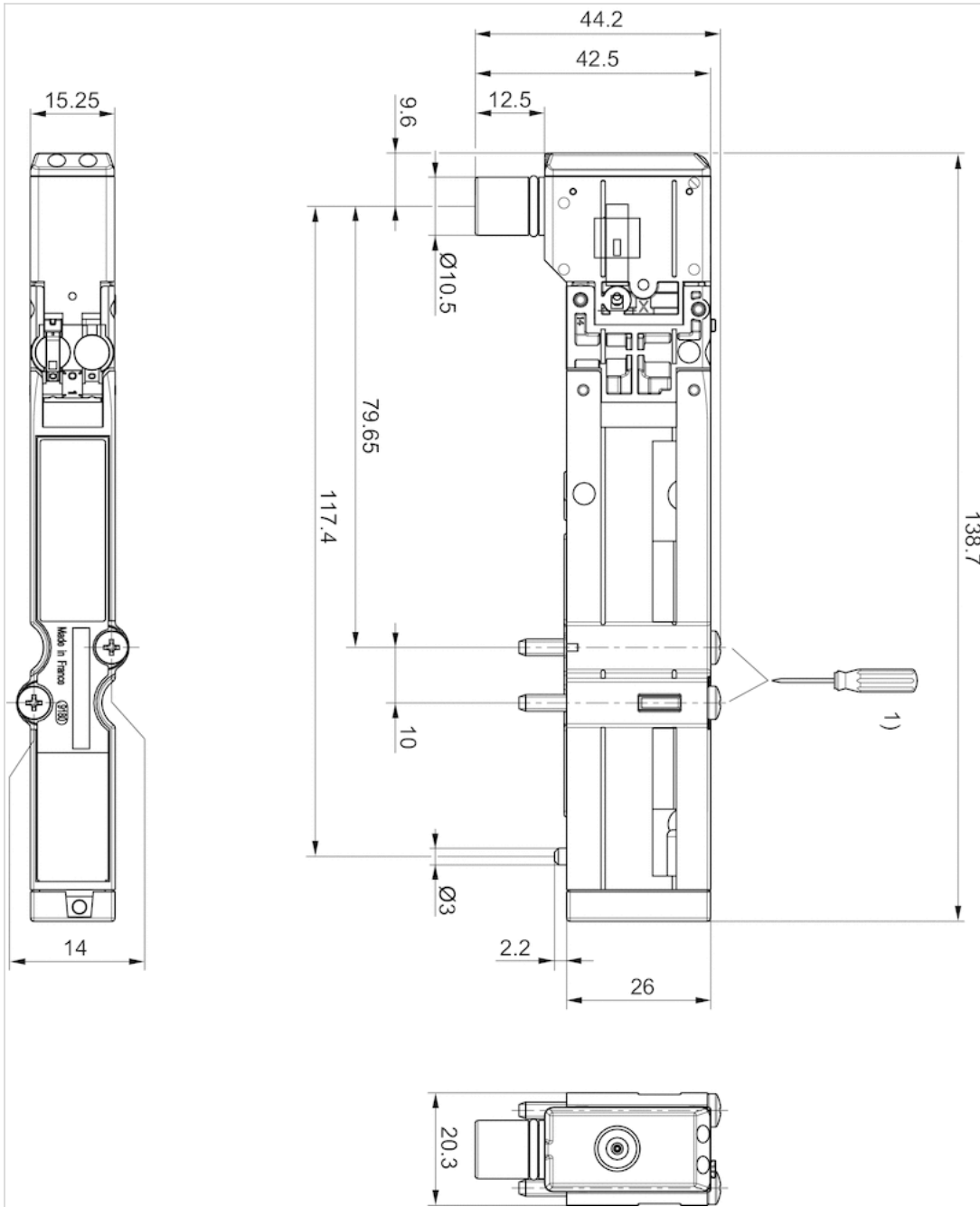
The pilot valve is UL (Underwriters Laboratories) certified.

## Technical information

Material	
Housing	Polyamide fiber-glass reinforced
Seals	Acrylonitrile butadiene rubber

# Dimensions

## Dimensions



1) =1.1Nm 800tr/min. max.









# 5/2-directional valve, Series HF02-LG

- For series : HF02-LG, CL03
- 5/2
- Qn = 1400 l/min
- Pilot valve width : 16 mm
- Plate connection
- Can be assembled into blocks
- Manual override : with detent
- single solenoid
- Pilot : External, Internal



Version	Spool valve, positive overlapping
Activation	Electrically
Pilot	External, Internal
Sealing principle	Soft sealing
Blocking principle	Single base plate principle
Certificates	UR (Underwriters Laboratories)
Working pressure min./max.	-0.9 ... 10 bar
Control pressure min./max.	2.5 ... 10 bar
Ambient temperature min./max.	0 ... 50 °C
Medium temperature min./max.	0 ... 50 °C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 ... 5 mg/m <sup>3</sup>
Nominal flow Qn	1400 l/min
Pilot control exhaust	With collective pilot air exhaust
Protection class with connection	IP65
Protective circuit	Z-diode
Reverse polarity protection	Protected against polarity reversal
LED status display	Yellow
Duty cycle	100 %
mounting screws	cross recessed DIN EN ISO 4757-Z2
Mounting screw tightening torque	1.3 Nm
Weight	0.144 kg

## Technical data

Part No.		MO	Operational voltage	Voltage tolerance
			DC	DC
0820056051			24 V	-15% / +20%
0820056501			24 V	-15% / +20%
0820056001			24 V	-15% / +20%

Part No.	Power consumption	Flow conductance	Flow conductance	Typ. switch-on time
	DC	b	C-value	
0820056051	0.35 W	0.38	6.13 l/(s*bar)	13 ms
0820056501	0.35 W	0.38	6.13 l/(s*bar)	13 ms
0820056001	0.35 W	0.38	6.13 l/(s*bar)	19 ms

Part No.	Typ. switch-off time
0820056051	40 ms
0820056501	15 ms
0820056001	30 ms

Nominal flow  $Q_n$  at 6 bar and  $\Delta p = 1$  bar, MO = Manual override

## Technical information

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. Further information can be found in the "Technical information" document (available in the MediaCentre).

The pilot type (external/internal) is not implemented in the valve, but in the end plate of the valve system.

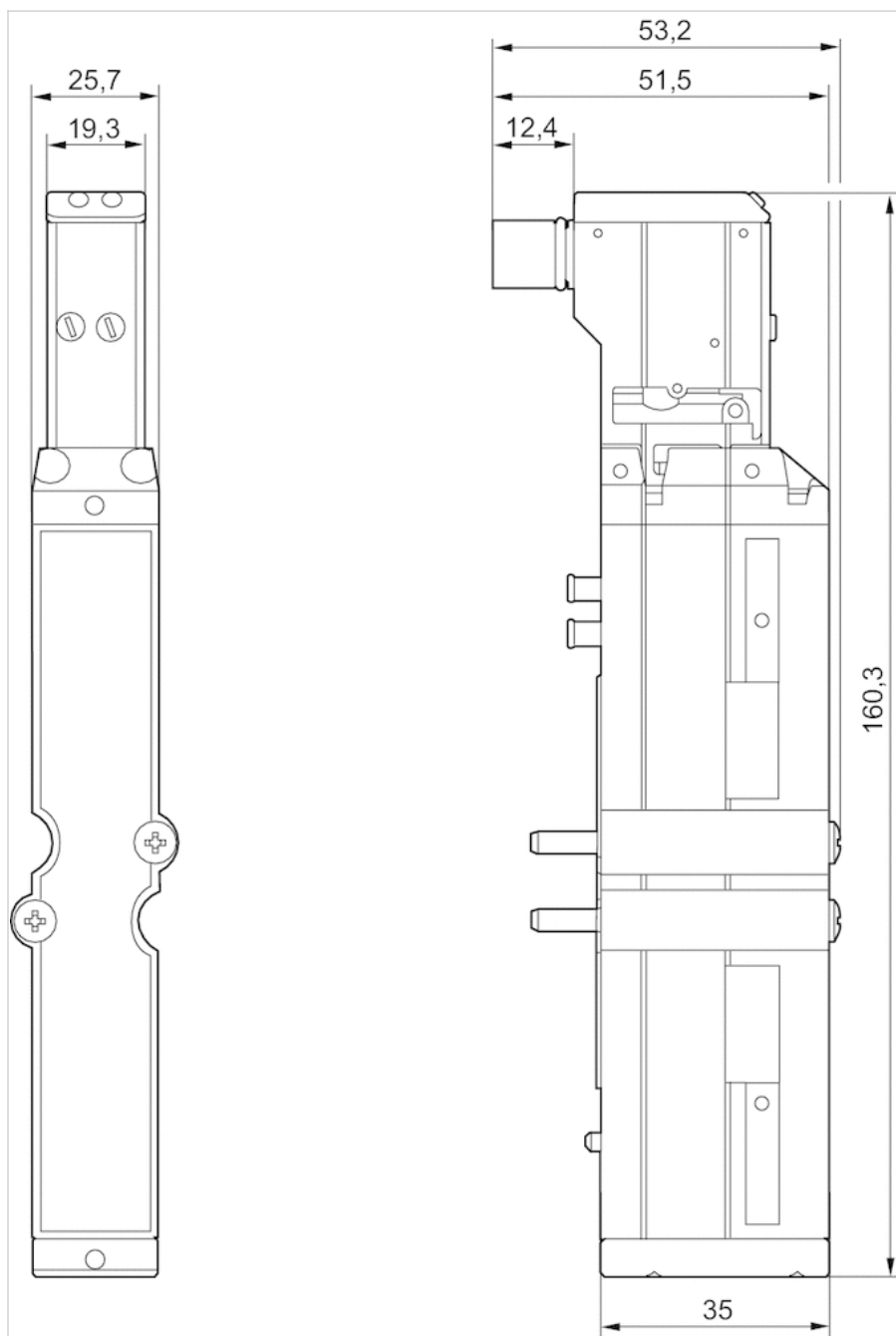
The pilot valve is UL (Underwriters Laboratories) certified.

## Technical information

Material	
Housing	Polyamide
Seals	Acrylonitrile butadiene rubber Hydrogenated acrylonitrile butadiene rubber

## Dimensions

### Dimensions



1) Mounting screw: X-slot DIN EN ISO 4757-Z2  
tightening torque for mounting screw [Nm]: 1.3

# 5/2-directional valve, Series HF02-LG

- For series : HF02-LG, CL03
- 5/2
- Qn = 1400 l/min
- Pilot valve width : 16 mm
- Plate connection
- Manual override : without detent
- single solenoid double solenoid
- Pilot : External, Internal



Version	Spool valve, positive overlapping
Activation	Electrically
Pilot	External, Internal
Sealing principle	Soft sealing
Blocking principle	Single base plate principle
Certificates	UR (Underwriters Laboratories)
Working pressure min./max.	-0.9 ... 10 bar
Control pressure min./max.	2.5 ... 10 bar
Ambient temperature min./max.	0 ... 50 °C
Medium temperature min./max.	0 ... 50 °C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 ... 5 mg/m³
Nominal flow Qn	1400 l/min
Pilot control exhaust	With collective pilot air exhaust
Protection class with connection	IP65
Protective circuit	Z-diode
Reverse polarity protection	Protected against polarity reversal
LED status display	Yellow
Duty cycle	100 %
mounting screws	cross recessed DIN EN ISO 4757-Z2
Mounting screw tightening torque	1.3 Nm
Weight	0.144 kg

## Technical data

Part No.	MO	Operational voltage		Voltage tolerance
		DC	DC	DC
0820056052		24 V		-15% / +20%
0820056502		24 V		-15% / +20%
0820056002		24 V		-15% / +20%

Part No.	Power consumption	Flow conductance	Flow conductance	Typ. switch-on time
	DC	b	C-value	
0820056052	0.35 W	0.38	6.13 l/(s*bar)	13 ms
0820056502	0.35 W	0.38	6.13 l/(s*bar)	13 ms
0820056002	0.35 W	0.38	6.13 l/(s*bar)	19 ms

Part No.	Typ. switch-off time
0820056052	40 ms
0820056502	15 ms
0820056002	30 ms

Nominal flow Qn at 6 bar and  $\Delta p = 1$  bar, MO = Manual override

## Technical information

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. Further information can be found in the "Technical information" document (available in the MediaCentre).

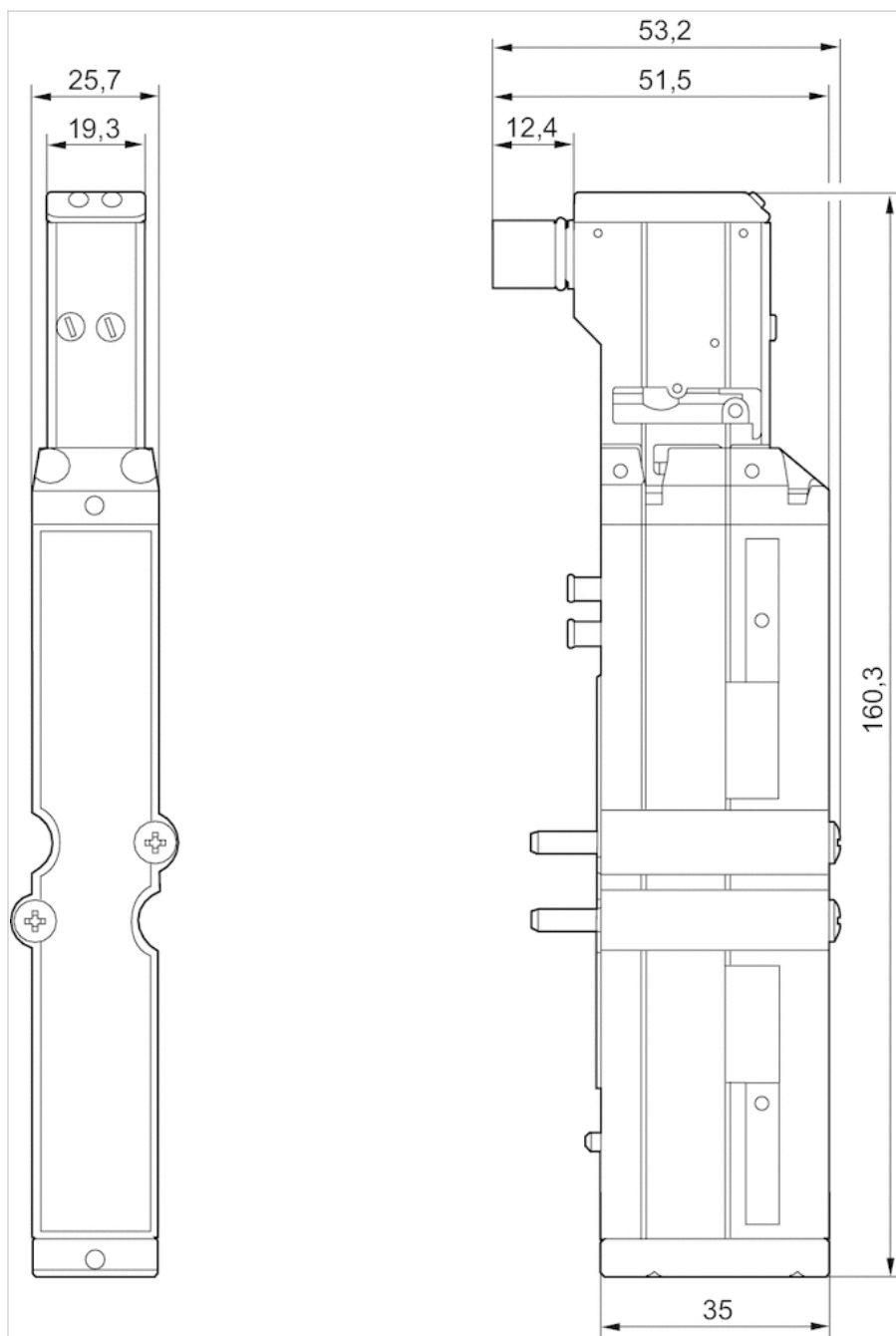
The pilot type (external/internal) is not implemented in the valve, but in the end plate of the valve system.  
 The pilot valve is UL (Underwriters Laboratories) certified.

## Technical information

Material	
Housing	Polyamide
Seals	Acrylonitrile butadiene rubber Hydrogenated acrylonitrile butadiene rubber

## Dimensions

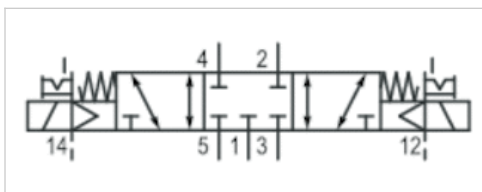
### Dimensions



1) Mounting screw: X-slot DIN EN ISO 4757-Z2  
tightening torque for mounting screw [Nm]: 1.3

# 5/3-directional valve, Series HF03-LG

- For series : HF03-LG, CL03
- 5/3
- Qn = 850 l/min
- Pilot valve width : 16 mm
- closed center
- Plate connection
- Manual override : with detent
- Pilot : External



Version	Spool valve, positive overlapping
Activation	Electrically
Pilot	External
Sealing principle	Soft sealing
Blocking principle	Single base plate principle
Certificates	UR (Underwriters Laboratories)
Working pressure min./max.	-0.9 ... 10 bar
Control pressure min./max.	2.5 ... 10 bar
Ambient temperature min./max.	0 ... 50 °C
Medium temperature min./max.	0 ... 50 °C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 ... 5 mg/m³
Nominal flow Qn	850 l/min
Pilot control exhaust	With collective pilot air exhaust
Protection class with connection	IP65
Protective circuit	Z-diode
Reverse polarity protection	Protected against polarity reversal
LED status display	Yellow
Duty cycle	100 %
Typ. switch-on time	14 ms
Typ. switch-off time	15 ms
mounting screws	cross recessed DIN EN ISO 4757-Z1
Mounting screw tightening torque	1.3 Nm
Weight	0.082 kg

## Technical data

Part No.	MO		Operational voltage	Voltage tolerance
			DC	DC
0820055601		closed center	24 V	-15% / +20%

Part No.	Power consumption	Flow conductance	Flow conductance
	DC	b	C-value
0820055601	0.35 W	0.23	2.79 l/(s*bar)

Nominal flow Qn at 6 bar and Δp = 1 bar, MO = Manual override

## Technical information

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. Further information can be found in the “Technical information” document (available in the MediaCentre).

The pilot type (external/internal) is not implemented in the valve, but in the end plate of the valve system.

The pilot valve is UL (Underwriters Laboratories) certified.

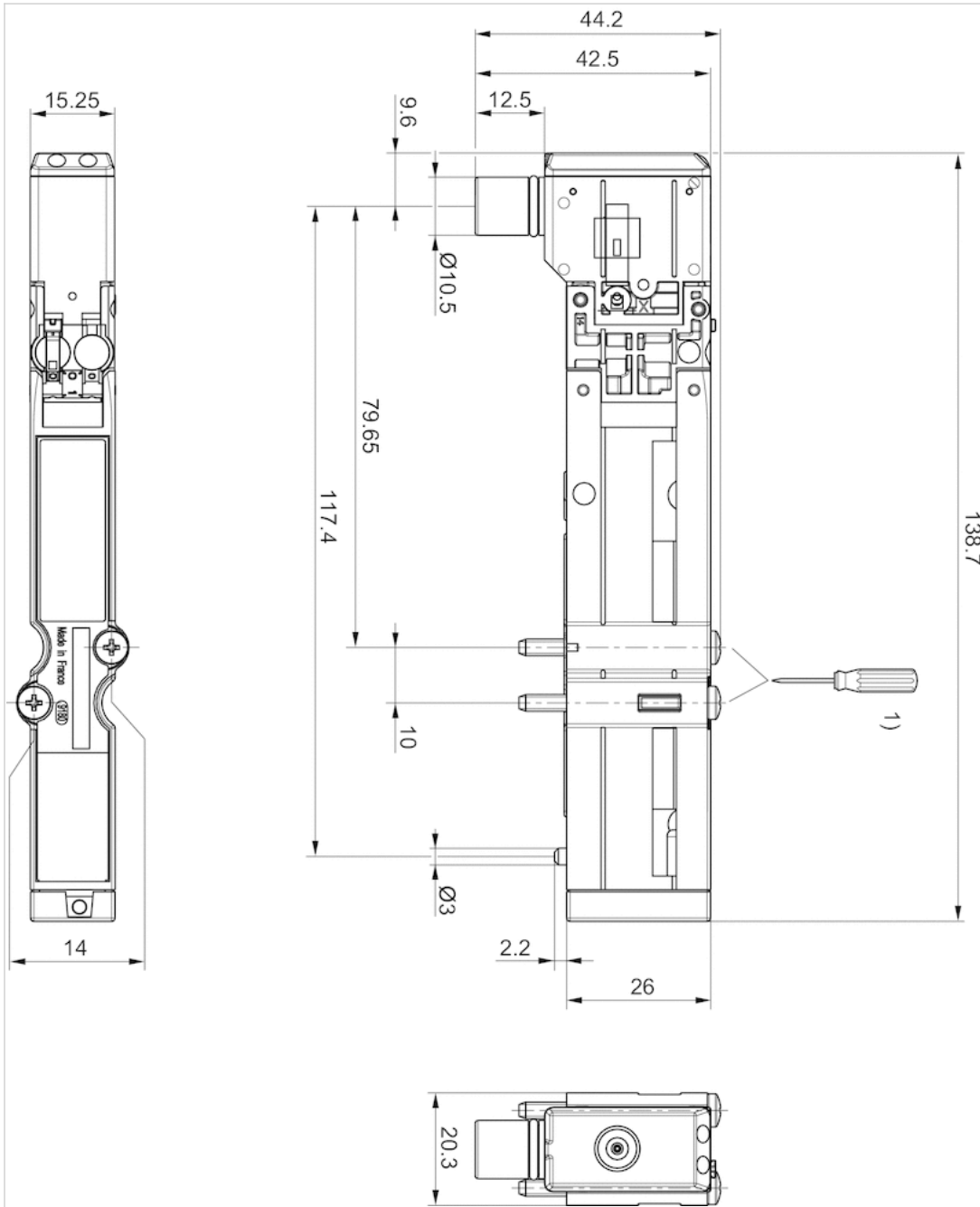
## Technical information

Material	
Housing	Polyamide fiber-glass reinforced
Seals	Acrylonitrile butadiene rubber



# Dimensions

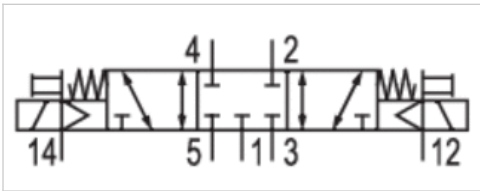
## Dimensions



1) =1.1Nm 800tr/min. max.


# 5/3-directional valve, Series HF03-LG

- For series : HF03-LG, CL03
- 5/3
- $Q_n = 850$  l/min
- Pilot valve width : 16 mm
- closed center
- Plate connection
- Manual override : without detent
- Pilot : External



Version	Spool valve, positive overlapping
Activation	Electrically
Pilot	External
Sealing principle	Soft sealing
Blocking principle	Single base plate principle
Certificates	UR (Underwriters Laboratories)
Working pressure min./max.	-0.9 ... 10 bar
Control pressure min./max.	2.5 ... 10 bar
Ambient temperature min./max.	0 ... 50 °C
Medium temperature min./max.	0 ... 50 °C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 ... 5 mg/m <sup>3</sup>
Nominal flow $Q_n$	850 l/min
Pilot control exhaust	With collective pilot air exhaust
Protection class with connection	IP65
Protective circuit	Z-diode
Reverse polarity protection	Protected against polarity reversal
LED status display	Yellow
Duty cycle	100 %
Typ. switch-on time	14 ms
Typ. switch-off time	15 ms
mounting screws	cross recessed DIN EN ISO 4757-Z1
Mounting screw tightening torque	1.3 Nm
Weight	0.082 kg

## Technical data

Part No.	MO		Operational voltage	Voltage tolerance
			DC	DC
0820055602		closed center	24 V	-15% / +20%

Part No.	Power consumption	Flow conductance	Flow conductance
	DC	b	C-value
0820055602	0.35 W	0.23	2.79 l/(s*bar)

Nominal flow  $Q_n$  at 6 bar and  $\Delta p = 1$  bar, MO = Manual override

## Technical information

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. Further information can be found in the “Technical information” document (available in the MediaCentre).

The pilot type (external/internal) is not implemented in the valve, but in the end plate of the valve system.

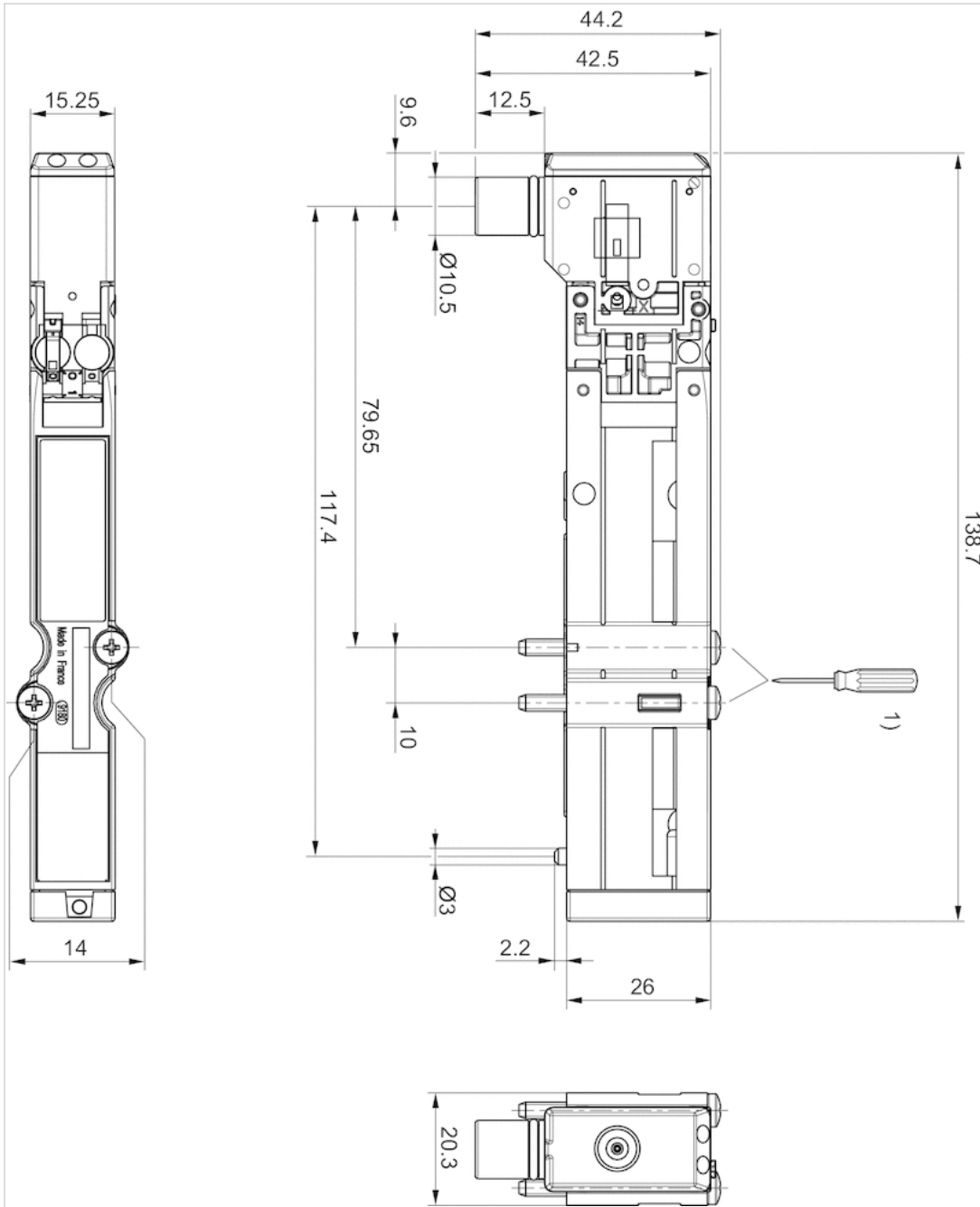
The pilot valve is UL (Underwriters Laboratories) certified.

## Technical information

Material	
Housing	Polyamide fiber-glass reinforced
Seals	Acrylonitrile butadiene rubber

# Dimensions

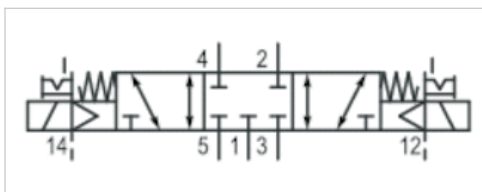
## Dimensions



1) =1.1Nm 800tr/min. max.

# 5/3-directional valve, Series HF02-LG

- For series : HF02-LG, CL03
- 5/3
- Qn = 1400 l/min
- Pilot valve width : 16 mm
- closed center
- Plate connection
- Manual override : with detent
- Pilot : External, Internal



Version	Spool valve, positive overlapping
Activation	Electrically
Pilot	External, Internal
Sealing principle	Soft sealing
Blocking principle	Single base plate principle
Certificates	UR (Underwriters Laboratories)
Working pressure min./max.	-0.9 ... 10 bar
Control pressure min./max.	2.5 ... 10 bar
Ambient temperature min./max.	0 ... 50 °C
Medium temperature min./max.	0 ... 50 °C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 ... 5 mg/m³
Nominal flow Qn	1400 l/min
Pilot control exhaust	With collective pilot air exhaust
Protection class with connection	IP65
Protective circuit	Z-diode
Reverse polarity protection	Protected against polarity reversal
LED status display	Yellow
Duty cycle	100 %
Typ. switch-on time	14 ms
Typ. switch-off time	15 ms
mounting screws	cross recessed DIN EN ISO 4757-Z2
Mounting screw tightening torque	1.3 Nm
Weight	0.144 kg

## Technical data

Part No.	MO		Operational voltage	Voltage tolerance
			DC	DC
0820056601		closed center	24 V	-15% / +20%

Part No.	Power consumption	Flow conductance	Flow conductance
	DC	b	C-value
0820056601	0.35 W	0.4	5.87 l/(s*bar)

Nominal flow Qn at 6 bar and Δp = 1 bar

## Technical information

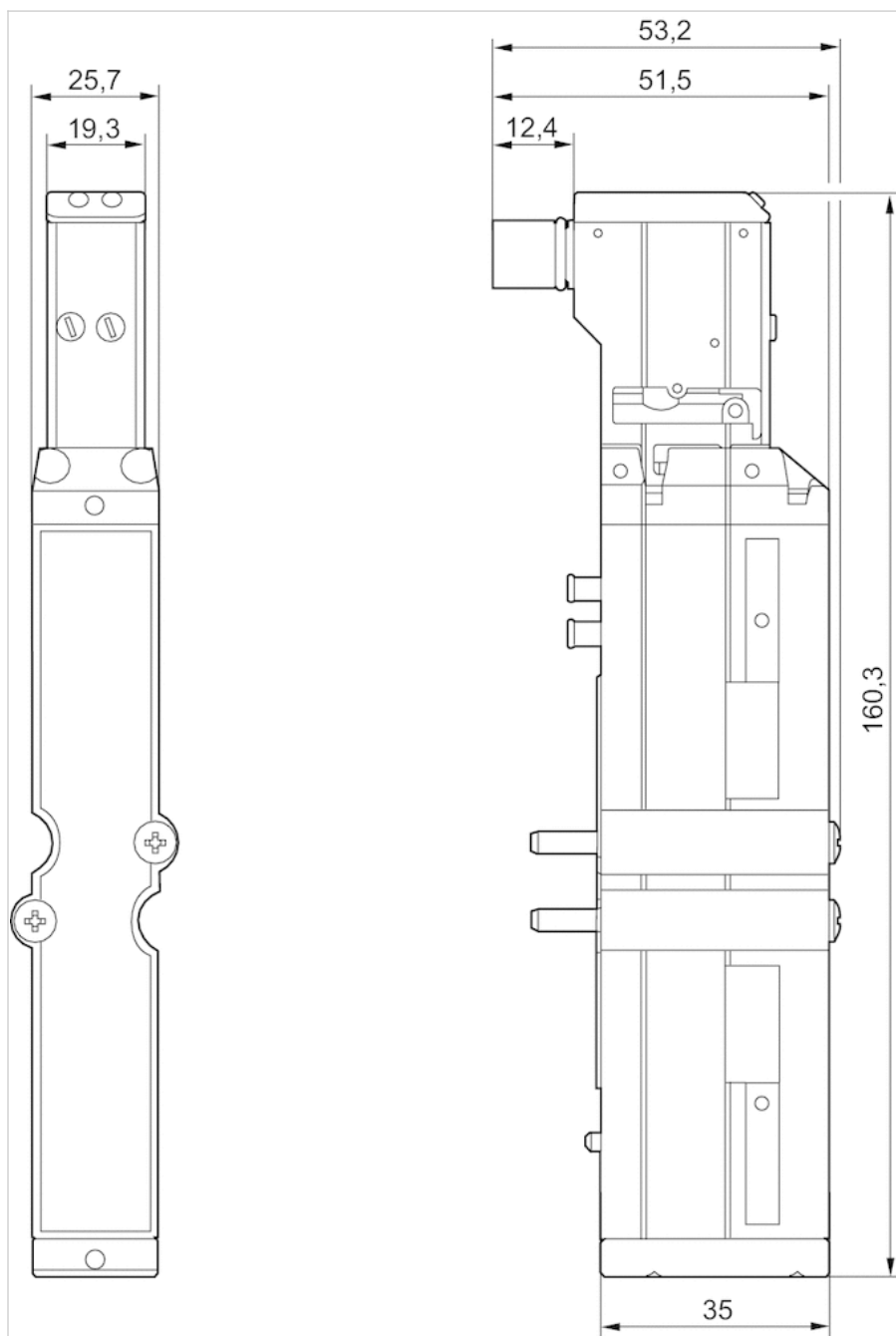
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!  
 The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .  
 The oil content of compressed air must remain constant during the life cycle.  
 Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).  
 The pilot type (external/internal) is not implemented in the valve, but in the end plate of the valve system.  
 The pilot valve is UL (Underwriters Laboratories) certified.

## Technical information

Material	
Housing	Polyamide
Seals	Acrylonitrile butadiene rubber Hydrogenated acrylonitrile butadiene rubber

## Dimensions

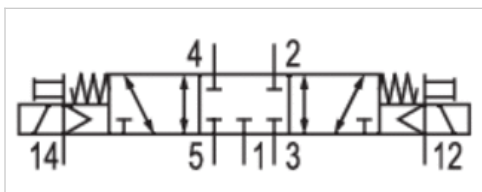
### Dimensions



1) Mounting screw: X-slot DIN EN ISO 4757-Z2  
tightening torque for mounting screw [Nm]: 1.3

# 5/3-directional valve, Series HF02-LG

- For series : HF02-LG, CL03
- 5/3
- Qn = 1400 l/min
- Pilot valve width : 16 mm
- closed center
- Plate connection
- Manual override : without detent
- Pilot : External, Internal



Version	Spool valve, positive overlapping
Activation	Electrically
Pilot	External, Internal
Sealing principle	Soft sealing
Blocking principle	Single base plate principle
Certificates	UR (Underwriters Laboratories)
Working pressure min./max.	-0.9 ... 10 bar
Control pressure min./max.	2.5 ... 10 bar
Ambient temperature min./max.	0 ... 50 °C
Medium temperature min./max.	0 ... 50 °C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 ... 5 mg/m³
Nominal flow Qn	1400 l/min
Pilot control exhaust	With collective pilot air exhaust
Protection class with connection	IP65
Protective circuit	Z-diode
Reverse polarity protection	Protected against polarity reversal
LED status display	Yellow
Duty cycle	100 %
Typ. switch-on time	14 ms
Typ. switch-off time	15 ms
mounting screws	cross recessed DIN EN ISO 4757-Z2
Mounting screw tightening torque	1.3 Nm
Weight	0.144 kg

## Technical data

Part No.	MO		Operational voltage	Voltage tolerance
			DC	DC
0820056602		closed center	24 V	-15% / +20%

Part No.	Power consumption	Flow conductance	Flow conductance
	DC	b	C-value
0820056602	0.35 W	0.4	5.87 l/(s*bar)

Nominal flow Qn at 6 bar and Δp = 1 bar, MO = Manual override



## Technical information

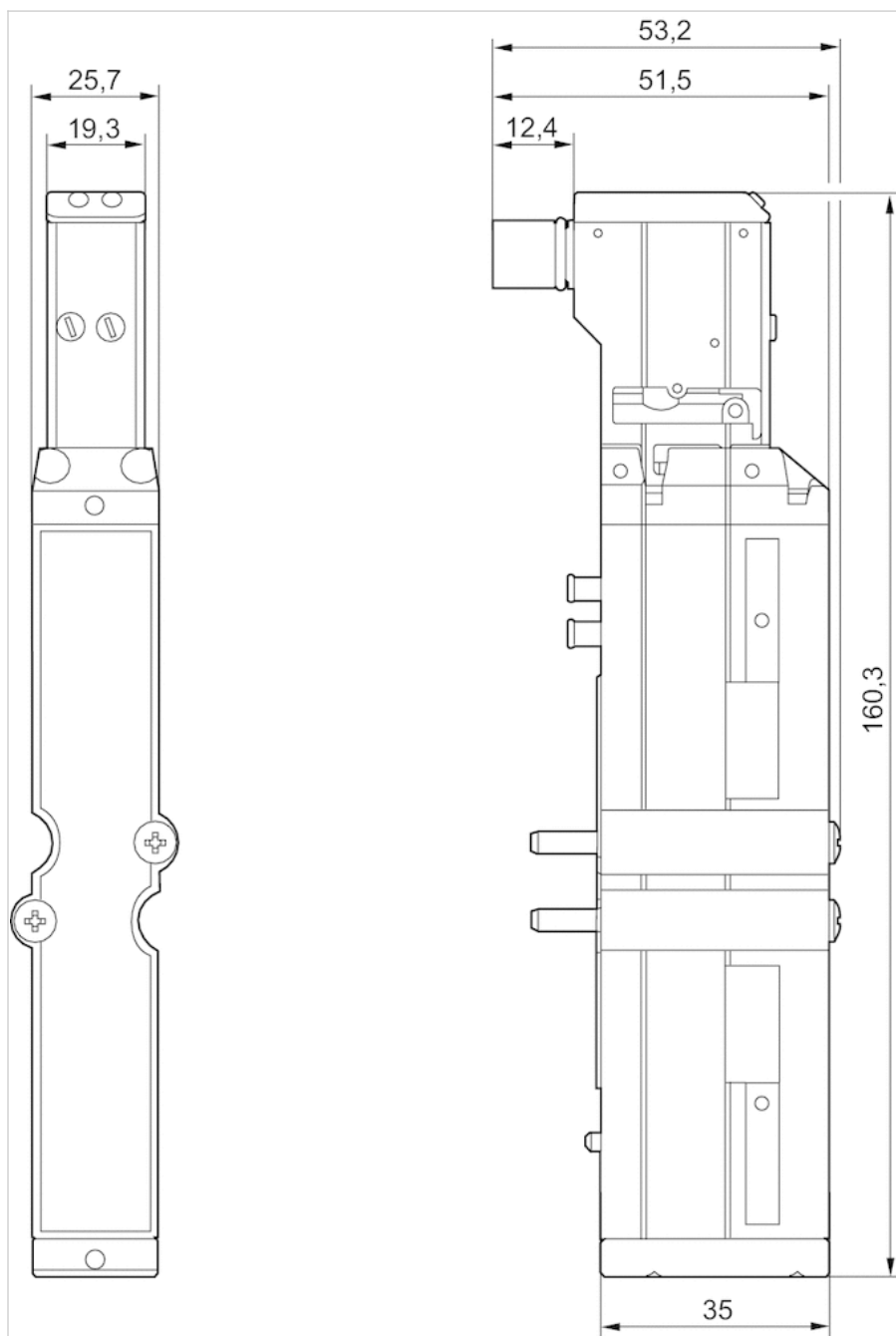
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!  
 The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .  
 The oil content of compressed air must remain constant during the life cycle.  
 Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).  
 The pilot type (external/internal) is not implemented in the valve, but in the end plate of the valve system.  
 The pilot valve is UL (Underwriters Laboratories) certified.

## Technical information

Material	
Housing	Polyamide
Seals	Acrylonitrile butadiene rubber Hydrogenated acrylonitrile butadiene rubber

## Dimensions

### Dimensions



1) Mounting screw: X-slot DIN EN ISO 4757-Z2  
tightening torque for mounting screw [Nm]: 1.3

# Blanking plate

- for HF02-LG



Working pressure min./max.	-0.9 ... 10 bar
Ambient temperature min./max.	-5 ... 50 °C
Medium	Compressed air
Mounting screw	cross recessed DIN EN ISO 4757-Z2
Tightening torque for mounting screws	1.1 Nm
Weight	0.093 kg

## Technical data

Part No.	Type	Delivery unit
1825A00087	Blanking plate, incl. sealing kit, 1x mounting screws	1 piece

## Technical information

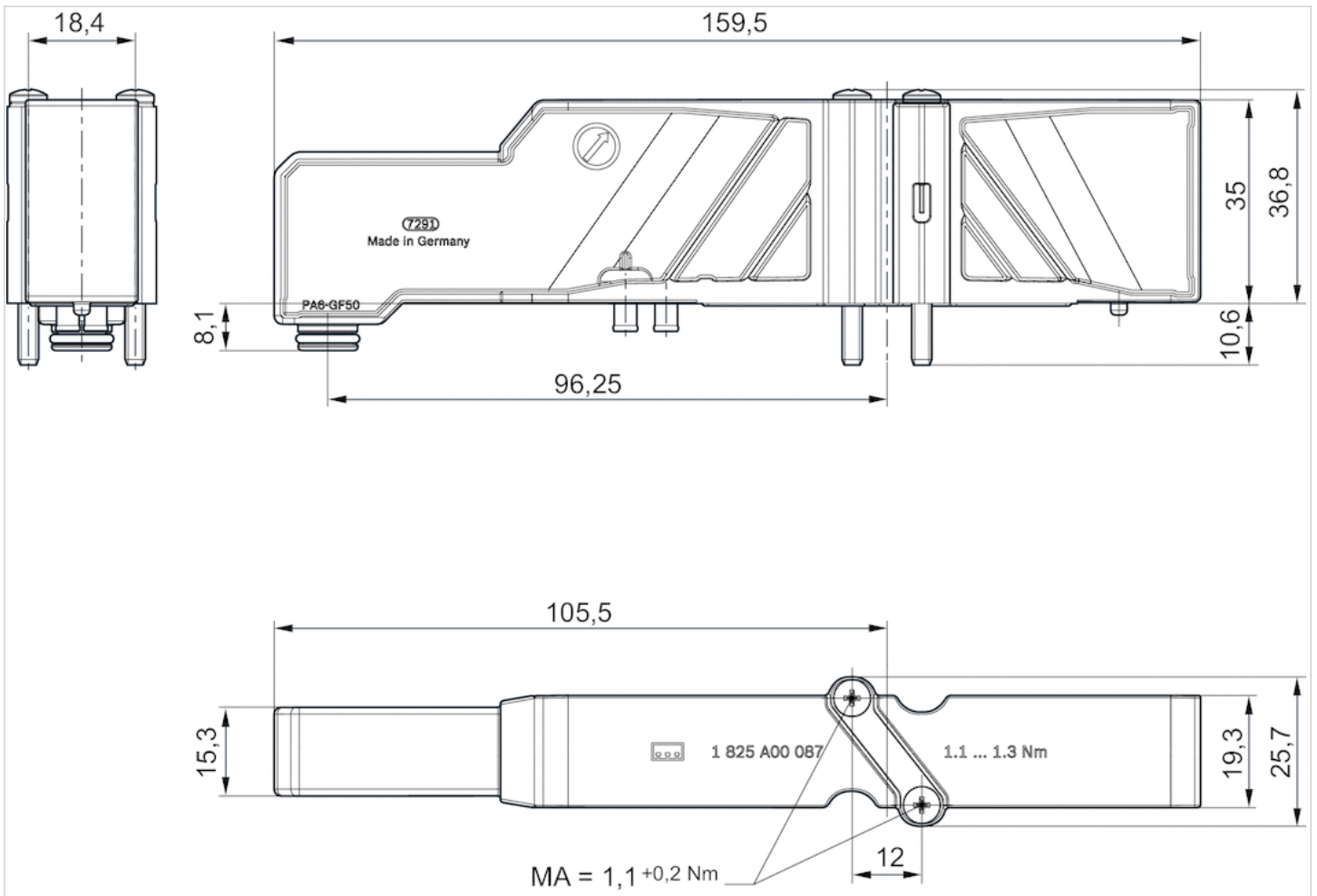
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!  
 The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .  
 The oil content of compressed air must remain constant during the life cycle.  
 Use only the approved oils from AVENTICS. Further information can be found in the "Technical information" document (available in the MediaCentre).

## Technical information

Material	
Base plate	Polyamide
Seal	Nitrile rubber

## Dimensions

### Dimensions



# Blanking plate

- for HF03-LG



Working pressure min./max.	-0.9 ... 10 bar
Ambient temperature min./max.	-5 ... 50 °C
Medium	Compressed air
Mounting screw	cross recessed DIN EN ISO 4757-Z1
Tightening torque for mounting screws	1.1 Nm
Weight	0.093 kg

## Technical data

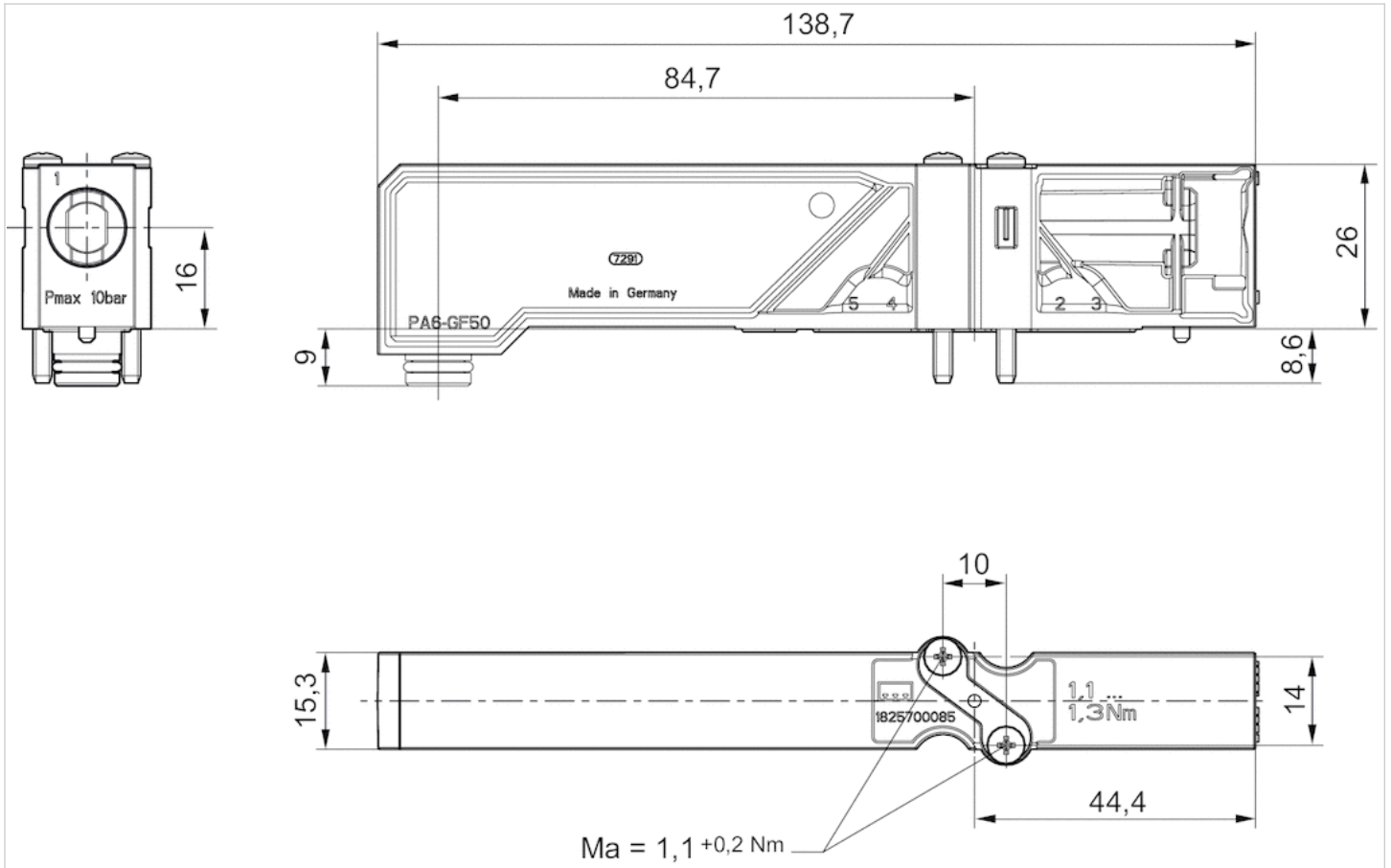
Part No.	Type
1825A00085	Blanking plate, incl. sealing kit, 1x mounting screws

## Technical information

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. Further information can be found in the "Technical information" document (available in the MediaCentre).

# Dimensions

## Dimensions



# Base plate

- IP69K
- Compressed air connection output G 1/4 Ø 8 Ø 10
- Can be assembled into blocks
- for CL03, HF03-LG, HF02-LG



Medium  
Protection class  
Weight

Compressed air  
IP69K  
See table below

## Technical data

Part No.	Type	Compressed air connection Input [1]
2631301000	2 ports	-
2631301070	2 push-in fittings	-
2631301060	2 push-in fittings, stainless steel	-
2631401000	4 ports	-
2631401020	4 push-in fittings	-
2631401010	4 push-in fittings, stainless steel	-
R414006056	5 push-in fittings	Ø 10
R414006057	5 push-in fittings	Ø 10
R414006058	5 push-in fittings	G 1/4
R414006059	5 push-in fittings	G 1/4

Part No.	Compressed air connection Output [2 / 4]	Compressed air connection Exhaust [3 / 5]	Weight	Fig.
2631301000	G 1/4	-	0.16 kg	Fig. 1
2631301070	Ø 8	-	0.185 kg	Fig. 1
2631301060	Ø 8	-	0.184 kg	Fig. 1
2631401000	G 1/4	G 1/4	0.161 kg	Fig. 1
2631401020	Ø 8	Ø 8	0.213 kg	Fig. 1
2631401010	Ø 8	Ø 8	0.21 kg	Fig. 1
R414006056	Ø 10	Ø 10	0.205 kg	Fig. 2
R414006057	Ø 10	Ø 10	0.205 kg	Fig. 2
R414006058	G 1/4	G 1/4	0.175 kg	Fig. 2
R414006059	G 1/4	G 1/4	0.175 kg	Fig. 2

Part No.	
2631301000	-
2631301070	-
2631301060	-
2631401000	-
2631401020	-
2631401010	1)
R414006056	1)
R414006057	2)
R414006058	1)
R414006059	2)

- 1) Subbase for individual control
- 2) Subbase for parallel control of next subbase (dual signal)

## Technical information

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. Further information can be found in the "Technical information" document (available in the MediaCentre).

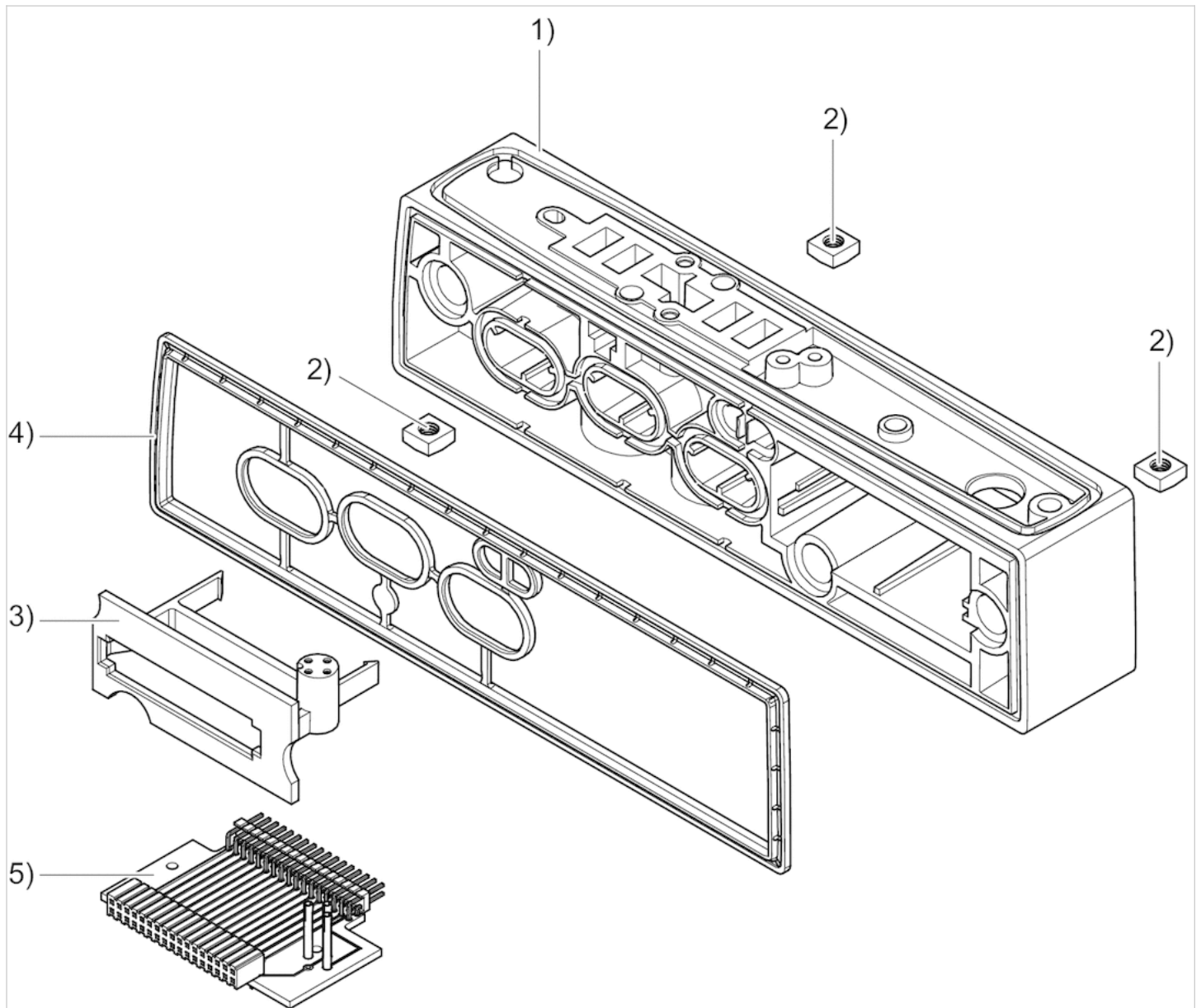
## Technical information

Material	
Base plate	Polyamide fiber-glass reinforced
Seal	Hydrogenated acrylonitrile butadiene rubber



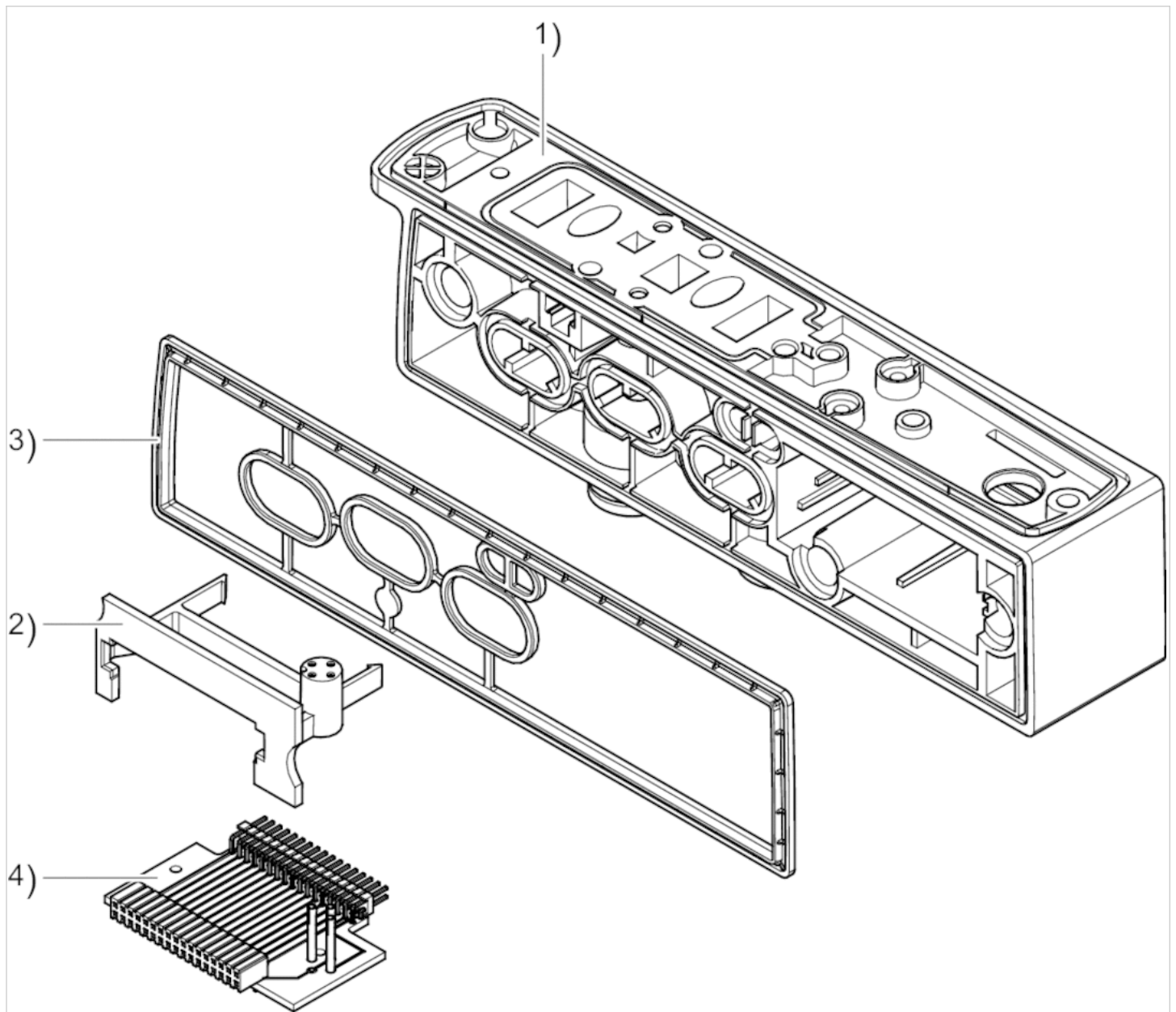
## Dimensions

Fig. 1, CL03, HF03-LG



1) Subbase 2) plug 3) circuit board holder 4) seal 5) circuit board

Fig. 2, CL03, HF02-LG



1) Subbase 2) Circuit board holder 3) Seal 4) Circuit board

# base plates -Inch

- Compressed air connection output 3/8"
- Can be assembled into blocks



Medium	Compressed air
Protection class	IP69K
Weight	0.171 kg

## Technical data

Part No.	Type	Compressed air connection Output [ 2 / 4 ]
R402003312	2 push-in fittings, stainless steel	3/8"

## Technical information

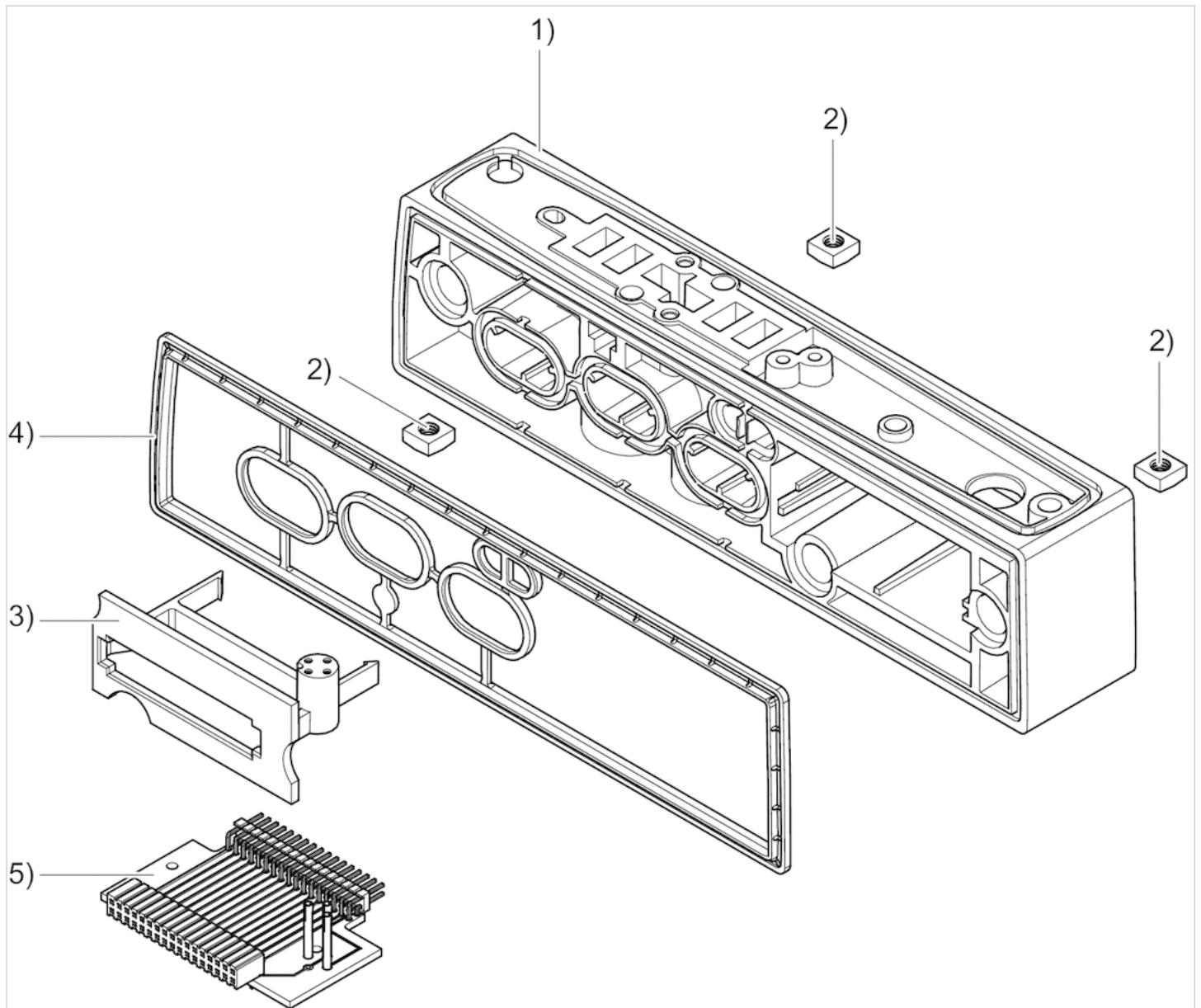
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!  
 The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .  
 The oil content of compressed air must remain constant during the life cycle.  
 Use only the approved oils from AVENTICS. Further information can be found in the "Technical information" document (available in the MediaCentre).

## Technical information

Material	
Base plate	Polyamide fiber-glass reinforced
Seal	Hydrogenated acrylonitrile butadiene rubber

## Dimensions

Fig. 1, CL03, HF03-LG



1) Subbase 2) plug 3) circuit board holder 4) seal 5) circuit board

# Series CL03

- Can be assembled into blocks



Medium  
Weight

Compressed air  
See table below

## Technical data

Part No.	Type	Compressed air connection Input [1]	Compressed air connection Exhaust [3 / 5]	Weight
2631380000	metric	G 1/2	-	0.248 kg
2631380060	inch	1/2-14 NPTF	-	0.36 kg
R414006061	metric	G 1/2	G 1/2	0.211 kg
R414006064	inch	1/2-14 NPTF	1/2-14 NPTF	0.323 kg

Part No.	Fig.
2631380000	Fig. 1
2631380060	Fig. 1
R414006061	Fig. 2
R414006064	Fig. 2

Only external pilot possible, additional ports 3 and 5

## Technical information

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. Further information can be found in the "Technical information" document (available in the MediaCentre).

End plate kit: external pilot

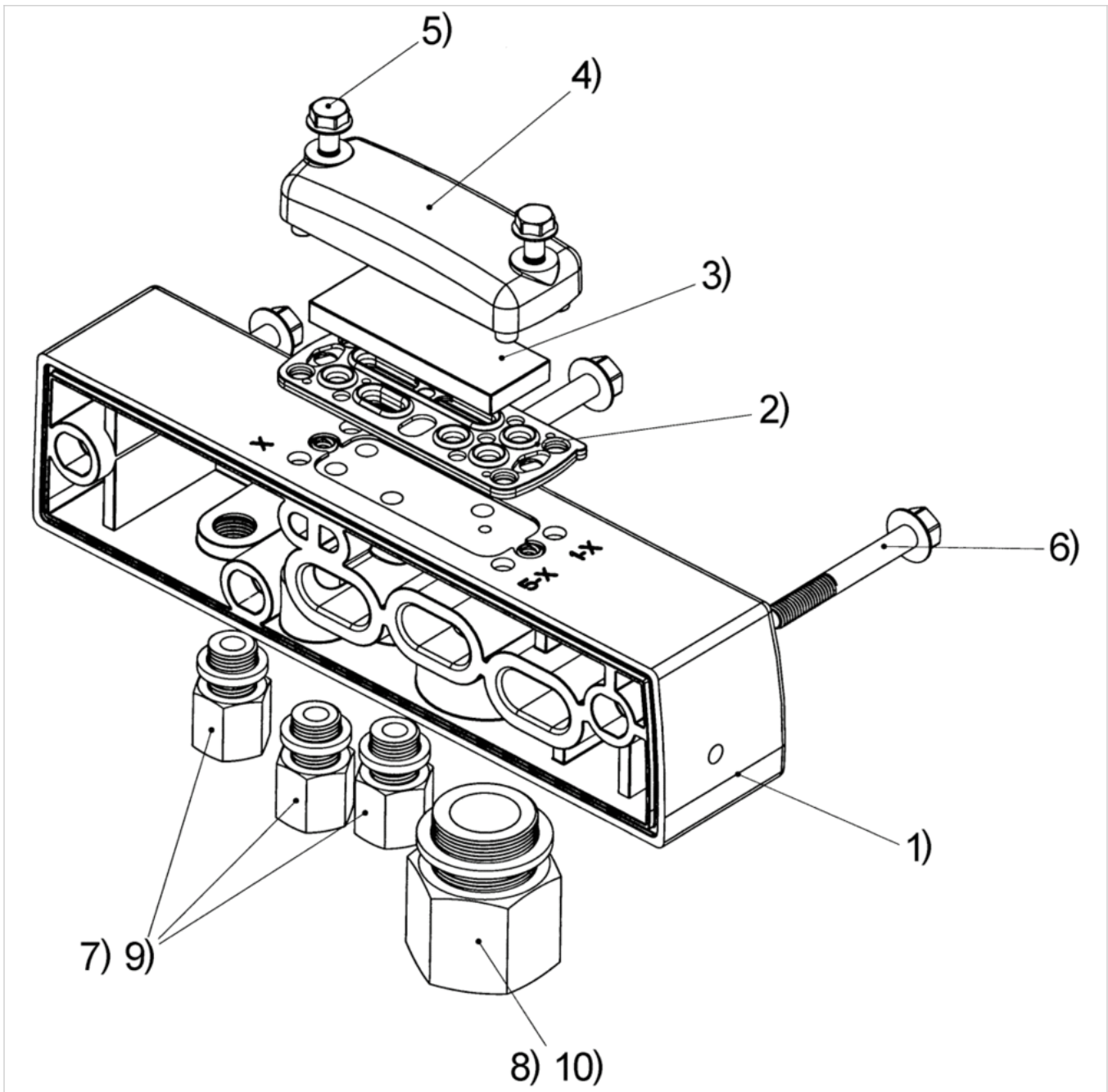
## Technical information

Material	
Base plate	Polyamide fiber-glass reinforced
Seal	Hydrogenated acrylonitrile butadiene rubber

Material	
Screws	Stainless steel

## Dimensions

Fig. 1



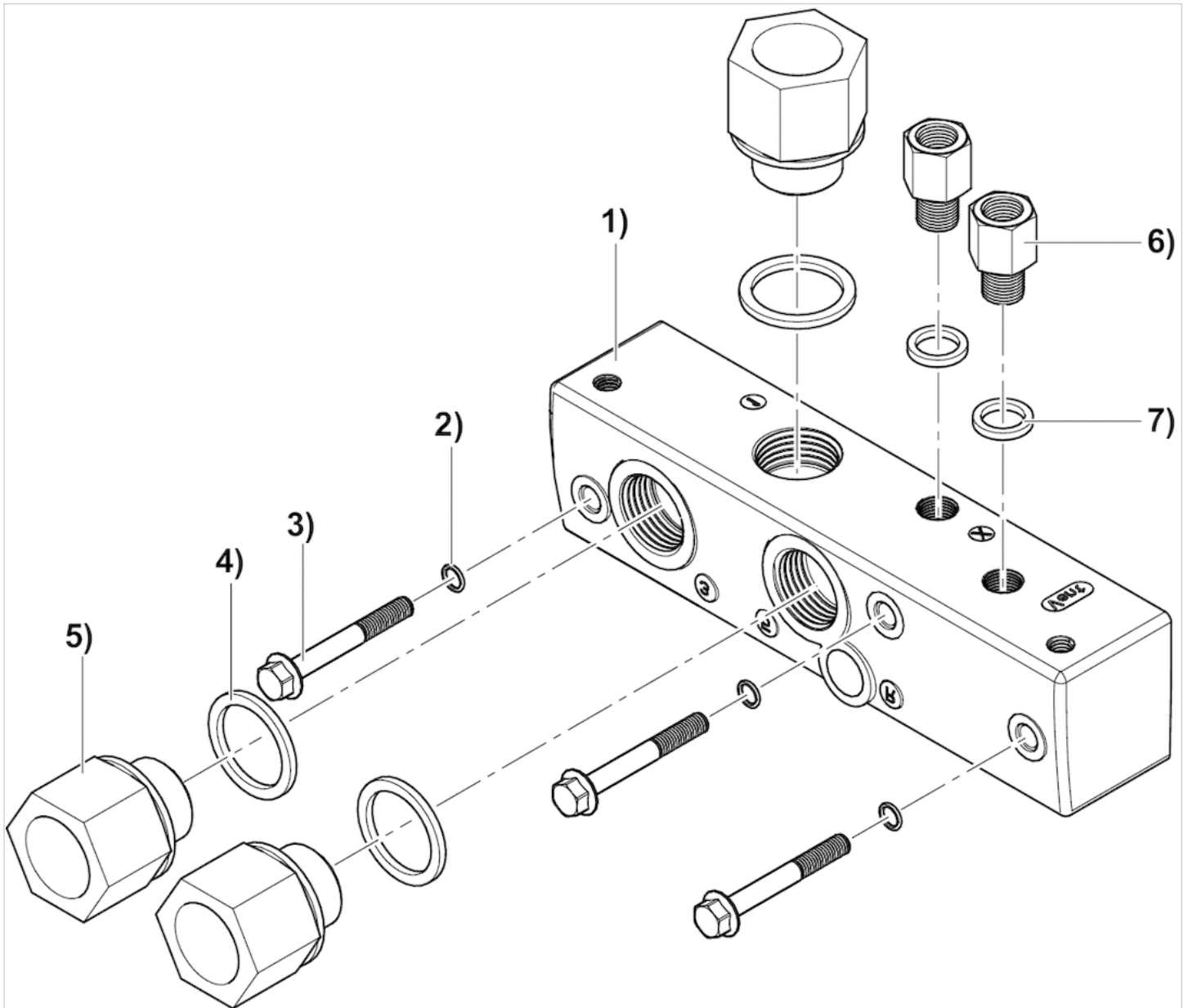
1) End plate X, R 2) Seal 3) Blanking plate 4) Cover 5) Screw M4x20 6) Screw M5x40

Additionally for inch versions:

7) Adapter G 1/8 - NPTF 1/8 8) Adapter G 1/2 - NPTF 1/2 9) Seal for adapter 10) Seal for adapter



Fig. 2



1) End plate X, R 2) O-ring 3) Screws M5x40

Additionally for inch versions:

4) Seal for adapter NPTF 1/2 5) Adapter G 1/2 - NPTF 1/2 6) Adapter G 1/8 - NPTF 1/8 7) Seal for adapter NPTF 1/8

# Left end plate

- Can be assembled into blocks



Medium  
Protection class  
Weight

Compressed air  
IP69K  
See table below

## Technical data

Part No.	Type	Compressed air connection Input [1]	Compressed air connection Exhaust [3 / 5]	Weight
2631481100	metric	G 1/2	G 3/8	0.25 kg
2631481160	inch	1/2-14 NPTF	3/8-18 NPTF	0.418 kg

Multiple plug (48-pin)

## Technical information

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. Further information can be found in the "Technical information" document (available in the MediaCentre).

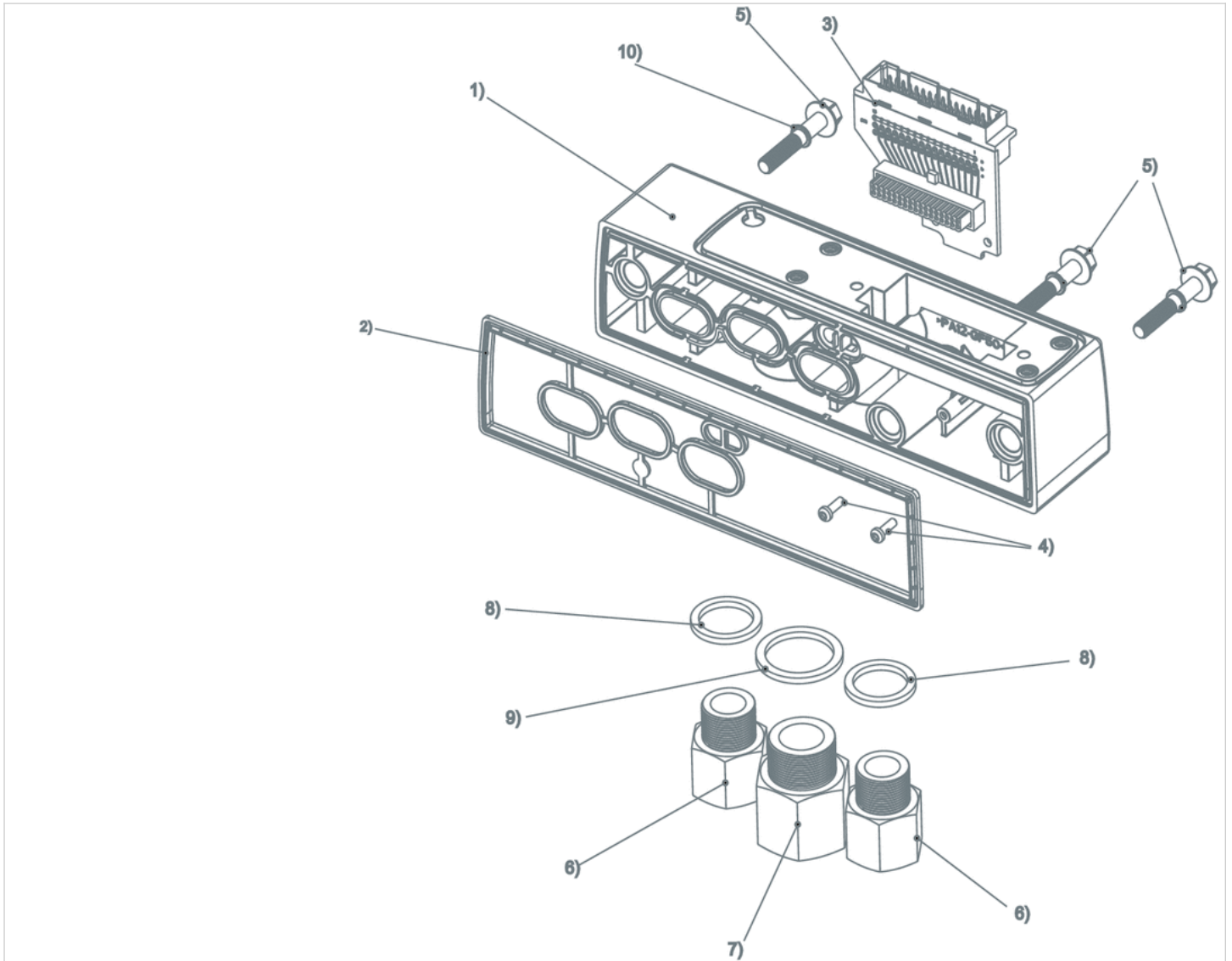
## Technical information

Material	
Base plate	Polyamide fiber-glass reinforced
Seal	Hydrogenated acrylonitrile butadiene rubber
Screws	Stainless steel



# Dimensions

## Overview drawing



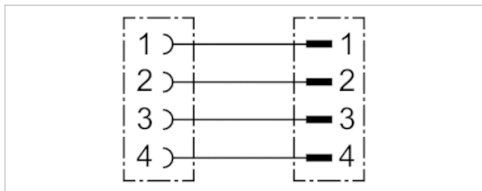
1) Connection piece 2) Seal 3) Circuit board connection piece 4) Screws 5) Screw M5x30 For additional inch-versions: 6) Adapter G 1/8 - NPTF 1/8 7) Adapter G 3/8 8) Seal for connecting fittings 9) Seal

# Round plug connector, Series CON-RD

- Socket M12x1 4-pin A-coded straight 180°
- Plug M12x1 4-pin A-coded straight 180°
- EN 61076-2-101
- with cable
- unshielded



Ambient temperature min./max.	-40 ... 105 °C
Protection class	IP65 IP67 IP68 IP69
Wire cross-section	0.34 mm <sup>2</sup>
Weight	See table below



## Technical data

Part No.	Max. current	Number of wires	Bending radius min.	Cable-Ø	Cable length	Delivery unit	Weight
R402003760	4 A	4	45 mm	4.5 mm	5 m	1 piece	0.258 kg
R402003761	4 A	4	45 mm	4.5 mm	10 m	1 piece	0.484 kg
R402003762	4 A	4	45 mm	4.5 mm	15 m	1 piece	0.721 kg

## Technical information

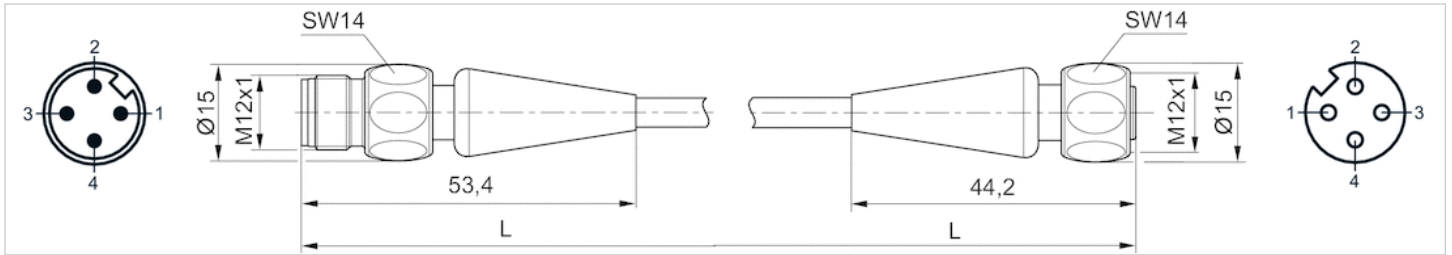
The specified protection class is only valid in assembled and tested state.

## Technical information

Material	
Housing	Polypropylene
Seals	Ethylene propylene diene monomer rubber
Cable sheath	Polyvinyl chloride

## Dimensions

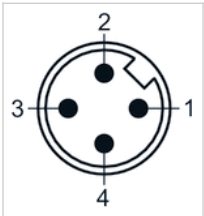
### Dimensions



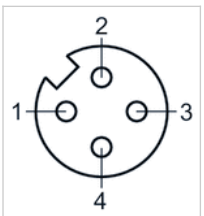
L = cable length

## Pin assignments

### Plug pin assignment



### Pin assignment, socket

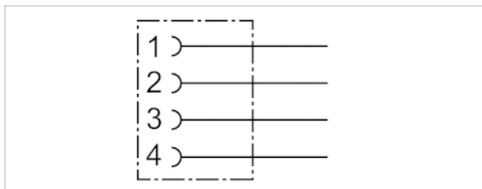


# Round plug connector DUO, Series CON-RD

- Socket, M12x1, 4-pin, A-coded, straight, 180°
- unshielded



Connection type	Screws
Ambient temperature min./max.	0 ... 50 °C
Operational voltage	48 V AC/DC
Protection class	IP67
Weight	0.034 kg



## Technical data

Part No.	Version	Max. current	suitable cable-Ø min./max
R402003790	duo plug	4 A	3.5 / 5 mm

## Technical information

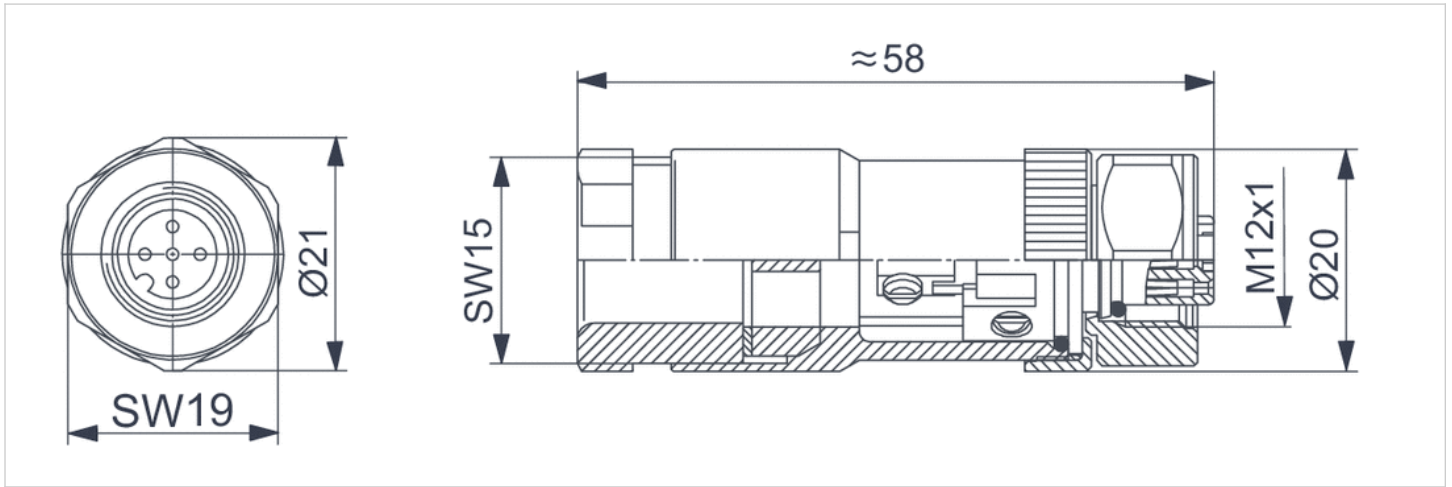
The specified protection class is only valid in assembled and tested state.

## Technical information

Material	
Housing	Stainless steel Polybutyleneterephthalate
Seals	Fluorocaoutchouc

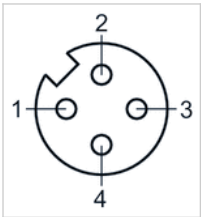
## Dimensions

### Dimensions



## Pin assignments

### Pin assignment, socket



# Round plug connector, Series CON-RD

- Plug, M12x1, 5-pin, A-coded, straight, 180°
- for CANopen, DeviceNet
- shielded



Connection type	Screws
Ambient temperature min./max.	-40 ... 85 °C
Operational voltage	48 V AC/DC
Protection class	IP69K
Weight	0.055 kg



## Technical data

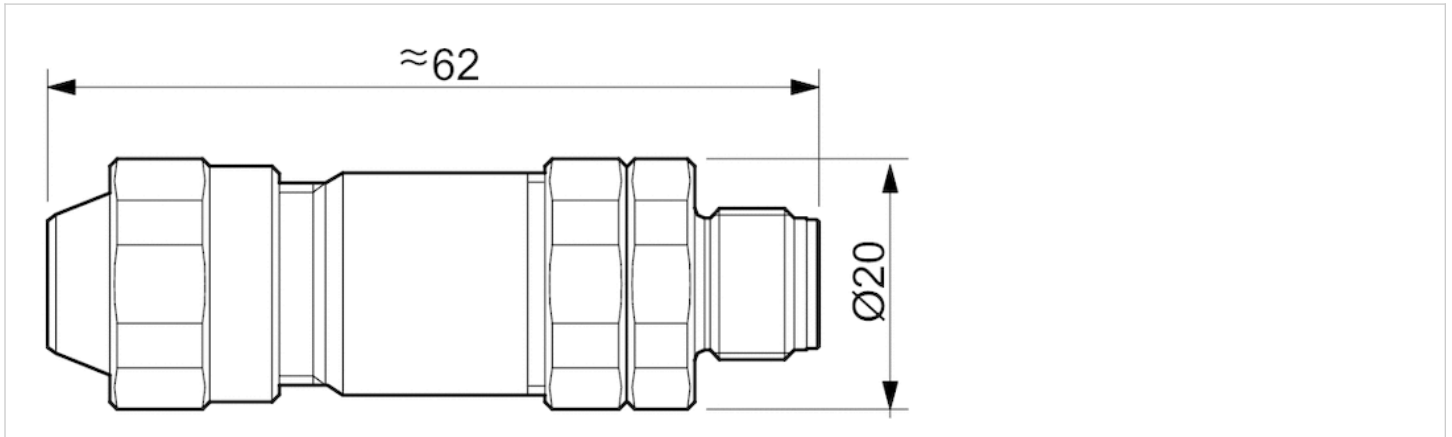
Part No.	Version	Max. current	suitable cable-Ø min./max
R402003758	Data plug output	4 A	5.5 / 8.6 mm

## Technical information

Material	
Housing	Stainless steel

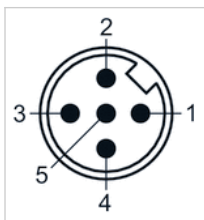
## Dimensions

### Dimensions



## Pin assignments

### Plug pin assignment

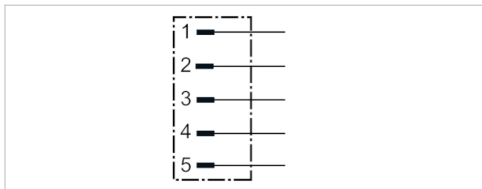


# Round plug connector, Series CON-RD

- Plug, M12x1, 5-pin, B-coded, straight, 180°
- for PROFIBUS DP
- shielded



Connection type	Screws
Ambient temperature min./max.	-40 ... 85 °C
Operational voltage	48 V AC/DC
Protection class	IP69K
Weight	0.053 kg



## Technical data

Part No.	Version	Max. current	suitable cable-Ø min./max
R402003771	Data plug output	4 A	5.5 / 8.6 mm

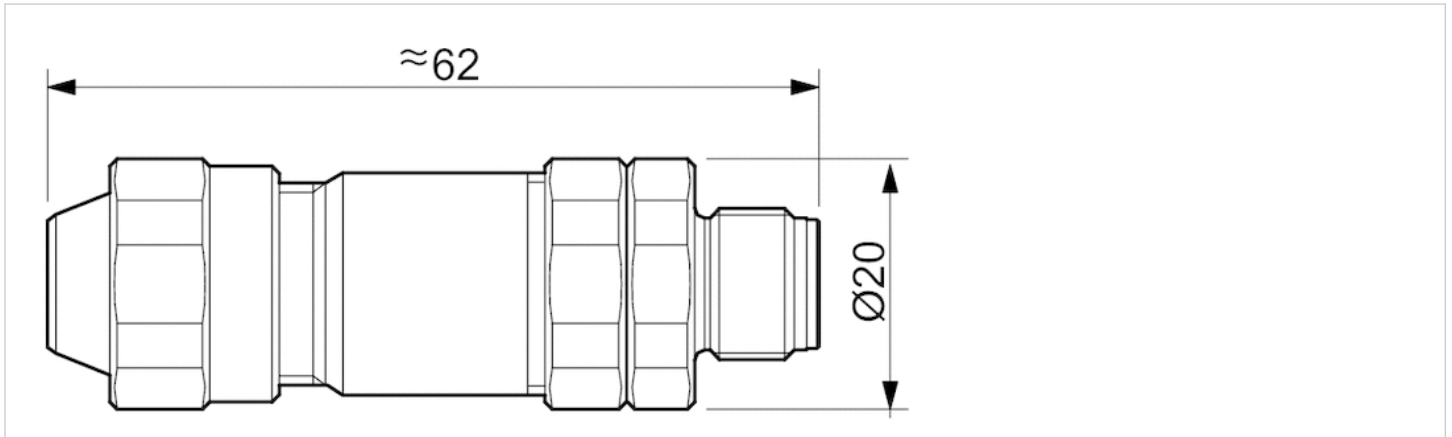
## Technical information

Material	
Housing	Stainless steel



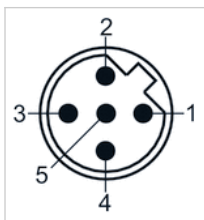
## Dimensions

### Dimensions



## Pin assignments

### Plug pin assignment

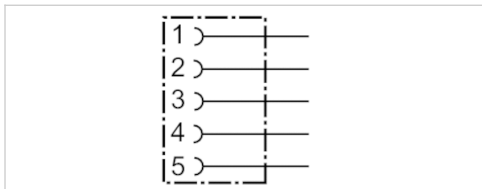


# Round plug connector, Series CON-RD

- Socket, M12x1, 5-pin, A-coded, straight, 180°
- for CANopen, DeviceNet
- shielded



Connection type	Screws
Ambient temperature min./max.	-40 ... 85 °C
Operational voltage	48 V AC/DC
Protection class	IP69K
Weight	0.057 kg



## Technical data

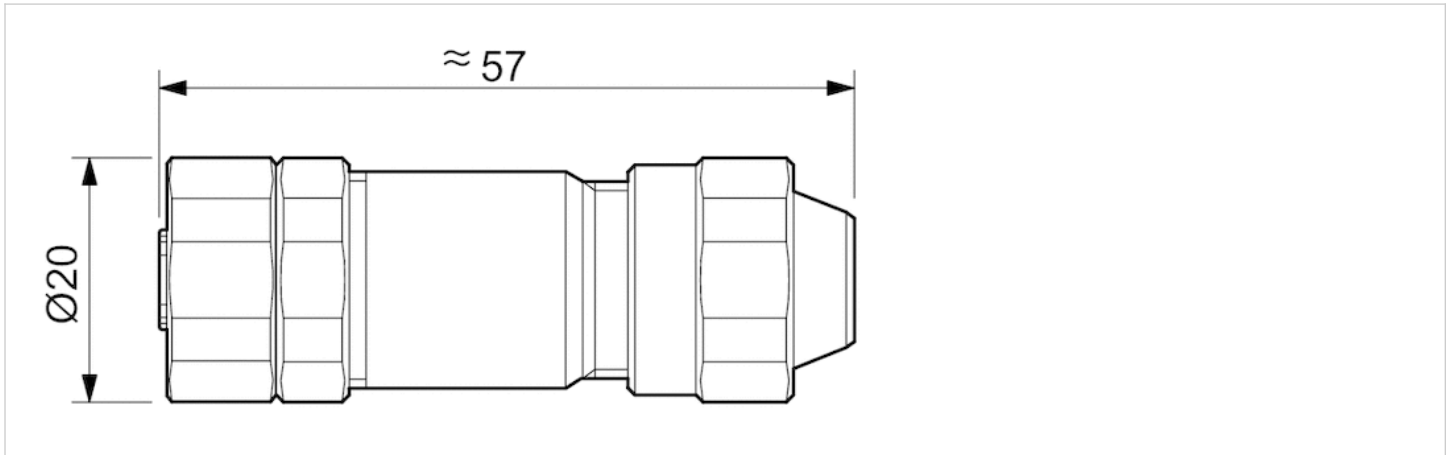
Part No.	Version	Max. current	suitable cable-Ø min./max
R402003757	Data plug input	4 A	6 / 8 mm

## Technical information

Material	
Housing	Stainless steel

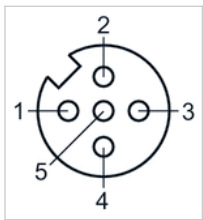
## Dimensions

### Dimensions



## Pin assignments

### Pin assignment, socket

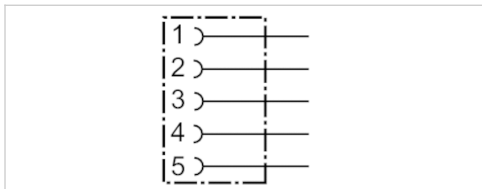


# Round plug connector, Series CON-RD

- Socket, M12x1, 5-pin, B-coded, straight, 180°
- for PROFIBUS DP
- shielded



Connection type	Screws
Ambient temperature min./max.	-40 ... 85 °C
Operational voltage	48 V AC/DC
Protection class	IP69K
Weight	0.057 kg



## Technical data

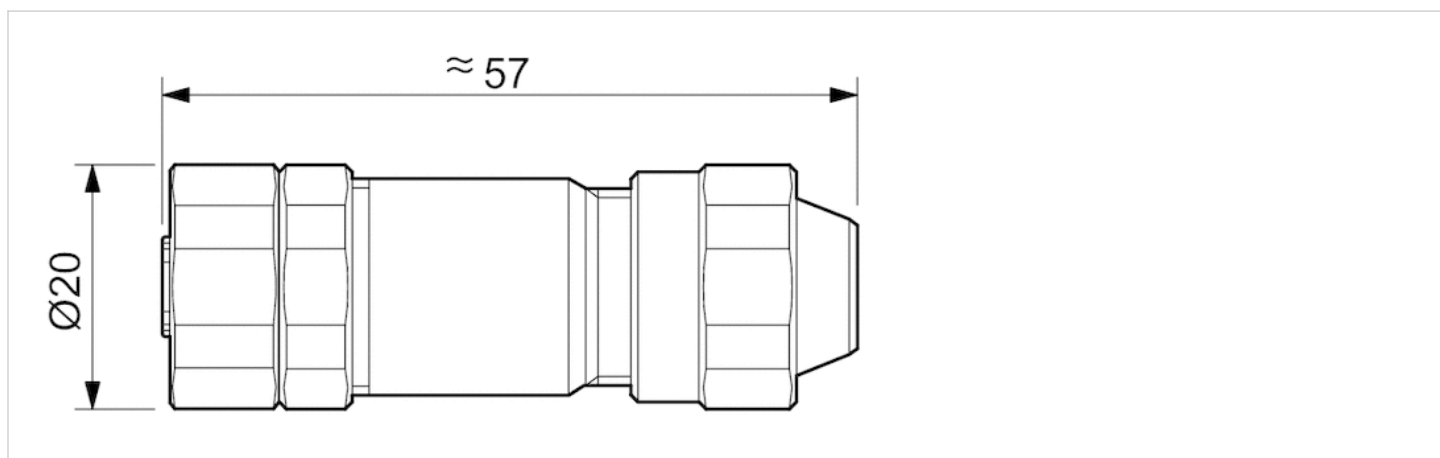
Part No.	Version	Max. current	suitable cable-Ø min./max
R402003772	Data plug input	4 A	5.5 / 8.6 mm

## Technical information

Material	
Housing	Stainless steel

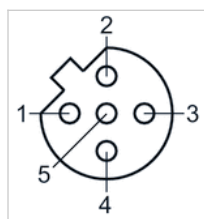
## Dimensions

### Dimensions



## Pin assignments

### Pin assignment, socket



# Multipole plug, series CON-MP

0493871009

Multipole plug with cable, series CON-MP

- Multipole plug connectors with connected cable
- Valve system control, D-Sub plug



## Technical data

Industry  
Industrial

Type  
Multipole

Cable  
with cable

Operational voltage  
24 V DC

Operating voltage AC max.  
24 V DC

Electrical connection 1, type  
Socket

Electrical connection 1, thread size  
C/2

Electrical connection 1, number of poles  
48-pin

Cable exit  
angled

Cable exit angle  
45°

Electrical connection 2, type  
open cable ends

Electrical connection 2, number of poles  
24-pin

Number of wires  
25

Shielding  
unshielded

Cable length  
5 m

Protection class  
IP69K

Min. ambient temperature  
0 °C

Max. ambient temperature  
50 °C

Max. current  
3 A

Wire cross-section  
0.34 mm<sup>2</sup>

Cable-Ø  
9.2 mm

Weight  
1 kg

## Material

Housing material  
Polyamide

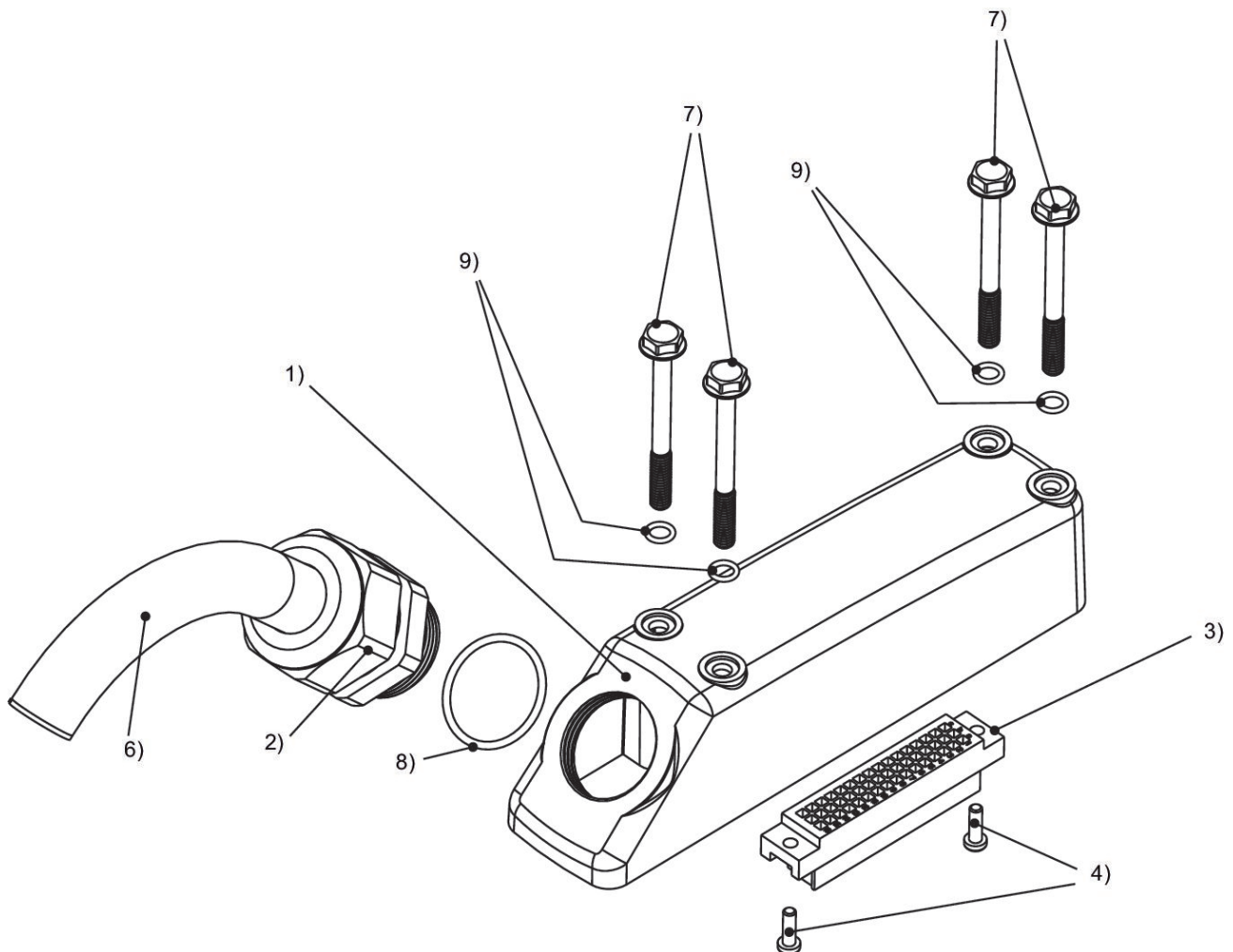
Part No.  
0493871009

Material cable sheath  
Polyvinyl chloride

## Technical information

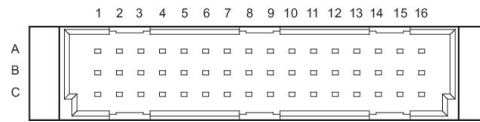
The specified protection class is only valid in assembled and tested state.  
max. 8 valves

## Dimensions



1) housing 2) cable gland 3) connector housing size C/2 4) screw 5) seal 6) cable 7) screw 8) seal 9) seal

## PIN assignment and cable colors



## PIN assignment and cable colors, 24-pin

Pin Color	A	B	C
1	blue	white	brown
2	red/blue	green	yellow
3	white/pink	gray	pink
4	pink/brown	red	black
5	white/blue	violet	gray/pink
6	brown/blue	white/green	brown/green
7	white/red	white/yellow	yellow/brown
8	brown/red	white/gray	gray/brown



# Multipole plug, series CON-MP

0493871106

Multipole plug with cable, series CON-MP

- Multipole plug connectors with connected cable
- Valve system control, D-Sub plug



## Technical data

Industry  
Industrial

Type  
Multipole

Cable  
with cable

Operational voltage  
24 V DC

Operating voltage AC max.  
24 V DC

Electrical connection 1, type  
Socket

Electrical connection 1, thread size  
C/2

Electrical connection 1, number of poles  
48-pin

Cable exit  
angled

Cable exit angle  
45°

Electrical connection 2, type  
open cable ends

Electrical connection 2, number of poles  
48-pin

Number of wires  
40

Shielding  
unshielded

Cable length  
5 m

Protection class  
IP69K

Min. ambient temperature  
0 °C

Max. ambient temperature  
50 °C

Max. current  
3 A

Wire cross-section  
0.34 mm<sup>2</sup>

Cable-Ø  
13.5 mm

Weight  
1.483 kg

## Material

Housing material  
Polyamide

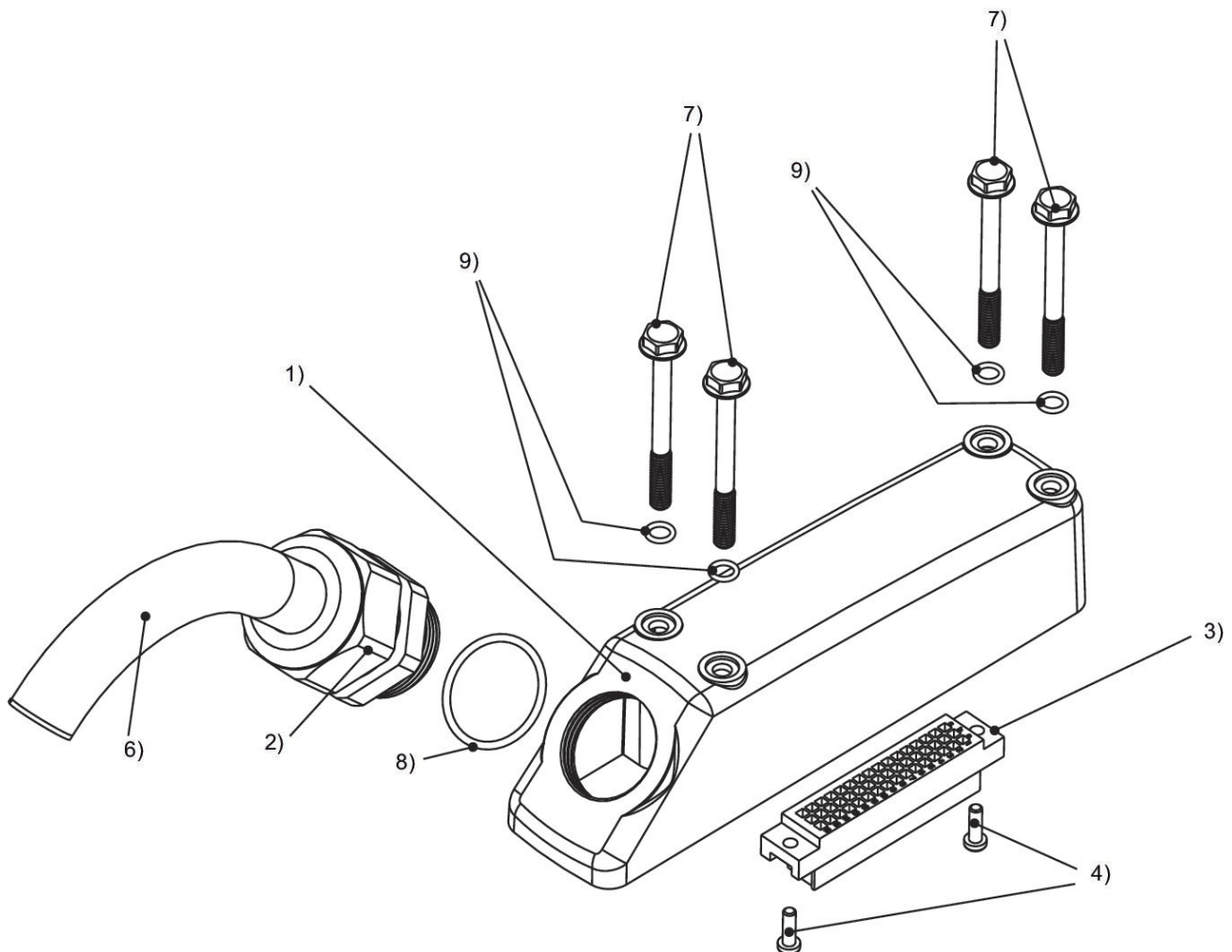
Part No.  
0493871106

Material cable sheath  
Polyvinyl chloride

## Technical information

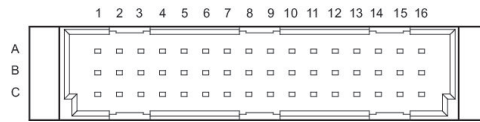
The specified protection class is only valid in assembled and tested state.  
max. 16 valves

## Dimensions



1) housing 2) cable gland 3) connector housing size C/2 4) screw 5) seal 6) cable 7) screw 8) seal 9) seal

## PIN assignment and cable colors



## PIN assignment and cable colors, 48-pin

Pin Color	A	B	C
1	not assigned	white	brown
2	red/blue	green	yellow
3	white/blue	gray	pink
4	brown/blue	red	black
5	green/blue	violet	gray/pink
6	yellow/blue	white/green	brown/green
7	gray/blue	white/yellow	yellow/brown
8	pink/blue	white/gray	gray/brown
9	blue	white/pink	pink/brown
10	not assigned	white/red	brown/red
11	not assigned	white/black	brown/black
12	not assigned	gray/green	yellow/gray
13	not assigned	pink/green	yellow/pink
14	not assigned	green/red	yellow/red
15	not assigned	green/black	yellow/black
16	not assigned	gray/red	pink/red

# Multipole plug, series CON-MP

0493871203

Multipole plug with cable, series CON-MP

- Multipole plug connectors with connected cable
- Valve system control, D-Sub plug



## Technical data

Industry  
Industrial

Type  
Multipole

Cable  
with cable

Operational voltage  
24 V DC

Operating voltage AC max.  
24 V DC

Electrical connection 1, type  
Socket

Electrical connection 1, thread size  
C/2

Electrical connection 1, number of poles  
48-pin

Cable exit  
angled

Cable exit angle  
45°

Electrical connection 2, type  
open cable ends

Electrical connection 2, number of poles  
24-pin

Number of wires  
25

Shielding  
unshielded

Cable length  
10 m

Protection class  
IP69K

Min. ambient temperature  
0 °C

Max. ambient temperature  
50 °C

Max. current  
3 A

Wire cross-section  
0.34 mm<sup>2</sup>

Cable-Ø  
9.2 mm

Weight  
1.994 kg

## Material

Housing material  
Polyamide

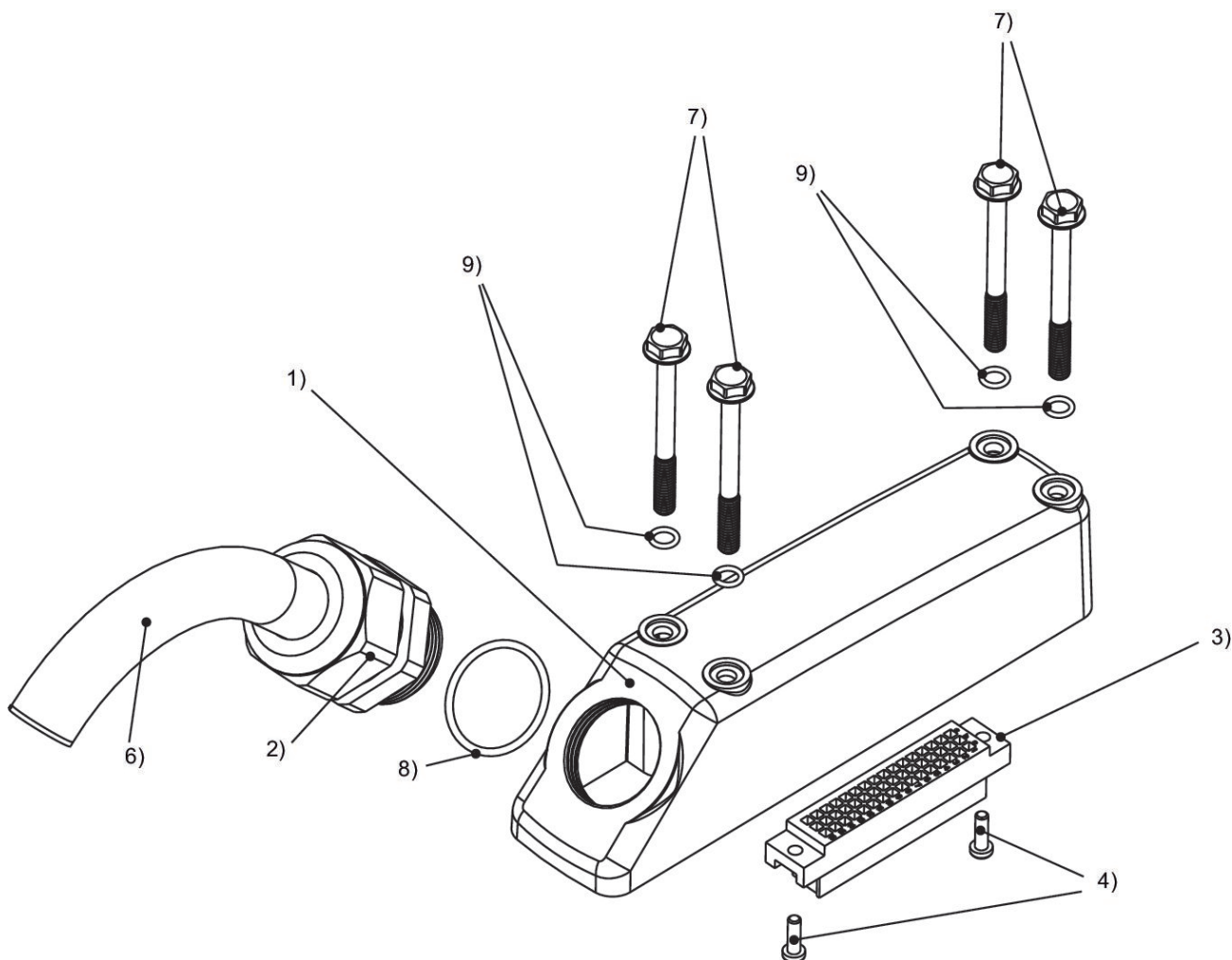
Part No.  
0493871203

Material cable sheath  
Polyvinyl chloride

## Technical information

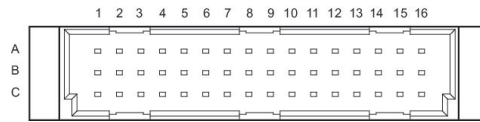
The specified protection class is only valid in assembled and tested state.  
max. 8 valves

## Dimensions



1) housing 2) cable gland 3) connector housing size C/2 4) screw 5) seal 6) cable 7) screw 8) seal 9) seal

## PIN assignment and cable colors



### PIN assignment and cable colors, 24-pin

Pin Color	A	B	C
1	blue	white	brown
2	red/blue	green	yellow
3	white/pink	gray	pink
4	pink/brown	red	black
5	white/blue	violet	gray/pink
6	brown/blue	white/green	brown/green
7	white/red	white/yellow	yellow/brown
8	brown/red	white/gray	gray/brown

# Multipole plug, series CON-MP

0493871300

Multipole plug with cable, series CON-MP

- Multipole plug connectors with connected cable
- Valve system control, D-Sub plug



## Technical data

Industry  
Industrial

Type  
Multipole

Cable  
with cable

Operational voltage  
24 V DC

Operating voltage AC max.  
24 V DC

Electrical connection 1, type  
Socket

Electrical connection 1, thread size  
C/2

Electrical connection 1, number of poles  
48-pin

Cable exit  
angled

Cable exit angle  
45°

Electrical connection 2, type  
open cable ends

Electrical connection 2, number of poles  
48-pin

Number of wires  
40

Shielding  
unshielded

Cable length  
10 m

Protection class  
IP69K

Min. ambient temperature  
0 °C

Max. ambient temperature  
50 °C

Max. current  
3 A

Wire cross-section  
0.34 mm<sup>2</sup>

Cable-Ø  
13.5 mm

Weight  
2.948 kg

## Material

Housing material  
Polyamide

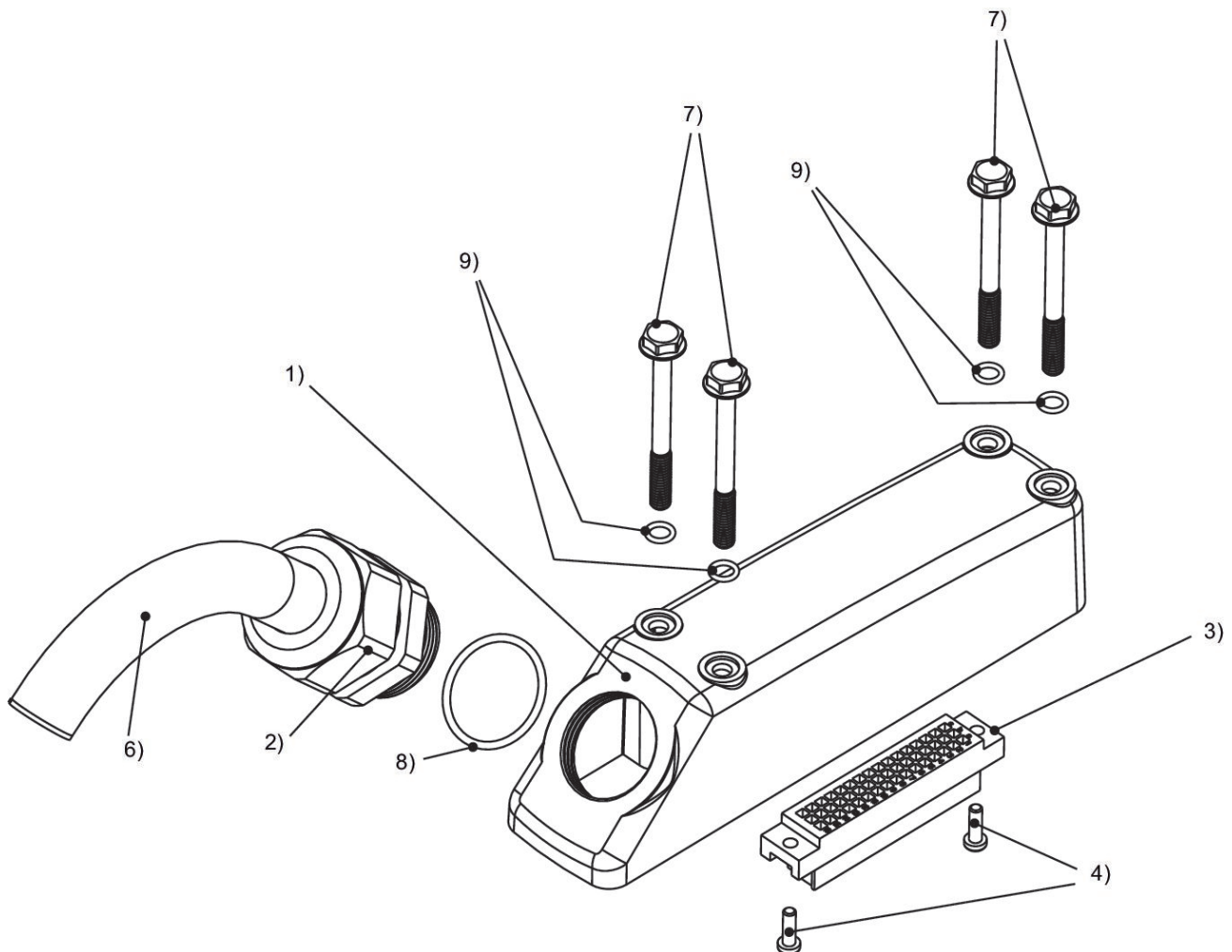
Part No.  
0493871300

Material cable sheath  
Polyvinyl chloride

## Technical information

The specified protection class is only valid in assembled and tested state.  
max. 16 valves

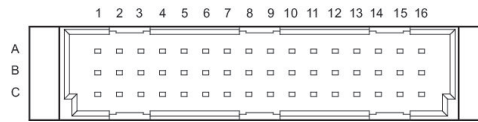
## Dimensions



1) housing 2) cable gland 3) connector housing size C/2 4) screw 5) seal 6) cable 7) screw 8) seal 9) seal

## PIN assignment and cable colors





## PIN assignment and cable colors, 48-pin

Pin Color	A	B	C
1	not assigned	white	brown
2	red/blue	green	yellow
3	white/blue	gray	pink
4	brown/blue	red	black
5	green/blue	violet	gray/pink
6	yellow/blue	white/green	brown/green
7	gray/blue	white/yellow	yellow/brown
8	pink/blue	white/gray	gray/brown
9	blue	white/pink	pink/brown
10	not assigned	white/red	brown/red
11	not assigned	white/black	brown/black
12	not assigned	gray/green	yellow/gray
13	not assigned	pink/green	yellow/pink
14	not assigned	green/red	yellow/red
15	not assigned	green/black	yellow/black
16	not assigned	gray/red	pink/red

# Multipole plug, series CON-MP

0493871408

Multipole plug with cable, series CON-MP

- Multipole plug connectors with connected cable
- Valve system control, D-Sub plug



## Technical data

Industry  
Industrial

Type  
Multipole

Cable  
with cable

Operational voltage  
24 V DC

Operating voltage AC max.  
24 V DC

Electrical connection 1, type  
Socket

Electrical connection 1, thread size  
C/2

Electrical connection 1, number of poles  
48-pin

Cable exit  
angled

Cable exit angle  
45°

Electrical connection 2, type  
open cable ends

Electrical connection 2, number of poles  
24-pin

Number of wires  
25

Shielding  
unshielded

Cable length  
15 m

Protection class  
IP69K

Min. ambient temperature  
0 °C

Max. ambient temperature  
50 °C

Max. current  
3 A

Wire cross-section  
0.34 mm<sup>2</sup>

Cable-Ø  
9.2 mm

Weight  
2.84 kg

## Material

Housing material  
Polyamide

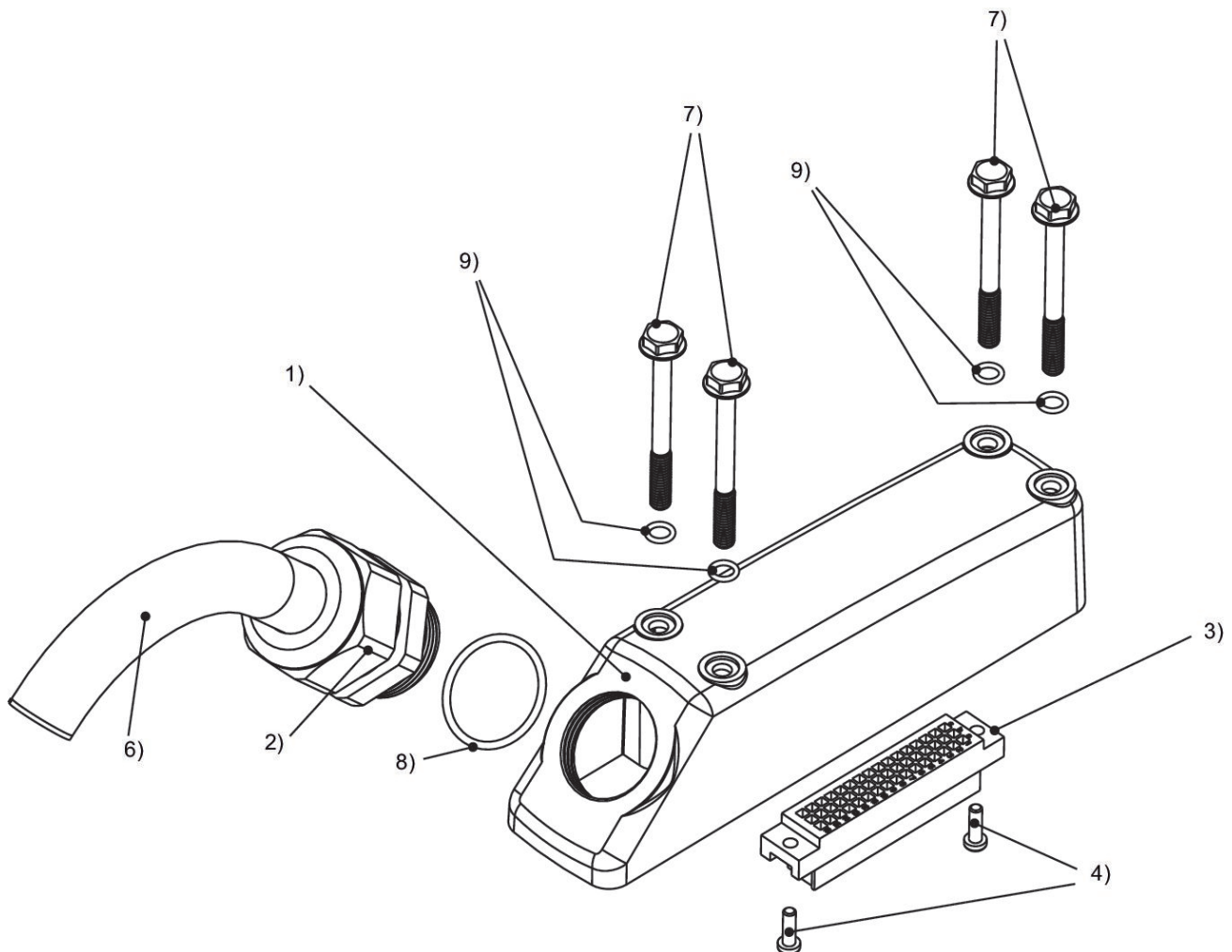
Part No.  
0493871408

Material cable sheath  
Polyvinyl chloride

## Technical information

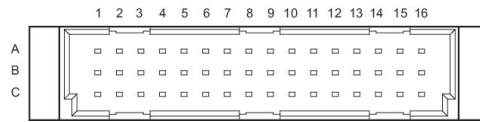
The specified protection class is only valid in assembled and tested state.  
max. 8 valves

## Dimensions



1) housing 2) cable gland 3) connector housing size C/2 4) screw 5) seal 6) cable 7) screw 8) seal 9) seal

## PIN assignment and cable colors



### PIN assignment and cable colors, 24-pin

Pin Color	A	B	C
1	blue	white	brown
2	red/blue	green	yellow
3	white/pink	gray	pink
4	pink/brown	red	black
5	white/blue	violet	gray/pink
6	brown/blue	white/green	brown/green
7	white/red	white/yellow	yellow/brown
8	brown/red	white/gray	gray/brown

# Multipole plug, series CON-MP

0493871505

Multipole plug with cable, series CON-MP

- Multipole plug connectors with connected cable
- Valve system control, D-Sub plug



## Technical data

Industry  
Industrial

Type  
Multipole

Cable  
with cable

Operational voltage  
24 V DC

Operating voltage AC max.  
24 V DC

Electrical connection 1, type  
Socket

Electrical connection 1, thread size  
C/2

Electrical connection 1, number of poles  
48-pin

Cable exit  
angled

Cable exit angle  
45°

Electrical connection 2, type  
open cable ends

Electrical connection 2, number of poles  
48-pin

Number of wires  
40

Shielding  
unshielded

Cable length  
15 m

Protection class  
IP69K

Min. ambient temperature  
0 °C

Max. ambient temperature  
50 °C

Max. current  
3 A

Wire cross-section  
0.34 mm<sup>2</sup>

Cable-Ø  
13.5 mm

Weight  
4.277 kg

## Material

Housing material  
Polyamide

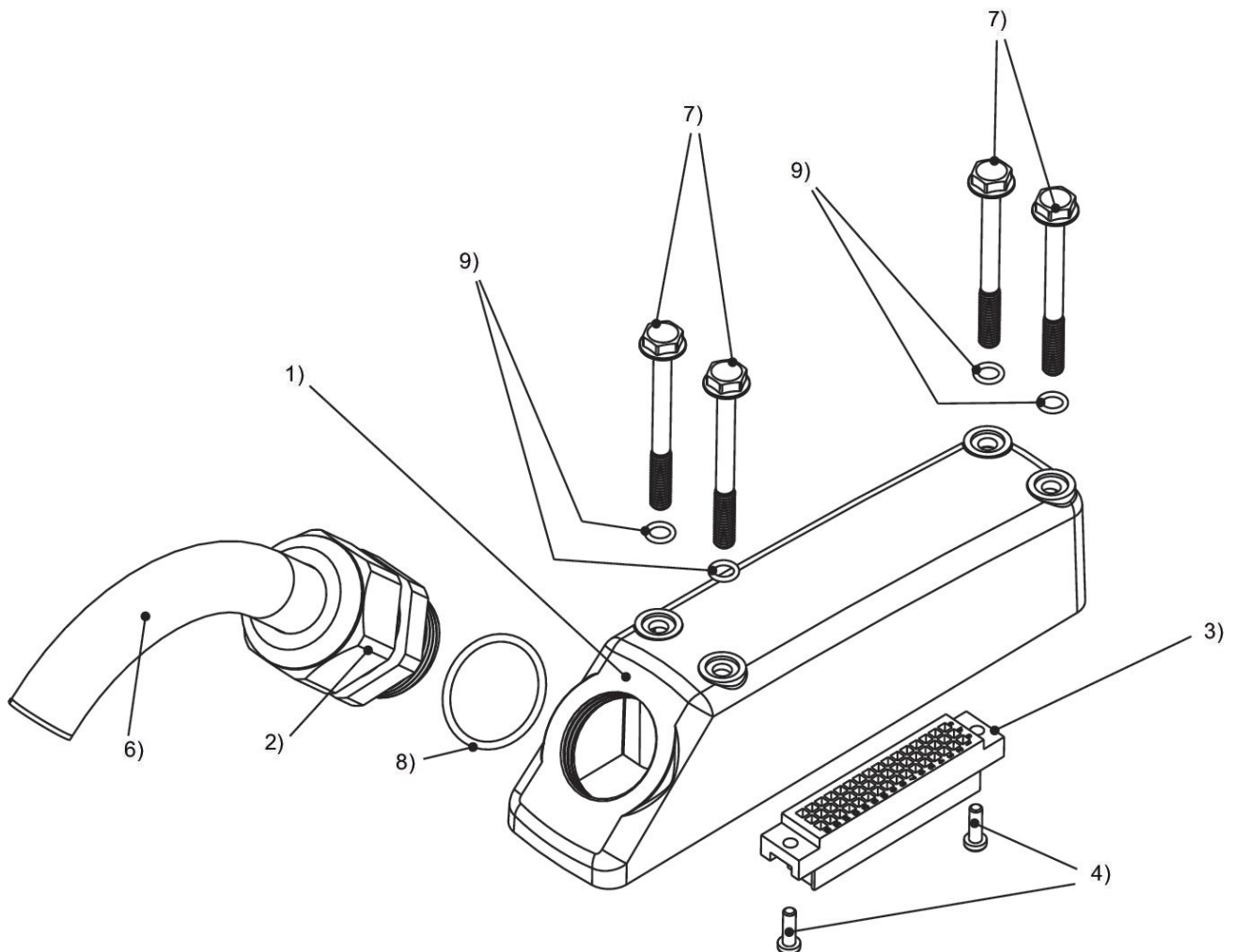
Part No.  
0493871505

Material cable sheath  
Polyvinyl chloride

## Technical information

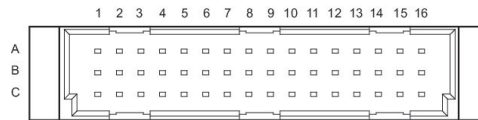
The specified protection class is only valid in assembled and tested state.  
max. 16 valves

## Dimensions



1) housing 2) cable gland 3) connector housing size C/2 4) screw 5) seal 6) cable 7) screw 8) seal 9) seal

## PIN assignment and cable colors



## PIN assignment and cable colors, 48-pin

Pin Color	A	B	C
1	not assigned	white	brown
2	red/blue	green	yellow
3	white/blue	gray	pink
4	brown/blue	red	black
5	green/blue	violet	gray/pink
6	yellow/blue	white/green	brown/green
7	gray/blue	white/yellow	yellow/brown
8	pink/blue	white/gray	gray/brown
9	blue	white/pink	pink/brown
10	not assigned	white/red	brown/red
11	not assigned	white/black	brown/black
12	not assigned	gray/green	yellow/gray
13	not assigned	pink/green	yellow/pink
14	not assigned	green/red	yellow/red
15	not assigned	green/black	yellow/black
16	not assigned	gray/red	pink/red

# Valve cover

- for series HF02-LG, HF03-LG



Weight

See table below

## Technical data

Part No.	Type	Weight
2631780000	CL03, HF03-LG	0.052 kg
R414006060	CL03, HF02-LG	0.075 kg

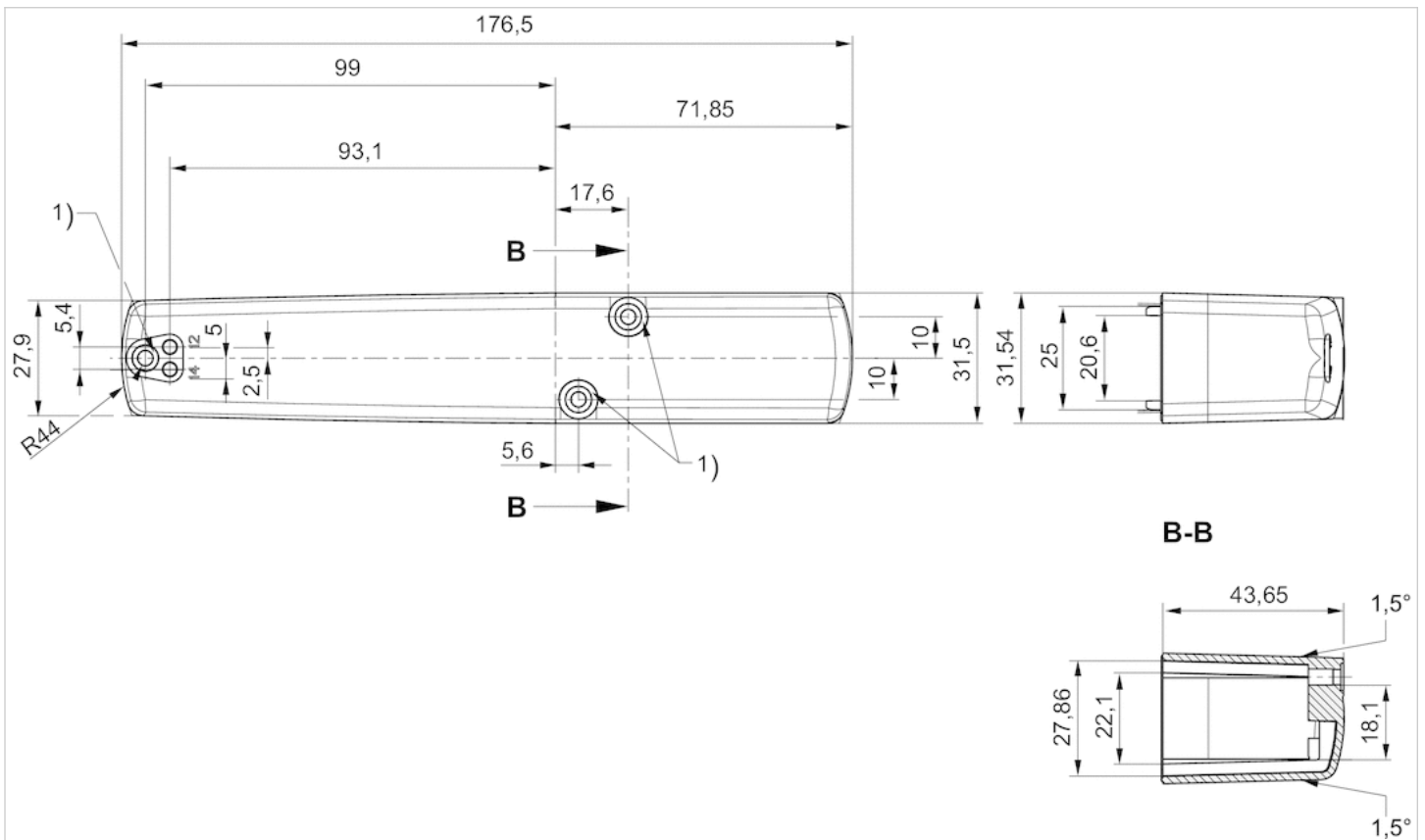
## Technical information

Material	
Housing	Polyamide fiber-glass reinforced
Seals	Hydrogenated nitrile butadiene rubber





Dimensions, CL03, HF02-LG



1) Seal

# Separator

- for CL03



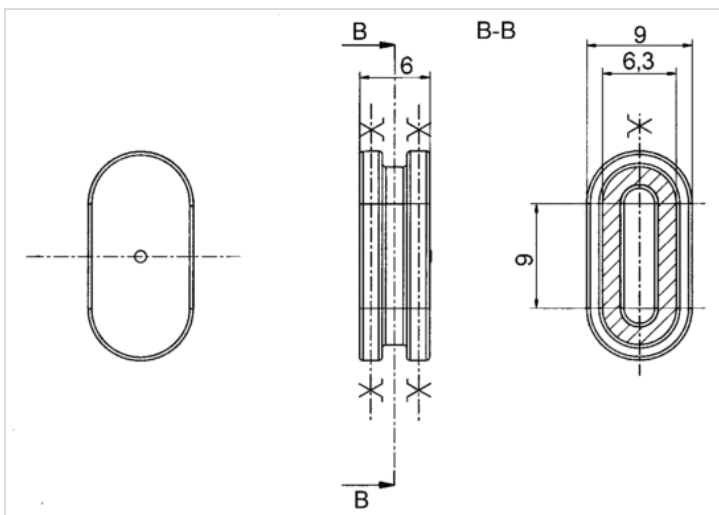
Weight

0.73 kg

## Technical data

Part No.	Type	Delivery unit
0493871904	Separator for connections 1, 3, 5	3 piece

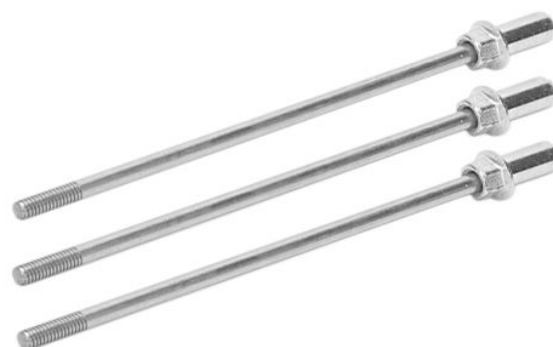
## Dimensions



# Tie rod extension, 3 pieces

2631881010

Mechanical accessories



## Technical data

Industry

Industrial

For series

CL03

Type

Can be assembled into blocks

Tie rod kit, 1x

Scope of delivery

Tie rod (x3), nut (x6)

Weight

0.05 kg

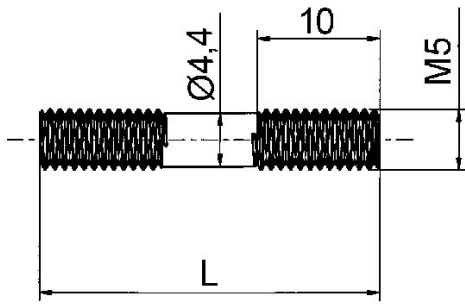
## Material

Housing material

Stainless Steel

Part No.

2631881010

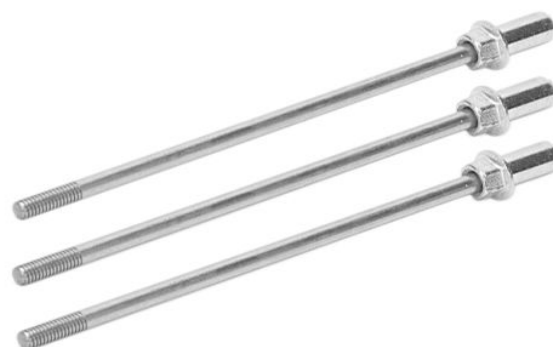


Part No.	L
2631881010	29.7
2631881020	59.4
R402002070	89.1
R402002071	118.8
R402002072	148.5
R402002073	178.2
R402002074	207.9
R402002075	237.6
R402002076	267.3
R402002077	297.0
R402002078	326.7
R402002079	356.4
R402002080	386.1
R402002081	415.8
R402002082	445.5
R402002083	475.2

# Tie rod extension, 3 pieces

2631881020

Mechanical accessories

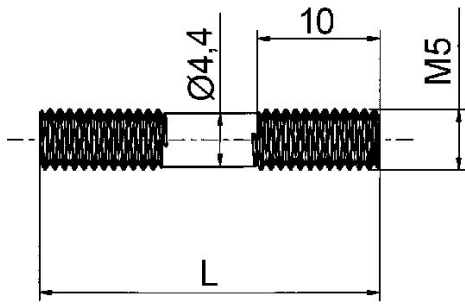


## Technical data

Industry	Industrial
For series	CL03
Type	Can be assembled into blocks Tie rod kit, 2x
Scope of delivery	Tie rod (x3), nut (x6)
Weight	0.036 kg

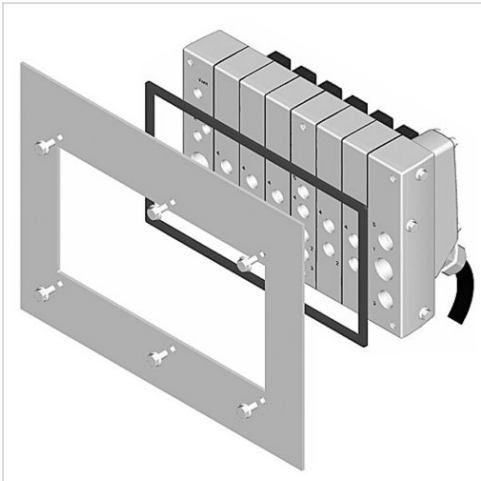
## Material

Housing material	Stainless Steel
Part No.	2631881020



Part No.	L
2631881010	29.7
2631881020	59.4
R402002070	89.1
R402002071	118.8
R402002072	148.5
R402002073	178.2
R402002074	207.9
R402002075	237.6
R402002076	267.3
R402002077	297.0
R402002078	326.7
R402002079	356.4
R402002080	386.1
R402002081	415.8
R402002082	445.5
R402002083	475.2

## Mecproof sealing



### Technical data

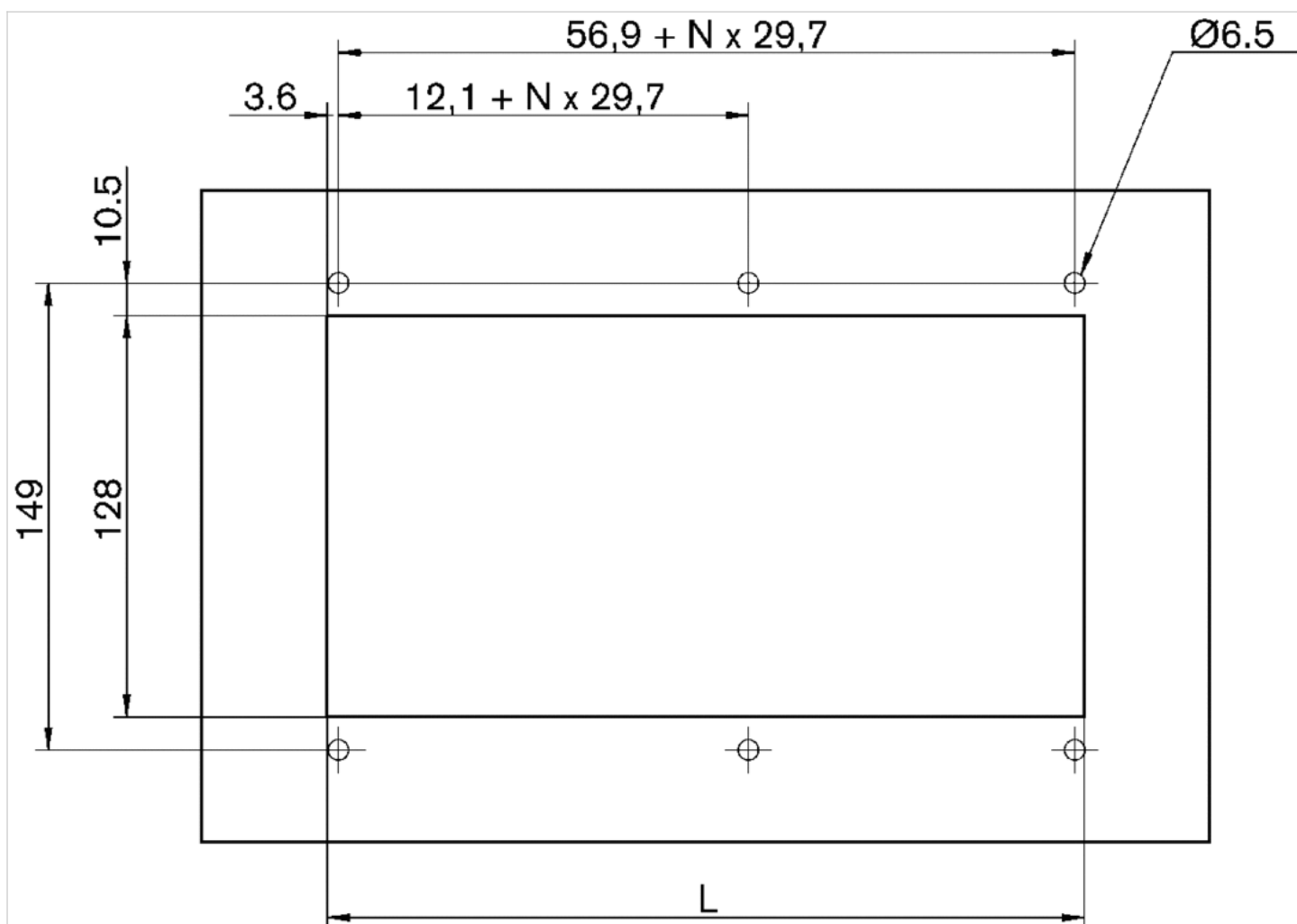
Part No.	Type
0493872001	Mecproof sealing

### Technical information

Material	
Seal	Chloroprene rubber



## Dimensions



L =  $63,5 + N \times 29,7$  (not for CL03 integrated bus versions)

L =  $101,5 + N \times 29,7$  (for CL03 integrated bus versions)

N = number of subbases

# Bus coupler, Series CL03

- Fieldbus protocol PROFIBUS DP PROFINET IO EtherNET/IP DeviceNet CANopen



Ambient temperature min./max.	0 ... 50 °C
Operational voltage electronics	24 V DC
Protection class	IP69K
Weight	See table below

## Technical data

Part No.	Type	Fieldbus protocol	Port	
			1	2
R402003531	metric	PROFIBUS DP	Plug, M12, 5-pin, B-coded	Socket, M12, 5-pin, B-coded
R402003535	inch	PROFIBUS DP	Plug, M12, 5-pin, B-coded	Socket, M12, 5-pin, B-coded
R412023889	metric	PROFINET IO	Socket, M12, 5-pin, D-coded	Socket, M12, 5-pin, D-coded
R412023890	inch	PROFINET IO	Socket, M12, 5-pin, D-coded	Socket, M12, 5-pin, D-coded
R412023891	metric	EtherNET/IP	Socket, M12, 5-pin, D-coded	Socket, M12, 5-pin, D-coded
R412023892	inch	EtherNET/IP	Socket, M12, 5-pin, D-coded	Socket, M12, 5-pin, D-coded
R402003533	metric	DeviceNet	Plug, M12, 5-pin, A-coded	Socket, M12, 5-pin, A-coded
R402003537	inch	DeviceNet	Plug, M12, 5-pin, A-coded	Socket, M12, 5-pin, A-coded
R402003534	metric	CANopen	Plug, M12, 5-pin, A-coded	Socket, M12, 5-pin, A-coded
R402003538	inch	CANopen	Plug, M12, 5-pin, A-coded	Socket, M12, 5-pin, A-coded

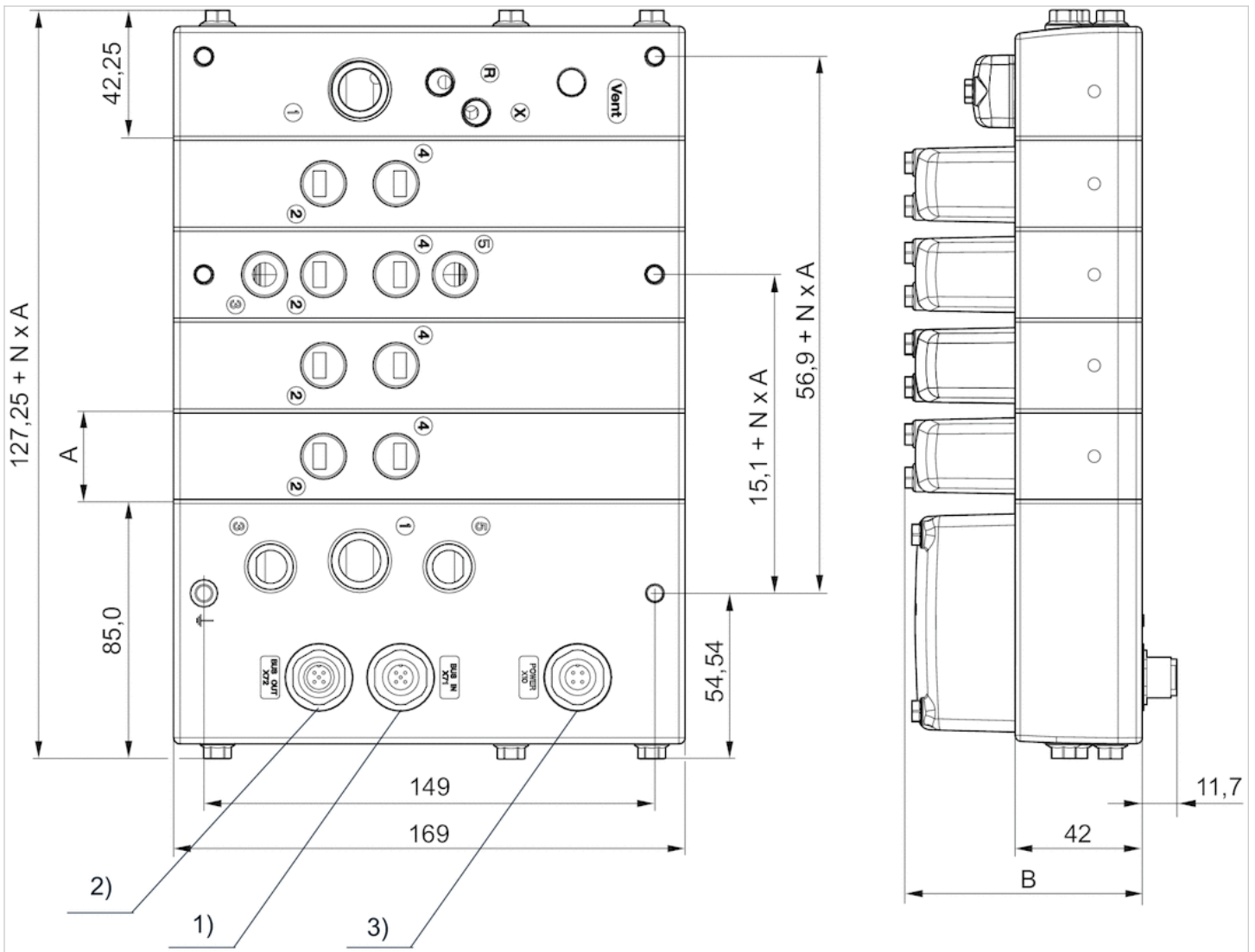
Part No.	power supply	Weight
R402003531	Plug, M12, 4-pin, A-coded	0.543 kg
R402003535	Plug, M12, 4-pin, A-coded	0.711 kg
R412023889	Plug, M12, 4-pin, A-coded	0.55 kg
R412023890	Plug, M12, 4-pin, A-coded	0.7 kg
R412023891	Plug, M12, 4-pin, A-coded	0.55 kg
R412023892	Plug, M12, 4-pin, A-coded	0.7 kg
R402003533	Plug, M12, 4-pin, A-coded	0.531 kg
R402003537	Plug, M12, 4-pin, A-coded	0.699 kg
R402003534	Plug, M12, 4-pin, A-coded	0.529 kg
R402003538	Plug, M12, 4-pin, A-coded	0.697 kg

## Technical information

Material	
Housing	Polyamide fiber-glass reinforced Stainless steel

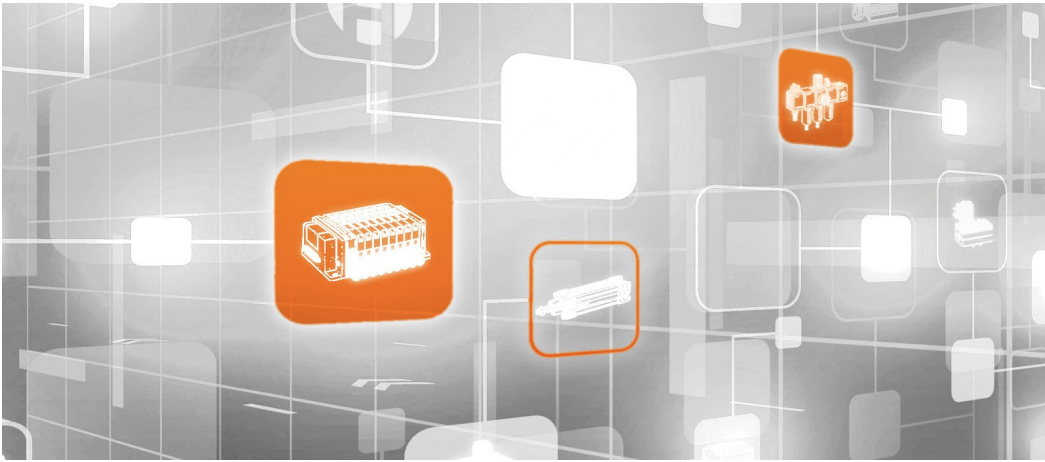
# Dimensions

## Dimensions



- CL03:A = 30,0 mm
- B = 78,5 mm
- CL03-CL:A = 36,0 mm
- B = 89,15
- 1) Connection 1 bus IN
- 2) Connection 2 bus OUT
- 3) Power supply

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