

## Series ST



AVENTICS™ Series ST



























## 3/2-directional valve, Series ST

- 3/2
- Qn = 280 l/min
- Pilot valve width : 15 mm
- NC/NC
- Pipe connection
- Compressed air connection output : G 1/8
- Electrical connection : Plug, ISO 15217, form C
- Manual override : without detent with detent
- single solenoid
- With spring return
- Pilot : Internal



Version	Spool valve
Activation	Electrically
Pilot	Internal
Sealing principle	metal/metal sealing
Working pressure min./max.	2 ... 10 bar
Control pressure min./max.	2 ... 10 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	5 ... 25 mg/m <sup>3</sup>
Nominal flow Qn	280 l/min
Protection class with connection	IP65
Duty cycle	100 %
mounting screws	M4 with hexagon socket
Mounting screw tightening torque	2.5 Nm
Tightening torque tolerance	±0,5
Weight	0.22 kg

## Technical data

Part No.		MO		Compressed air connection	
					Input
0820031055				NC/NC	G 1/8
0820031053				NC/NC	G 1/8
0820031051				NC/NC	G 1/8
0820031052				NC/NC	G 1/8
0820031054				NC/NC	G 1/8
0820031050				NC/NC	G 1/8
0820031065				NC/NC	G 1/8
0820031063				NC/NC	G 1/8
0820031061				NC/NC	G 1/8
0820031062				NC/NC	G 1/8
0820031064				NC/NC	G 1/8
0820031060				NC/NC	G 1/8

Part No.	Compressed air connection	
	Output	Exhaust
0820031055	G 1/8	G 1/8
0820031053	G 1/8	G 1/8
0820031051	G 1/8	G 1/8
0820031052	G 1/8	G 1/8
0820031054	G 1/8	G 1/8
0820031050	G 1/8	G 1/8
0820031065	G 1/8	G 1/8
0820031063	G 1/8	G 1/8
0820031061	G 1/8	G 1/8
0820031062	G 1/8	G 1/8
0820031064	G 1/8	G 1/8
0820031060	G 1/8	G 1/8

Part No.	Operational voltage		Operational voltage
	DC	AC 50 Hz	AC 60 Hz
0820031055	12 V	-	-
0820031053	-	24 V	-
0820031051	24 V	-	-
0820031052	24 V	-	-
0820031054	-	-	110 V
0820031050	-	230 V	-
0820031065	12 V	-	-
0820031063	-	24 V	-
0820031061	24 V	-	-
0820031062	24 V	-	-
0820031064	-	-	110 V
0820031060	-	230 V	-

Part No.	Voltage tolerance		Voltage tolerance	Power consumption
	DC	AC 50 Hz	AC 60 Hz	DC
0820031055	-10% / +10%	-	-	2 W

Part No.	Voltage tolerance	Voltage tolerance	Voltage tolerance	Power consumption
	DC	AC 50 Hz	AC 60 Hz	DC
0820031053	-	-10% / +10%	-	-
0820031051	-10% / +10%	-	-	2 W
0820031052	-10% / +10%	-	-	1 W
0820031054	-	-	-10% / +10%	-
0820031050	-	-10% / +10%	-	-
0820031065	-10% / +10%	-	-	2 W
0820031063	-	-10% / +10%	-	-
0820031061	-10% / +10%	-	-	2 W
0820031062	-10% / +10%	-	-	1 W
0820031064	-	-	-10% / +10%	-
0820031060	-	-10% / +10%	-	-

Part No.	Holding power	Holding power	Switch-on power	Switch-on power
	AC 50 Hz	AC 60 Hz	AC 50 Hz	AC 60 Hz
0820031055	-	-	-	-
0820031053	1.6 VA	-	2.2 VA	-
0820031051	-	-	-	-
0820031052	-	-	-	-
0820031054	-	1.4 VA	-	2 VA
0820031050	1.6 VA	-	2.2 VA	-
0820031065	-	-	-	-
0820031063	1.6 VA	-	2.2 VA	-
0820031061	-	-	-	-
0820031062	-	-	-	-
0820031064	-	1.4 VA	-	2 VA
0820031060	1.6 VA	-	2.2 VA	-

Part No.	Typ. switch-on time	Typ. switch-off time	
0820031055	13 ms	18 ms	-
0820031053	-	-	-
0820031051	13 ms	18 ms	-
0820031052	14 ms	20 ms	1)
0820031054	-	-	-
0820031050	-	-	-
0820031065	13 ms	18 ms	-
0820031063	-	-	-
0820031061	13 ms	18 ms	-
0820031062	-	-	1)
0820031064	-	-	-
0820031060	-	-	-

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

1) Low power consumption

## 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).

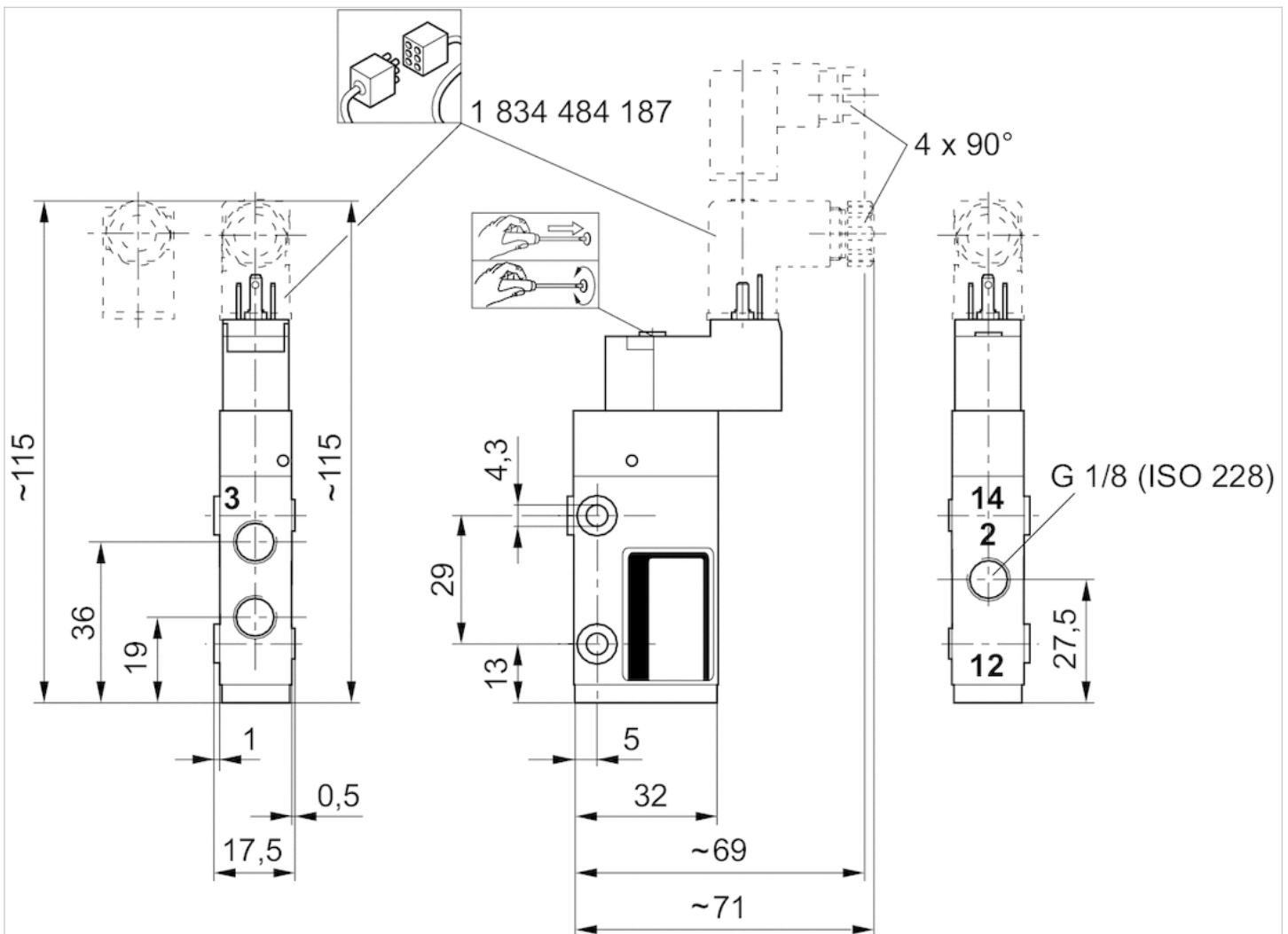
Notice: This product may only be operated with oiled compressed air.

## Technical information

Housing	Stainless steel, hardened
Front plate	Aluminum, hard-anodized

## Dimensions

### Dimensions



## 5/2-directional valve, Series ST

- 5/2
- $Q_n = 280$  l/min
- Pilot valve width : 15 mm
- Pipe connection
- Compressed air connection output : G 1/8
- Electrical connection : Plug, ISO 15217, form C
- Manual override : without detent with detent
- single solenoid
- With spring return
- Pilot : Internal



Version	Spool valve
Activation	Electrically
Pilot	Internal
Sealing principle	metal/metal sealing
Working pressure min./max.	2 ... 10 bar
Control pressure min./max.	2 ... 10 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	5 ... 25 mg/m <sup>3</sup>
Nominal flow $Q_n$	280 l/min
Protection class with connection	IP65
Duty cycle	100 %
mounting screws	M4 with hexagon socket
Mounting screw tightening torque	2.5 Nm
Tightening torque tolerance	±0,5
Weight	0.27 kg

## Technical data

Part No.		MO	Compressed air connection	
			Input	Output
0820030055			G 1/8	G 1/8
0820030053			G 1/8	G 1/8
0820030051			G 1/8	G 1/8
0820030052			G 1/8	G 1/8
0820030054			G 1/8	G 1/8
0820030050			G 1/8	G 1/8
0820030065			G 1/8	G 1/8
0820030063			G 1/8	G 1/8
0820030061			G 1/8	G 1/8
0820030062			G 1/8	G 1/8
0820030064			G 1/8	G 1/8
0820030060			G 1/8	G 1/8

Part No.	Compressed air connection		Operational voltage	
	Exhaust		DC	AC 50 Hz
0820030055	G 1/8		12 V	-
0820030053	G 1/8		-	24 V
0820030051	G 1/8		24 V	-
0820030052	G 1/8		24 V	-
0820030054	G 1/8		-	-
0820030050	G 1/8		-	230 V
0820030065	G 1/8		12 V	-
0820030063	G 1/8		-	24 V
0820030061	G 1/8		24 V	-
0820030062	G 1/8		24 V	-
0820030064	G 1/8		-	-
0820030060	G 1/8		-	230 V

Part No.	Operational voltage	Voltage tolerance		Voltage tolerance	
	AC 60 Hz	DC	AC 50 Hz	AC 60 Hz	
0820030055	-	-10% / +10%	-	-	
0820030053	-	-	-10% / +10%	-	
0820030051	-	-10% / +10%	-	-	
0820030052	-	-10% / +10%	-	-	
0820030054	110 V	-	-	-10% / +10%	
0820030050	-	-	-10% / +10%	-	
0820030065	-	-10% / +10%	-	-	
0820030063	-	-	-10% / +10%	-	
0820030061	-	-10% / +10%	-	-	
0820030062	-	-10% / +10%	-	-	
0820030064	110 V	-	-	-10% / +10%	
0820030060	-	-	-10% / +10%	-	

Part No.	Power consumption	Holding power	Holding power	Switch-on power
	DC	AC 50 Hz	AC 60 Hz	AC 50 Hz
0820030055	2 W	-	-	-
0820030053	-	1.6 VA	-	2.2 VA
0820030051	2 W	-	-	-
0820030052	1 W	-	-	-
0820030054	-	-	1.4 VA	-
0820030050	-	1.6 VA	-	2.2 VA
0820030065	2 W	-	-	-
0820030063	-	1.6 VA	-	2.2 VA
0820030061	2 W	-	-	-
0820030062	1 W	-	-	-
0820030064	-	-	1.4 VA	-
0820030060	-	1.6 VA	-	2.2 VA

Part No.	Switch-on power	Typ. switch-on time	Typ. switch-off time	
	AC 60 Hz			
0820030055	-	15 ms	20 ms	-
0820030053	-	-	-	-
0820030051	-	15 ms	20 ms	-
0820030052	-	15 ms	25 ms	1)
0820030054	2 VA	-	-	-
0820030050	-	-	-	-
0820030065	-	15 ms	20 ms	-
0820030063	-	-	-	-
0820030061	-	15 ms	20 ms	-
0820030062	-	15 ms	25 ms	1)
0820030064	2 VA	-	-	-
0820030060	-	-	-	-

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

1) Low power consumption

## 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).

Notice: This product may only be operated with oiled compressed air.

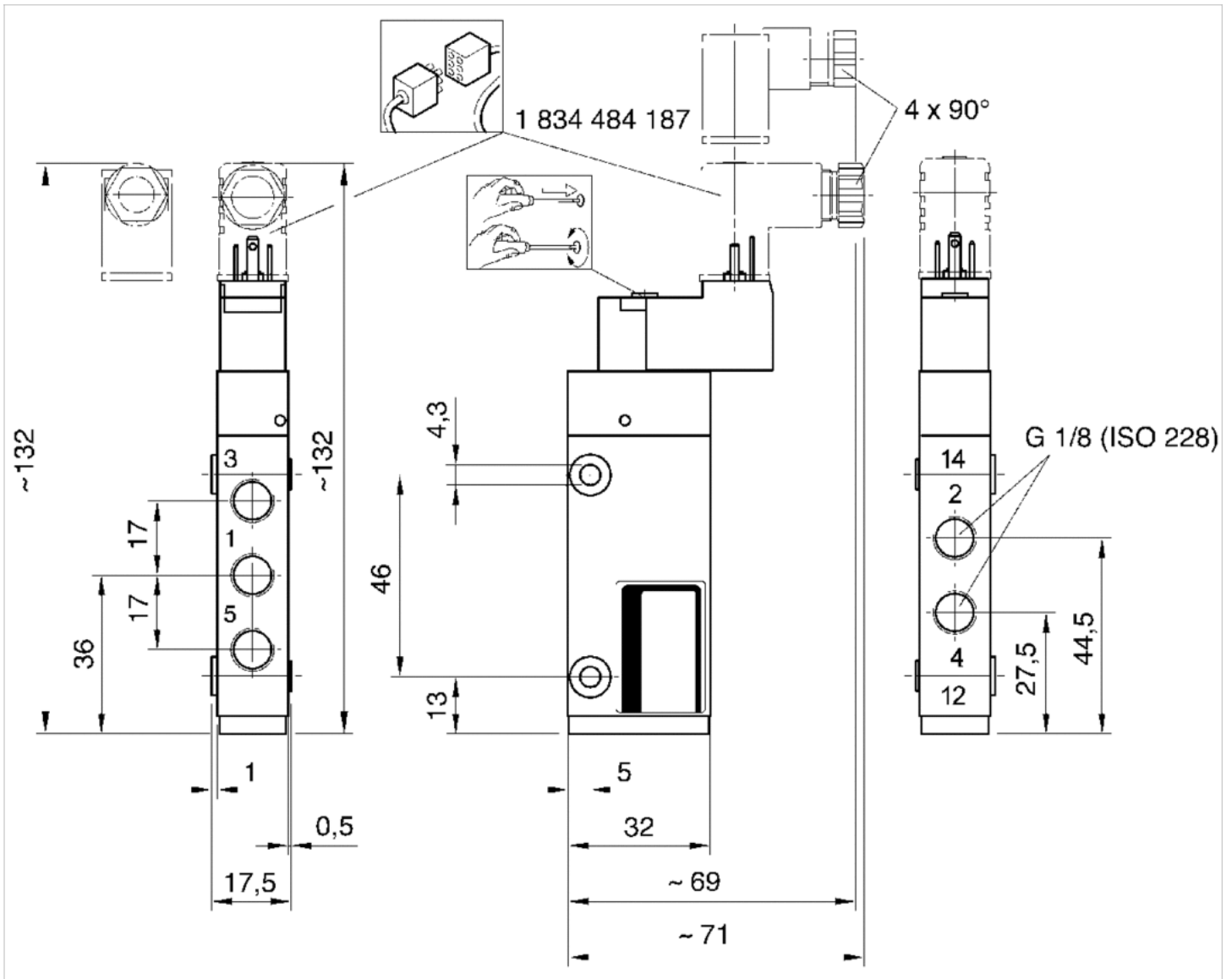
## Technical information

Material	
Housing	Stainless steel, hardened
Seals	Acrylonitrile butadiene rubber
Front plate	Aluminum, hard-anodized
End plate	Polyamide



# Dimensions

## Dimensions



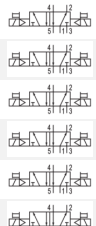
























## 5/2-directional valve, Series ST

- 5/2
- $Q_n = 280$  l/min
- Pilot valve width : 15 mm
- Pipe connection
- Compressed air connection output : G 1/8
- Electrical connection : Plug, ISO 15217, form C
- Manual override : without detent with detent
- double solenoid
- Pilot : Internal



Version	Spool valve
Activation	Electrically
Pilot	Internal
Sealing principle	metal/metal sealing
Working pressure min./max.	2 ... 10 bar
Control pressure min./max.	2 ... 10 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	5 ... 25 mg/m <sup>3</sup>
Nominal flow $Q_n$	280 l/min
Protection class with connection	IP65
Duty cycle	100 %
mounting screws	M4 with hexagon socket
Mounting screw tightening torque	2.5 Nm
Tightening torque tolerance	±0,5
Weight	0.32 kg

## Technical data

Part No.		MO	Compressed air connection	
			Input	Output
0820030155			G 1/8	G 1/8
0820030153			G 1/8	G 1/8
0820030151			G 1/8	G 1/8
0820030152			G 1/8	G 1/8
0820030154			G 1/8	G 1/8
0820030150			G 1/8	G 1/8
0820030165			G 1/8	G 1/8
0820030163			G 1/8	G 1/8
0820030161			G 1/8	G 1/8
0820030162			G 1/8	G 1/8
0820030164			G 1/8	G 1/8
0820030160			G 1/8	G 1/8

Part No.	Compressed air connection		Operational voltage	
	Exhaust		DC	AC 50 Hz
0820030155	G 1/8		12 V	-
0820030153	G 1/8		-	24 V
0820030151	G 1/8		24 V	-
0820030152	G 1/8		24 V	-
0820030154	G 1/8		-	-
0820030150	G 1/8		-	230 V
0820030165	G 1/8		12 V	-
0820030163	G 1/8		-	24 V
0820030161	G 1/8		24 V	-
0820030162	G 1/8		24 V	-
0820030164	G 1/8		-	-
0820030160	G 1/8		-	230 V

Part No.	Operational voltage	Voltage tolerance		Voltage tolerance
	AC 60 Hz	DC	AC 50 Hz	AC 60 Hz
0820030155	-	-10% / +10%	-	-
0820030153	-	-	-10% / +10%	-
0820030151	-	-10% / +10%	-	-
0820030152	-	-10% / +10%	-	-
0820030154	110 V	-	-	-10% / +10%
0820030150	-	-	-10% / +10%	-
0820030165	-	-10% / +10%	-	-
0820030163	-	-	-10% / +10%	-
0820030161	-	-10% / +10%	-	-
0820030162	-	-10% / +10%	-	-
0820030164	110 V	-	-	-10% / +10%
0820030160	-	-	-10% / +10%	-

Part No.	Power consumption	Holding power	Holding power	Switch-on power
	DC	AC 50 Hz	AC 60 Hz	AC 50 Hz
0820030155	2 W	-	-	-
0820030153	-	1.6 VA	-	2.2 VA
0820030151	2 W	-	-	-
0820030152	1 W	-	-	-
0820030154	-	-	1.4 VA	-
0820030150	-	1.6 VA	-	2.2 VA
0820030165	2 W	-	-	-
0820030163	-	1.6 VA	-	2.2 VA
0820030161	2 W	-	-	-
0820030162	1 W	-	-	-
0820030164	-	-	1.4 VA	-
0820030160	-	1.6 VA	-	2.2 VA

Part No.	Switch-on power	Typ. switch-on time	Typ. switch-off time	
	AC 60 Hz			
0820030155	-	12 ms	12 ms	-
0820030153	-	-	-	-
0820030151	-	12 ms	12 ms	-
0820030152	-	13 ms	13 ms	1)
0820030154	2 VA	-	-	-
0820030150	-	-	-	-
0820030165	-	12 ms	12 ms	-
0820030163	-	-	-	-
0820030161	-	12 ms	12 ms	-
0820030162	-	13 ms	13 ms	1)
0820030164	2 VA	-	-	-
0820030160	-	-	-	-

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

1) Low power consumption

## 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).

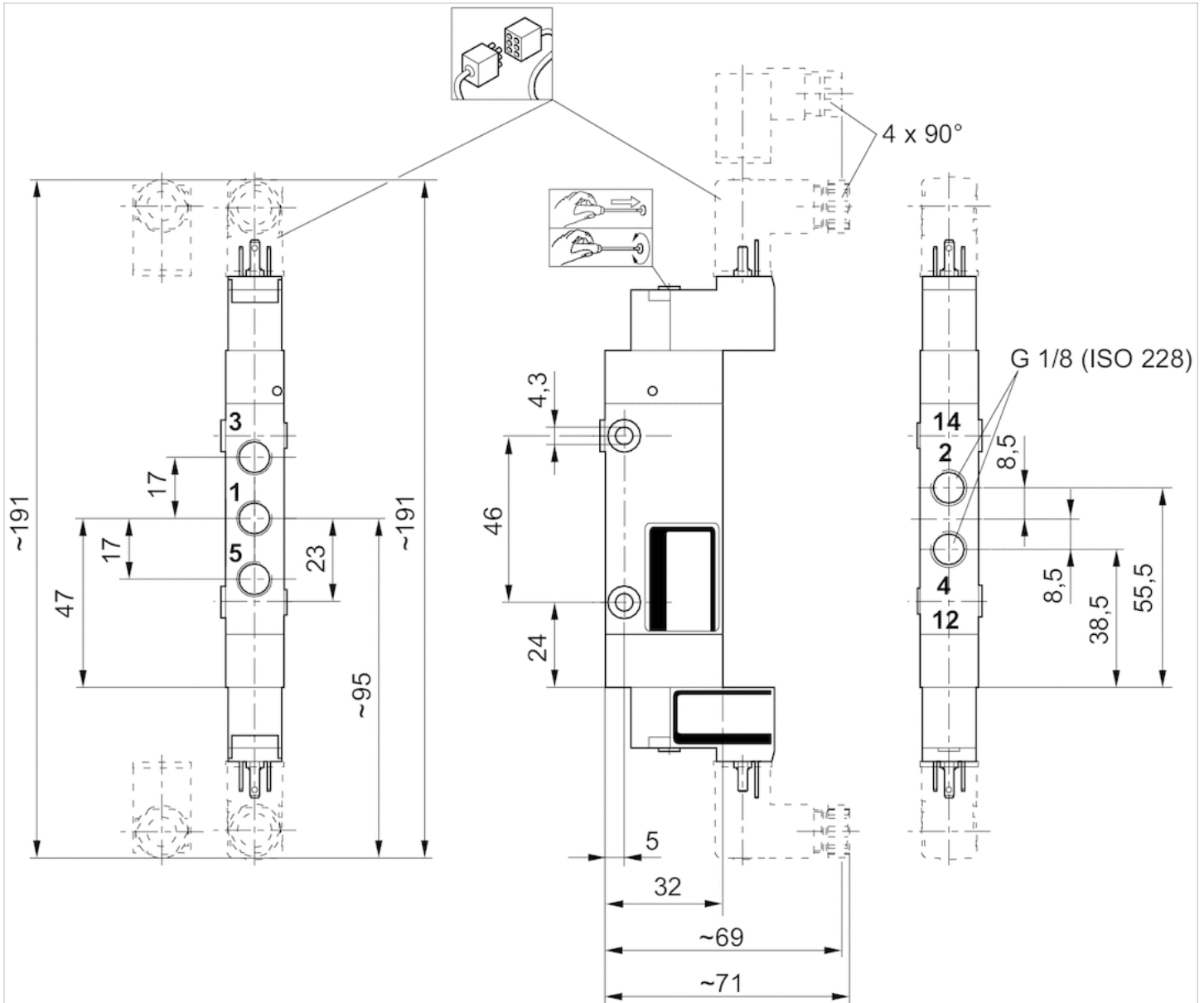
Notice: This product may only be operated with oiled compressed air.

## Technical information

Material	
Housing	Stainless steel, hardened
Seals	Acrylonitrile butadiene rubber
Front plate	Aluminum, hard-anodized
End plate	Aluminum, hard-anodized

# Dimensions

## Dimensions





## 3/2-directional valve, Series ST

- Qn = 280 l/min
- Compressed air connection output G 1/8
- Single air pilot
- Pipe connection



Version	Spool valve
Activation	pneumatically
Sealing principle	metal/metal sealing
Flow rate value Qn	280 l/min
Working pressure min./max.	-0.95 ... 10 bar
Control pressure min./max.	See table below
Ambient temperature min./max.	-15 ... 80 °C
Medium temperature min./max.	-15 ... 80 °C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	5 ... 25 mg/m <sup>3</sup>
Mounting screw	M4 with hexagon socket
Mounting screw tightening torque	2.5 Nm
Weight	See table below

### Technical data

Part No.		Compressed air connection	
		Input	Output
0820212001		G 1/8	G 1/8
0820213001		G 1/8	G 1/8

Part No.	Compressed air connection		Control pressure min./max.	Weight
	Exhaust			
0820212001	G 1/8		2 ... 10 bar	0.18 kg
0820213001	G 1/8		1.8 ... 10 bar	0.19 kg

Nominal flow Qn at 6 bar and  $\Delta p = 1$  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).

Notice: This product may only be operated with oiled compressed air.

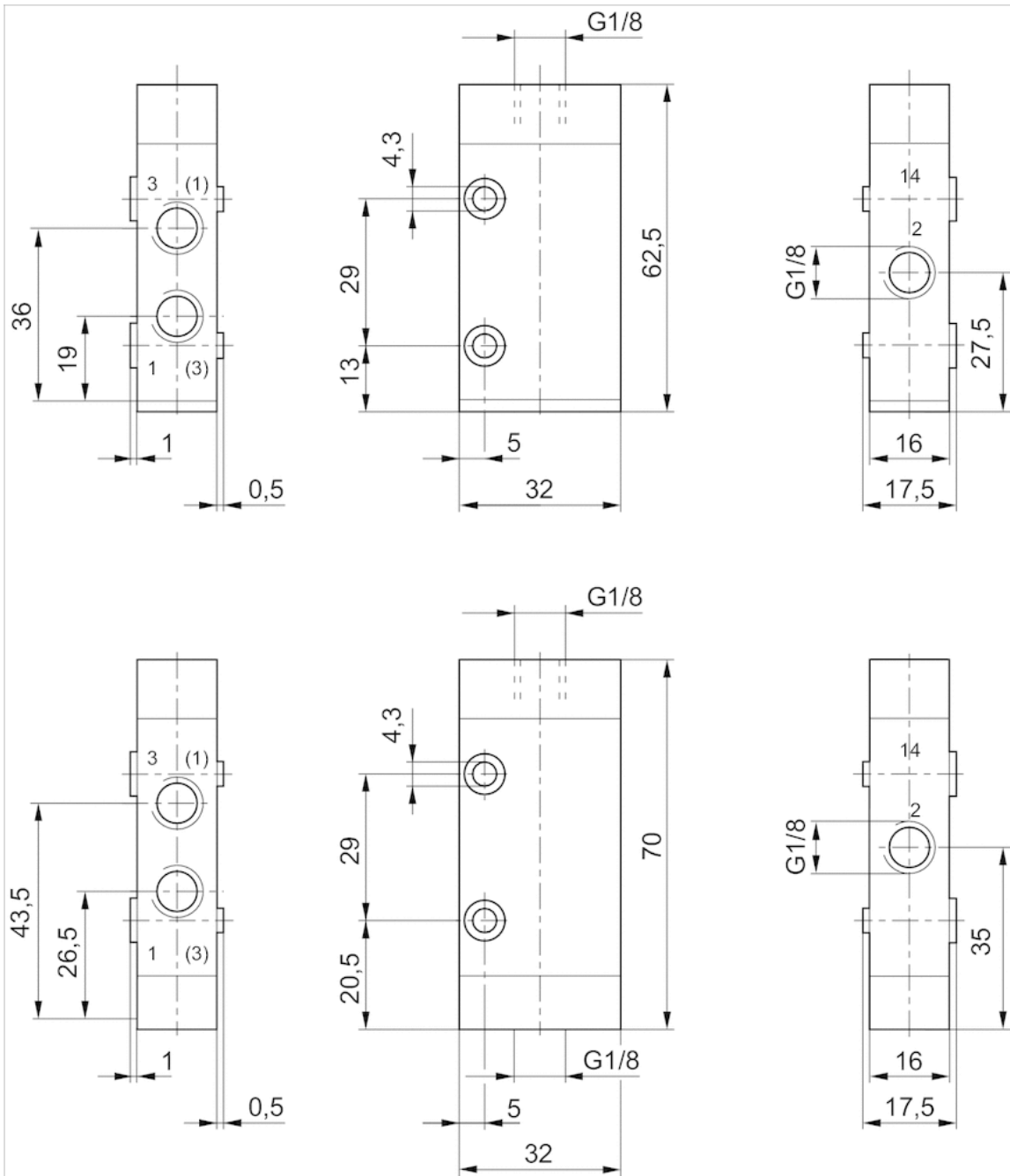
### Technical information

Material	
Housing	Stainless steel, hardened
Seals	Acrylonitrile butadiene rubber

Front plate	Polyamide
-------------	-----------

## Dimensions

### Dimensions







# 5/2-directional valve, Series ST

- Qn = 280 l/min
- Compressed air connection output G 1/8
- Single air pilot
- Pipe connection



Version	Spool valve
Activation	pneumatically
Sealing principle	metal/metal sealing
Flow rate value Qn	280 l/min
Working pressure min./max.	See table below
Control pressure min./max.	See table below
Ambient temperature min./max.	-15 ... 80 °C
Medium temperature min./max.	-15 ... 80 °C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	5 ... 25 mg/m <sup>3</sup>
Mounting screw	M4 with hexagon socket
Mounting screw tightening torque	2.5 Nm
Weight	See table below

## Technical data

Part No.		Compressed air connection	
		Input	Output
0820204006		G 1/8	G 1/8
0820204003		G 1/8	G 1/8
0820205003		G 1/8	G 1/8
0820205006		G 1/8	G 1/8

Part No.	Compressed air connection		Working pressure min./max.	Control pressure min./max.
	Exhaust			
0820204006	G 1/8		2 ... 10 bar	6 bar
0820204003	G 1/8		-0.95 ... 10 bar	2 ... 10 bar
0820205003	G 1/8		-0.95 ... 10 bar	1.5 ... 10 bar
0820205006	G 1/8		-0.95 ... 10 bar	1.5 ... 10 bar

Part No.	Weight	Fig.	
0820204006	0.236 kg	Fig. 3	-
0820204003	0.231 kg	Fig. 1	1)
0820205003	0.231 kg	Fig. 2	1)
0820205006	0.235 kg	Fig. 3	1)

Nominal flow Qn at 6 bar and  $\Delta p = 1$  bar

1)

## 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).

Notice: This product may only be operated with oiled compressed air.

## Technical information

Housing	Stainless steel, hardened
Front plate	Polyamide

## Dimensions

Fig. 1

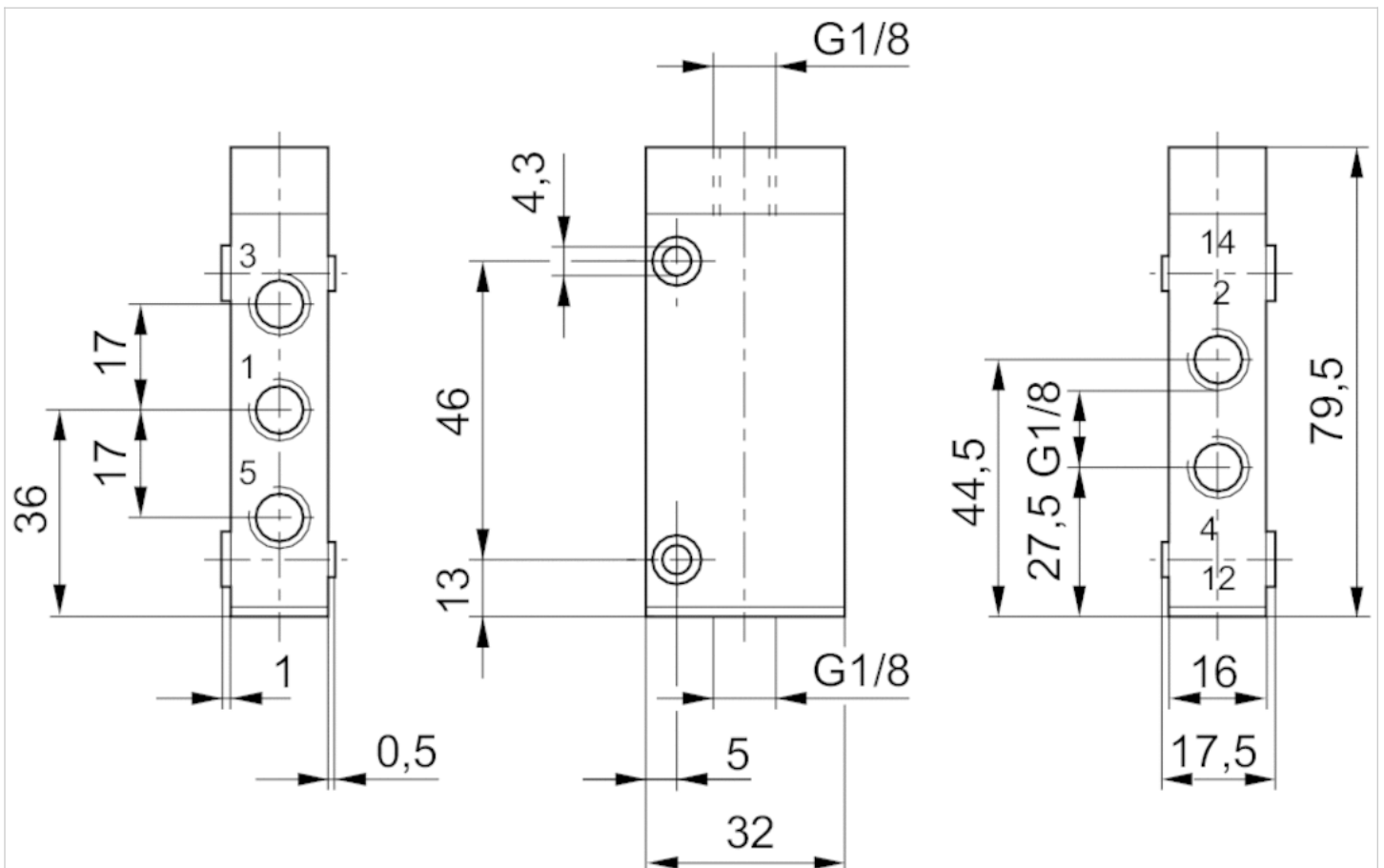


Fig. 2

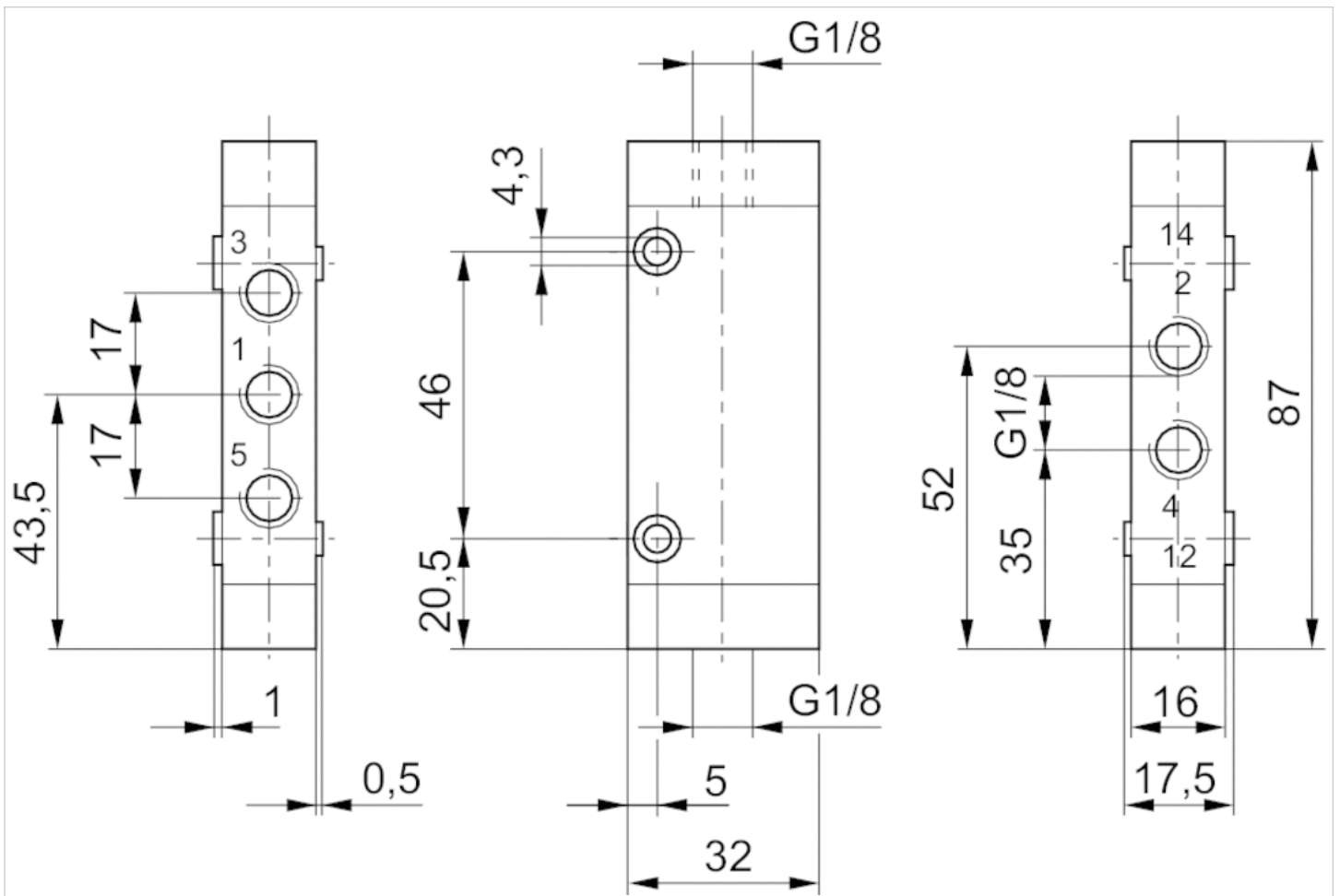
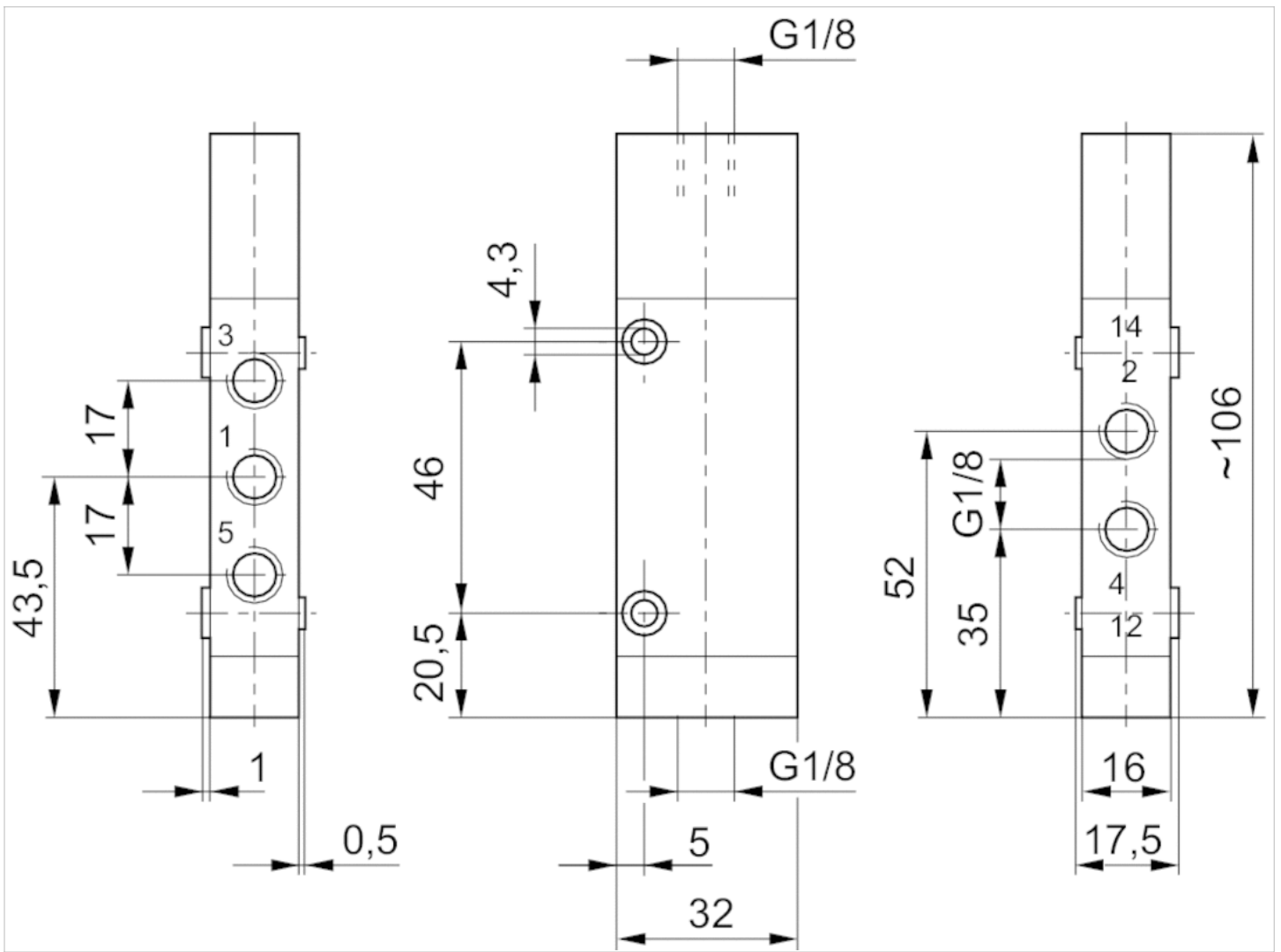
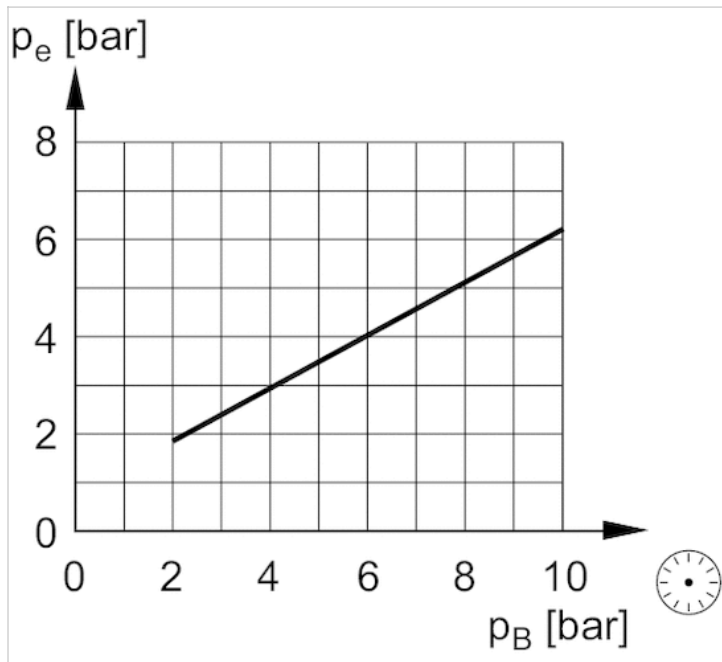


Fig. 3



## Diagrams

## Control pressure



Pe = external control pressure, min.

PB= Working pressure

# 3/2-directional valve, Series ST










- With spring return
- $Q_n = 280$  l/min
- Compressed air connection output G 1/8
- Pipe connection



Version	Spool valve
Activation	Mechanical
Lock type	not lockable
Switching principle	3/2
Sealing principle	metal/metal sealing
Nominal flow $Q_n$	280 l/min
Working pressure min./max.	-0.95 ... 10 bar
Ambient temperature min./max.	-15 ... 80 °C
Medium temperature min./max.	-15 ... 80 °C
Medium	Compressed air
Max. particle size	5 $\mu\text{m}$
Oil content of compressed air	5 ... 25 mg/m <sup>3</sup>
Mounting screw	M4 with hexagon socket
Mounting screw tightening torque	2.5 Nm
Weight	See table below

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

## Technical data

Part No.		Actuating element	Compressed air connection type
0820402001		Plunger	Internal thread
0820402002		Roller	Internal thread
0820402003		Roller lever, one-way trip	Internal thread
0820402004		Push button	Internal thread
0820402005		Lever	Internal thread
0820402016		Roller with single-action lever	Internal thread
0820402017		Roller with articulated lever	Internal thread
0820402019		Plunger	Internal thread
R422002211		panel installation	Internal thread

Part No.	Compressed air connection Input	Compressed air connection Output	Compressed air connection Exhaust
0820402001	G 1/8	G 1/8	G 1/8
0820402002	G 1/8	G 1/8	G 1/8
0820402003	G 1/8	G 1/8	G 1/8
0820402004	G 1/8	G 1/8	G 1/8
0820402005	G 1/8	G 1/8	G 1/8
0820402016	G 1/8	G 1/8	G 1/8
0820402017	G 1/8	G 1/8	G 1/8
0820402019	G 1/8	G 1/8	G 1/8
R422002211	G 1/8	G 1/8	G 1/8

Part No.	Operating force	Actuating torque	Material actuating control	Weight	Fig.	
	min.	Min.				
0820402001	11 N	-	Stainless steel	0.17 kg	Fig. 1	-
0820402002	6.5 N	-	Polyoxymethylene	0.18 kg	Fig. 2	-
0820402003	6.5 N	-	Polyoxymethylene	0.18 kg	Fig. 3	-
0820402004	6.5 N	-	Polyamide	0.18 kg	Fig. 4	-
0820402005	-	0.02 Nm	Polyamide	0.17 kg	Fig. 5	-
0820402016	10 N	-	Polyoxymethylene	0.29 kg	Fig. 6	-
0820402017	25 N	-	Polyoxymethylene	0.29 kg	Fig. 7	-
0820402019	5 N	-	Stainless steel	0.17 kg	Fig. 8	1)
R422002211	11 N	-	Polyoxymethylene	0.18 kg	Fig. 9	2)

Nominal flow  $Q_n$  at 6 bar and  $\Delta p = 1$  bar

1) horizontal installation position

2) Please order control button separately.

## Technical information

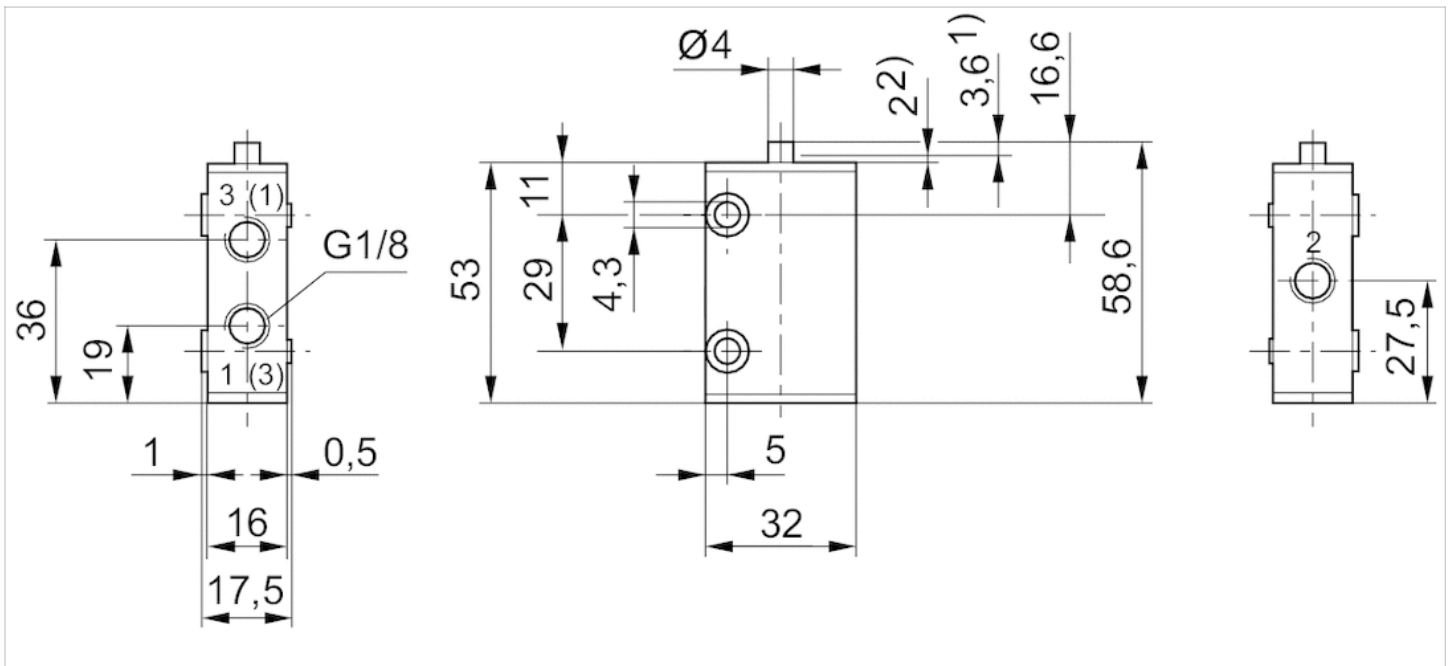
Notice: This product may only be operated with oiled compressed air.

## Technical information

Material	
Housing	Stainless steel, hardened
Actuating element	Stainless steel Polyoxymethylene Polyamide
Front cover	Stainless steel Steel Polyamide Aluminum Steel, galvanized

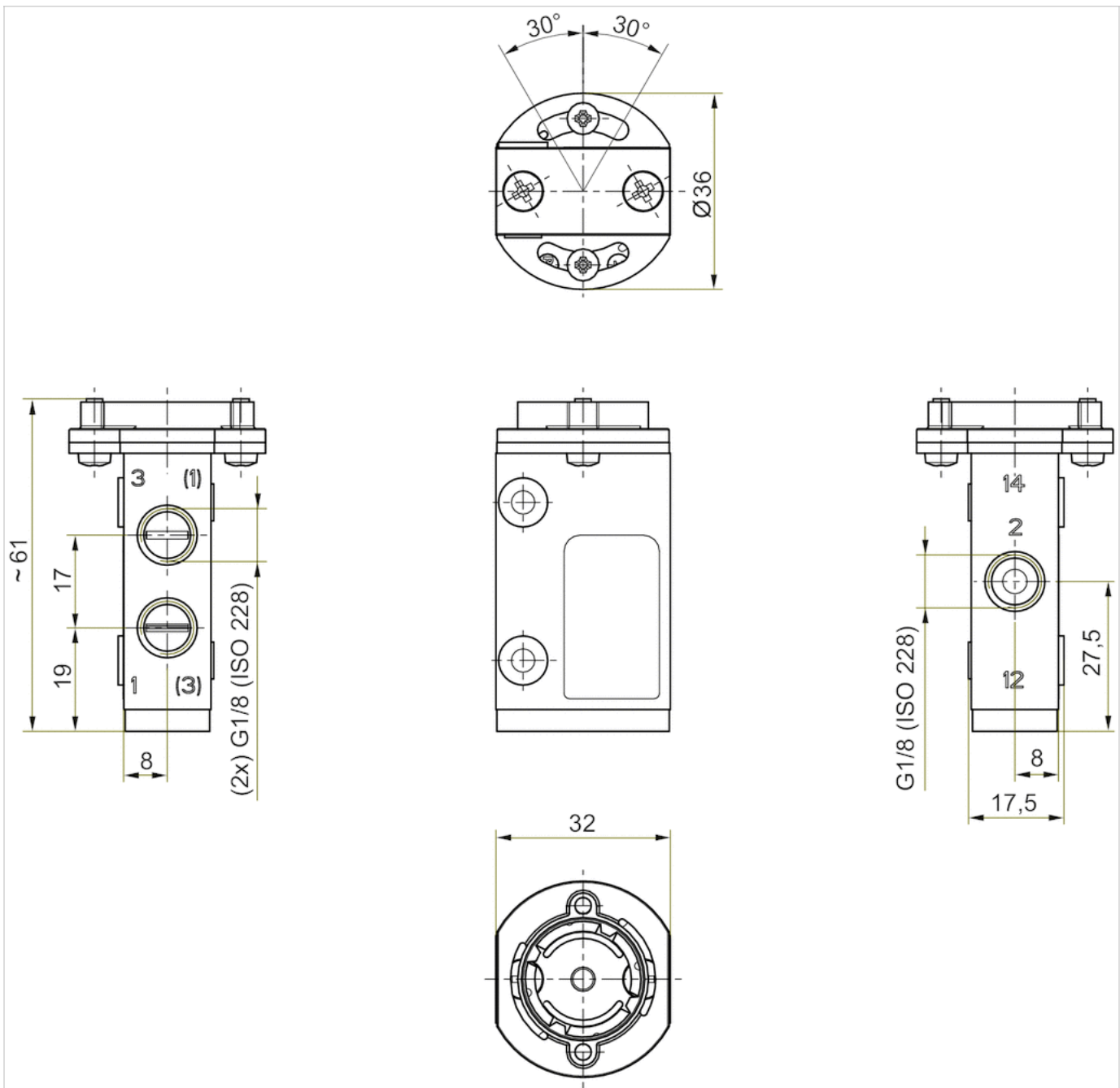
## Dimensions

### Dimensions, Fig. 1, Basic valve



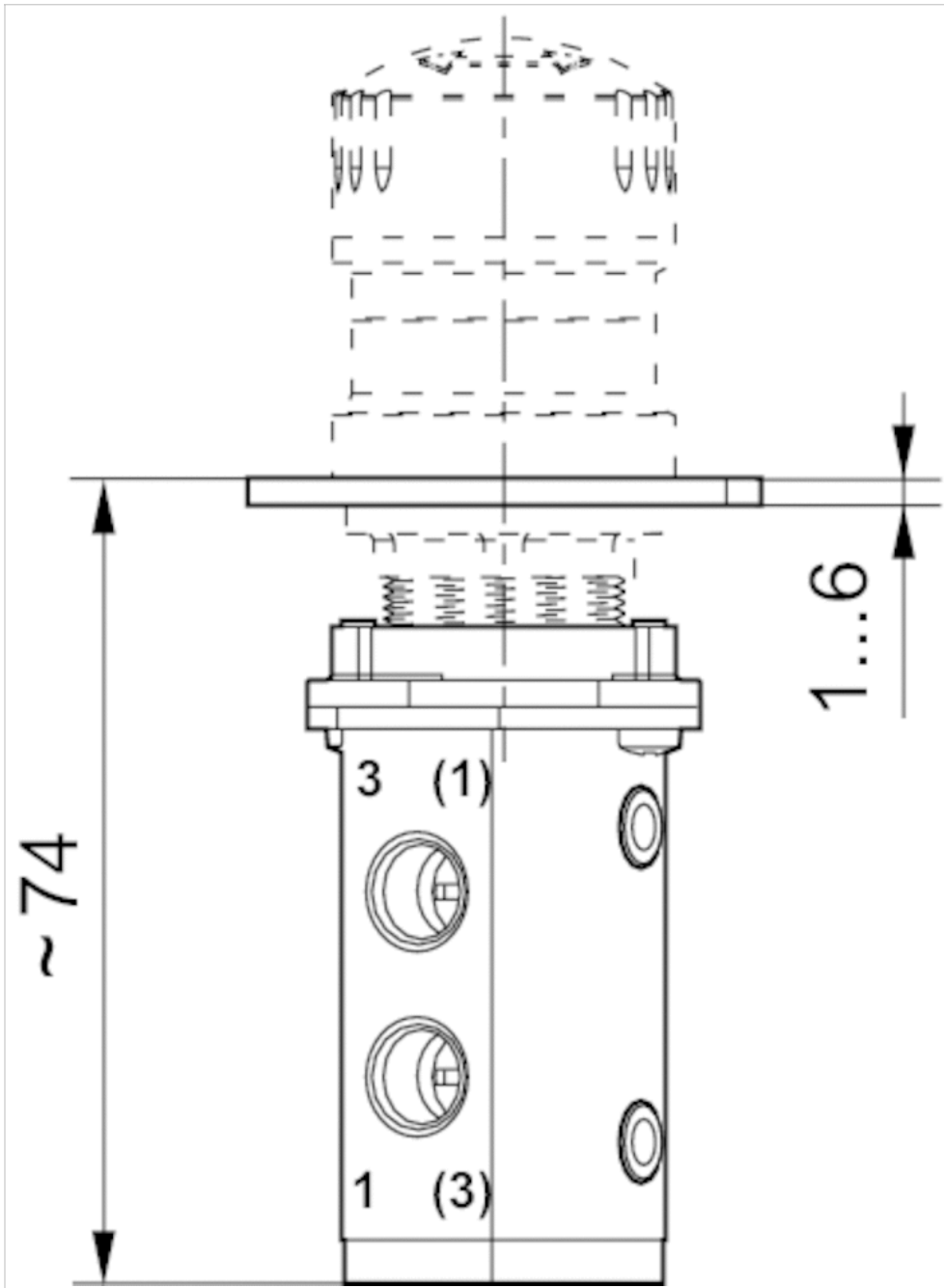
1) Actuating stroke 2) overstroke  
 connection via 2 through-holes in housing  
 Dimensions of basic valve apply to all types of actuation.

Dimensions, Fig. 9

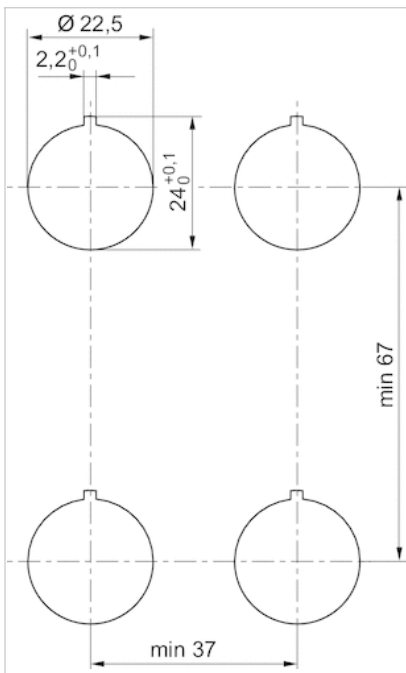




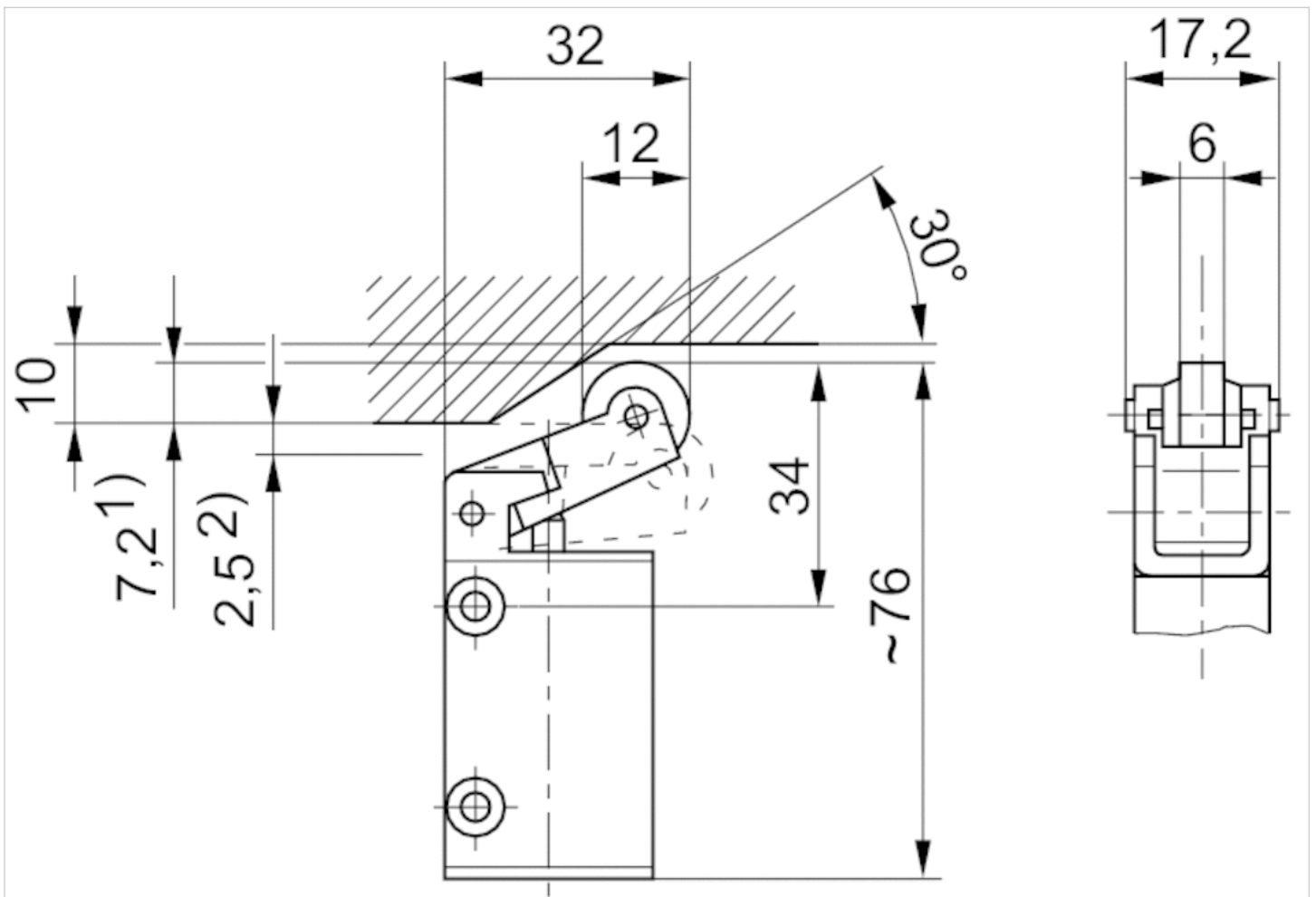
Dimensions, Fig. 9, Overview drawing



Dimensions, cut-out in the front plate

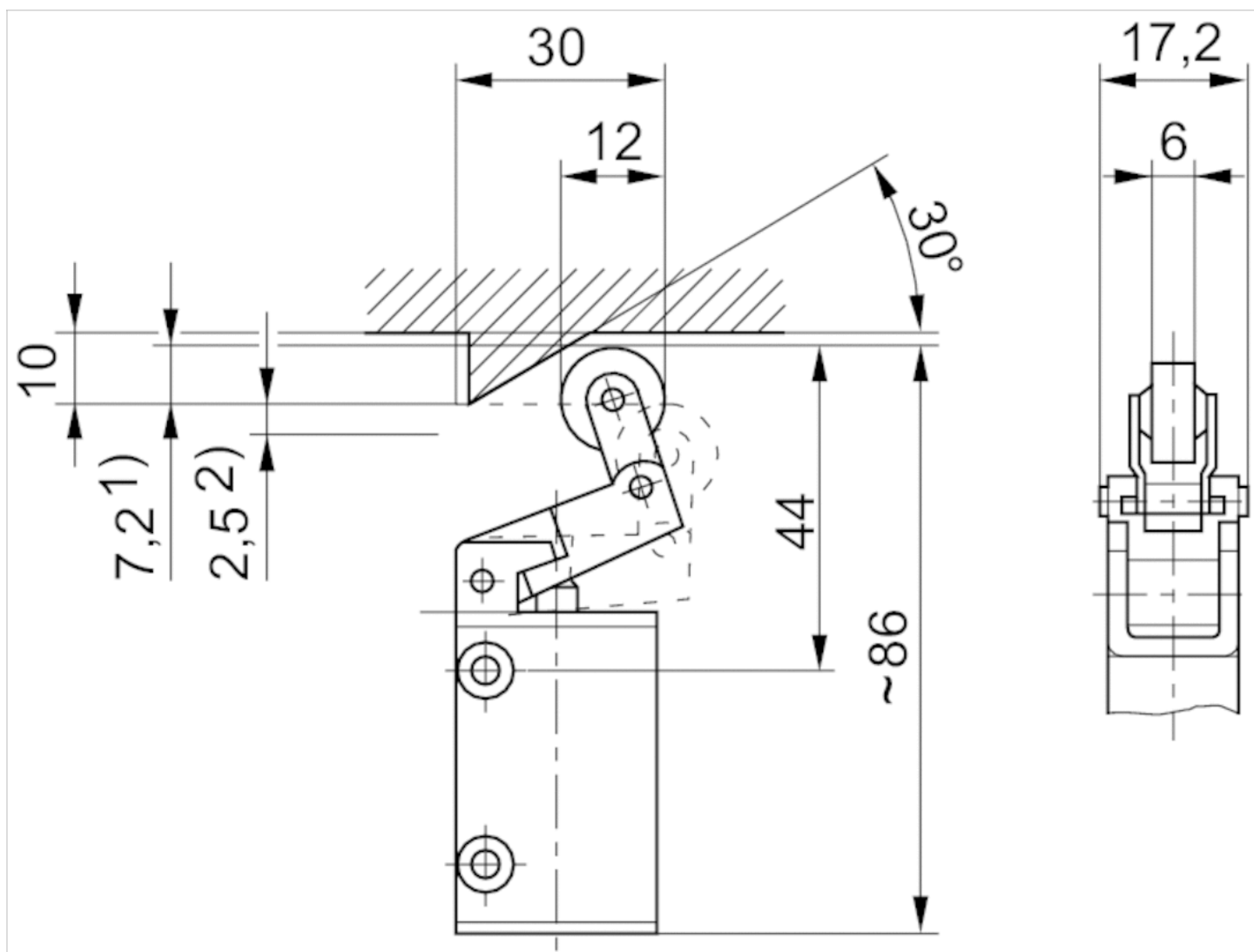


Dimensions, Fig. 2



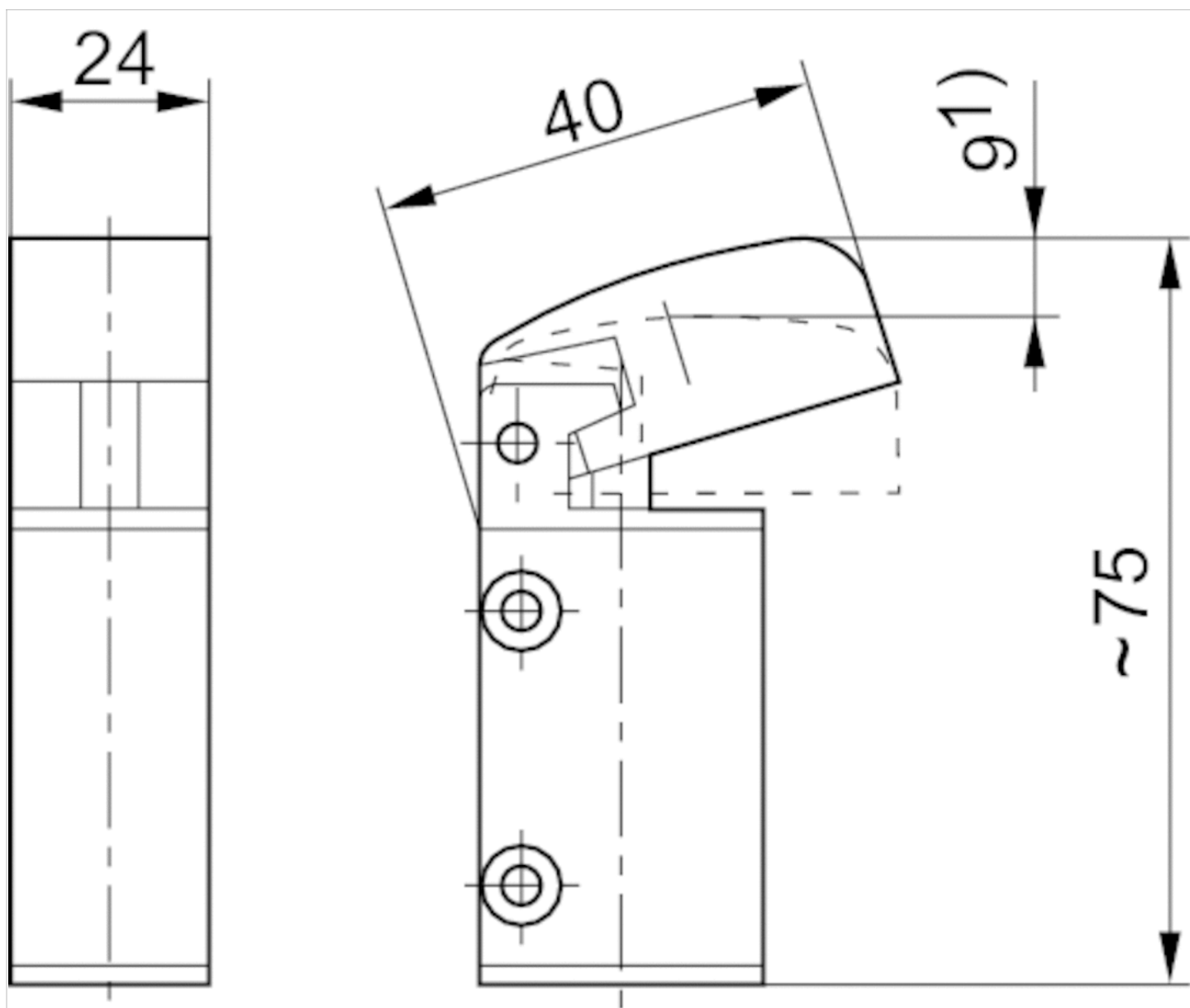
1) Actuating stroke 2) overstroke  
 connection via 2 through-holes in housing

Dimensions, Fig. 3



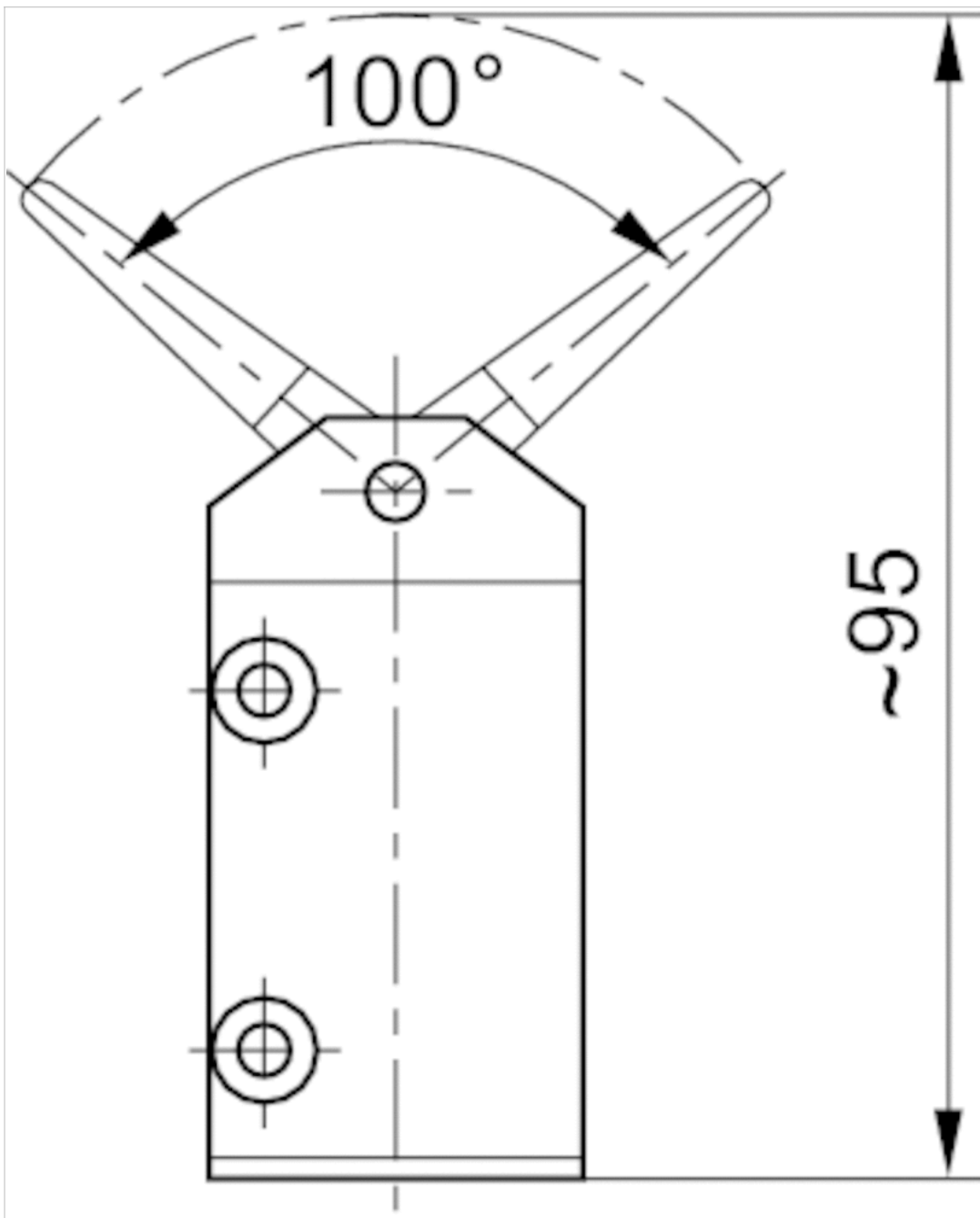
- 1) actuating stroke
- 2) overstroke

Dimensions, Fig. 4

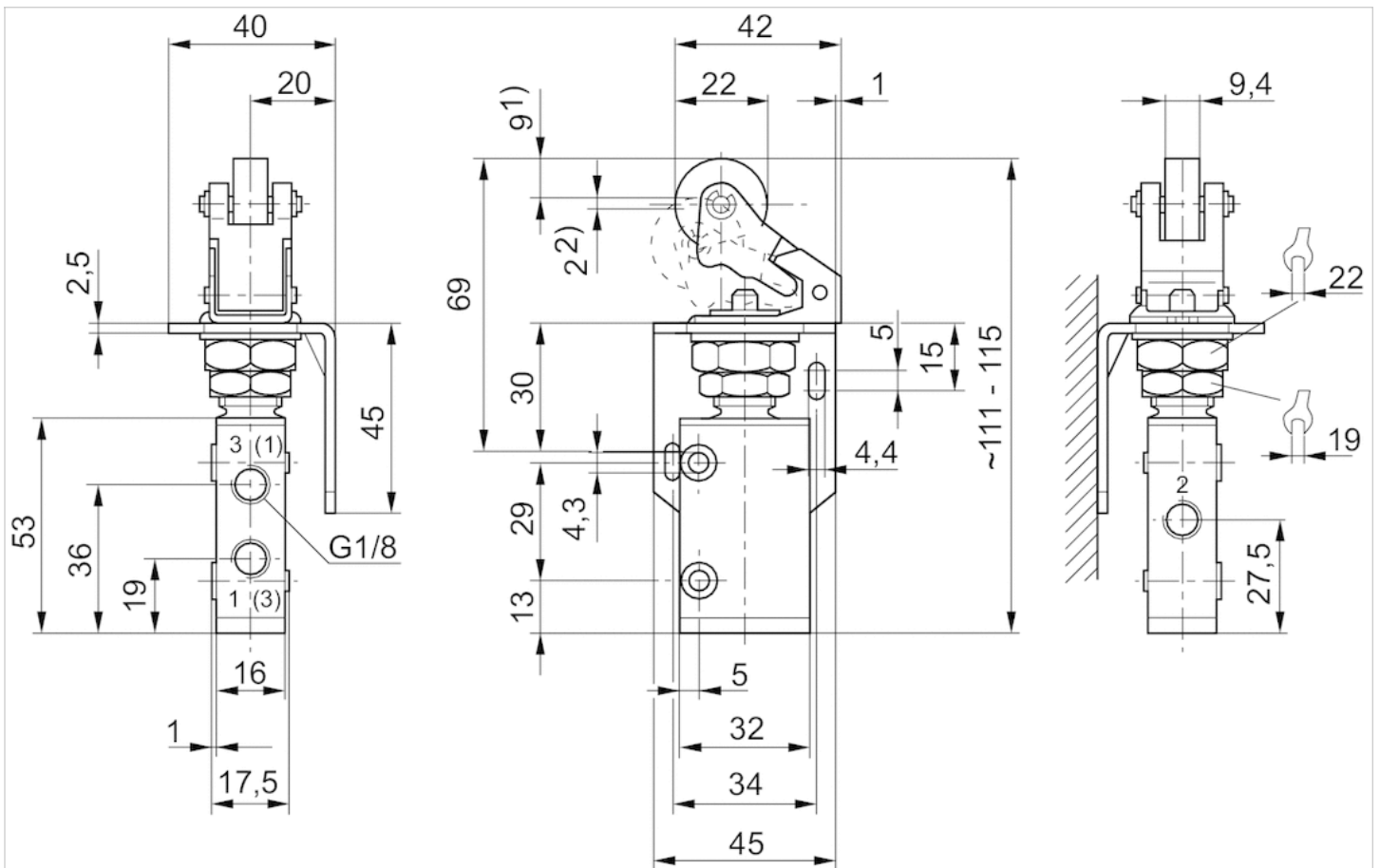


1) actuating stroke  
connection via 2 through-holes in housing

Dimensions, Fig. 5



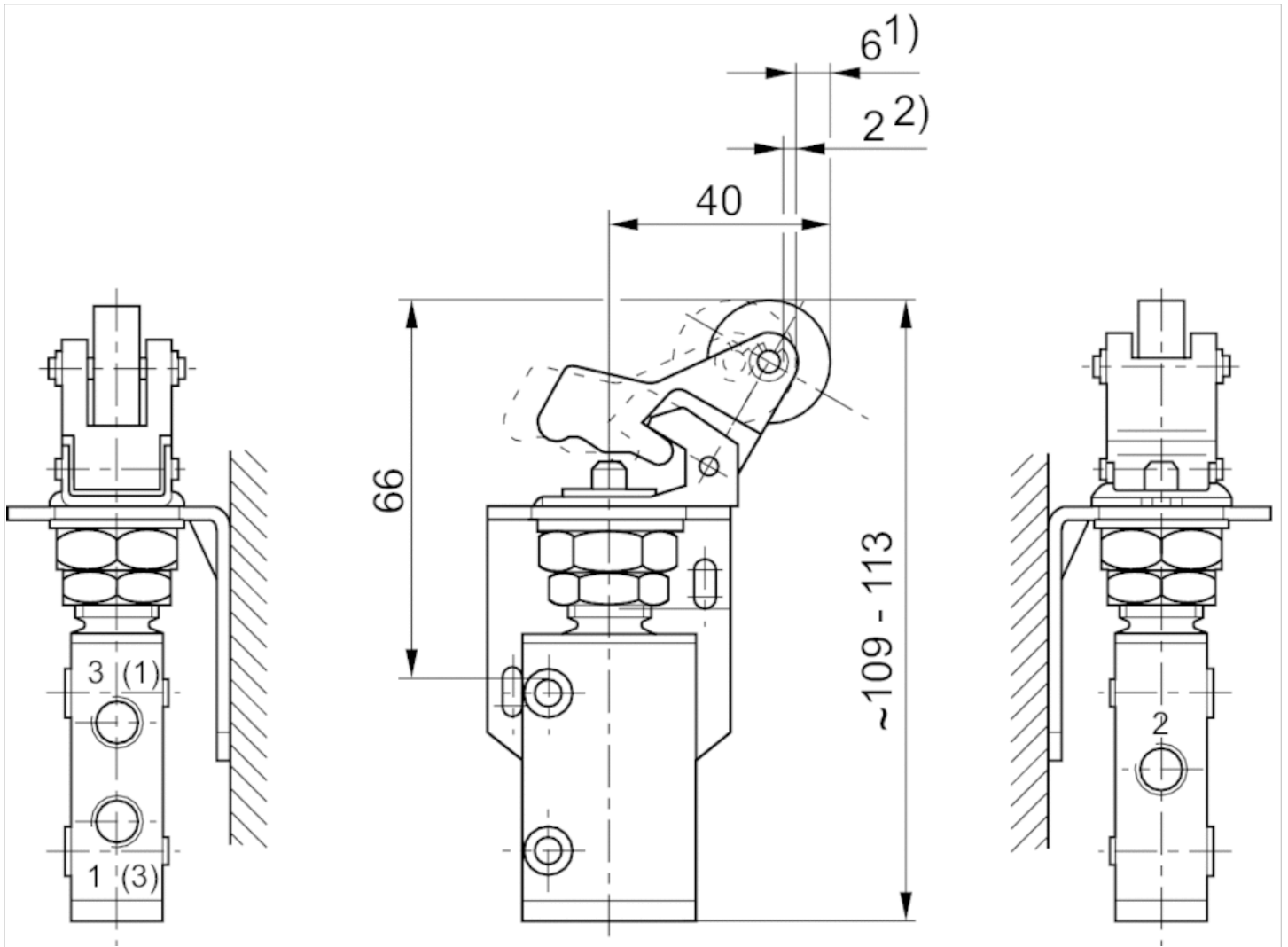
Dimensions, Fig. 6



1) Actuating stroke 2) Overstroke

Can be adjusted by 90°, thereby providing 4 different angles of approach

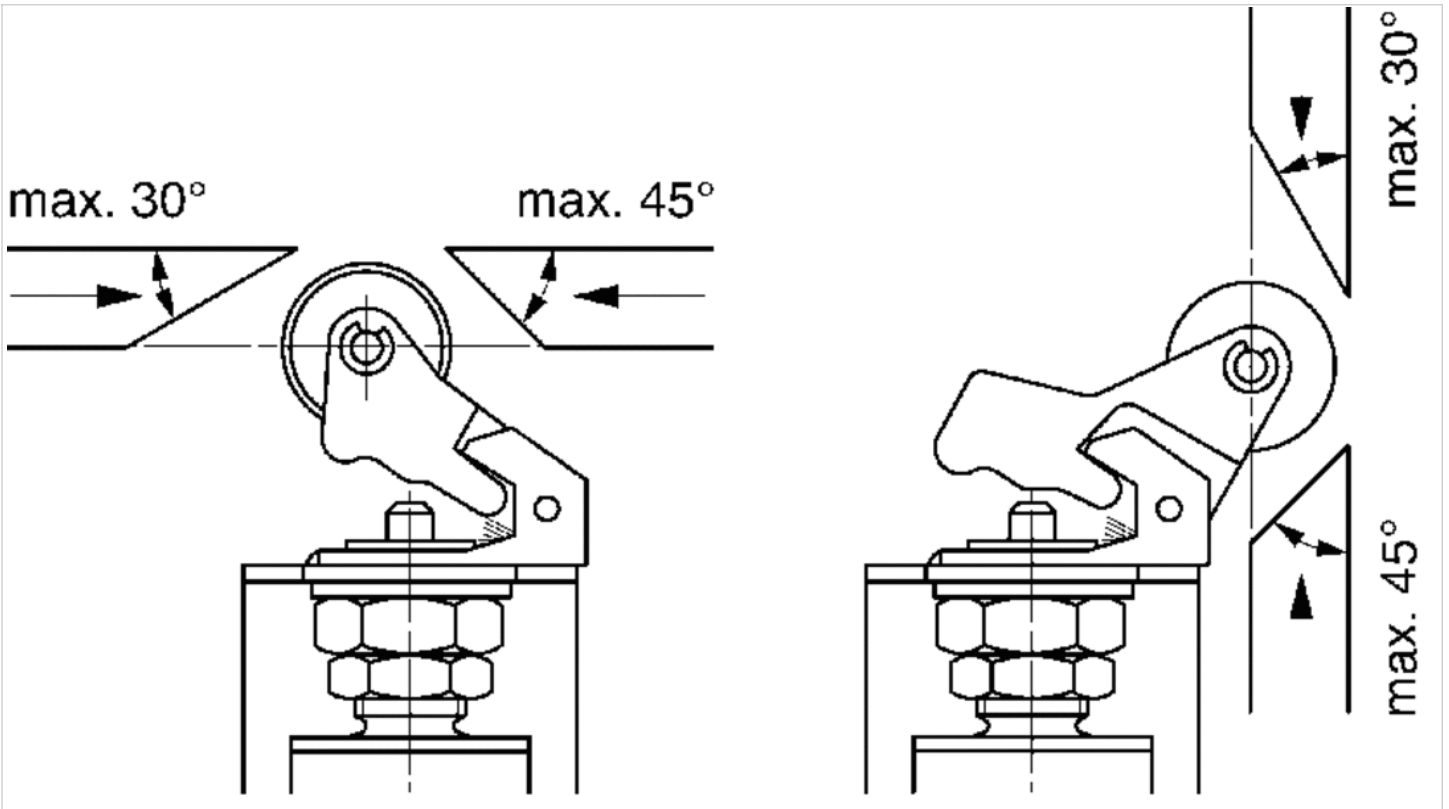
Dimensions, Fig. 7



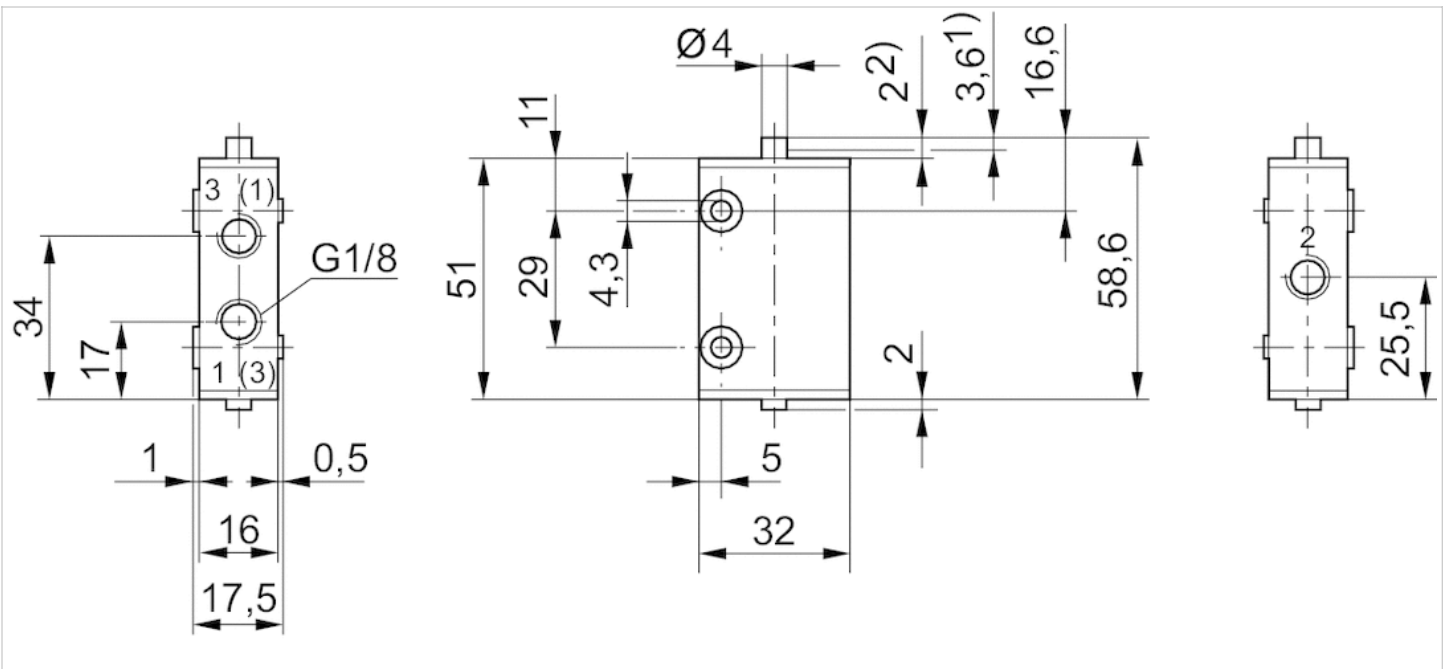
1) Actuating stroke 2) Overstroke

Can be adjusted by 90°, thereby providing 4 different angles of approach

angle of approach for 0820402016 and 0820402017



Dimensions, Fig. 8



- 1) actuating stroke
- 2) overstroke



## 3/2-directional valve, Series ST






- with air return
- Qn = 280 l/min
- Compressed air connection output G 1/8
- single solenoid
- Pipe connection



Version	Spool valve
Activation	Mechanical
Lock type	not lockable
Switching principle	3/2
Sealing principle	metal/metal sealing
Nominal flow Qn	280 l/min
Working pressure min./max.	-0.95 ... 10 bar
Control pressure min./max.	2 ... 10 bar
Ambient temperature min./max.	-15 ... 80 °C
Medium temperature min./max.	-15 ... 80 °C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	5 ... 25 mg/m <sup>3</sup>
Mounting screw	M4 with hexagon socket
Mounting screw tightening torque	2.5 Nm
Weight	See table below

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

### Technical data

Part No.		Actuating element	Compressed air connection type	Compressed air connection Input
0820402008		Plunger	Internal thread	G 1/8
0820402009		Roller	Internal thread	G 1/8
0820402010		Roller lever, one-way trip	Internal thread	G 1/8
0820402011		Push button	Internal thread	G 1/8
R422002212		panel installation	Internal thread	G 1/8

Part No.	Compressed air connection Output	Compressed air connection Exhaust	Operating force	
			min.	
0820402008	G 1/8	G 1/8	5 N	
0820402009	G 1/8	G 1/8	3 N	
0820402010	G 1/8	G 1/8	3 N	
0820402011	G 1/8	G 1/8	3 N	
R422002212	G 1/8	G 1/8	-	

Part No.	Material actuating control	Weight	Fig.	
0820402008	Stainless steel	0.17 kg	Fig. 1	1)
0820402009	Polyoxymethylene	0.17 kg	Fig. 2	1)
0820402010	Polyoxymethylene	0.18 kg	Fig. 3	1)

Part No.	Material actuating control	Weight	Fig.	
0820402011	Polyamide	0.18 kg	Fig. 4	1)
R422002212	Polyoxymethylene	0.18 kg	Fig. 5	2)

Nominal flow  $Q_n$  at 6 bar and  $\Delta p = 1$  bar

1) ,

2) Please order control button separately., Cannot be combined with mushroom button with detent and rotary release R412012741

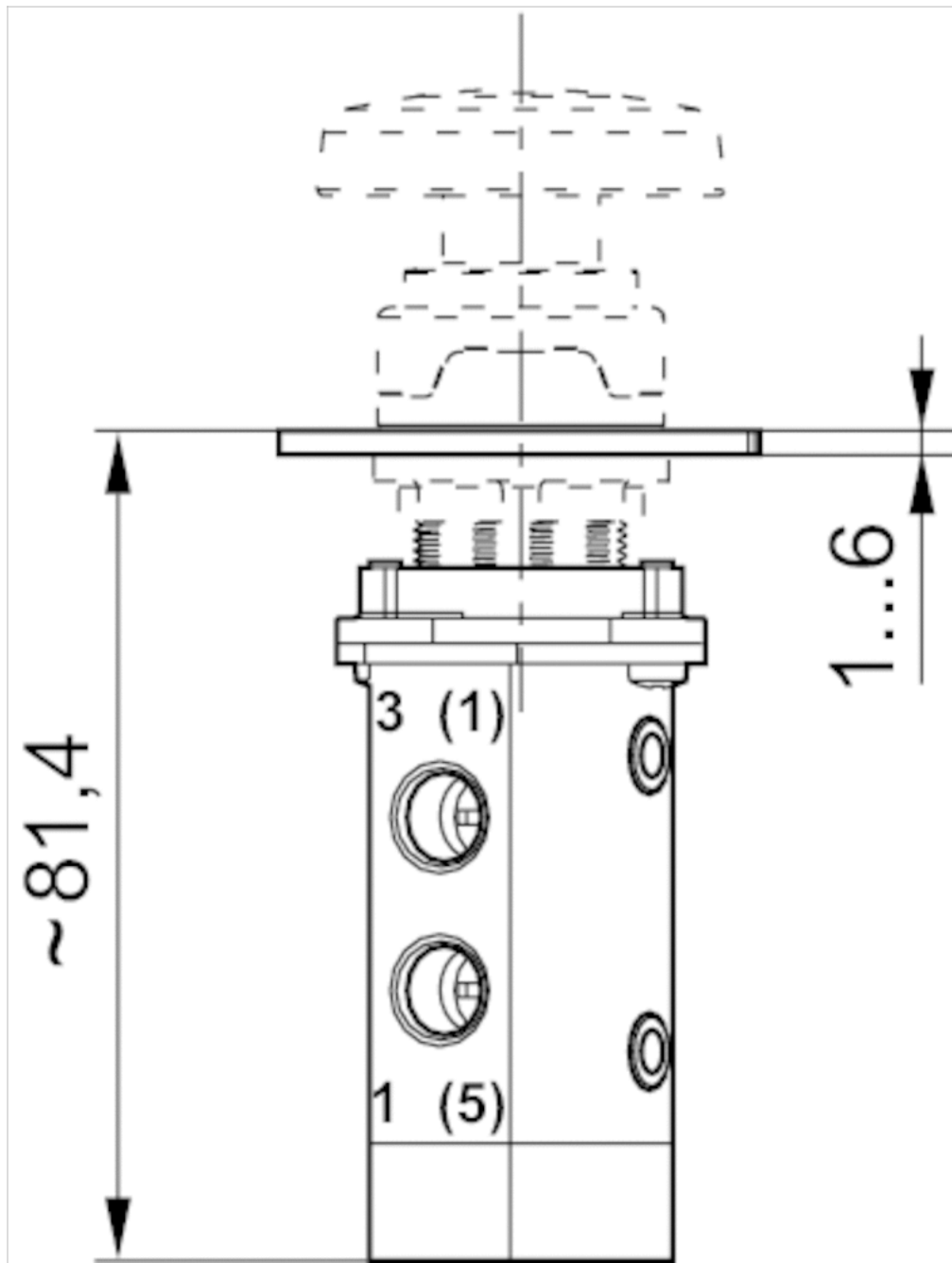
## Technical information

Notice: This product may only be operated with oiled compressed air.

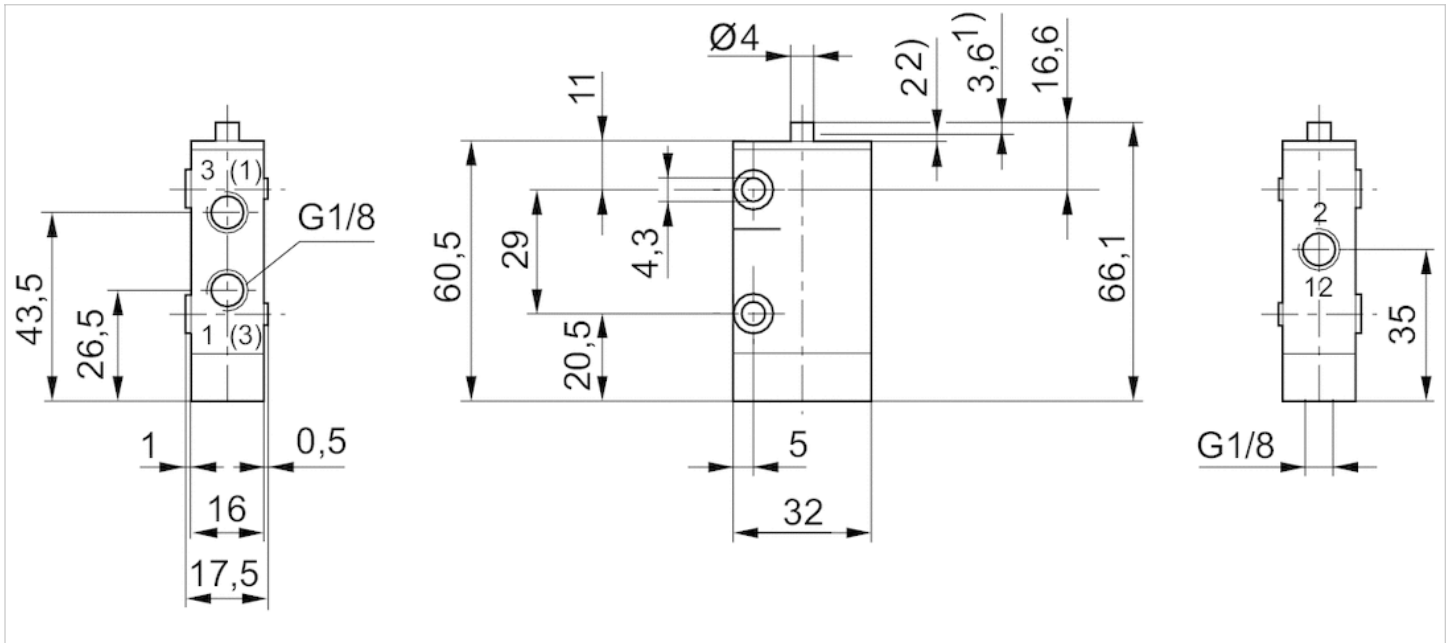
## Technical information

Material	
Housing	Stainless steel, hardened
Seals	Acrylonitrile butadiene rubber
Actuating element	Stainless steel Polyoxymethylene Polyamide
Front cover	Steel, galvanized Steel
Threaded bushing	Brass

## Dimensions

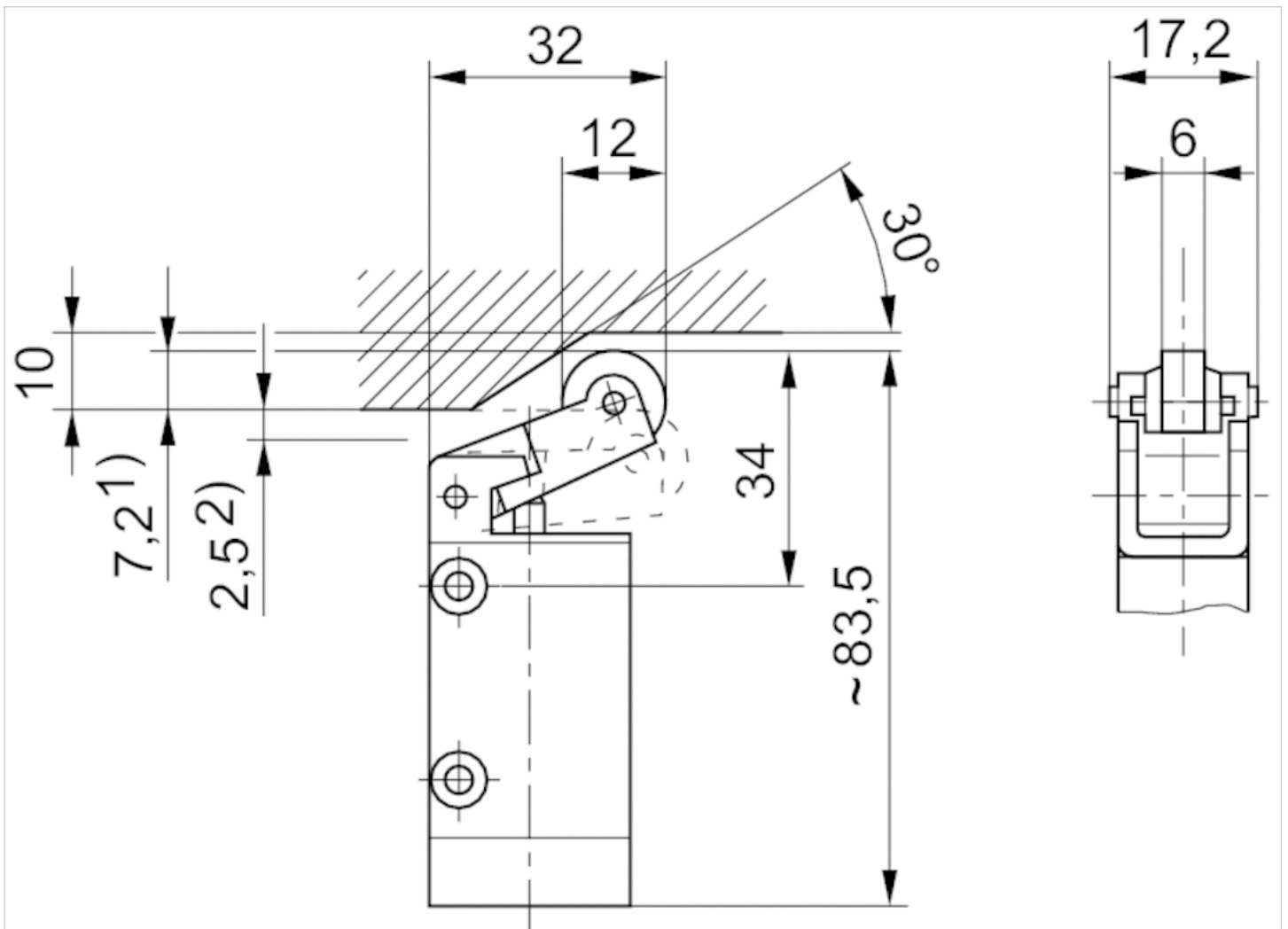


Dimensions, Fig. 1, Basic valve



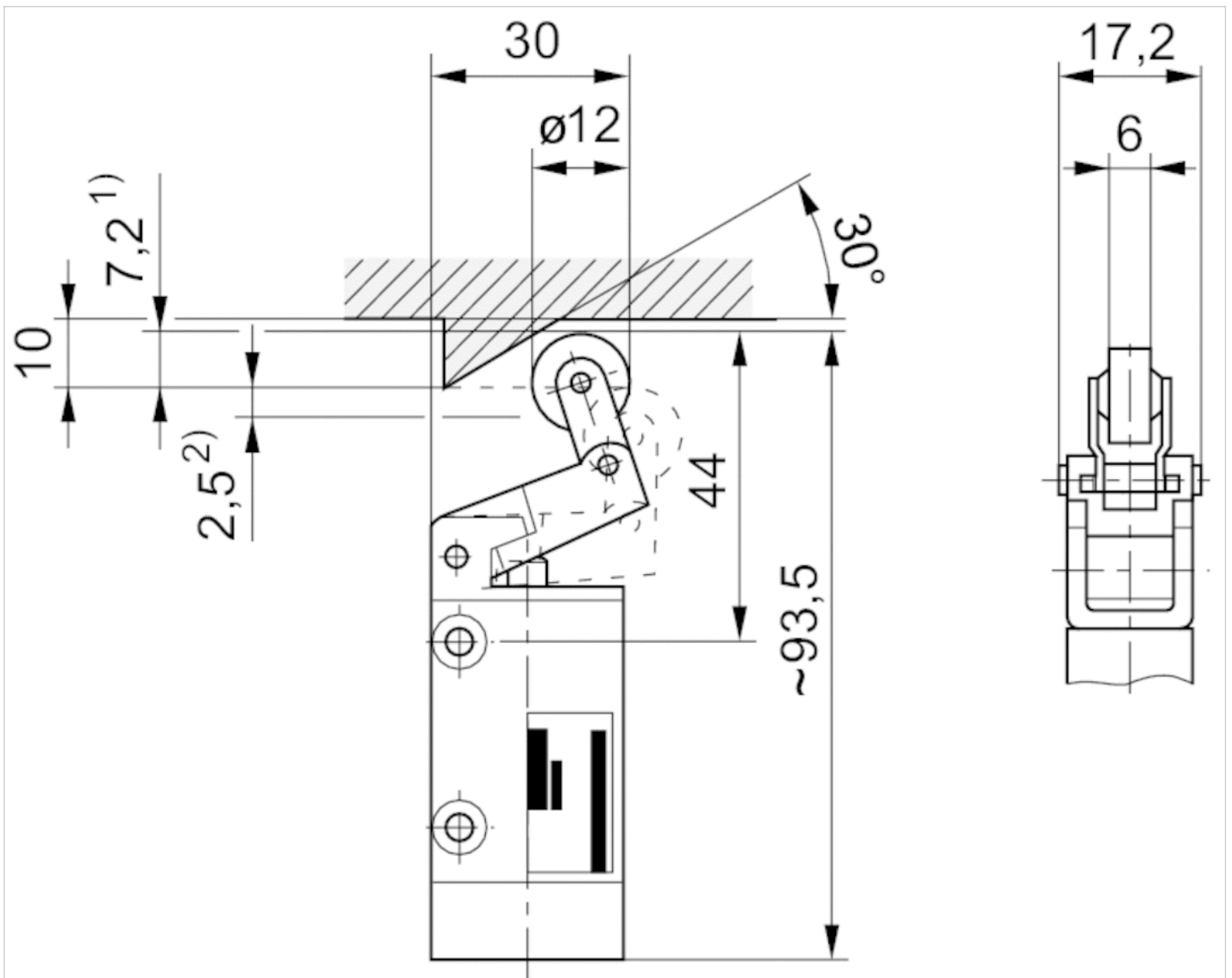
1) Actuating stroke 2) overstroke  
 connection via 2 through-holes in housing  
 Dimensions of basic valve apply to all types of actuation.

Dimensions, Fig. 2



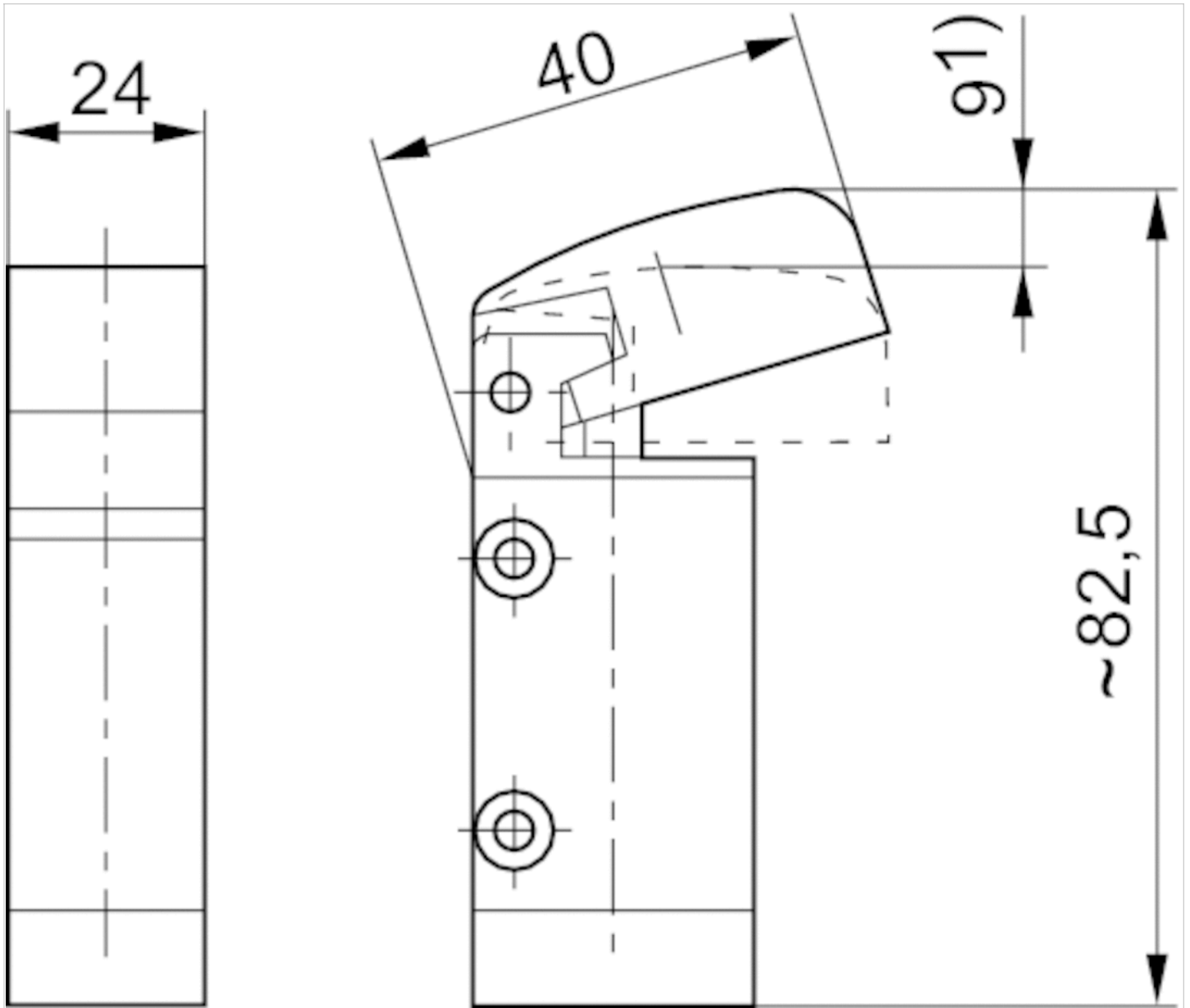
1) Actuating stroke 2) overstroke  
connection via 2 through-holes in housing

Dimensions, Fig. 3



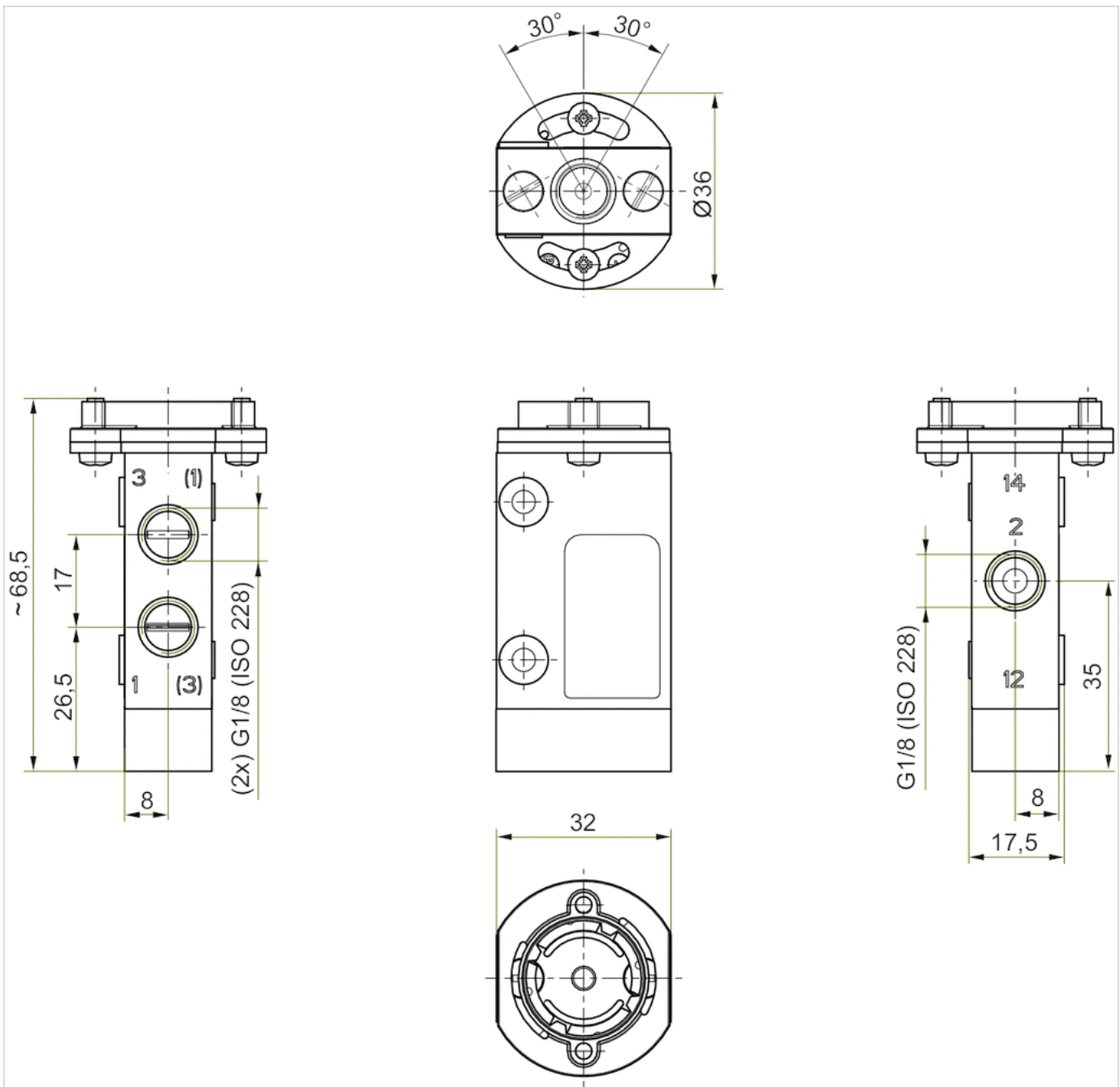
1) Actuating stroke 2) overstroke  
connection via 2 through-holes in housing

Dimensions, Fig. 4



1) actuating stroke  
Mounting via 2 through-holes in housing

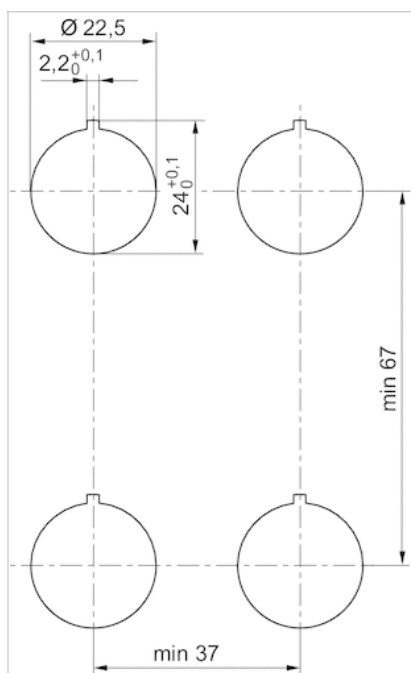
Dimensions, Fig. 5



Cannot be combined with mushroom button with detent and rotary release R412012741

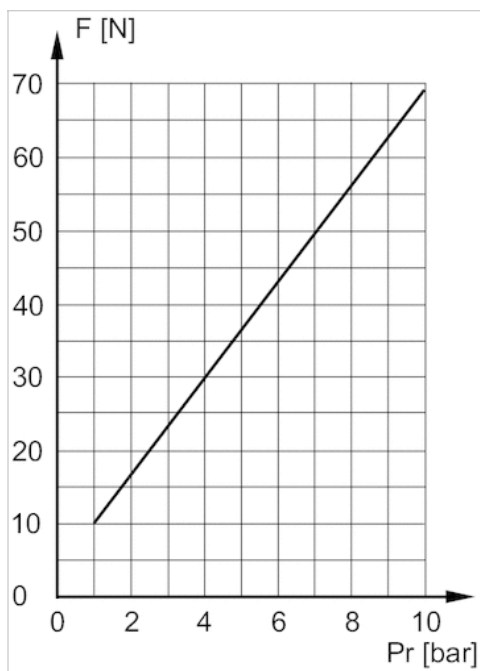


Dimensions, cut-out in the front plate



Diagrams

Actuating force+



F = actuating force  
 Pr = return pressure

## 3/2-directional valve, Series ST





- With spring return
- $Q_n = 280$  l/min
- Compressed air connection output G 1/8
- single solenoid
- Pipe connection



Version	Spool valve
Activation	Mechanical
Lock type	not lockable
Switching principle	3/2
Sealing principle	metal/metal sealing
Nominal flow $Q_n$	280 l/min
Working pressure min./max.	2 ... 10 bar
Ambient temperature min./max.	-15 ... 80 °C
Medium temperature min./max.	-15 ... 80 °C
Medium	Compressed air
Max. particle size	5 $\mu$ m
Oil content of compressed air	5 ... 25 mg/m <sup>3</sup>
Mounting screw	M4 with hexagon socket
Mounting screw tightening torque	2.5 Nm
Weight	See table below

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

### Technical data

Part No.		Actuating element	Compressed air connection type	Compressed air connection Input
0820402014		Ball	Internal thread	G 1/8
0820402015		Nozzle	Internal thread	G 1/8
0820402018		Nozzle	Internal thread	G 1/8
0820402023		Spring-loaded rod	Internal thread	G 1/8

Part No.	Compressed air connection Output	Compressed air connection Exhaust	Material actuating control	Weight
0820402014	G 1/8	G 1/8	Stainless steel	0.18 kg
0820402015	G 1/8	G 1/8	Brass	0.17 kg
0820402018	G 1/8	G 1/8	Brass	0.16 kg
0820402023	G 1/8	G 1/8	-	0.18 kg

Part No.	Fig.	
0820402014	Fig. 1	-
0820402015	Fig. 2	-
0820402018	Fig. 3	-
0820402023	Fig. 4	1)

Nominal flow  $Q_n$  at 6 bar and  $\Delta p = 1$  bar

1) See diagram

## Technical information

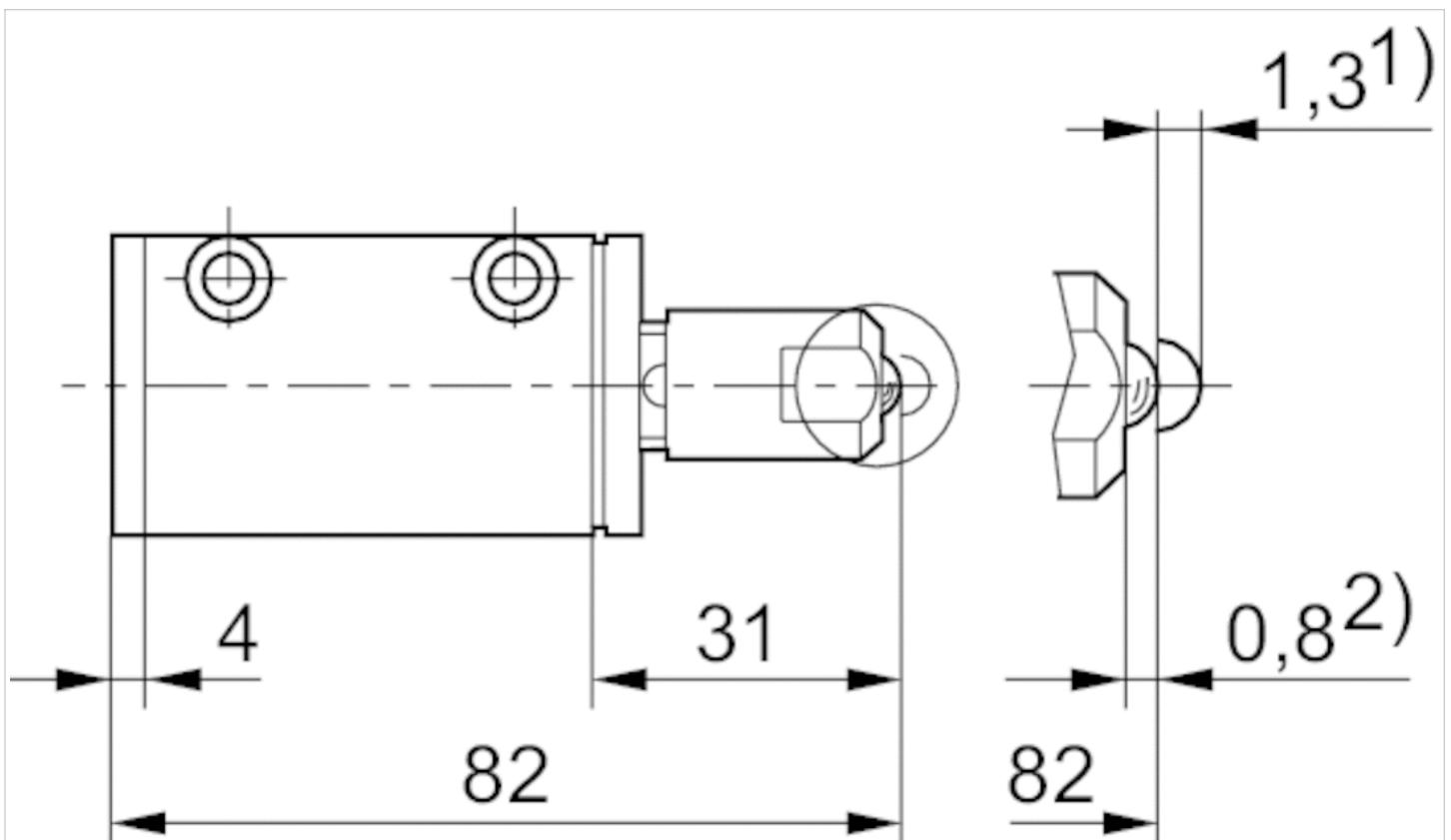
Notice: This product may only be operated with oiled compressed air.

## Technical information

Housing	Stainless steel, hardened
Actuating element	Stainless steel Brass
Threaded bushing	Brass

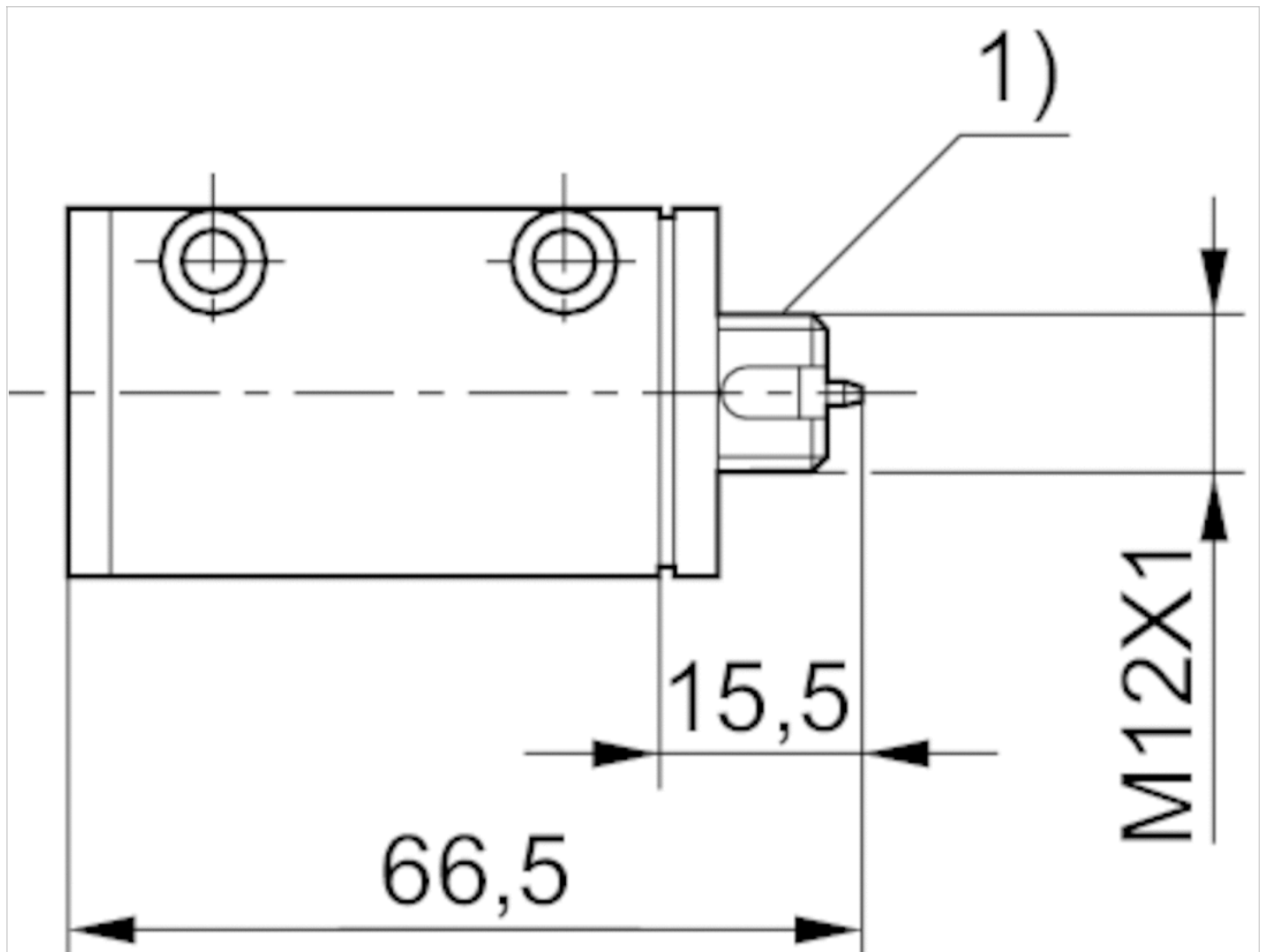
## Dimensions

### Dimensions, Fig. 1



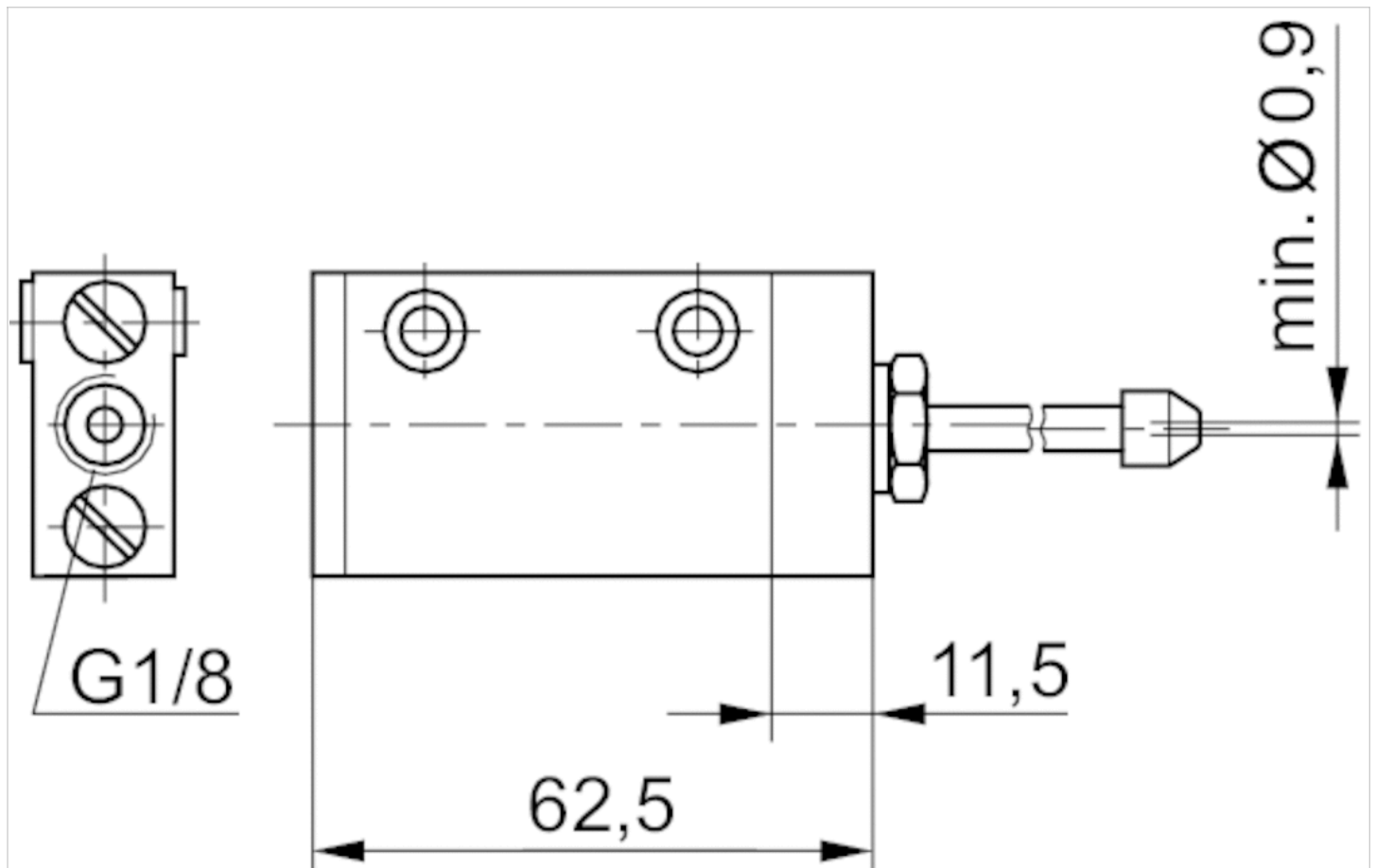
1) Actuating stroke 2) overstroke  
connection via 2 through-holes in housing

Dimensions, Fig. 2



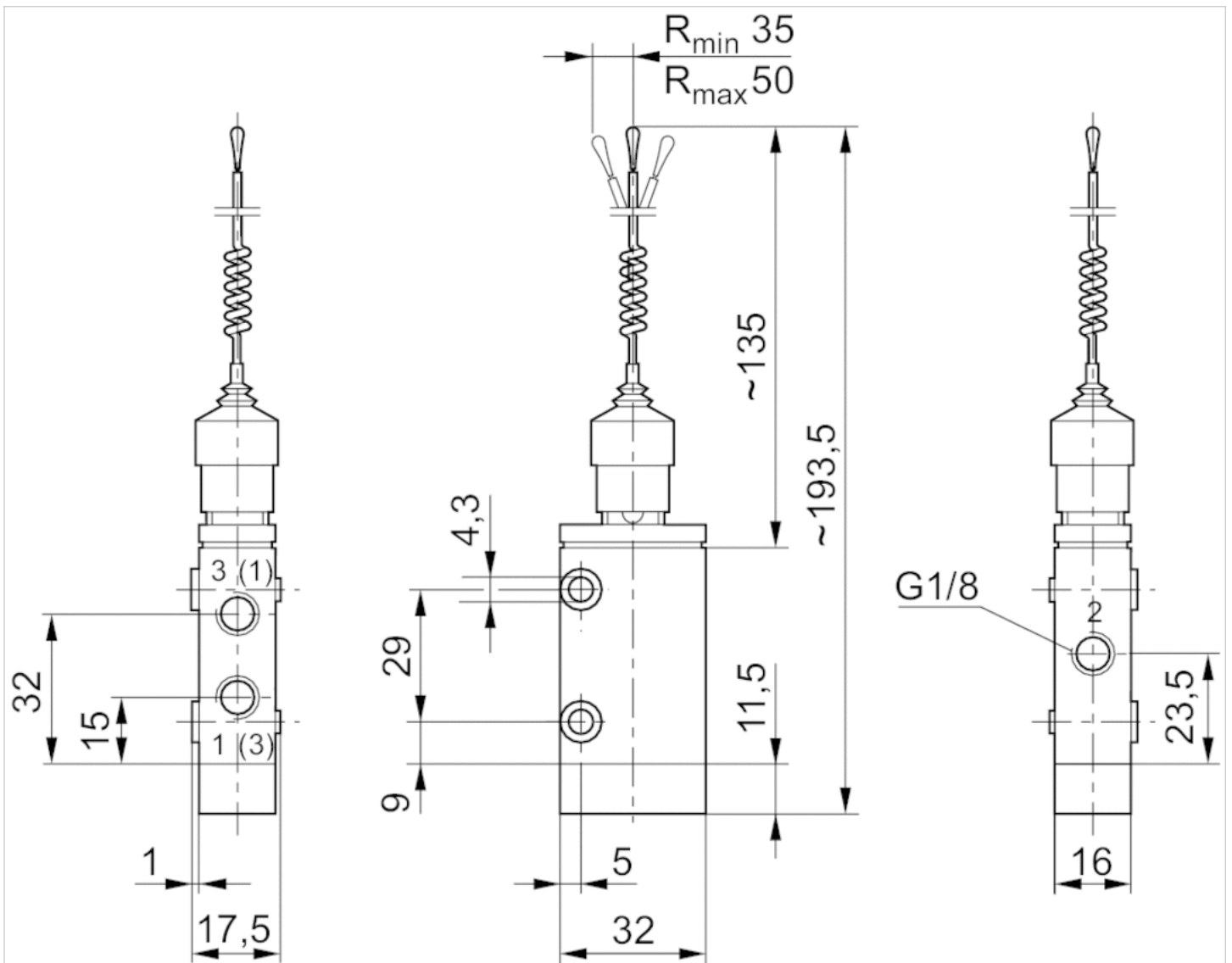
1) not intended as mounting thread  
Mounting via 2 through-holes in housing

## Dimensions, Fig. 3



Mounting via 2 through-holes in housingnozzle and tubing, not included in scope of delivery

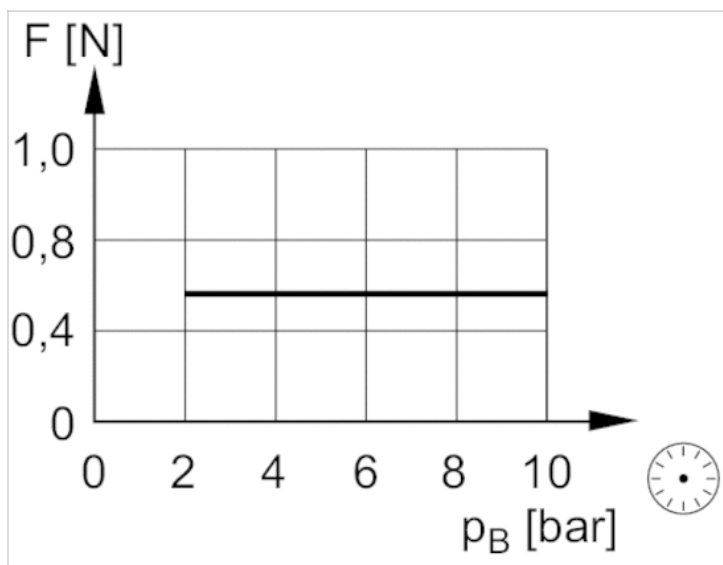
Dimensions, Fig. 4



Mounting via 2 through-holes in housing

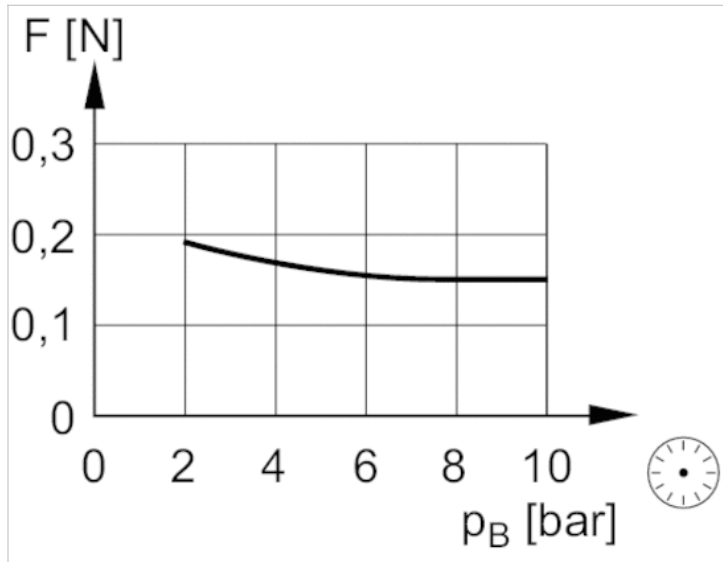
## Diagrams

Diagram, Fig. 1



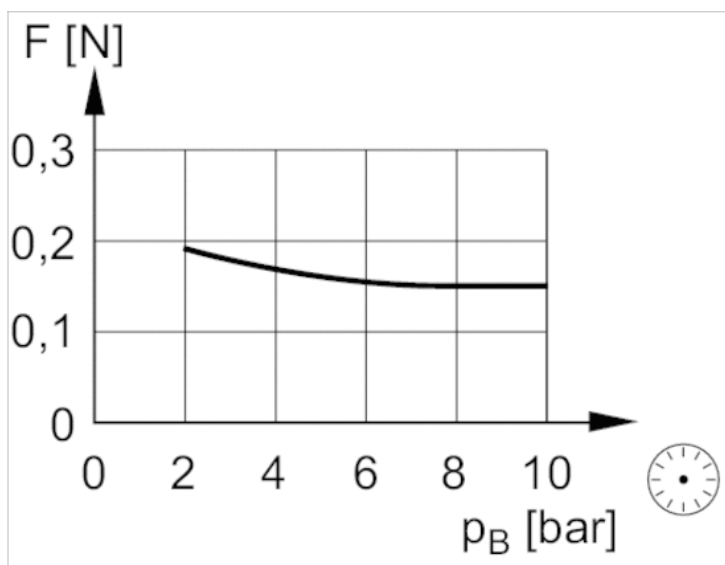
$F$  = actuating force at the rear end of the spring-loaded rod  
 $p_B$  = Working pressure

Diagram, Fig. 2



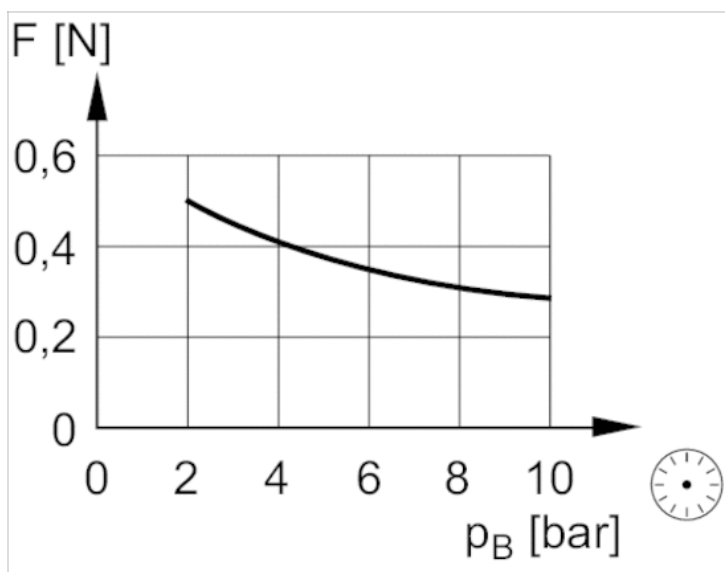
$F$  = actuating force at the rear end of the spring-loaded rod  
 $p_B$  = Working pressure

Diagram, Fig. 3



$F$  = actuating force at the rear end of the spring-loaded rod  
 $p_B$  = Working pressure

Diagram, Fig. 4



$F$  = actuating force at the rear end of the spring-loaded rod  
 $p_B$  = Working pressure



# 5/2-directional valve, Series ST










- With spring return
- $Q_n = 280$  l/min
- Compressed air connection output G 1/8
- Pipe connection



Version	Spool valve
Activation	Mechanical
Lock type	not lockable
Switching principle	5/2
Sealing principle	metal/metal sealing
Nominal flow $Q_n$	280 l/min
Working pressure min./max.	-0.95 ... 10 bar
Ambient temperature min./max.	-15 ... 80 °C
Medium temperature min./max.	-15 ... 80 °C
Medium	Compressed air
Max. particle size	5 $\mu\text{m}$
Oil content of compressed air	5 ... 25 mg/m <sup>3</sup>
Mounting screw	M4 with hexagon socket
Mounting screw tightening torque	2.5 Nm
Weight	See table below

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

## Technical data

Part No.		Actuating element	Compressed air connection type
0820403001		Plunger	Internal thread
0820403002		Roller	Internal thread
0820403003		Roller lever, one-way trip	Internal thread
0820403004		Push button	Internal thread
0820403005		Lever	Internal thread
0820403016		Roller with single-action lever	Internal thread
0820403017		Roller with articulated lever	Internal thread
0820403019		Plunger	Internal thread
R422002213		panel installation	Internal thread

Part No.	Compressed air connection Input	Compressed air connection Output	Compressed air connection Exhaust
0820403001	G 1/8	G 1/8	G 1/8
0820403002	G 1/8	G 1/8	G 1/8
0820403003	G 1/8	G 1/8	G 1/8
0820403004	G 1/8	G 1/8	G 1/8
0820403005	G 1/8	G 1/8	G 1/8
0820403016	G 1/8	G 1/8	G 1/8
0820403017	G 1/8	G 1/8	G 1/8
0820403019	G 1/8	G 1/8	G 1/8
R422002213	G 1/8	G 1/8	G 1/8

Part No.	Operating force	Actuating torque	Material actuating control	Weight	Fig.	
	min.	Min.				
0820403001	11 N	-	Stainless steel	0.22 kg	Fig. 1	-
0820403002	6.5 N	-	Polyoxymethylene	0.23 kg	Fig. 2	-
0820403003	6.5 N	-	Polyoxymethylene	0.23 kg	Fig. 3	-
0820403004	6.5 N	-	Polyamide	0.23 kg	Fig. 4	-
0820403005	-	0.02 Nm	Polyamide	0.22 kg	Fig. 5	-
0820403016	10 N	-	Polyoxymethylene	0.34 kg	Fig. 6	-
0820403017	25 N	-	Polyoxymethylene	0.34 kg	Fig. 7	-
0820403019	5 N	-	Stainless steel	0.22 kg	Fig. 8	-
R422002213	11 N	-	Polyoxymethylene	0.22 kg	Fig. 9	1)

Nominal flow  $Q_n$  at 6 bar and  $\Delta p = 1$  bar

1) Please order control button separately.

## Technical information

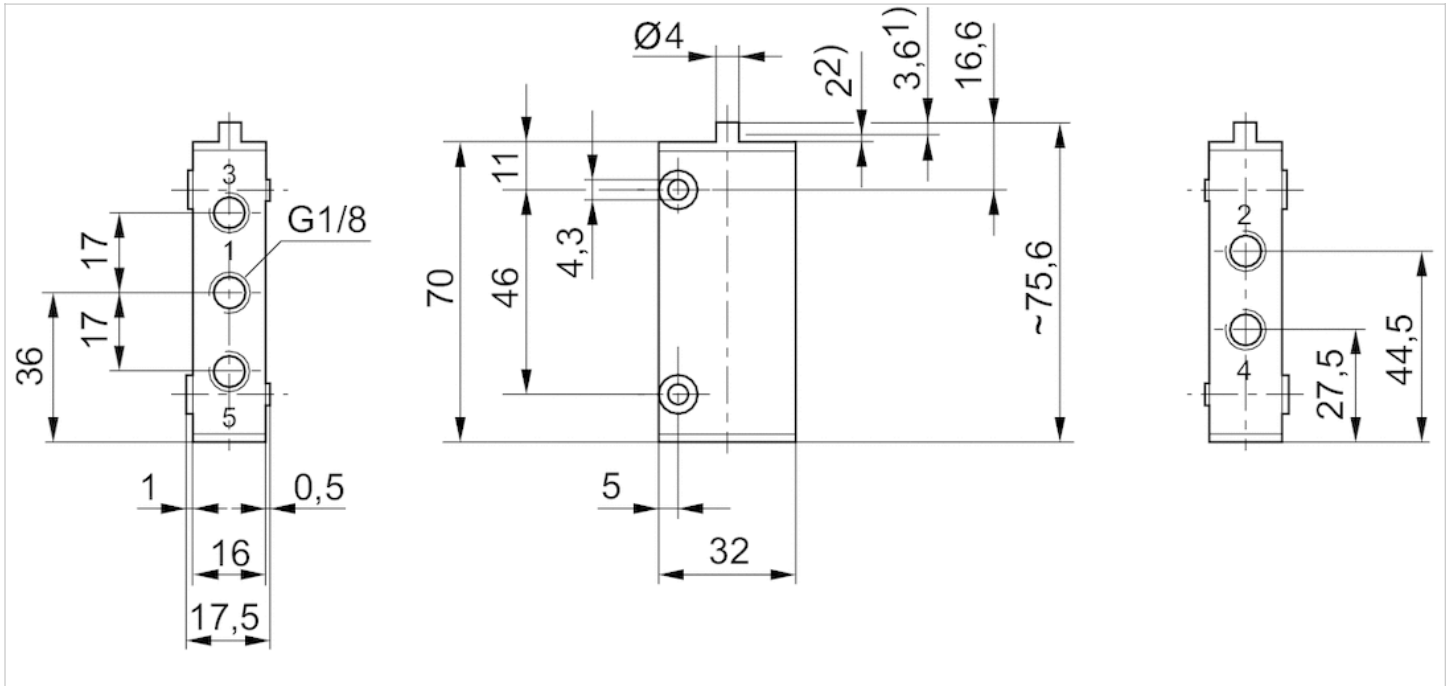
Notice: This product may only be operated with oiled compressed air.

## Technical information

Material	
Housing	Stainless steel, hardened
Seals	Acrylonitrile butadiene rubber
Actuating element	Stainless steel Polyoxymethylene Polyamide
Front cover	Stainless steel Steel Polyamide Aluminum Steel, galvanized

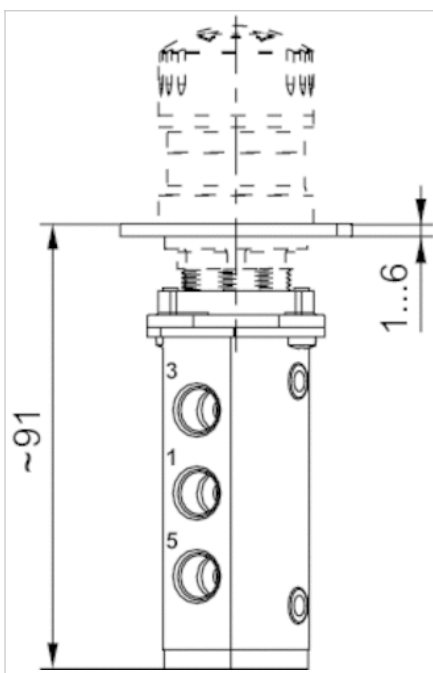
## Dimensions

### Dimensions, Fig. 1, Basic valve

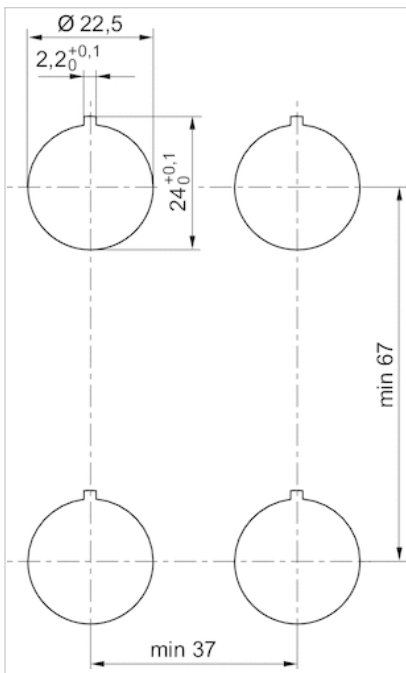


1) Actuating stroke 2) overstroke  
 connection via 2 through-holes in housing  
 Dimensions of basic valve apply to all types of actuation.

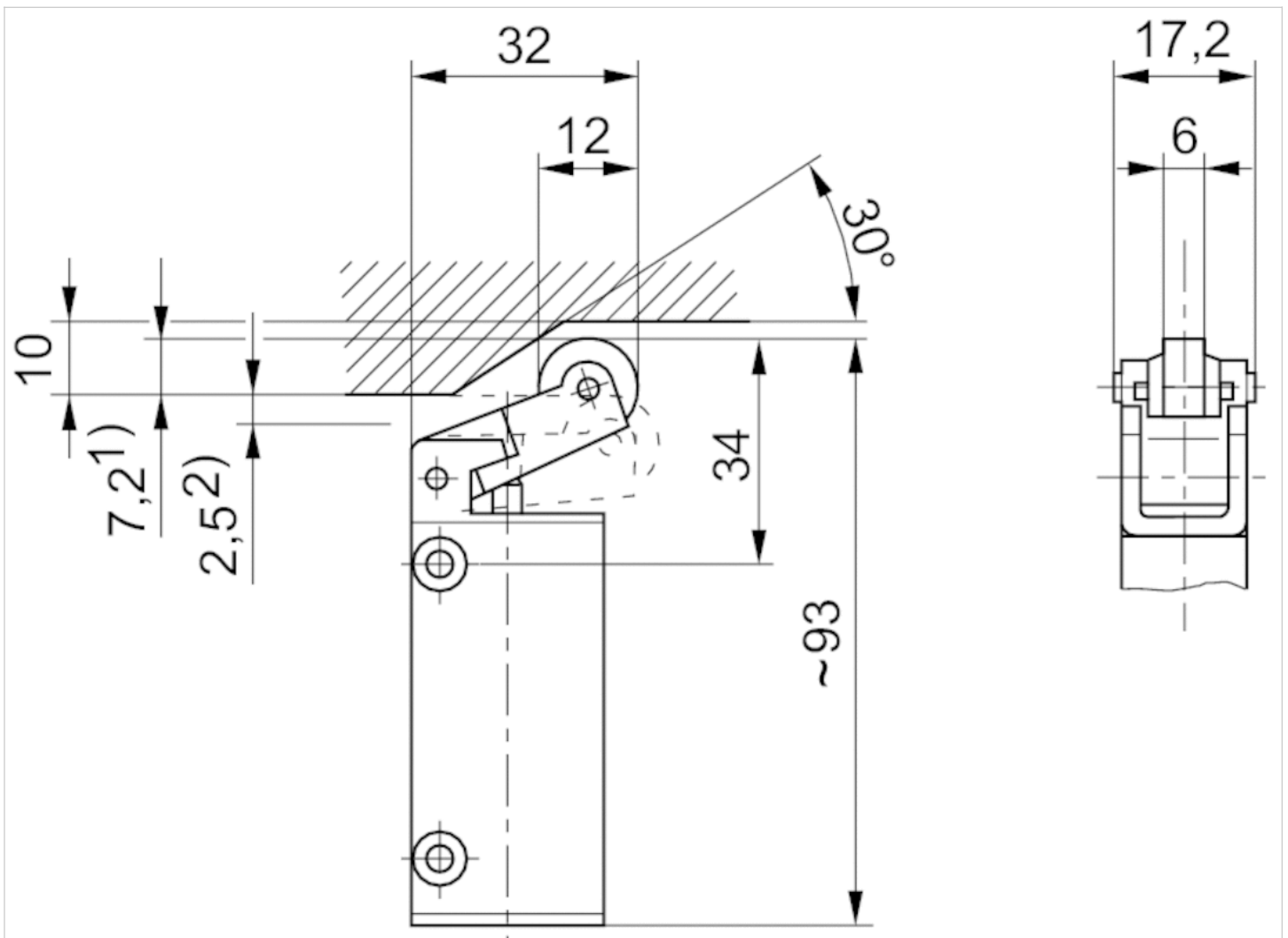
### Overview drawing, Fig. 9



Dimensions, cut-out in the front plate

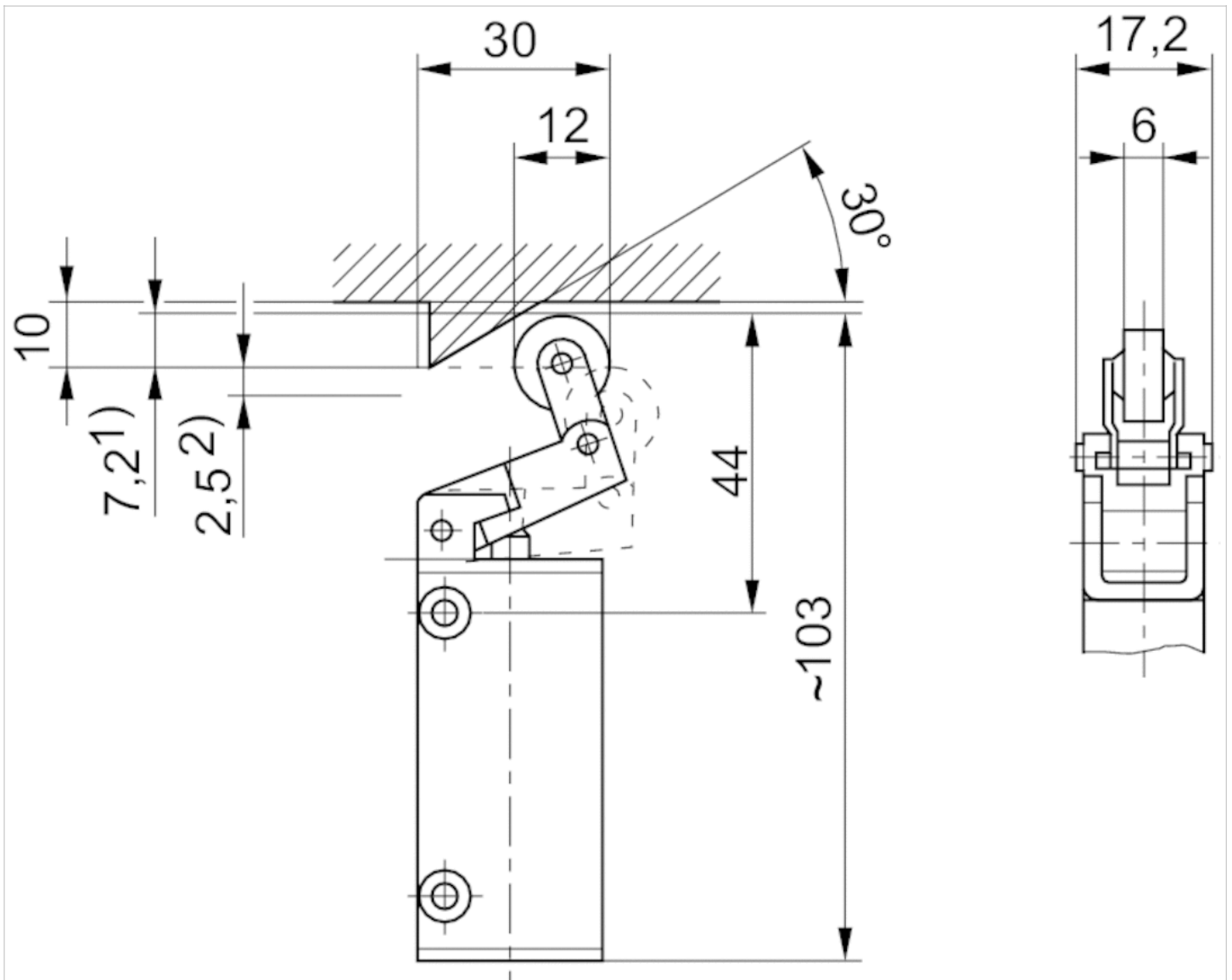


Dimensions, Fig. 2



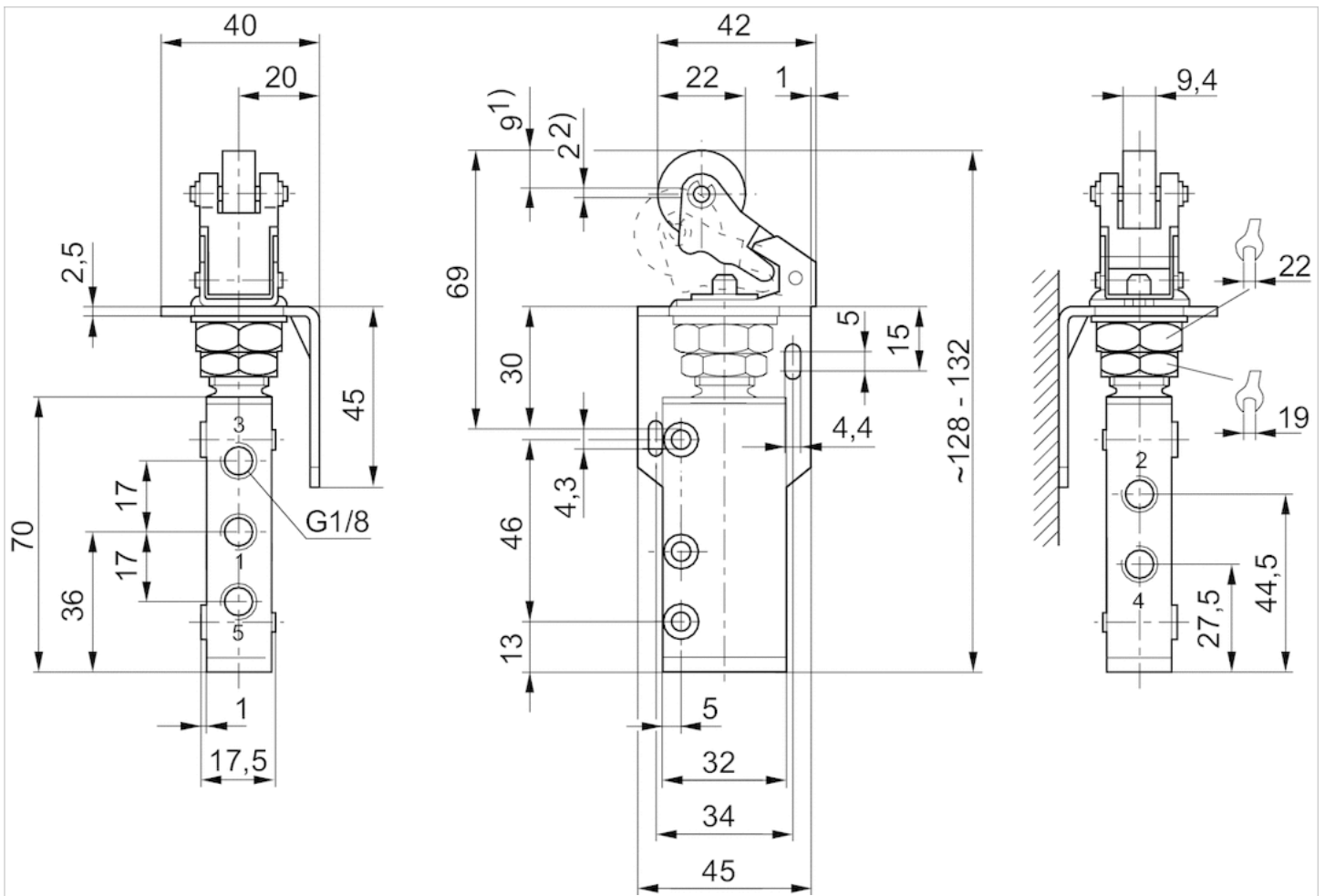
1) Actuating stroke 2) overstroke  
connection via 2 through-holes in housing

Dimensions, Fig. 3



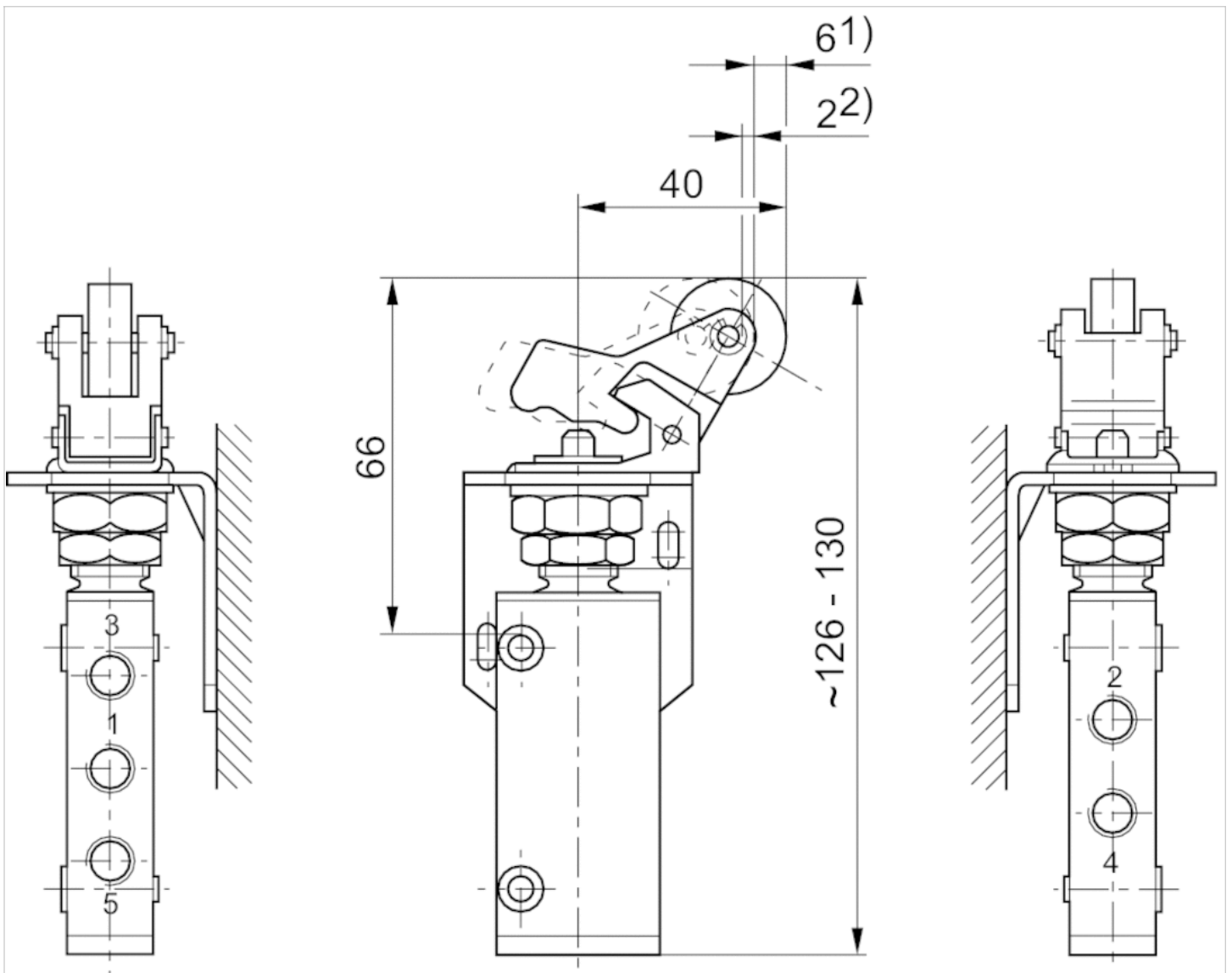
1) Actuating stroke 2) overstroke  
connection via 2 through-holes in housing

Dimensions, Fig. 6



1) actuating stroke 2) overstroke  
 Can be adjusted by 90°, thereby providing 4 different angles of approach.

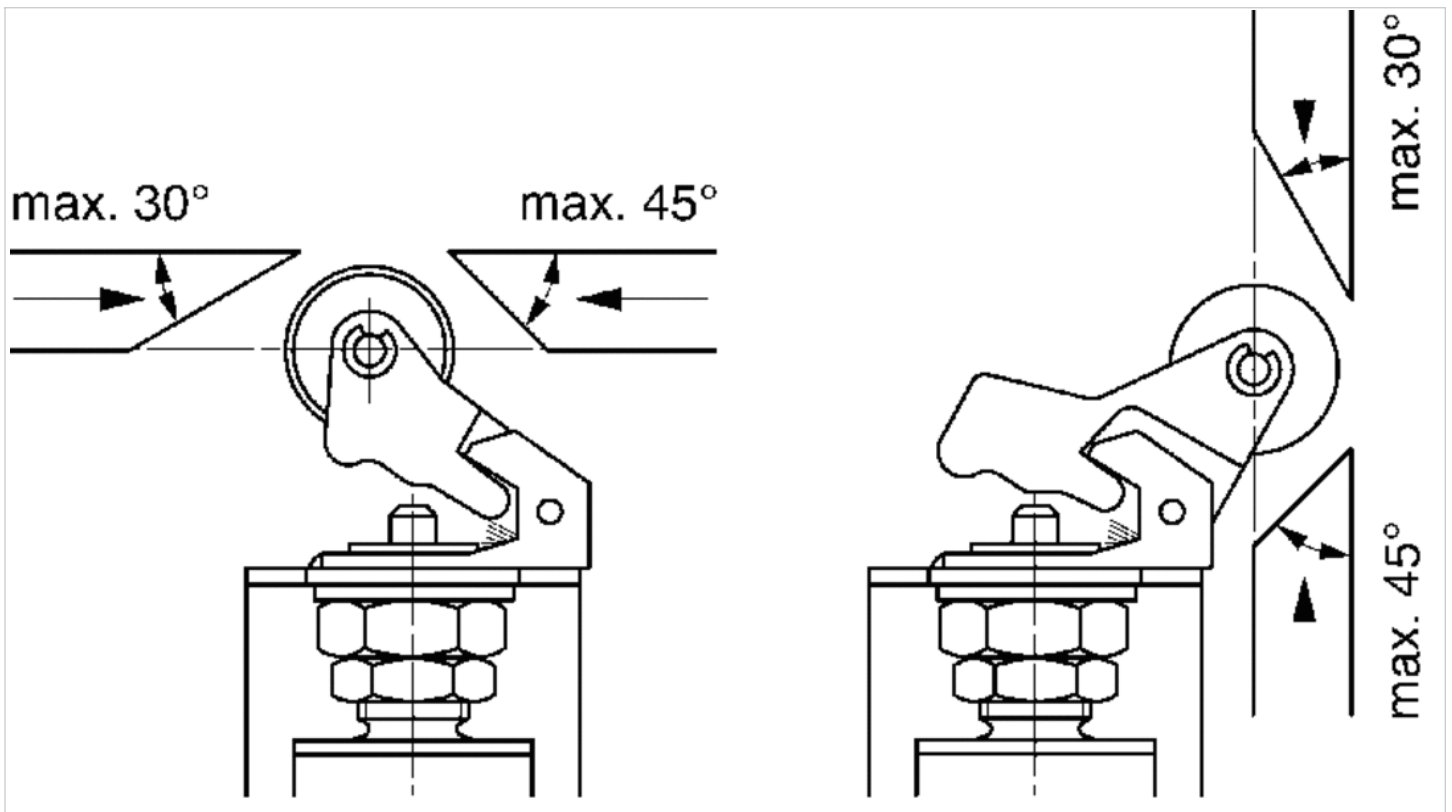
Dimensions, Fig. 7



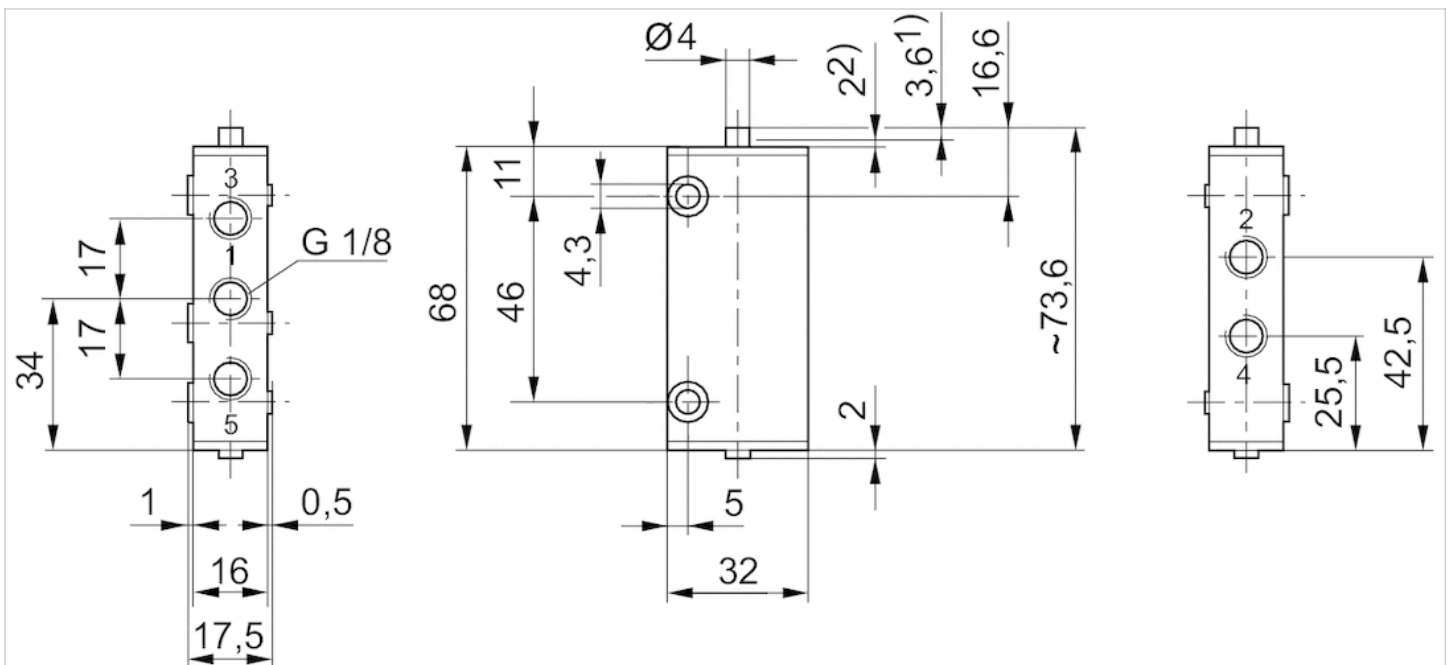
1) actuating stroke 2) overstroke

Can be adjusted by 90°, thereby providing 4 different angles of approach.

angle of approach for 0820402016 and 0820402017



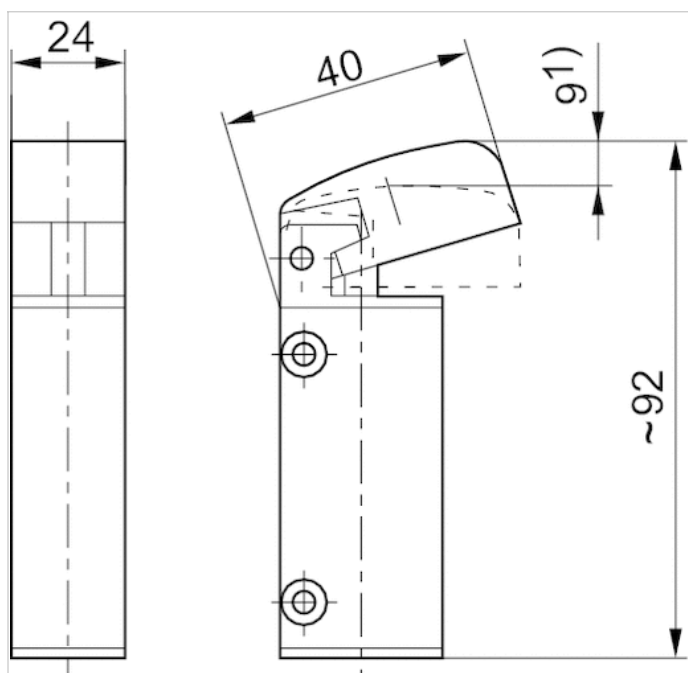
Dimensions, Fig. 8



1) actuating stroke 2) overstroke  
 connection via 2 through-holes in housing. If the plunger is displaced all the way to the housing cover, the actuating stroke changes from 3.6 to 5.6 mm.

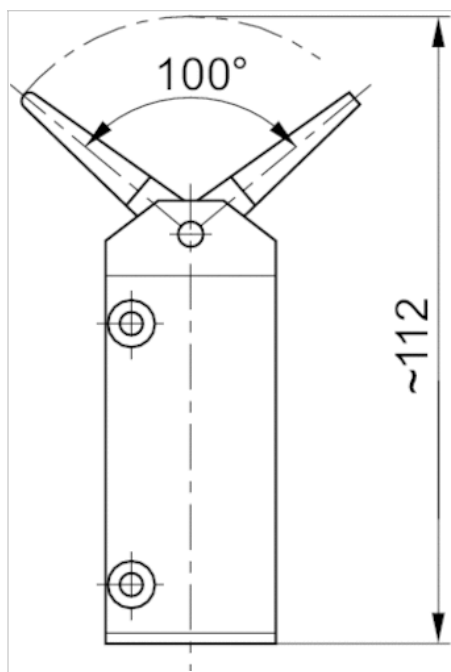


Dimensions, Fig. 4



1) actuating stroke  
 Mounting via 2 through-holes in housing

Dimensions, Fig. 5



Mounting via 2 through-holes in housing

# 5/2-directional valve, Series ST






- with air return
- $Q_n = 280$  l/min
- Compressed air connection output G 1/8
- double solenoid
- Pipe connection



Version	Spool valve
Activation	Mechanical
Lock type	not lockable
Switching principle	5/2
Sealing principle	metal/metal sealing
Nominal flow $Q_n$	280 l/min
Working pressure min./max.	-0.95 ... 10 bar
Control pressure min./max.	2 ... 10 bar
Ambient temperature min./max.	-15 ... 80 °C
Medium temperature min./max.	-15 ... 80 °C
Medium	Compressed air
Max. particle size	5 $\mu$ m
Oil content of compressed air	5 ... 25 mg/m <sup>3</sup>
Mounting screw	M4 with hexagon socket
Mounting screw tightening torque	2.5 Nm
Weight	See table below

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

## Technical data

Part No.		Actuating element	Compressed air connection type	Compressed air connection Input
0820403008		Plunger	Internal thread	G 1/8
0820403009		Roller	Internal thread	G 1/8
0820403010		Roller lever, one-way trip	Internal thread	G 1/8
0820403011		Push button	Internal thread	G 1/8
R422002214		panel installation	Internal thread	G 1/8

Part No.	Compressed air connection Output	Compressed air connection Exhaust	Operating force	
			min.	
0820403008	G 1/8	G 1/8	5 N	
0820403009	G 1/8	G 1/8	3 N	
0820403010	G 1/8	G 1/8	3 N	
0820403011	G 1/8	G 1/8	3 N	
R422002214	G 1/8	G 1/8	-	

Part No.	Material actuating control	Weight	Fig.	
0820403008	Stainless steel	0.22 kg	Fig. 1	-
0820403009	Polyoxymethylene	0.23 kg	Fig. 2	-
0820403010	Polyoxymethylene	0.23 kg	Fig. 3	-

Part No.	Material actuating control	Weight	Fig.	
0820403011	Polyamide	0.23 kg	Fig. 4	-
R422002214	Polyoxymethylene	0.23 kg	Fig. 5	1)

Nominal flow Qn at 6 bar and  $\Delta p = 1$  bar

1) Please order control button separately., Cannot be combined with mushroom button with detent and rotary release R412012741

## Technical information

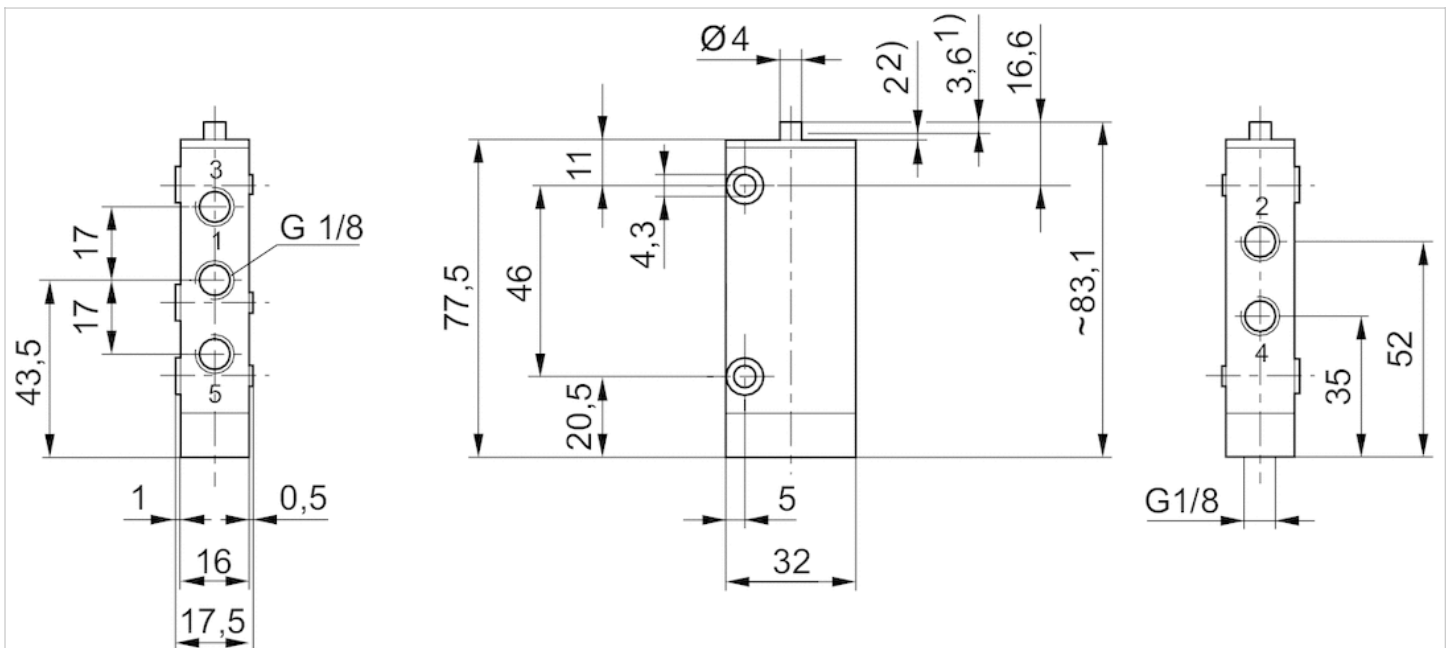
Notice: This product may only be operated with oiled compressed air.

## Technical information

Material	
Housing	Stainless steel, hardened
Seals	Acrylonitrile butadiene rubber
Actuating element	Stainless steel Polyoxymethylene Polyamide
Front cover	Steel, galvanized Steel
Threaded bushing	Brass

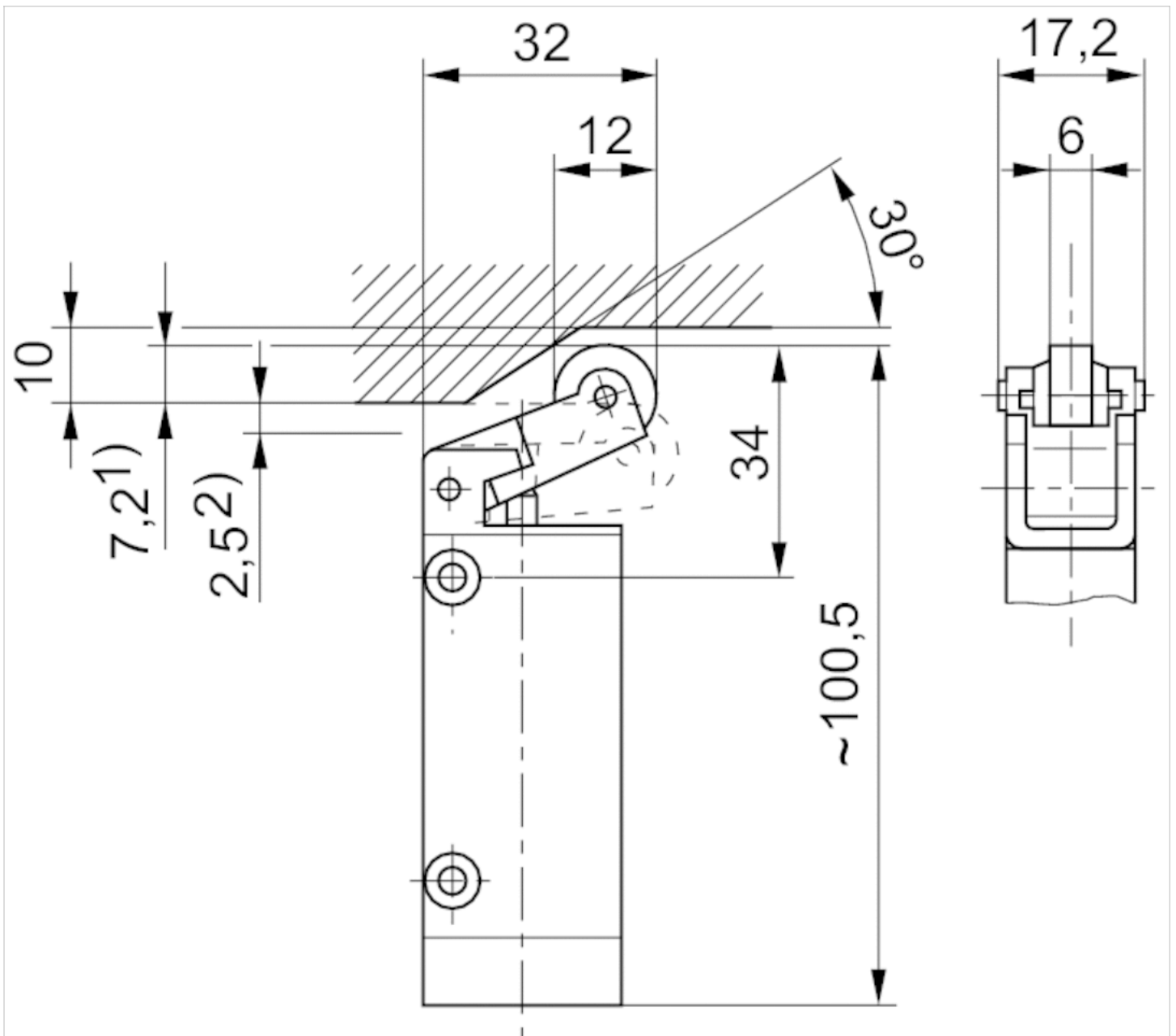
## Dimensions

### Dimensions, Fig. 1, Basic valve



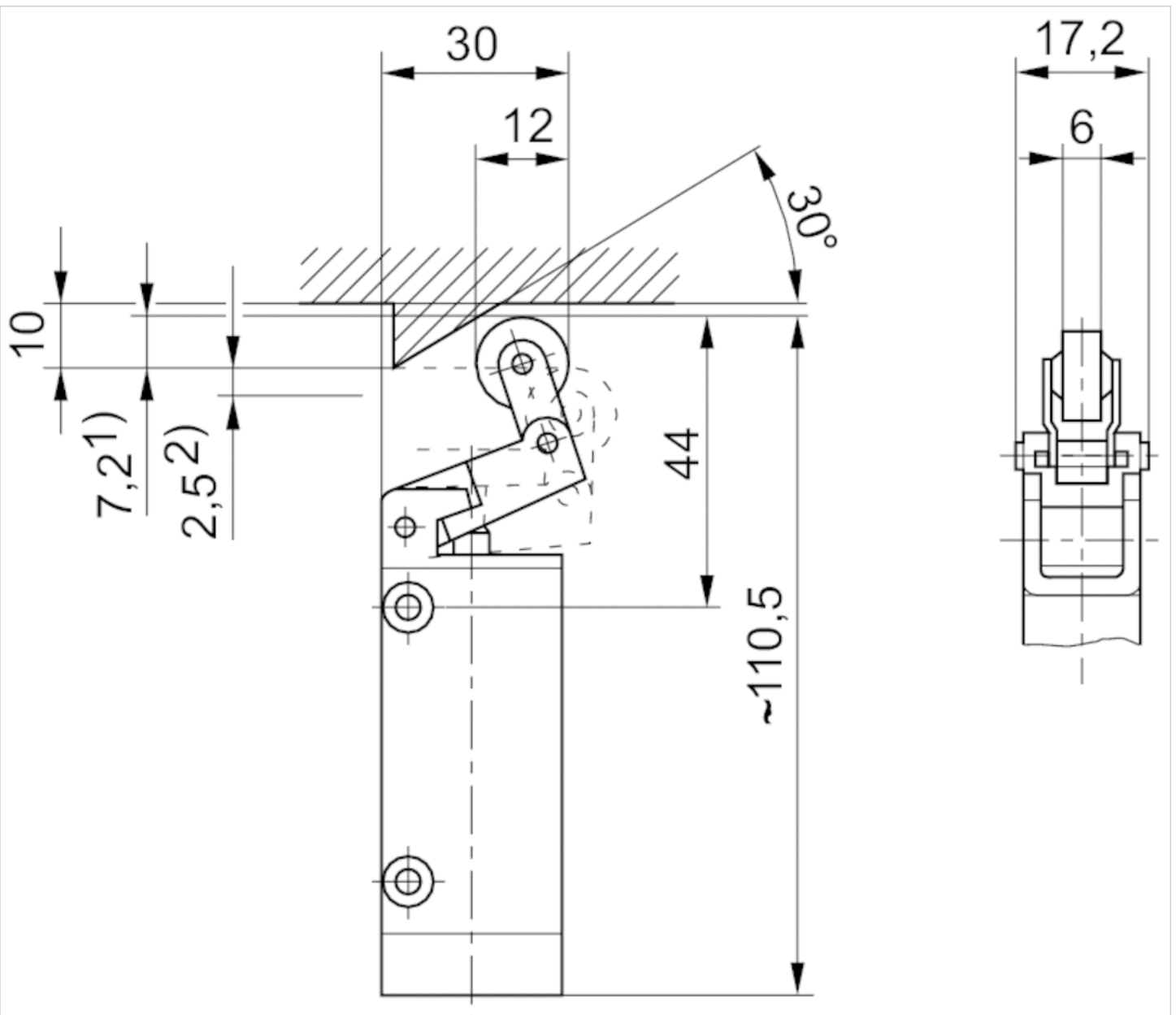
1) Actuating stroke 2) overstroke  
 connection via 2 through-holes in housing  
 Dimensions of basic valve apply to all types of actuation.

Dimensions, Fig. 2



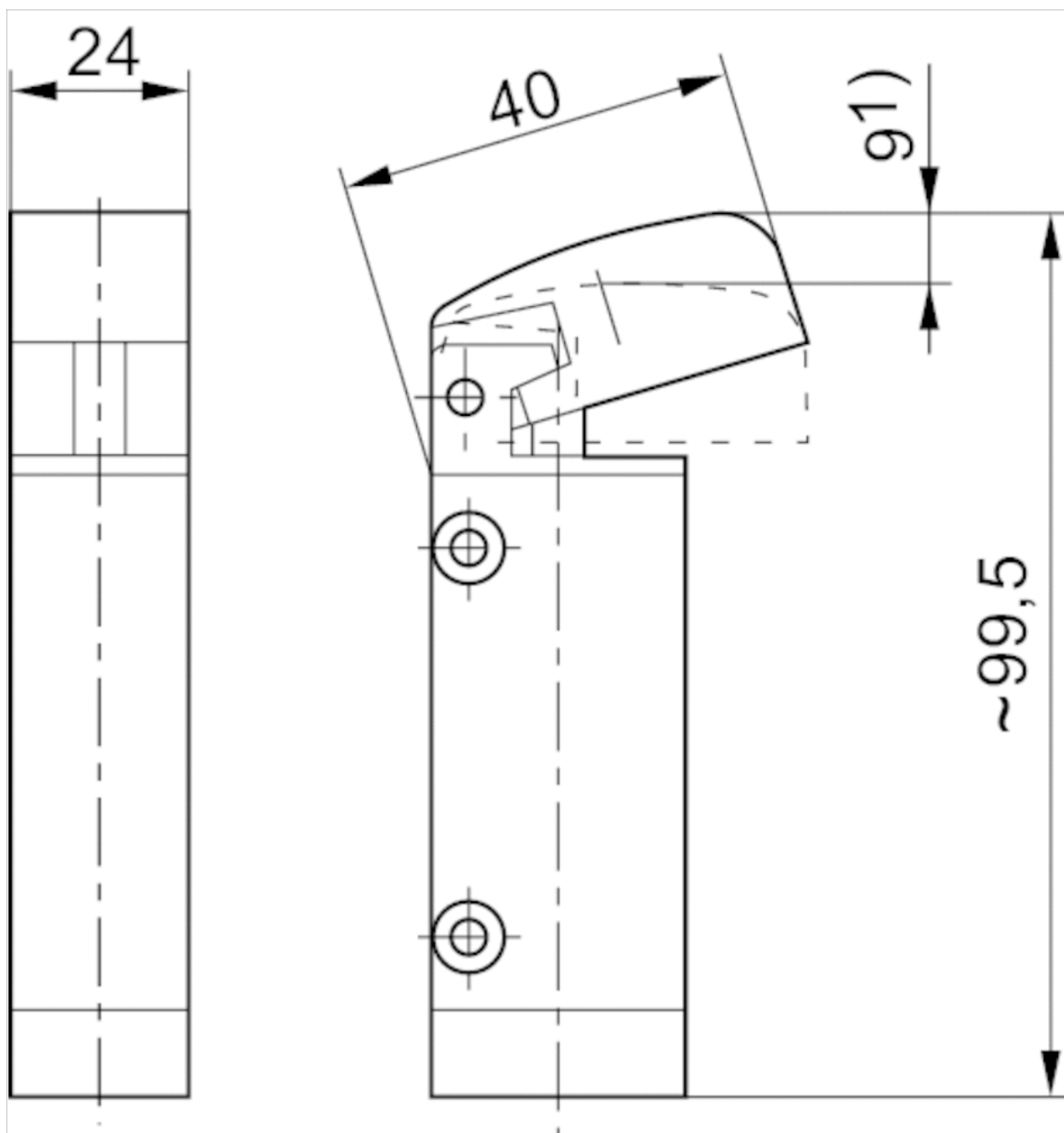
1) Actuating stroke 2) overstroke  
connection via 2 through-holes in housing

Dimensions, Fig. 3



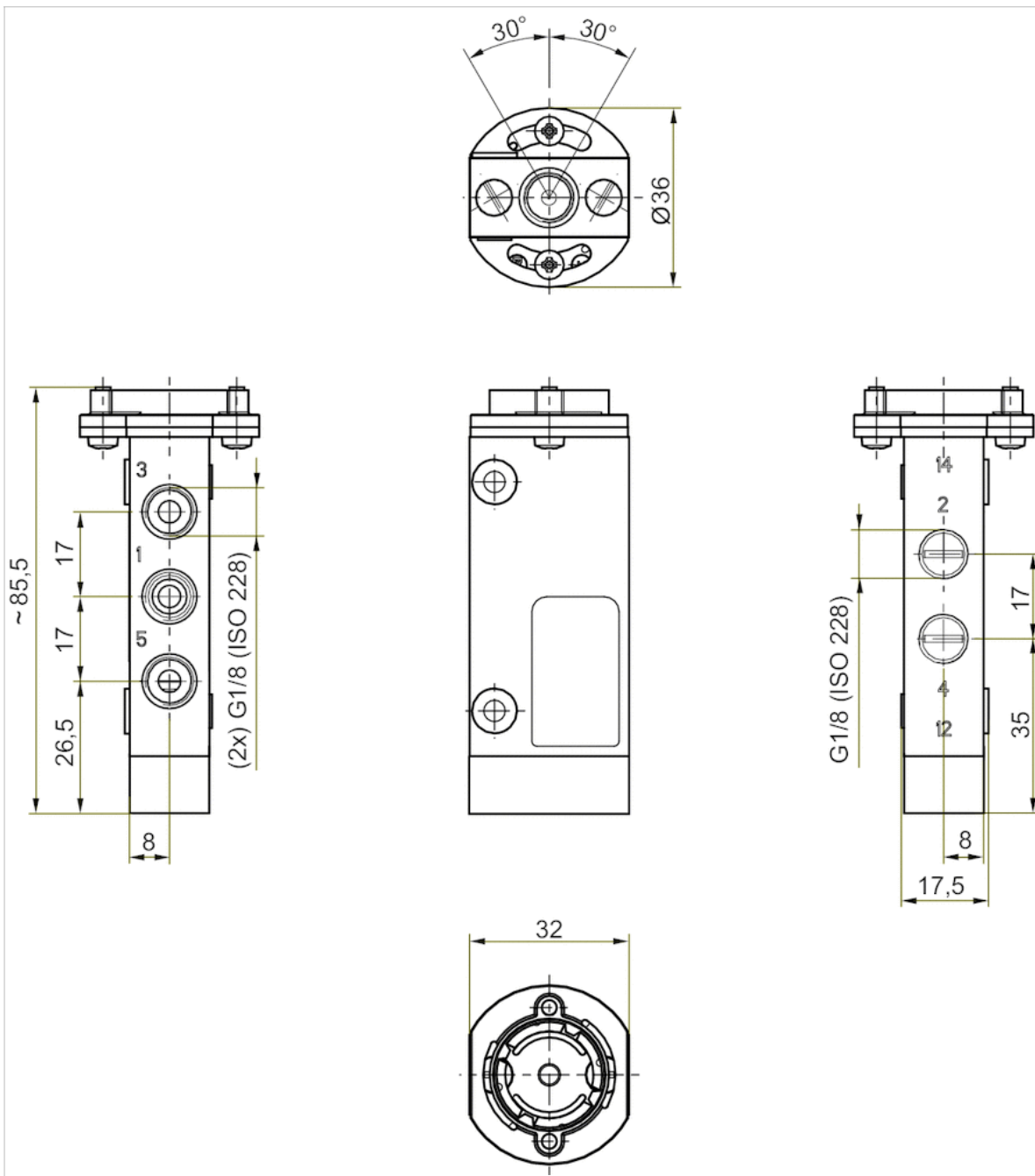
1) Actuating stroke 2) overstroke  
connection via 2 through-holes in housing

Dimensions, Fig. 4



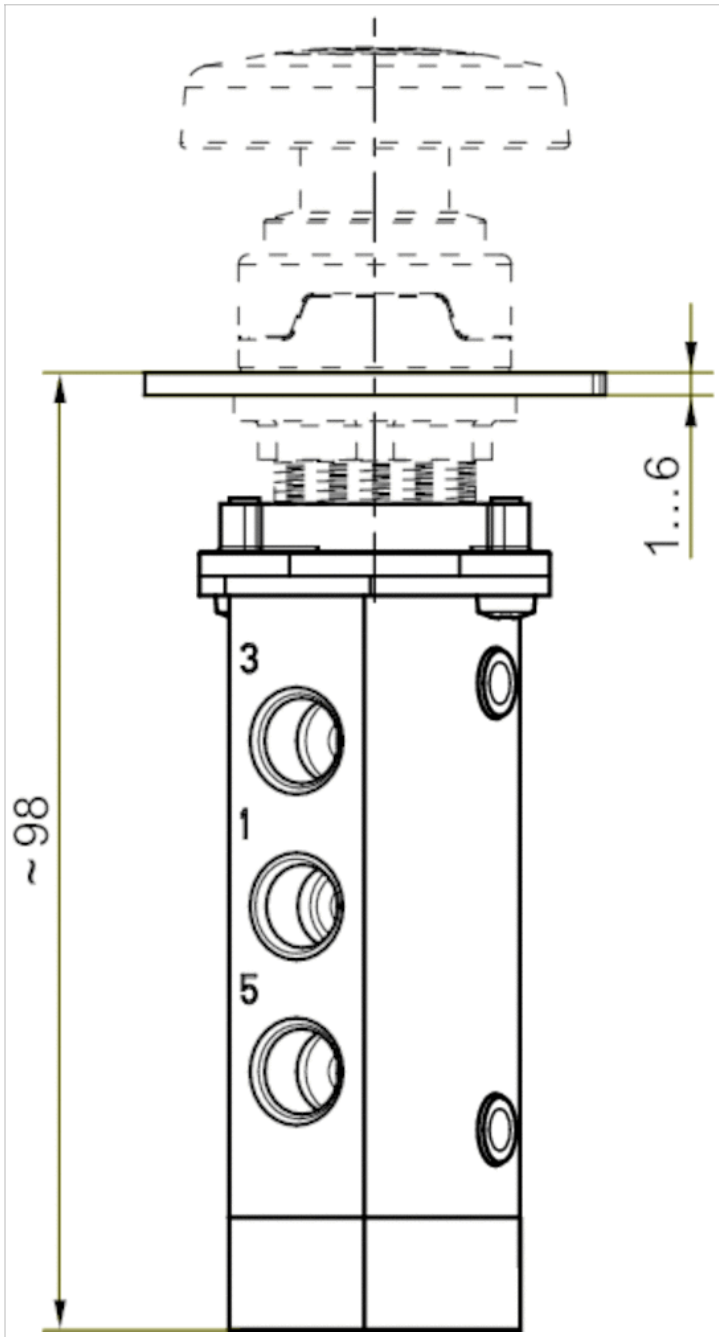
1) actuating stroke  
Mounting via 2 through-holes in housing

Dimensions, Fig. 5



Cannot be combined with mushroom button with detent and rotary release R412012741

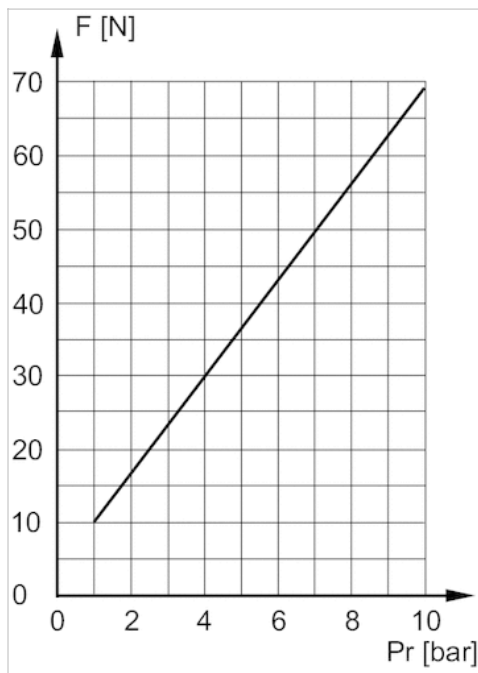
Overview drawing





## Diagrams

## Actuating force+



F = actuating force  
Pr = return pressure

# 5/2-directional valve, Series ST





- With spring return
- $Q_n = 280$  l/min
- Compressed air connection output G 1/8
- single solenoid
- Pipe connection



Version	Spool valve
Activation	Mechanical
Lock type	not lockable
Switching principle	5/2
Sealing principle	metal/metal sealing
Nominal flow $Q_n$	280 l/min
Working pressure min./max.	2 ... 10 bar
Ambient temperature min./max.	-15 ... 80 °C
Medium temperature min./max.	-15 ... 80 °C
Medium	Compressed air
Max. particle size	5 $\mu$ m
Oil content of compressed air	5 ... 25 mg/m <sup>3</sup>
Mounting screw	M4 with hexagon socket
Mounting screw tightening torque	2.5 Nm
Weight	See table below

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

## Technical data

Part No.		Actuating element	Compressed air connection type	Compressed air connection Input
0820403014		Ball	Internal thread	G 1/8
0820403015		Nozzle	Internal thread	G 1/8
0820403018		Nozzle	Internal thread	G 1/8
0820403023		Spring-loaded rod	Internal thread	G 1/8

Part No.	Compressed air connection Output	Compressed air connection Exhaust	Material actuating control	Weight
0820403014	G 1/8	G 1/8	Stainless steel	0.23 kg
0820403015	G 1/8	G 1/8	Brass	0.21 kg
0820403018	G 1/8	G 1/8	Brass	0.21 kg
0820403023	G 1/8	G 1/8	-	0.23 kg

Part No.	Fig.
0820403014	Fig. 1
0820403015	Fig. 2
0820403018	Fig. 3
0820403023	Fig. 5

Nominal flow  $Q_n$  at 6 bar and  $\Delta p = 1$  bar

## Technical information

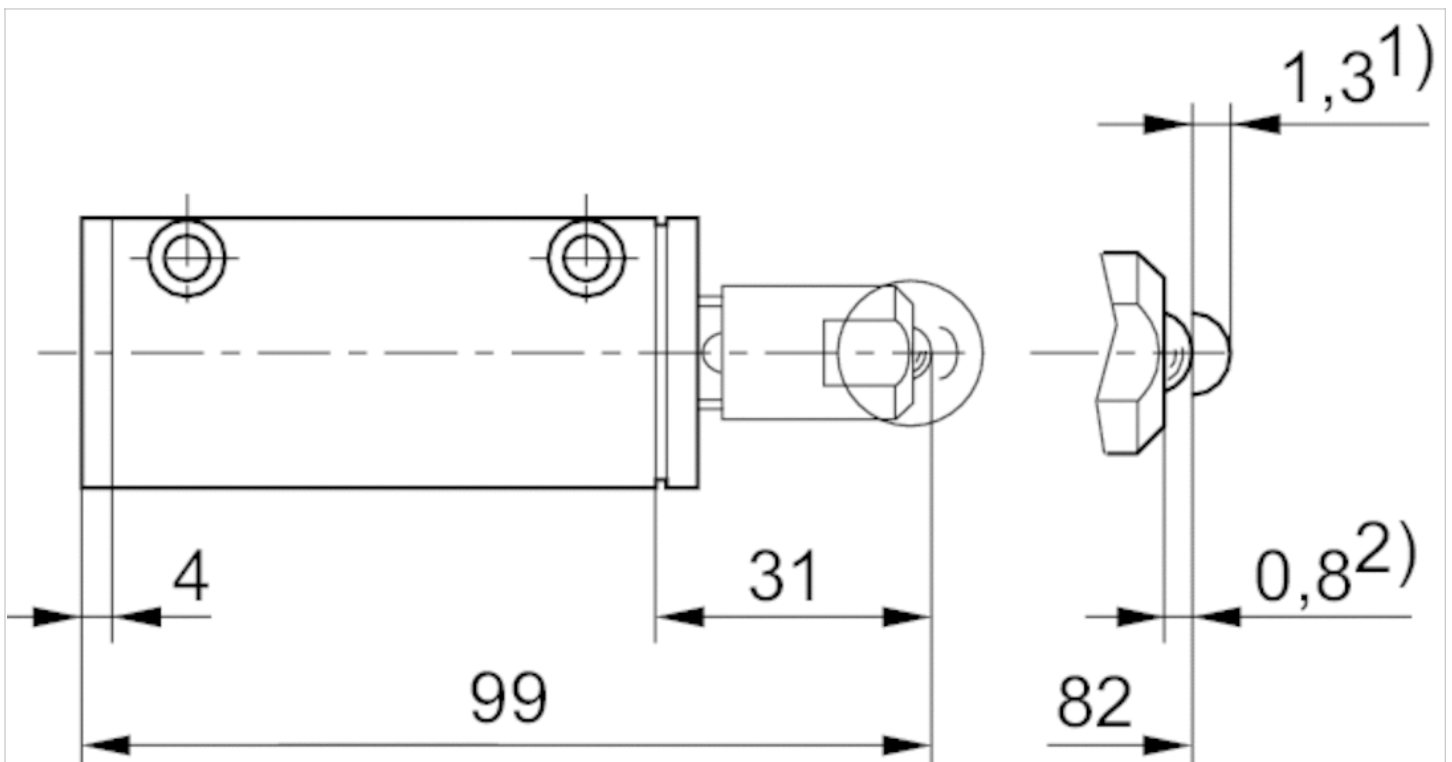
Notice: This product may only be operated with oiled compressed air.

## Technical information

Housing	Stainless steel, hardened
Actuating element	Stainless steel Brass
Threaded bushing	Brass

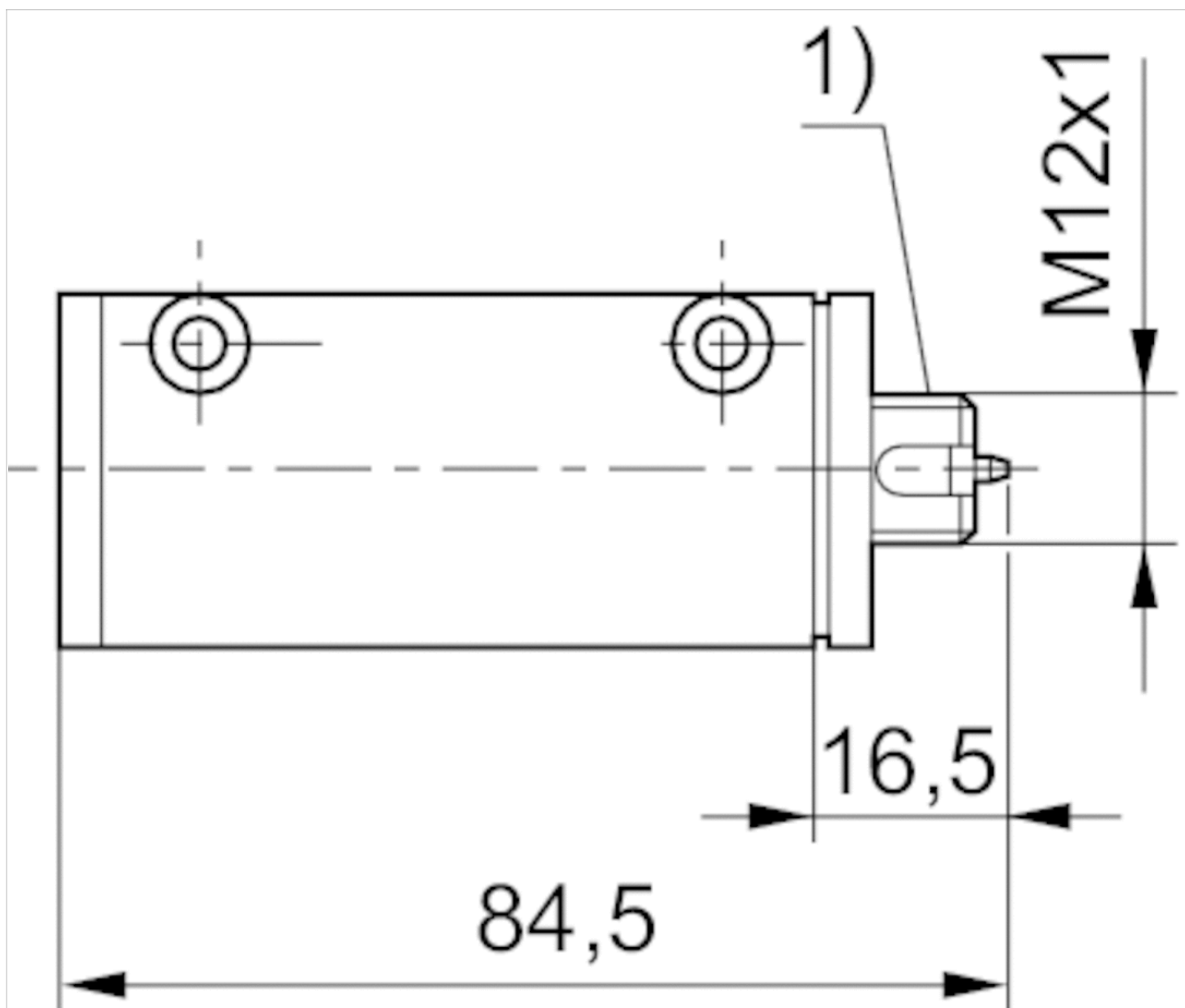
## Dimensions

Dimensions, Fig. 1



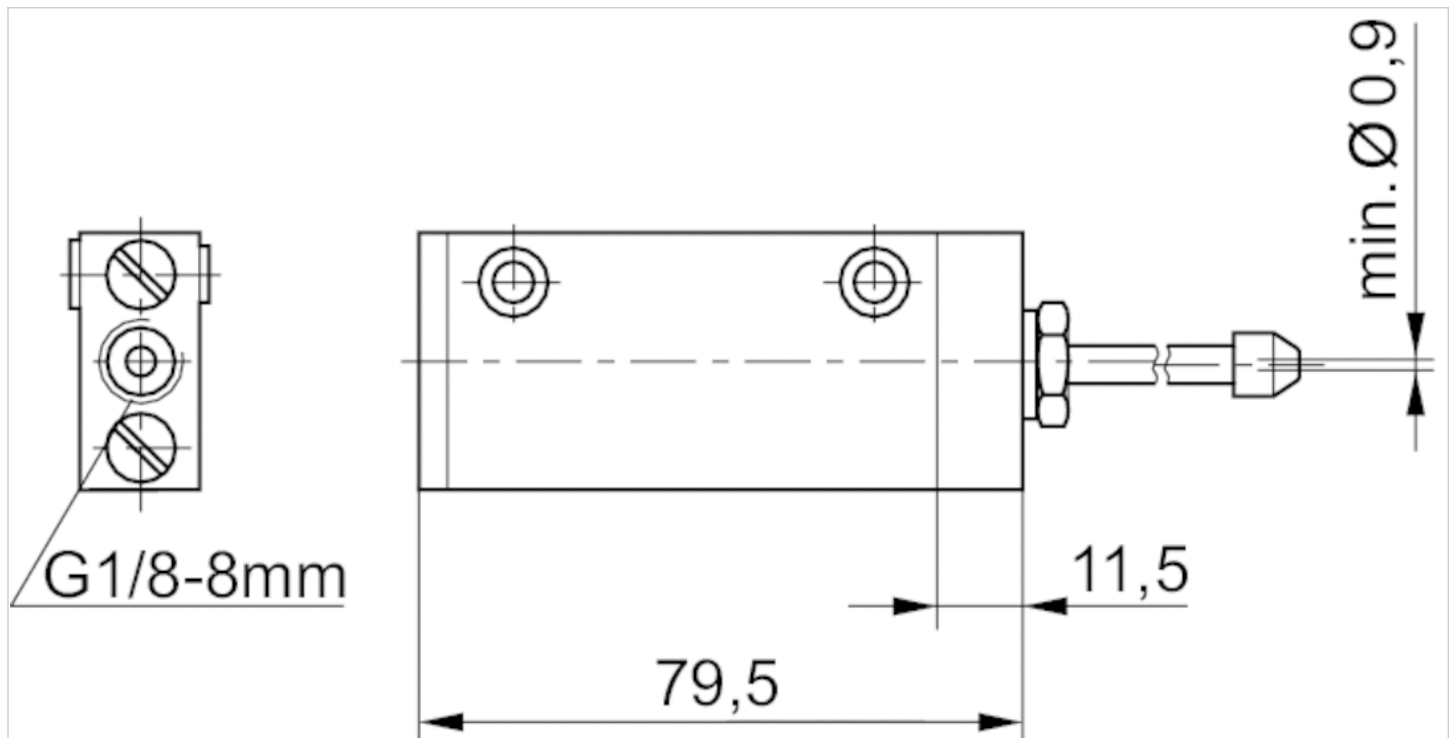
1) Actuating stroke 2) overstroke  
connection via 2 through-holes in housing

Dimensions, Fig. 2



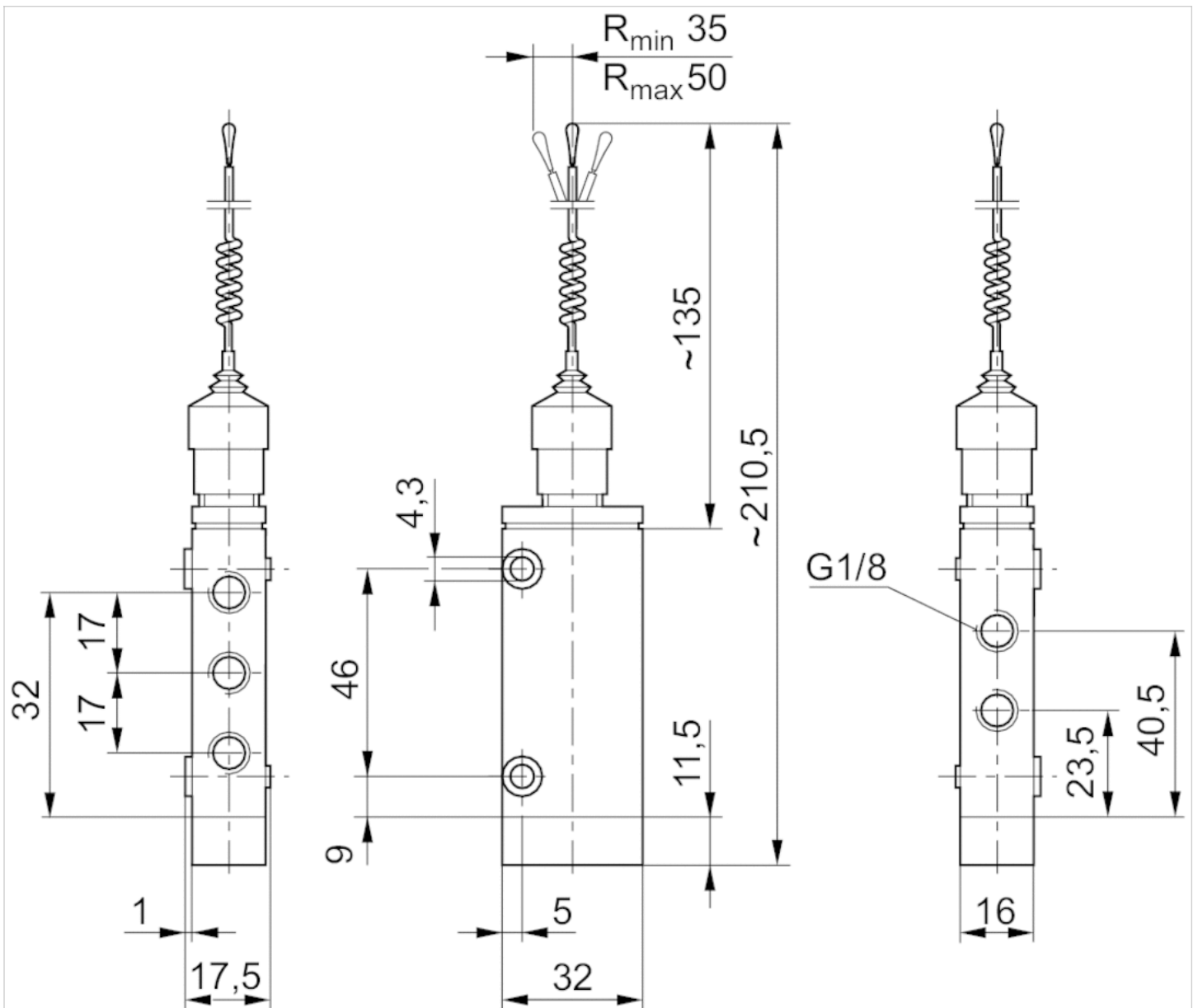
1) not intended as mounting thread  
Mounting via 2 through-holes in housing

Dimensions, Fig. 3



Mounting via 2 through-holes in housing

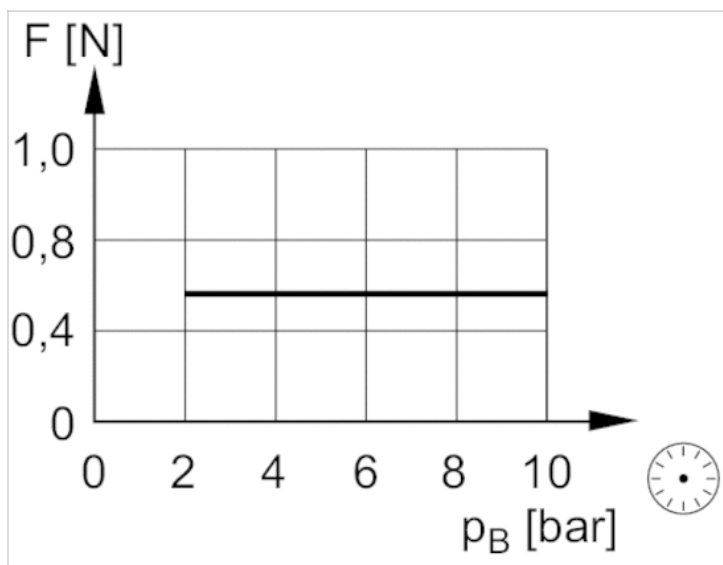
Dimensions, Fig. 4



Mounting via 2 through-holes in housing

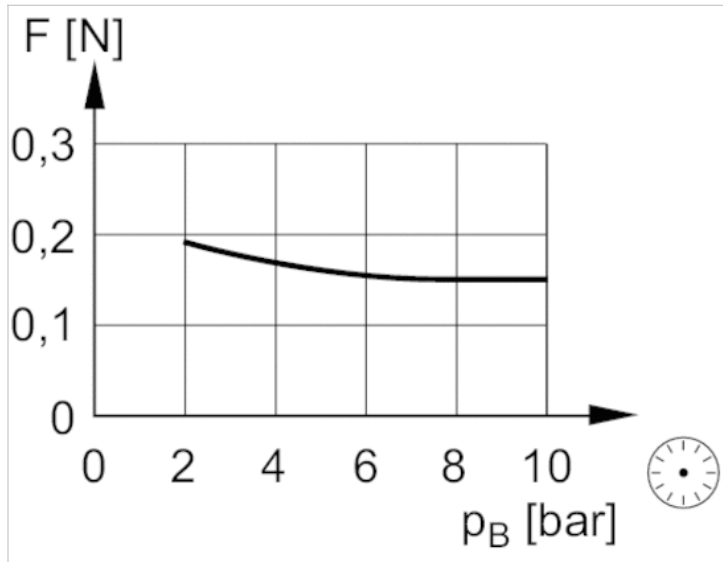
## Diagrams

Diagram, Fig. 1



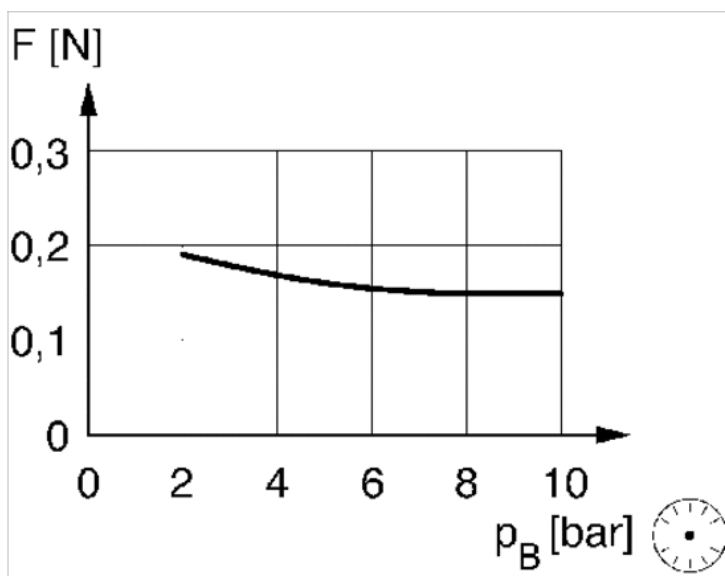
$F$  = actuating force at the rear end of the spring-loaded rod  
 $p_B$  = Working pressure

Diagram, Fig. 2



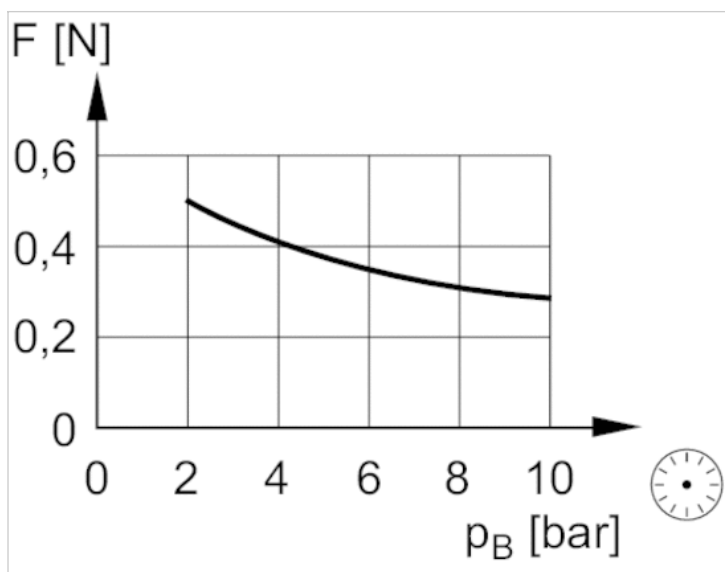
$F$  = actuating force at the rear end of the spring-loaded rod  
 $p_B$  = Working pressure

Diagram, Fig. 3



$F$  = actuating force at the rear end of the spring-loaded rod  
 $p_B$  = Working pressure

Diagram, Fig. 4



$F$  = actuating force at the rear end of the spring-loaded rod  
 $p_B$  = Working pressure



# Valve plug connector, series CON-VP

- Socket, form C, 2+E, angled, 90°
- ISO 15217
- unshielded
- with LED Green



Connection type	Screws
Ambient temperature min./max.	-40 ... 90 °C
Operational voltage	See table below
Protection class	IP65
Mounting screw tightening torque	0.4 Nm
Weight	See table below

## Technical data

Part No.		Operational voltage	Max. current	Protective circuit	Contact assignment
1834484187		250 / 300 V AC/DC	6 A	-	2+E
4402050330		24 V AC/DC	-	Z-diode	2+E

Part No.	LED status display	suitable cable-Ø min./max	Seal	Weight
1834484187	-	4 / 8 mm	caoutchouc/butadiene caoutchouc	0.012 kg
4402050330	Green	-	-	0.014 kg

Part No.	Fig.	
1834484187	Fig. 1	-
4402050330	Fig. 3	1)

1)

## Technical information

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

## Technical information

Material	
Seals	caoutchouc/butadiene caoutchouc

## Dimensions

Fig. 1

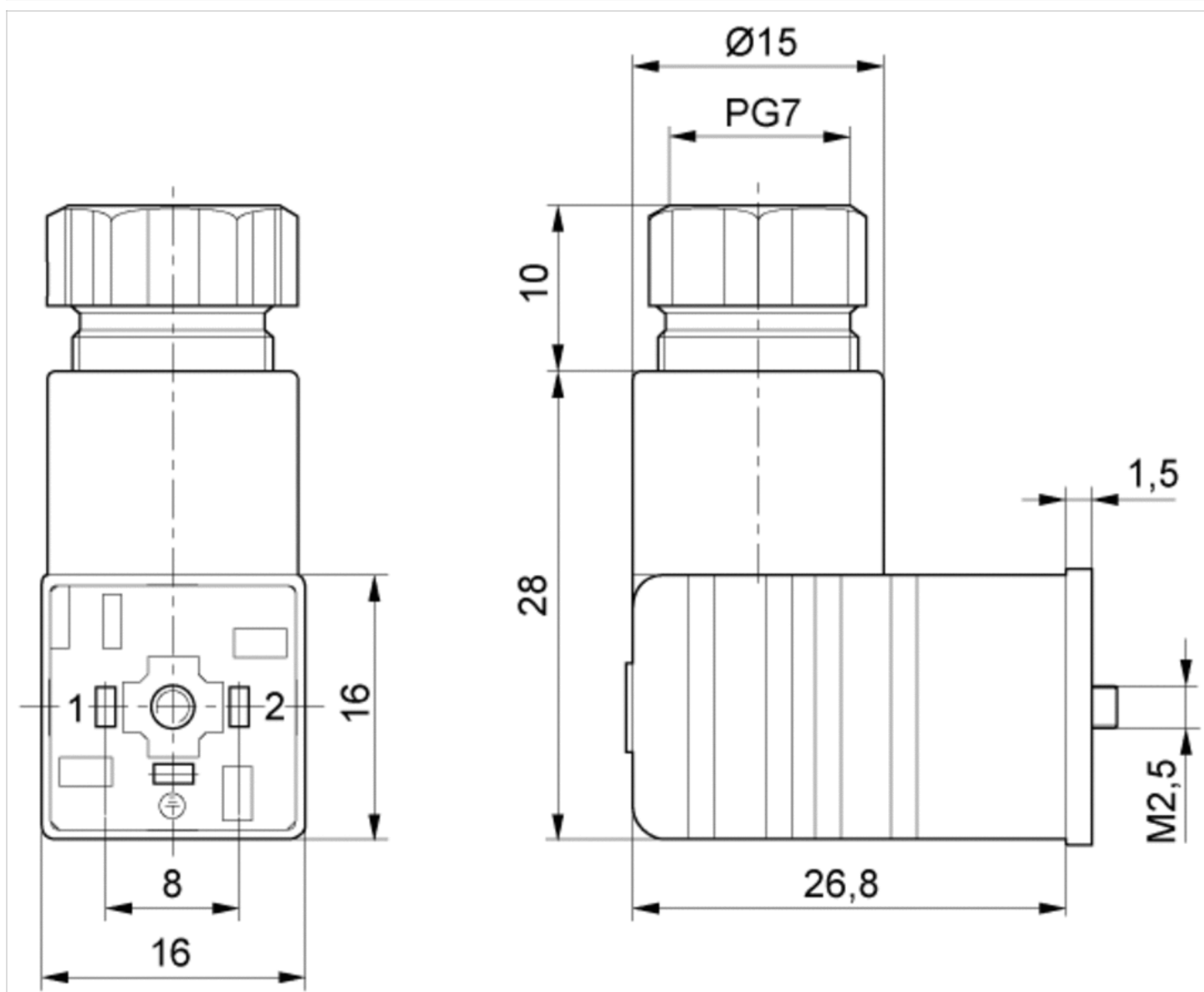


Fig. 2

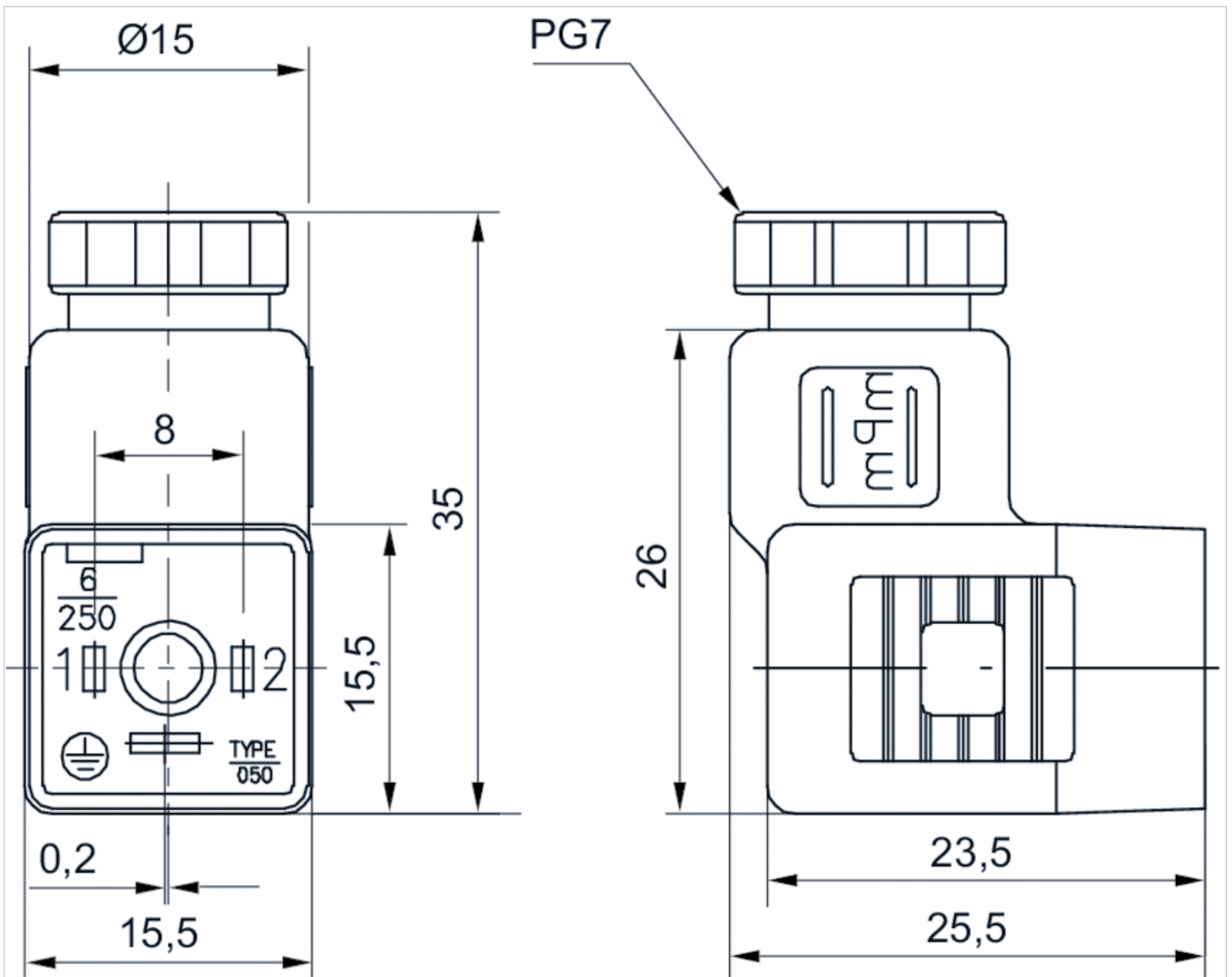
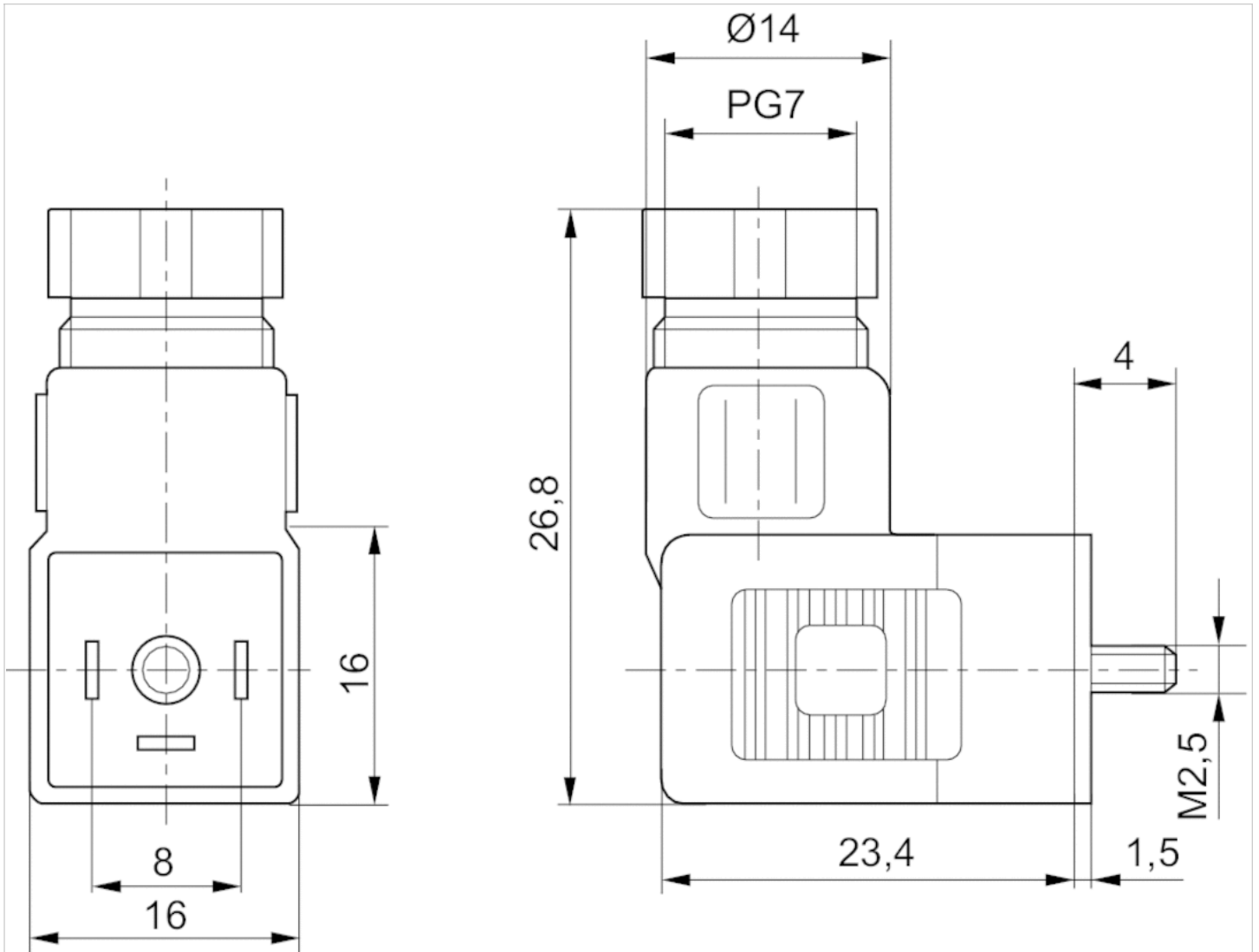


Fig. 3
















# Valve plug connector, series CON-VP

- Socket form C 2+E angled 90°
- open cable ends 3-pin
- with cable
- unshielded



Ambient temperature min./max.	-20 ... 80 °C
Operational voltage	See table below
Protection class	IP67
Wire cross-section	0.75 mm <sup>2</sup>
Mounting screw tightening torque	0.4 Nm
Weight	See table below

## Technical data

Part No.		Operational voltage	Max. current	Protective circuit	Contact assignment
1834484204		24 V AC/DC	6 A	Z-diode	2+E
1834484205		24 V AC/DC	6 A	Z-diode	2+E
1834484206		24 V AC/DC	6 A	Z-diode	2+E
1834484207		24 V AC/DC	6 A	Z-diode	2+E
1834484236		24 V AC/DC	6 A	Z-diode	2+E
1834484208		230 V AC/DC	6 A	Varistor	2+E
1834484209		230 V AC/DC	6 A	Varistor	2+E
1834484210		230 V AC/DC	6 A	Varistor	2+E
1834484211		230 V AC/DC	6 A	Varistor	2+E
1834484212		230 V AC/DC	6 A	-	2+E
1834484213		230 V AC/DC	6 A	-	2+E
1834484214		230 V AC/DC	6 A	-	2+E
1834484215		230 V AC/DC	6 A	-	2+E

Part No.	LED status display	Number of wires	Cable-Ø	Cable length	Weight	Fig.	
1834484204	Yellow	3	5.9 mm	3 m	0.185 kg	Fig. 1	1)
1834484205	Yellow	3	5.9 mm	3 m	0.185 kg	Fig. 2	1)
1834484206	Yellow	3	5.9 mm	5 m	0.292 kg	Fig. 1	1)
1834484207	Yellow	3	5.9 mm	5 m	0.298 kg	Fig. 2	1)
1834484236	Yellow	3	5.9 mm	10 m	0.571 kg	Fig. 2	1)
1834484208	Yellow	3	5.9 mm	3 m	0.171 kg	Fig. 1	1)
1834484209	Yellow	3	5.9 mm	3 m	0.194 kg	Fig. 2	1)
1834484210	Yellow	3	5.9 mm	5 m	0.297 kg	Fig. 1	1)
1834484211	Yellow	3	5.9 mm	5 m	0.285 kg	Fig. 2	1)
1834484212	-	3	5.9 mm	3 m	0.183 kg	Fig. 1	-
1834484213	-	3	5.9 mm	3 m	0.183 kg	Fig. 2	-

Part No.	LED status display	Number of wires	Cable-Ø	Cable length	Weight	Fig.	
1834484214	-	3	5.9 mm	5 m	0.308 kg	Fig. 1	-
1834484215	-	3	5.9 mm	5 m	0.308 kg	Fig. 2	-

1) Scope of delivery incl. flat gasket

## Technical information

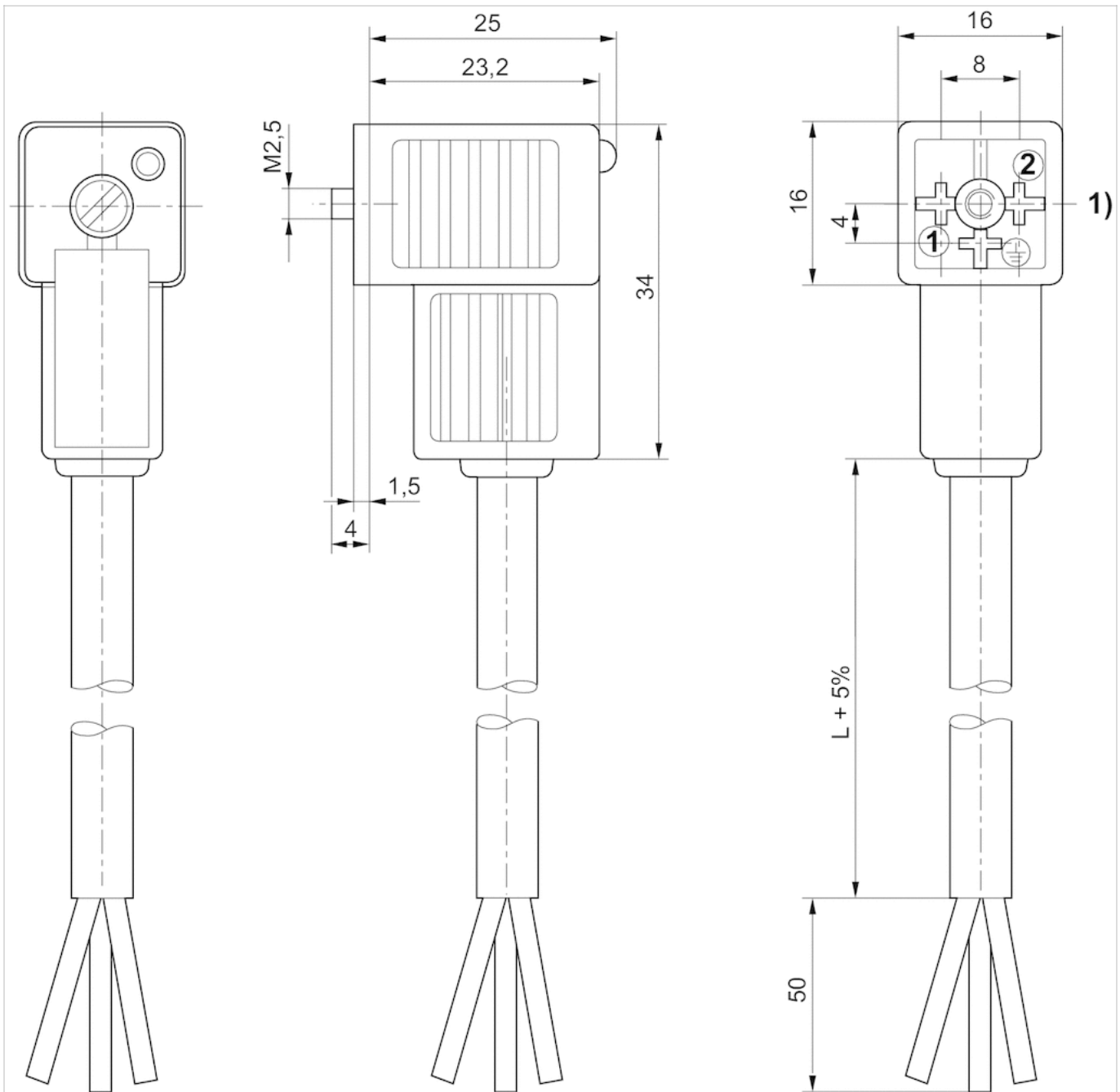
The specified protection class is only valid in assembled and tested state.

## Technical information

Material	
Seals	caoutchouc/butadiene caoutchouc
Cable sheath	Polyvinyl chloride

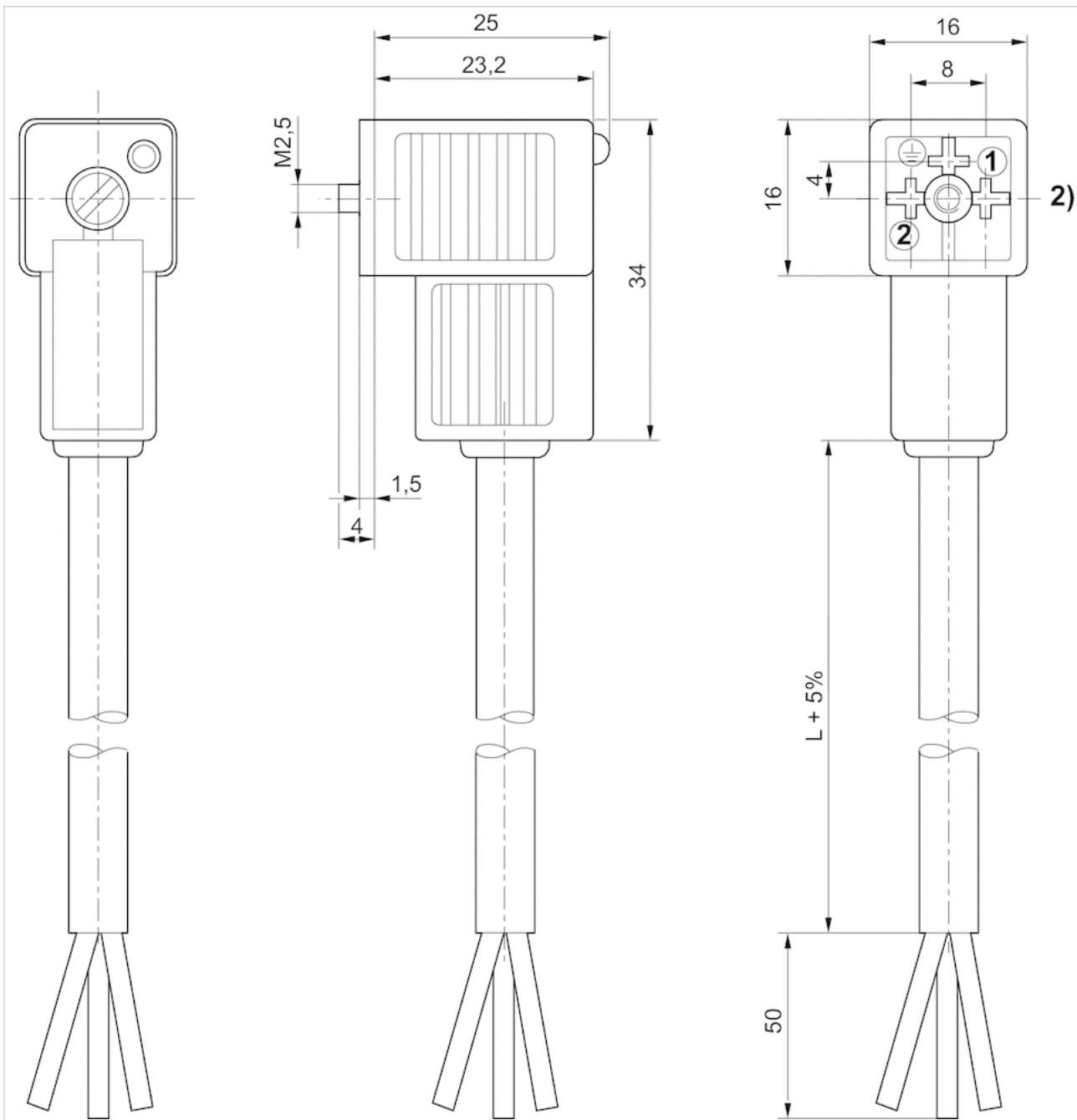
# Dimensions

Fig. 1



1) 0° female insert

Fig. 2



2) 180° female insert

























# 3/2-directional valve, Series DO16

- 3/2
- Plate connection
- Electrical connection : Plug, ISO 15217, form C
- Manual override : without detent with detent
- With spring return



Version	Poppet valve
Activation	Electrically
Sealing principle	Soft sealing
Working pressure min./max.	See table below
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 ... 5 mg/m <sup>3</sup>
Nominal flow 1 ▶ 2	See table below
Nominal flow 2 ▶ 3	See table below
Protection class acc. to DIN EN 61140	Class I
Electrically	
Protection class with connection	IP65
Duty cycle	100 %
Mounting on manifold strip	PRS strip
mounting screws	M3
Weight	0.035 kg

## Technical data

Part No.		MO	Operational voltage	
			DC	AC 50 Hz
0820048002			24 V	-
0820048004			-	24 V
0820048005			-	-
0820048001			-	230 V
0820048026			24 V	-
0820048028			-	24 V
0820048101			-	230 V
0820048029			-	-
0820048025			-	230 V
0820048102			24 V	-
0820048126			24 V	-

Part No.	Operational voltage	Voltage tolerance		
		DC	AC 50 Hz	AC 60 Hz
	AC 60 Hz			
0820048002	-	-10% / +15%	-	-
0820048004	-	-	-10% / +15%	-
0820048005	110 V	-	-	-10% / +15%
0820048001	-	-	-10% / +15%	-

Part No.	Operational voltage	Voltage tolerance	Voltage tolerance	Voltage tolerance
		DC	AC 50 Hz	AC 60 Hz
0820048026	-	-10% / +15%	-	-
0820048028	-	-	-10% / +15%	-
0820048101	-	-	-10% / +15%	-
0820048029	110 V	-	-	-10% / +15%
0820048025	-	-	-10% / +15%	-
0820048102	-	-10% / +15%	-	-
0820048126	-	-10% / +15%	-	-

Part No.	Power consumption	Holding power	Holding power	Switch-on power
	DC	AC 50 Hz	AC 60 Hz	AC 50 Hz
0820048002	2 W	-	-	-
0820048004	-	1.6 VA	-	2.2 VA
0820048005	-	-	1.4 VA	-
0820048001	-	1.6 VA	-	2.2 VA
0820048026	2 W	-	-	-
0820048028	-	1.6 VA	-	2.2 VA
0820048101	-	1.6 VA	-	2.2 VA
0820048029	-	-	1.4 VA	-
0820048025	-	1.6 VA	-	2.2 VA
0820048102	2 W	-	-	-
0820048126	2 W	-	-	-

Part No.	Switch-on power	Nominal flow 1 ▶ 2	Nominal flow 2 ▶ 3	Working pressure min./max.
	AC 60 Hz			
0820048002	-	25 l/min	36 l/min	0 ... 10 bar
0820048004	-	25 l/min	36 l/min	0 ... 10 bar
0820048005	2 VA	25 l/min	36 l/min	0 ... 10 bar
0820048001	-	25 l/min	36 l/min	0 ... 10 bar
0820048026	-	25 l/min	36 l/min	0 ... 10 bar
0820048028	-	25 l/min	36 l/min	0 ... 10 bar
0820048101	-	16 l/min	19 l/min	0 ... 6 bar
0820048029	2 VA	25 l/min	36 l/min	0 ... 10 bar
0820048025	-	25 l/min	36 l/min	0 ... 10 bar
0820048102	-	20 l/min	26 l/min	0 ... 8 bar
0820048126	-	20 l/min	26 l/min	0 ... 8 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.

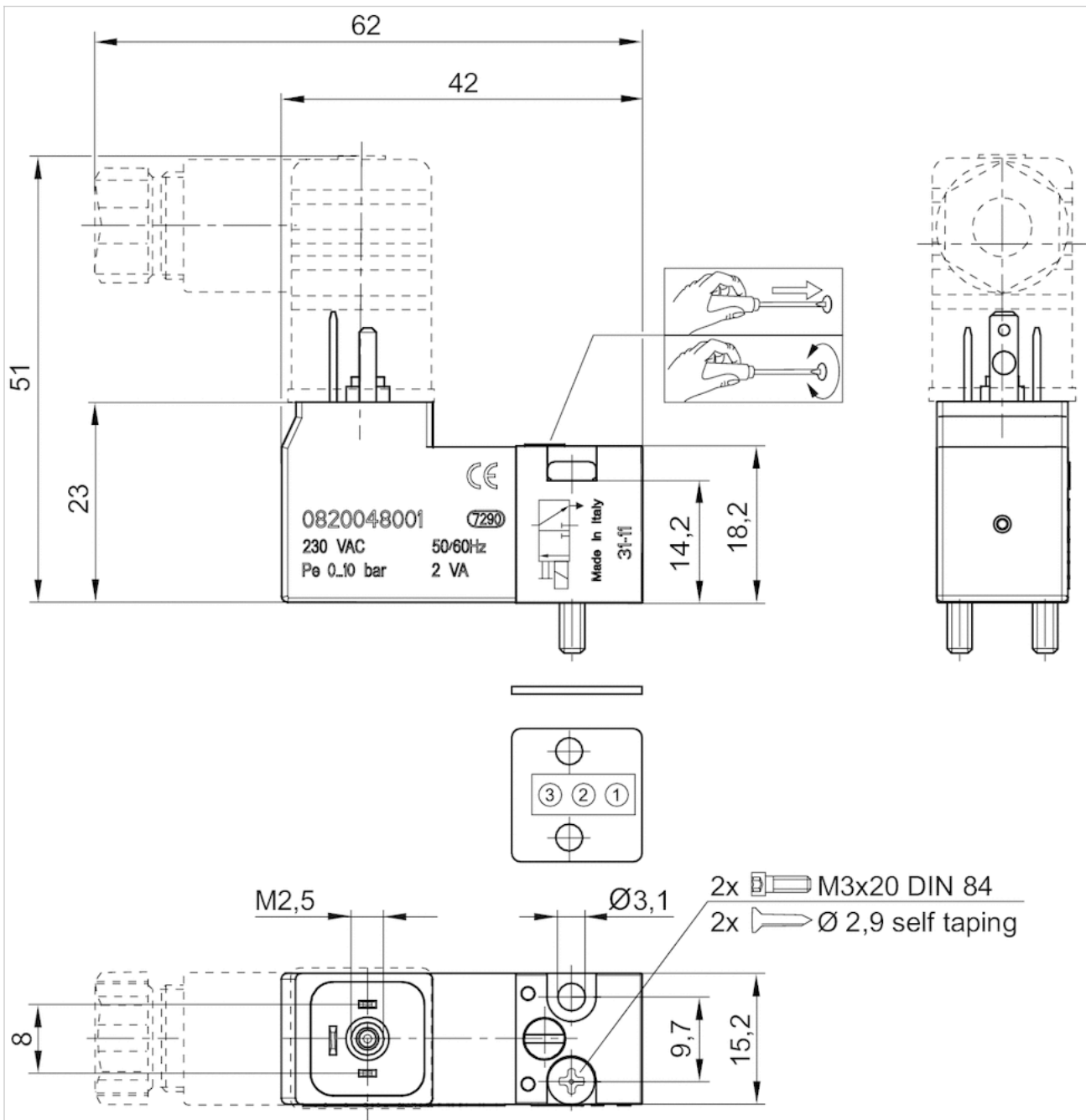
Use only the approved oils from AVENTICS. Further information can be found in the "Technical information" document (available in the MediaCentre).

## Technical information

Housing	polyphenylene sulfide Polyamide fiber-glass reinforced
---------	--

## Dimensions

### Dimensions

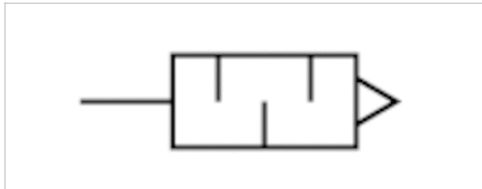


# Silencers, series SI1

- M5
- Sintered bronze



Working pressure min./max.	0 ... 10 bar
Ambient temperature min./max.	-25 ... 80 °C
Medium	Compressed air
Sound pressure level	72 dB
Weight	0.004 kg
Comment	Flow characteristic curves can be found under "Diagrams".



## Technical data

Part No.	Compressed air connection	Flow	Delivery unit
		Qn	
1827000006	M5	398 l/min	10 piece

Weight per piece

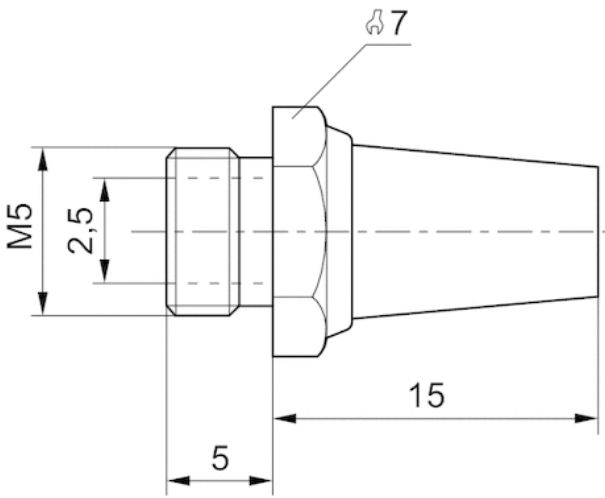
Nominal flow Qn at p1 = 6 bar (absolute) freely discharged. Sound pressure level measured at 6 bar against atmosphere at 1 m distance.

## Technical information

Material	
Silencer	Sintered bronze
Thread	Brass

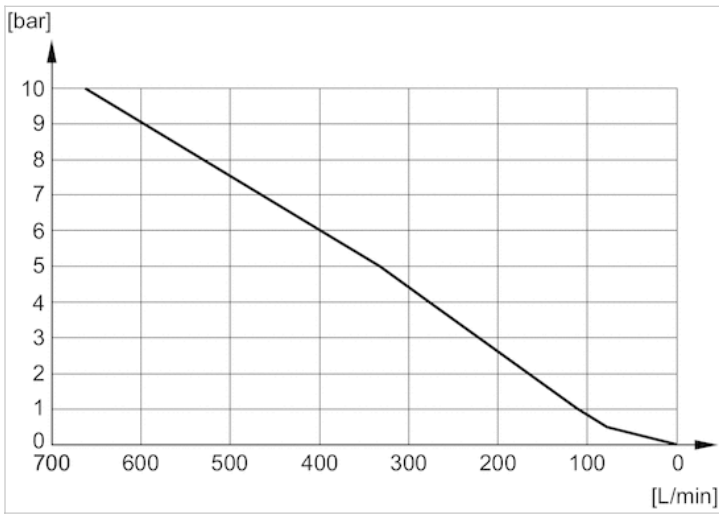
## Dimensions

### Dimensions in mm



## Diagrams

### Flow diagram, 1827000006

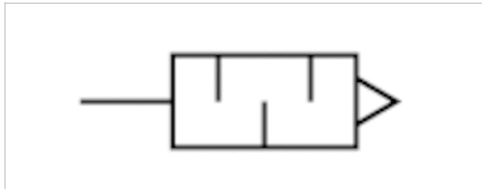


# Silencers, series SI1

- G 1/8
- Sintered bronze



Working pressure min./max.	0 ... 10 bar
Ambient temperature min./max.	-25 ... 80 °C
Medium	Compressed air
Sound pressure level	75 dB
Weight	0.01 kg
Comment	Flow characteristic curves can be found under "Diagrams".



## Technical data

Part No.	Compressed air connection	Flow	Delivery unit
		Qn	
1827000000	G 1/8	1623 l/min	10 piece

Weight per piece

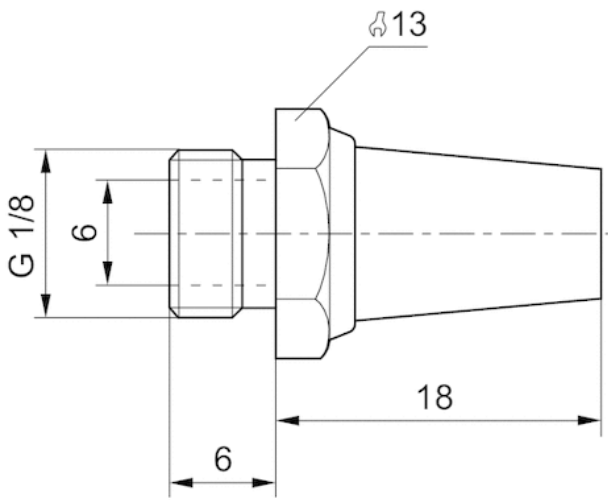
Nominal flow Qn at p1 = 6 bar (absolute) freely discharged. Sound pressure level measured at 6 bar against atmosphere at 1 m distance.

## Technical information

Material	
Silencer	Sintered bronze
Thread	Brass

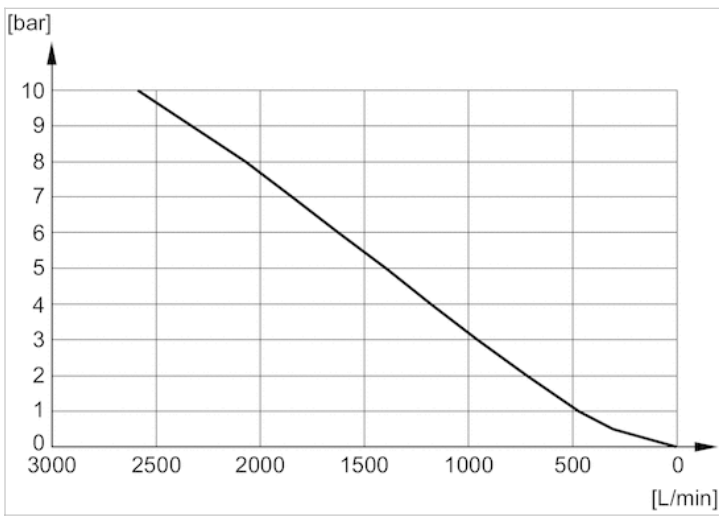
## Dimensions

### Dimensions in mm



## Diagrams

### Flow diagram, 1827000000

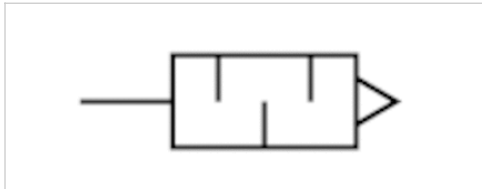


# Silencers, series SI1

- G 1/4
- Sintered bronze



Working pressure min./max.	0 ... 10 bar
Ambient temperature min./max.	-25 ... 80 °C
Medium	Compressed air
Sound pressure level	See table below
Weight	See table below
Comment	Flow characteristic curves can be found under "Diagrams".



## Technical data

Part No.	Compressed air connection	Sound pressure level	Flow	Delivery unit	Weight
			Qn		
R412004817	G 1/4	-	5950 l/min	10 piece	0.013 kg
1827000001	G 1/4	79 dB	3390 l/min	10 piece	0.02 kg

Weight per piece

Nominal flow Qn at p1 = 6 bar (absolute) freely discharged. Sound pressure level measured at 6 bar against atmosphere at 1 m distance.

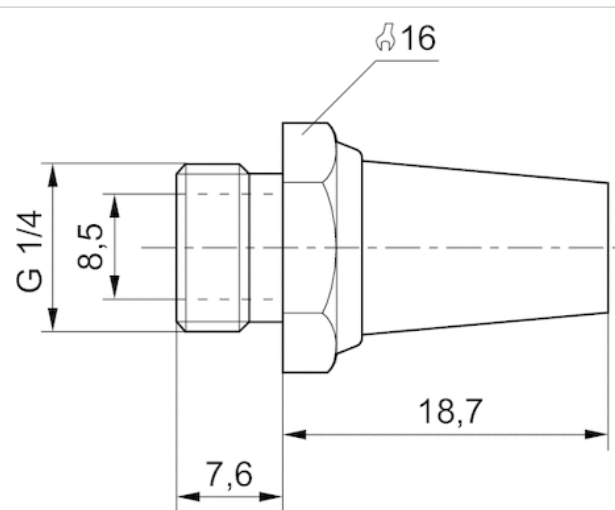
## Technical information

Material	
Silencer	Sintered bronze
Thread	Brass

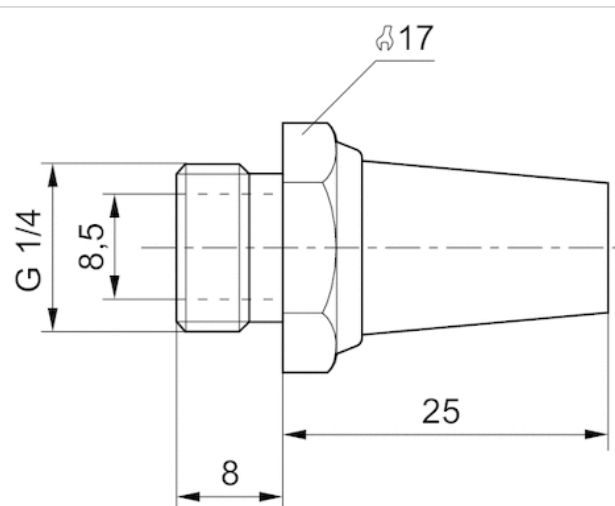


## Dimensions

### Dimensions in mm



### Dimensions in mm

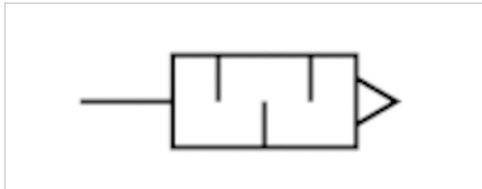


# Silencers, series SI1

- G 3/8
- Sintered bronze



Working pressure min./max.	0 ... 10 bar
Ambient temperature min./max.	-25 ... 80 °C
Medium	Compressed air
Sound pressure level	84 dB
Weight	0.05 kg
Comment	Flow characteristic curves can be found under "Diagrams".



## Technical data

Part No.	Compressed air connection	Flow	Delivery unit
		Qn	
1827000002	G 3/8	6554 l/min	5 piece

Weight per piece

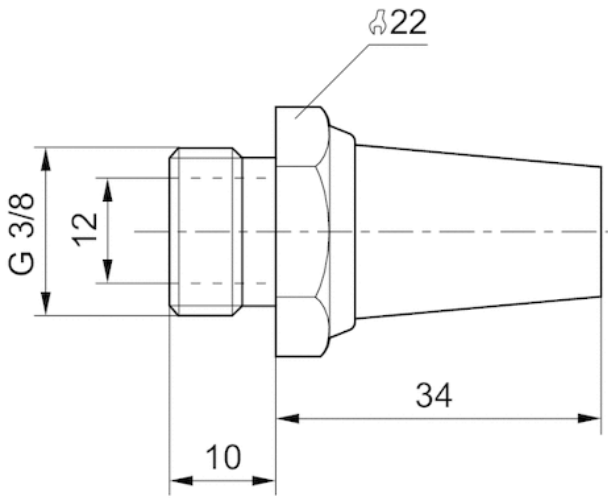
Nominal flow Qn at p1 = 6 bar (absolute) freely discharged. Sound pressure level measured at 6 bar against atmosphere at 1 m distance.

## Technical information

Material	
Silencer	Sintered bronze
Thread	Brass

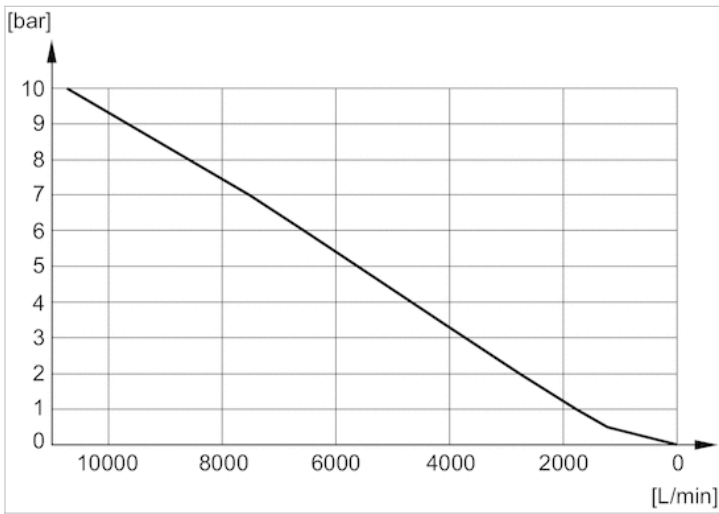
## Dimensions

### Dimensions in mm



## Diagrams

### Flow diagram, 1827000002

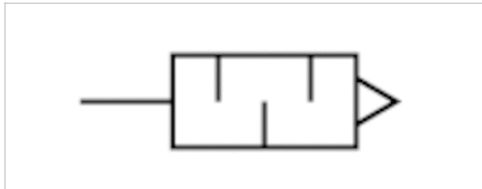


# Silencers, series SI1

- G 1/2
- Sintered bronze



Working pressure min./max.	0 ... 10 bar
Ambient temperature min./max.	-25 ... 80 °C
Medium	Compressed air
Sound pressure level	90 dB
Weight	0.08 kg
Comment	Flow characteristic curves can be found under "Diagrams".



## Technical data

Part No.	Compressed air connection	Flow	Delivery unit
		Qn	
1827000003	G 1/2	7223 l/min	2 piece

Weight per piece

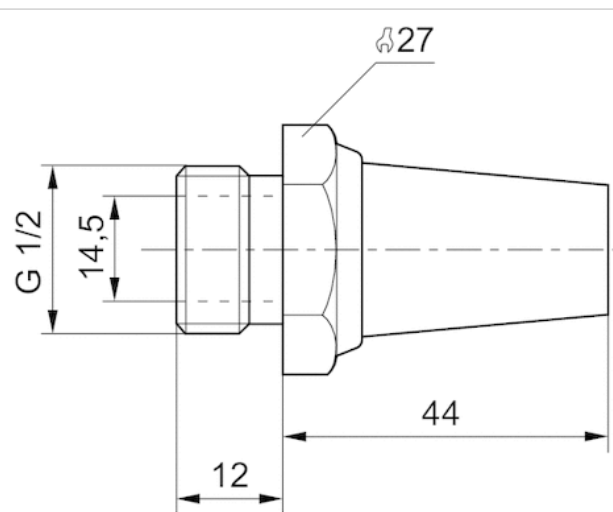
Nominal flow Qn at p1 = 6 bar (absolute) freely discharged. Sound pressure level measured at 6 bar against atmosphere at 1 m distance.

## Technical information

Material	
Silencer	Sintered bronze
Thread	Brass

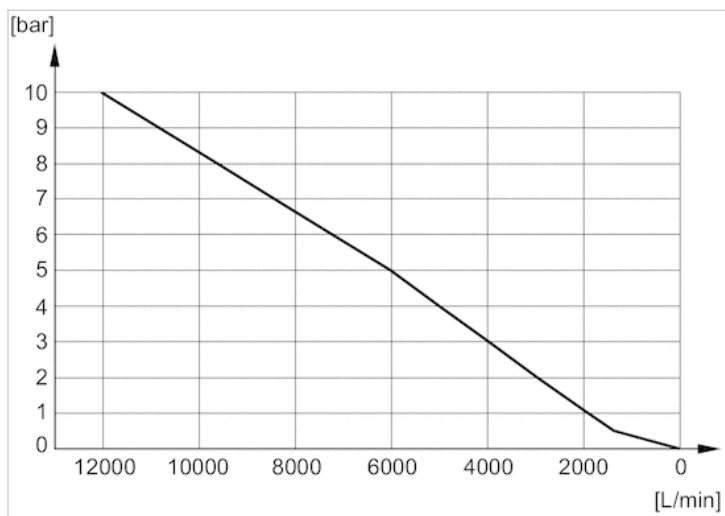
## Dimensions

### Dimensions in mm



## Diagrams

### Flow diagram, 1827000003

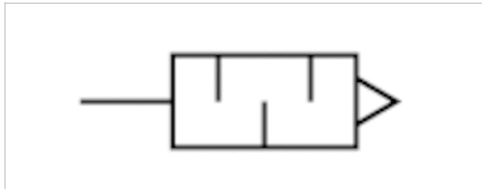


# Silencers, series SI1

- G 3/4
- Sintered bronze



Working pressure min./max.	0 ... 10 bar
Ambient temperature min./max.	-25 ... 80 °C
Medium	Compressed air
Sound pressure level	92 dB
Weight	0.13 kg
Comment	Flow characteristic curves can be found under "Diagrams".



## Technical data

Part No.	Compressed air connection	Flow	Delivery unit
		Qn	
1827000004	G 3/4	8394 l/min	1 piece

Weight per piece

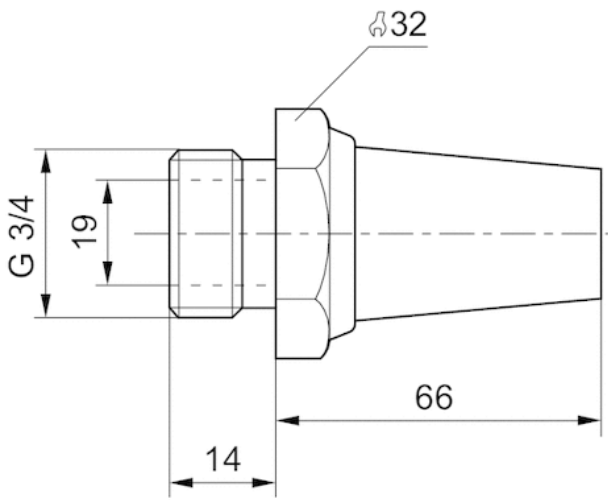
Nominal flow Qn at p1 = 6 bar (absolute) freely discharged. Sound pressure level measured at 6 bar against atmosphere at 1 m distance.

## Technical information

Material	
Silencer	Sintered bronze
Thread	Brass

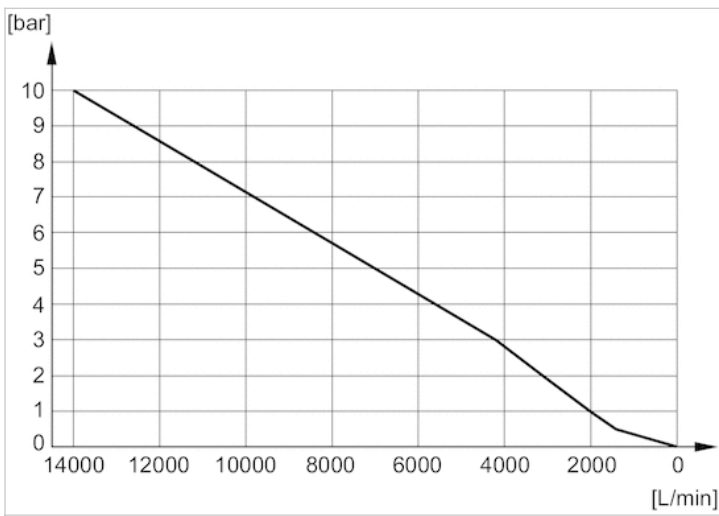
## Dimensions

### Dimensions in mm



## Diagrams

### Flow diagram, 1827000004

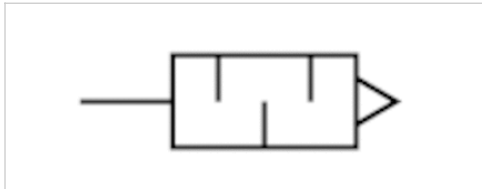


# Silencers, series SI1

- G 1
- Sintered bronze



Working pressure min./max.	0 ... 10 bar
Ambient temperature min./max.	-25 ... 80 °C
Medium	Compressed air
Sound pressure level	102 dB
Weight	0.18 kg
Comment	Flow characteristic curves can be found under "Diagrams".



## Technical data

Part No.	Compressed air connection	Flow	Delivery unit
		Qn	
1827000005	G 1	12848 l/min	1 piece

Weight per piece

Nominal flow Qn at p1 = 6 bar (absolute) freely discharged. Sound pressure level measured at 6 bar against atmosphere at 1 m distance.

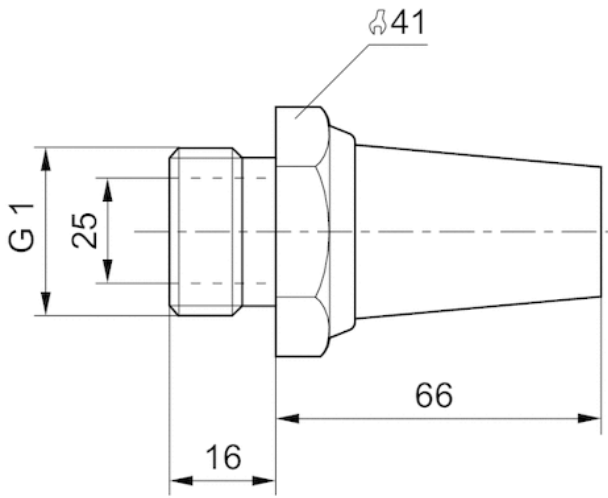
## Technical information

Material	
Silencer	Sintered bronze
Thread	Brass



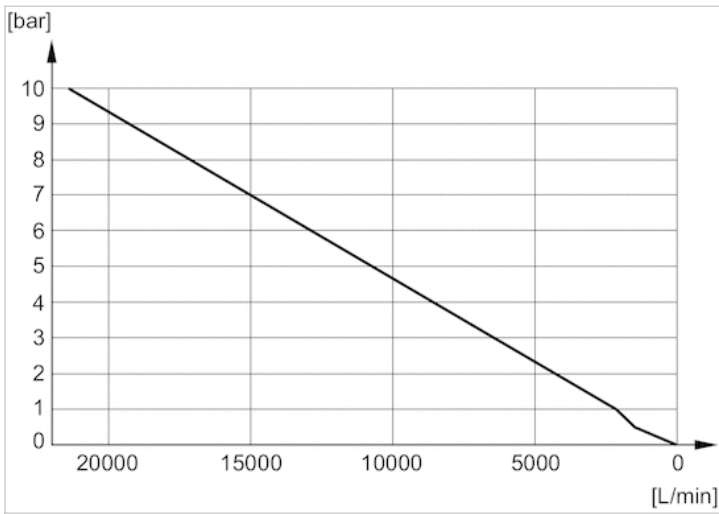
## Dimensions

### Dimensions in mm



## Diagrams

### Flow diagram, 1827000005



# Blanking plate

- for ST



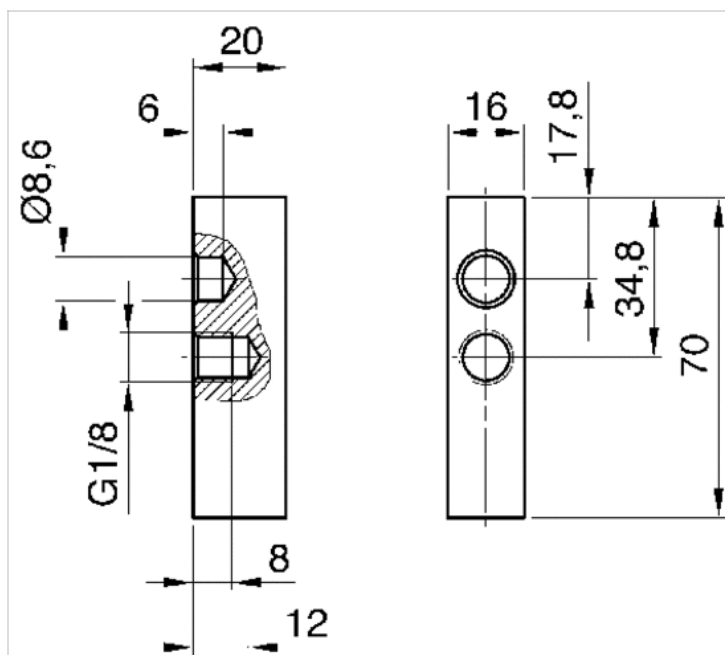
Weight

0.06 kg

## Technical data

Part No.	Suitable for
1825503200	For manifold block

## Dimensions



# Mounting bracket

- for ST



Weight

0.04 kg

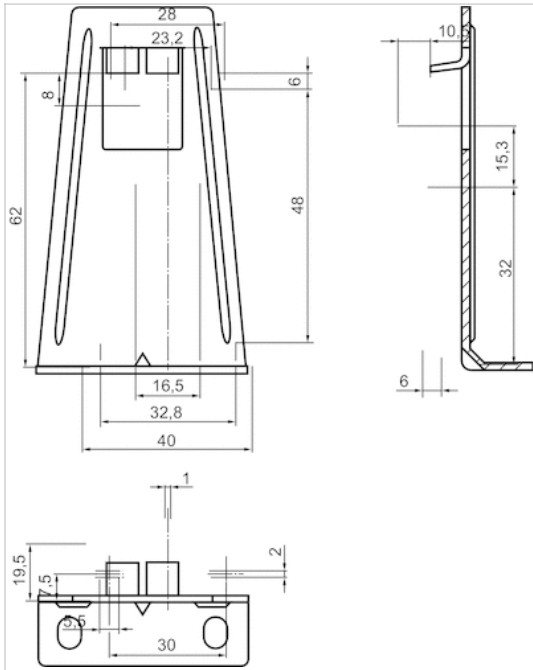
## Technical data

Part No.	Suitable for
1821332041	Manifold strip

## Technical information

Material	
Housing	Steel

# Dimensions



# Manifold block



Working pressure min./max.	0 ... 10 bar
Ambient temperature min./max.	-15 ... 80 °C
Medium	Compressed air
Direction of pneumatic port (1)	On the side
Direction of pneumatic port (3,5)	On the side
Exhaust (3,5)	With directional exhaust (3/5)
Exhaust type	Ports separated
Weight	See table below

## Technical data

Part No.	Compressed air connection Input [1]	Compressed air connection Exhaust [3 / 5]
1825503182	G 1/4	G 1/4
1825503183	G 1/4	G 1/4
1825503184	G 1/4	G 1/4
1825503185	G 1/4	G 1/4
1825503186	G 1/4	G 1/4
1825503187	G 1/4	G 1/4
1825503188	G 1/4	G 1/4
1825503189	G 1/4	G 1/4
1825503190	G 1/4	G 1/4

Part No.	Number of valve positions	Weight
1825503182	2	0.21 kg
1825503183	3	0.3 kg
1825503184	4	0.39 kg
1825503185	5	0.48 kg
1825503186	6	0.57 kg
1825503187	7	0.66 kg
1825503188	8	0.75 kg
1825503189	9	0.84 kg
1825503190	10	0.93 kg

## 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.

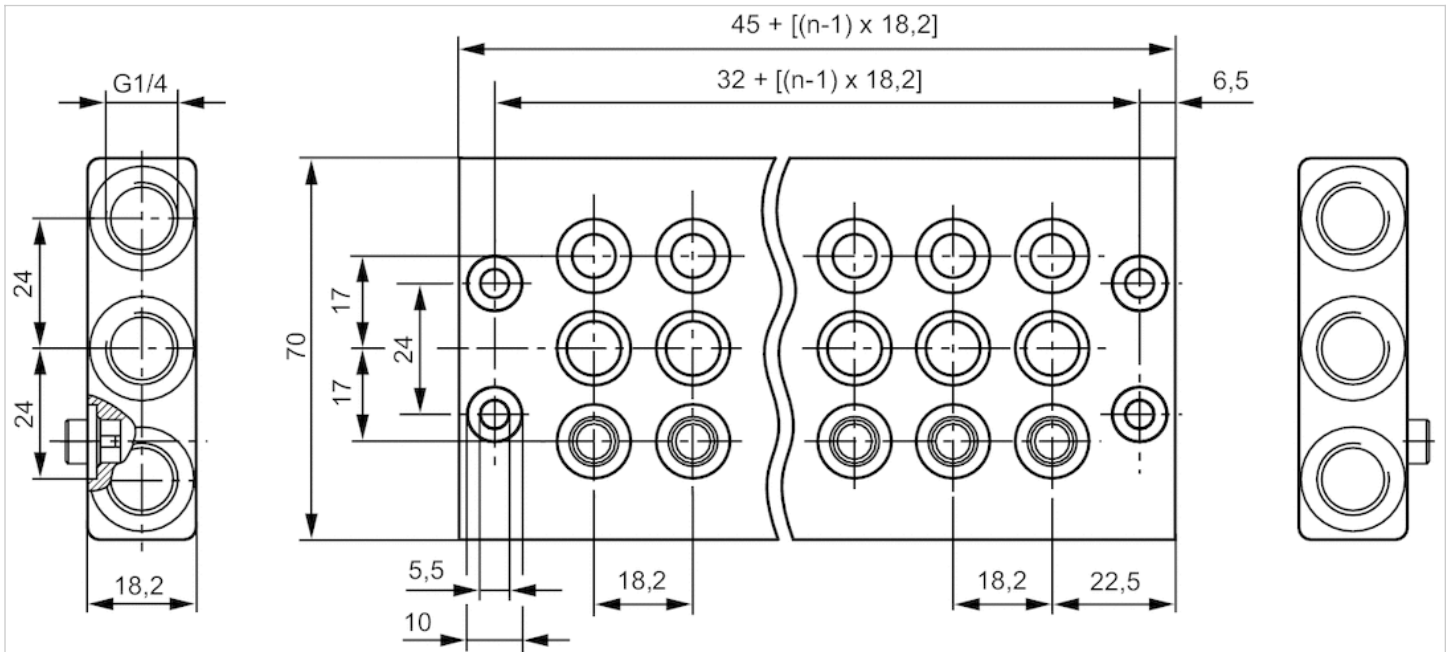
Use only the approved oils from AVENTICS. Further information can be found in the "Technical information" document (available in the MediaCentre).

## Technical information

Base plate	Aluminum
------------	----------

## Dimensions

### Dimensions



n = number of valve positions

# Manifold strip

- for ST



Working pressure min./max.	0 ... 10 bar
Ambient temperature min./max.	0 ... 80 °C
Medium temperature min./max.	0 ... 80 °C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 ... 5 mg/m <sup>3</sup>
Grid dimension	18 mm
Direction of pneumatic port (1)	On the side
Weight	See table below

## Technical data

Part No.	Compressed air connection Input [1]	Number of valve positions	Weight
1823390016	G 1/4	2	0.01 kg
1823390017	G 1/4	3	0.02 kg
1823390018	G 1/4	4	0.03 kg
1823390019	G 1/4	5	0.04 kg
1823390020	G 1/4	6	0.05 kg
1823390021	G 1/4	7	0.06 kg
1823390022	G 1/4	8	0.07 kg
1823390023	G 1/4	9	0.08 kg
1823390024	G 1/4	10	0.09 kg
1823390025	G 1/4	11	0.1 kg
1823390026	G 1/4	12	0.11 kg

## 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).

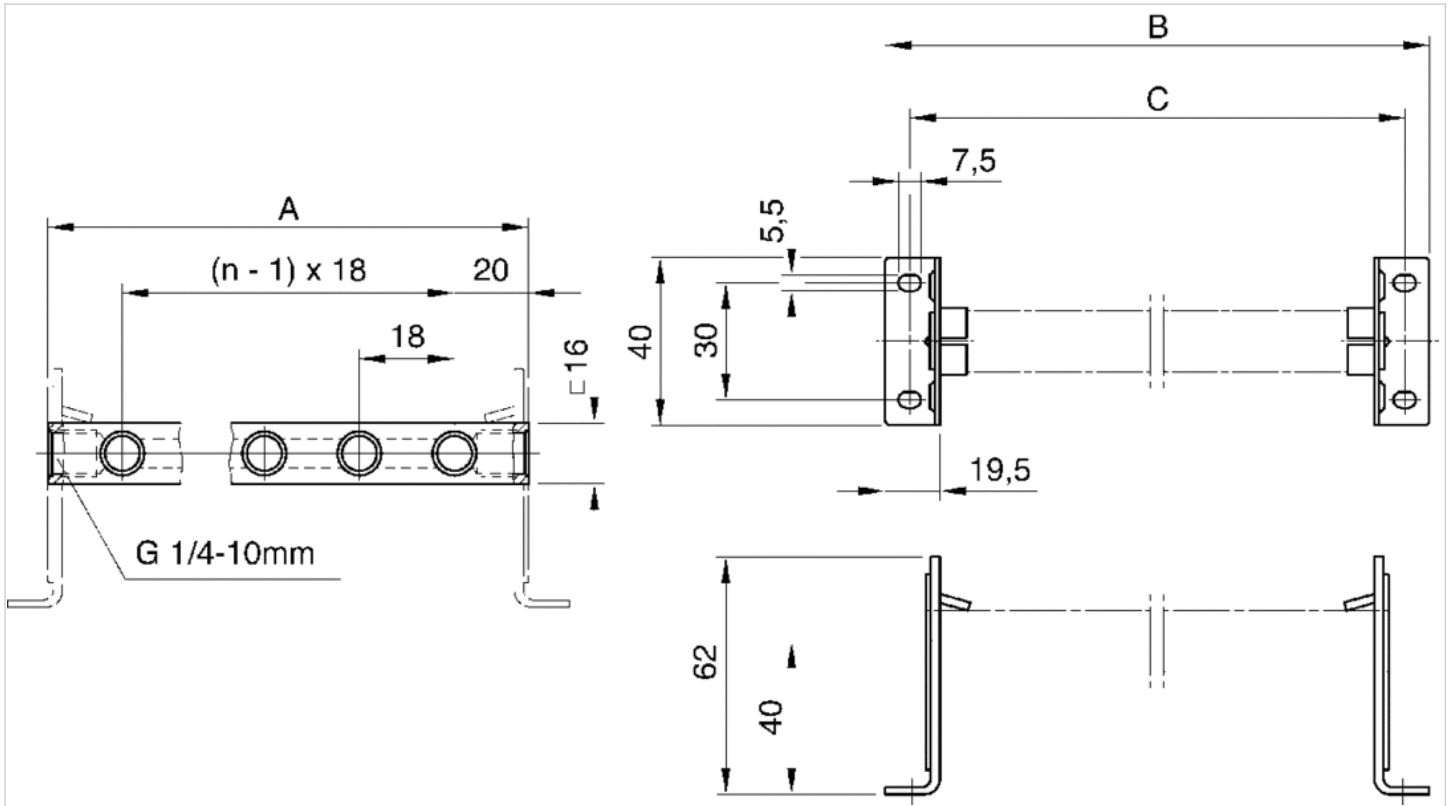
## Technical information

### Material

Base plate	Aluminum
------------	----------

## Dimensions

### Dimensions



## Dimensions

Part No.	A	B	C
1823390016	58	93	78
1823390017	76	111	96
1823390018	94	129	114
1823390019	112	147	132
1823390020	130	165	150
1823390021	148	183	168
1823390022	166	201	186
1823390023	184	219	204
1823390024	202	237	222
1823390025	220	255	240
1823390026	238	276	258

n = number of valve positions



# Actuating controls for AP/ST series control panel valves

- for series AP, ST



Ambient temperature min./max.

-30 ... 70 °C

Weight

See table below

## Technical data

Part No.	Type	Color	Scope of delivery
R412012734	Push button	Red	1 piece
R412012735	Push button	Black	1 piece
R412012736	Push button	Yellow	1 piece
R412012737	Push button	Green	1 piece
R412012738	Mushroom button	Red	1 piece
R412012739	Mushroom button	Green	1 piece
R412012740	Mushroom button	Yellow	1 piece
R412012741	Mushroom button with detent and rotary release	Red	1 piece
R412012742	Lever switch	Red	1 piece
R412012743	Lever switch	White	1 piece
R412012744	Rotary switch with two notched positions	Red	1 piece
R412012745	Rotary switch with two notched positions	Grey	1 piece
R412012748	Push button with detent and rotary release	Black	1 piece
R412012746	Rotary lock with two keys	Grey	1 piece
R412015479	Rotary lock with two keys	Grey	1 piece

Part No.	Weight	Fig.	
R412012734	0.011 kg	Fig. 1	-
R412012735	0.011 kg	Fig. 1	-
R412012736	0.011 kg	Fig. 1	-
R412012737	0.011 kg	Fig. 1	-
R412012738	0.024 kg	Fig. 2	-
R412012739	0.024 kg	Fig. 2	-
R412012740	0.024 kg	Fig. 2	-
R412012741	0.047 kg	Fig. 3	1)
R412012742	0.014 kg	Fig. 4	-
R412012743	0.014 kg	Fig. 4	-

R412012744	0.02 kg	Fig. 5	-
R412012748	0.032 kg	Fig. 6	-
R412015479	0.05 kg	Fig. 7	3)

- 1) Only for ST series spring-return valves (R422002211, R422002213)
- 2) The key can be removed only if the button is in the actuated state.
- 3) The key can be removed in the actuated or non-actuated state.

## Technical information

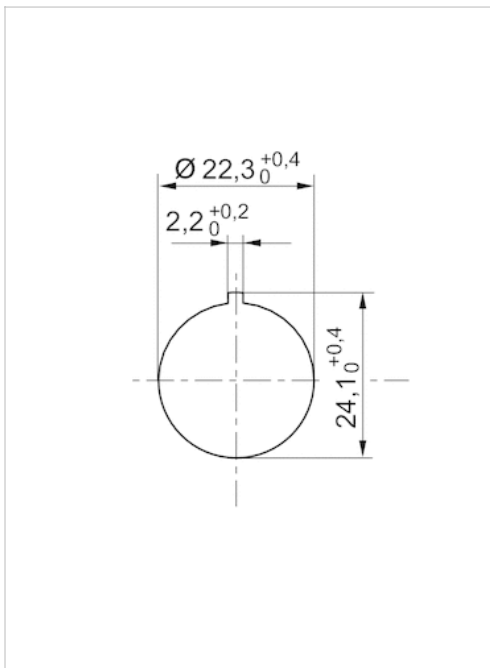
Combining an ST control panel valve with an actuating control may create an emergency OFF control device, which must comply with the applicable regulations in the EC Machinery Directive 2006/42/EC and the EN ISO 13850 and EN ISO 13849 standards. In terms of EN ISO 13849, an ST control panel valve is a single-channel component. A sturdier architecture must be selected to attain a higher performance level (c, d, e).

## Technical information

Housing	Polyamide
---------	-----------

## Dimensions

### Dimensions, cut-out in the front plate, single valve



When arranging multiple valves, see “cut-out in the front plate” of the AP or ST series.

Fig. 1

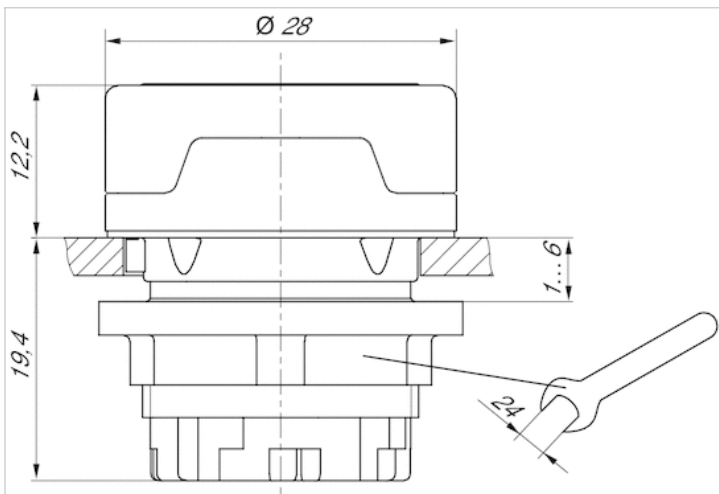


Fig. 2

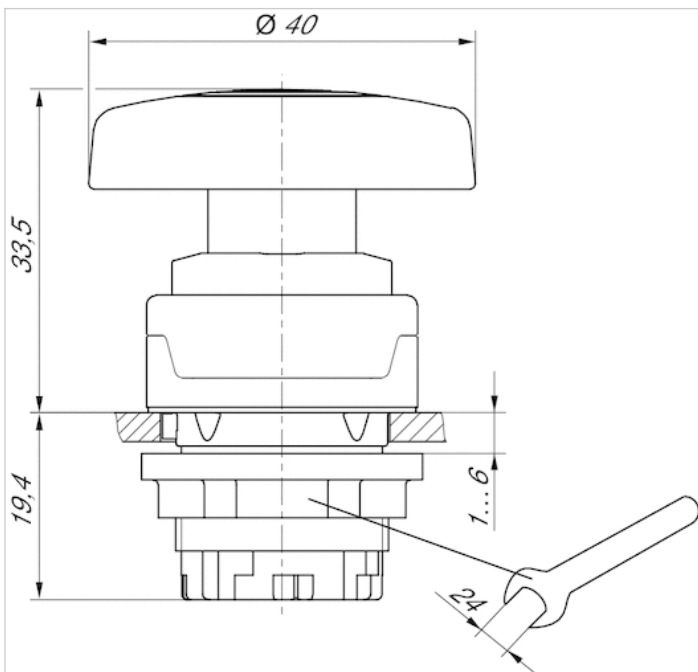
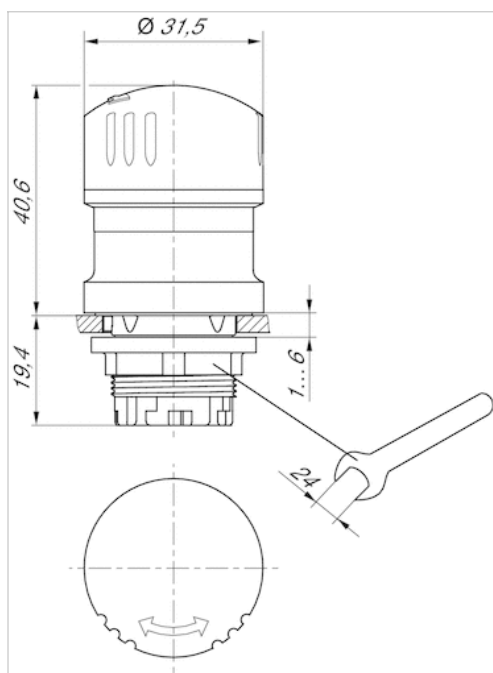


Fig. 3



Only for ST series spring-return valves (R422002211, R422002213)

Fig. 4

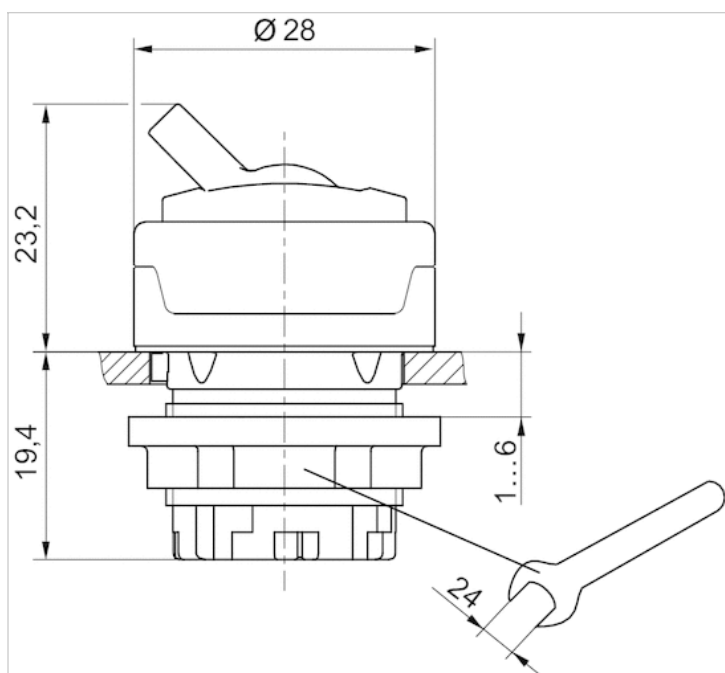


Fig. 5

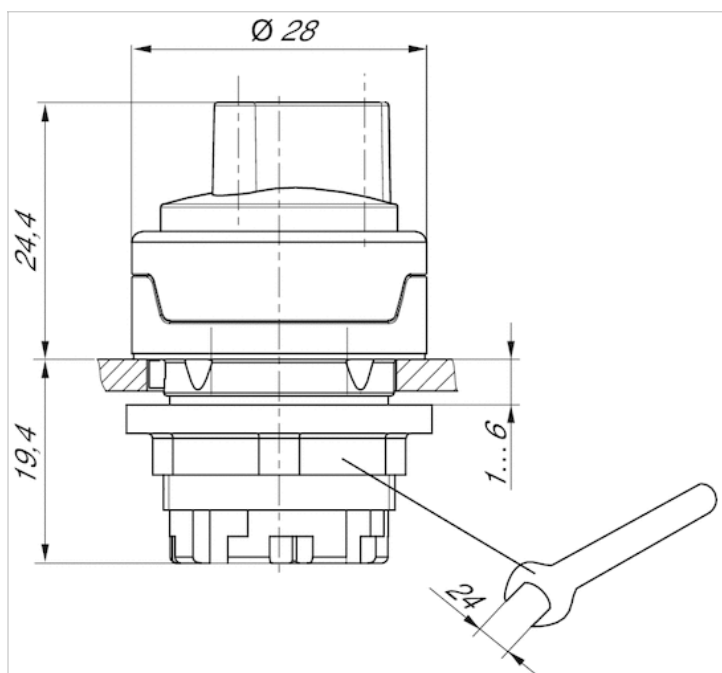


Fig. 6

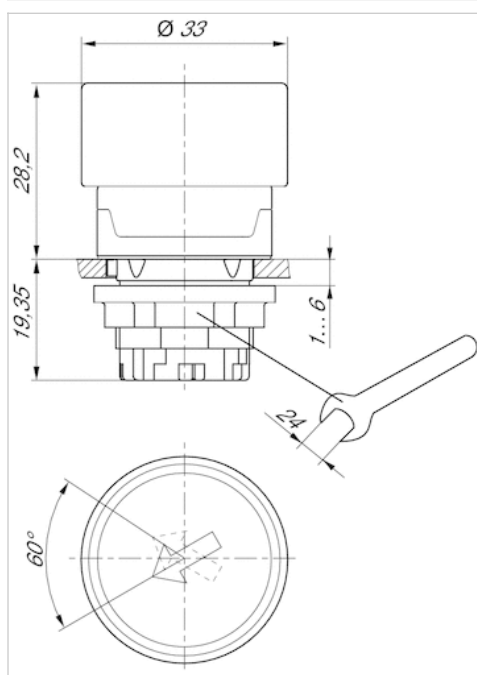
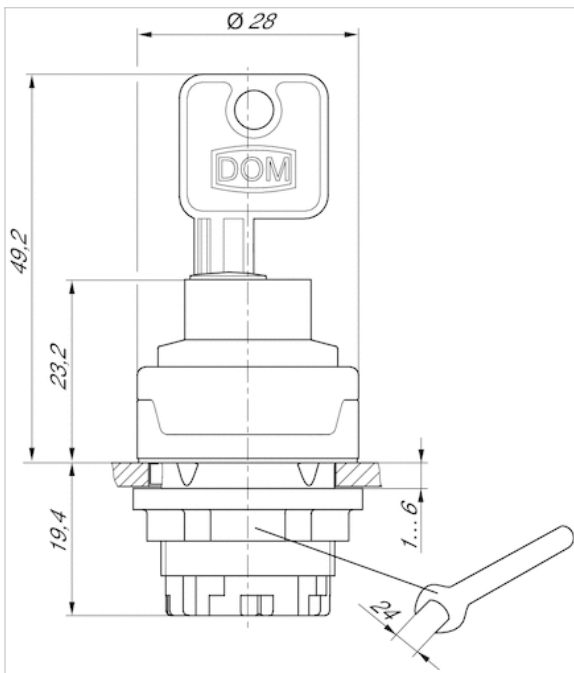
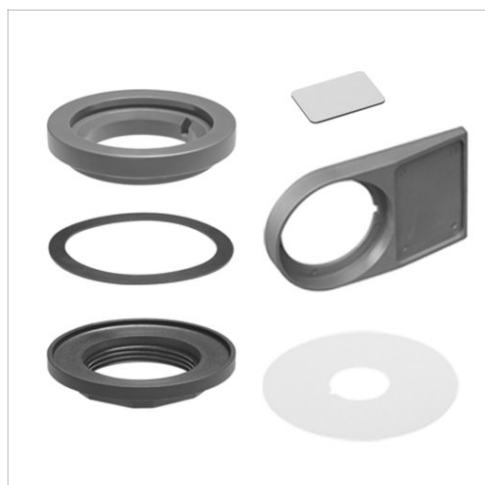


Fig. 7



# Accessories for actuating controls for AP/ST series control panel valves

- for series AP, ST



Ambient temperature min./max.

-30 ... 70 °C

Weight

See table below

## Technical data

Part No.	Type	Color	Material	Weight	Fig.	
R412012749	Label base	Anthracite	Polyamide	0.003 kg	Fig. 1	-
R412012750	Name plates, angular	silver	Polyvinyl chloride	0.001 kg	Fig. 2	-
R412012751	Emergency OFF sign, round	Yellow	Polyvinyl chloride	0.001 kg	Fig. 3	1)
R412012752	Blanking plug	Anthracite	Polyamide	0.026 kg	Fig. 4	-
R412012753	Mounting nut M22x1	Black	Polyamide	0.007 kg	Fig. 5	-
R412012989	Spare key	-	-	0.001 kg	Fig. 6	-
R412015512	Reduction , Ø30.5 to Ø22.5	-	Polyamide	0.001 kg	Fig. 7	-

1) Only for ST series spring-return valves (R422002211, R422002213)

## Technical information

Material	
Housing	Polyamide Polyvinyl chloride

## Dimensions

Fig. 7

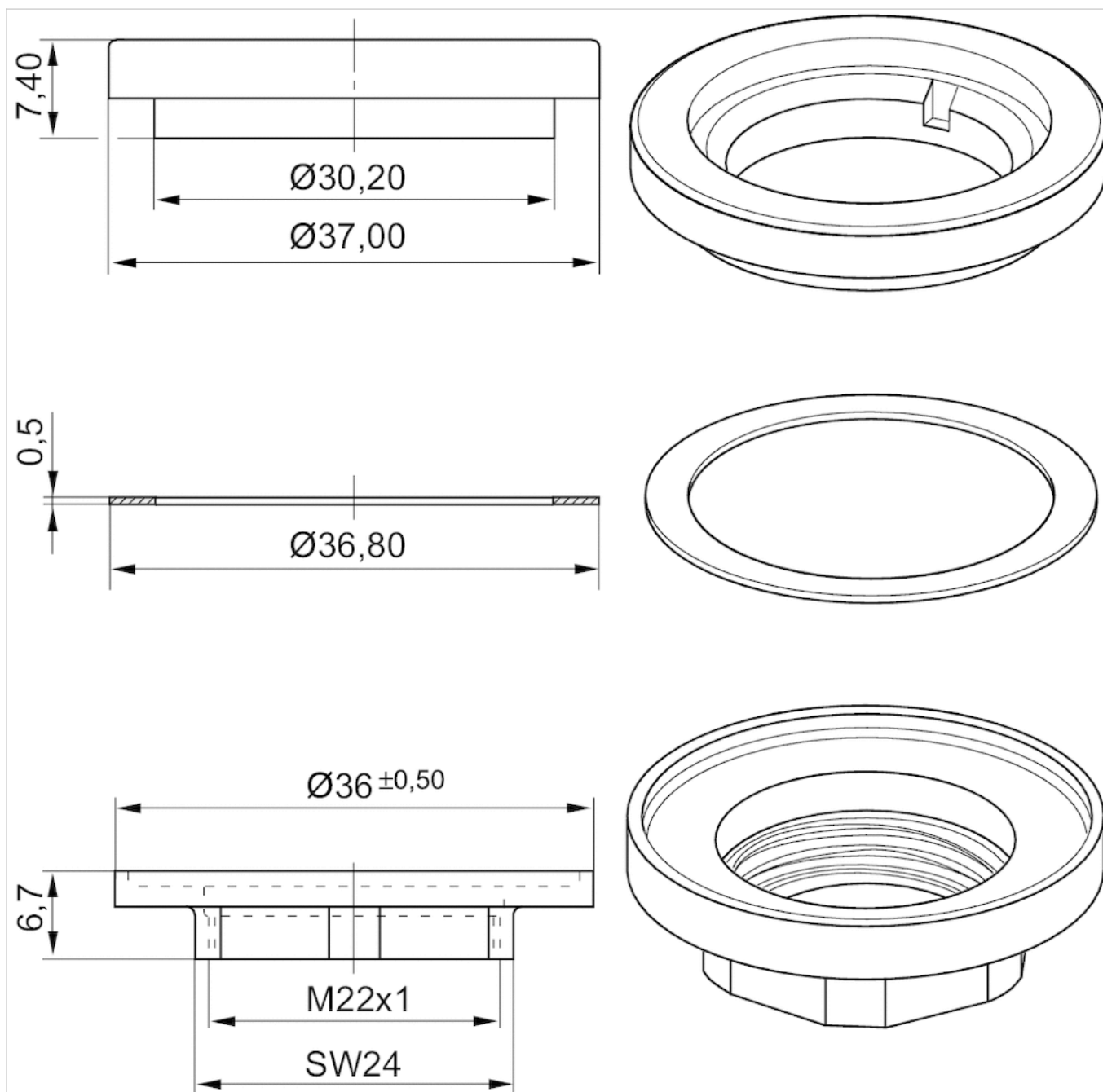




Fig. 1

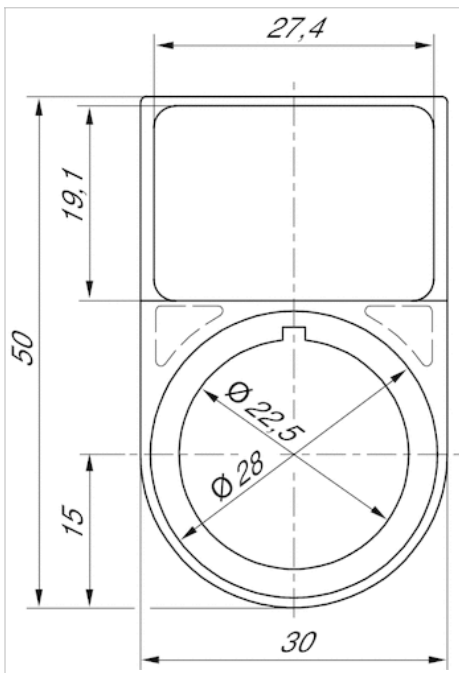


Fig. 2

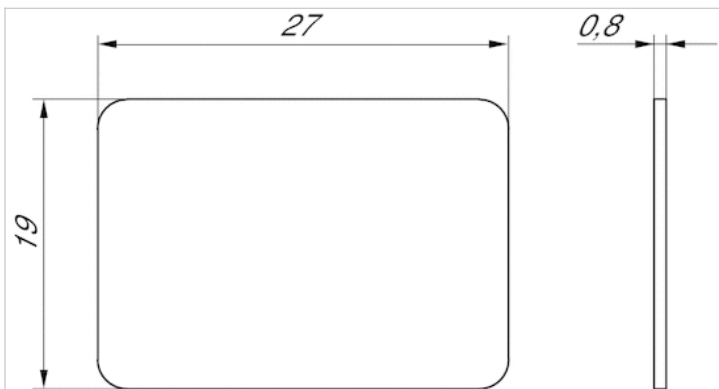
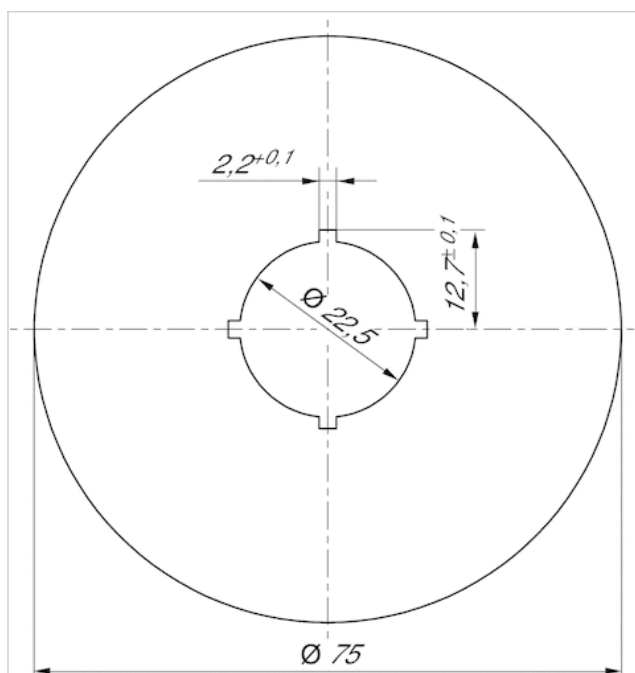


Fig. 3



Only for ST series spring-return valves (R422002211, R422002213)

Fig. 4

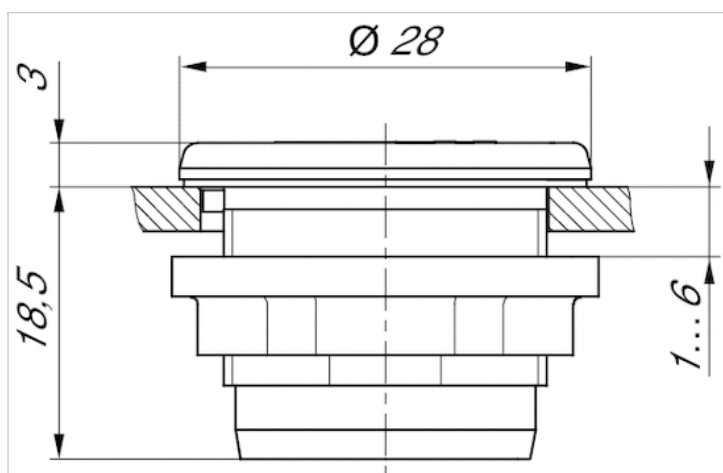


Fig. 5

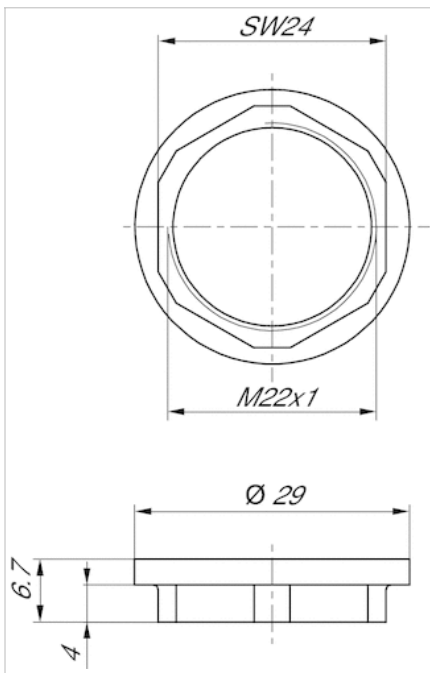
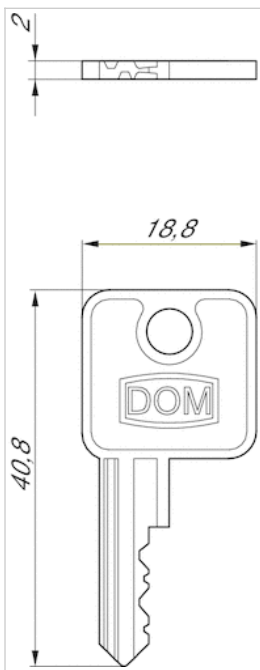
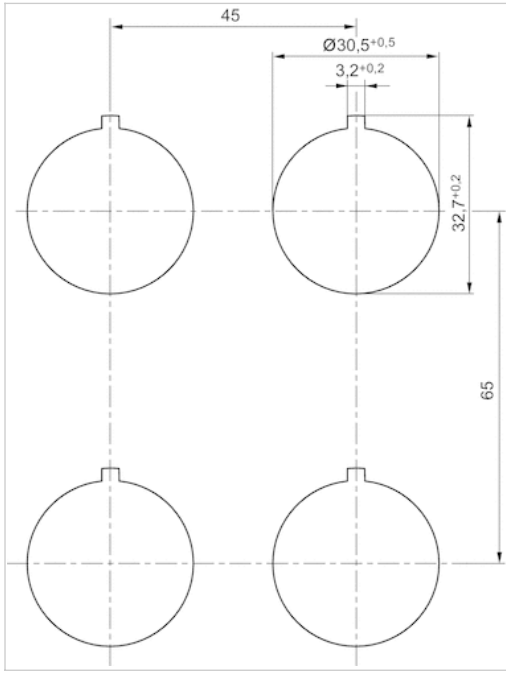


Fig. 6





# Adapter kit to connect actuating controls to AP/ST series valves

- for series AP, ST



Ambient temperature min./max. -30 ... 70 °C  
 Weight 0.003 kg

## Technical data

Part No.	Type
R422002219	Adapter

## Technical information

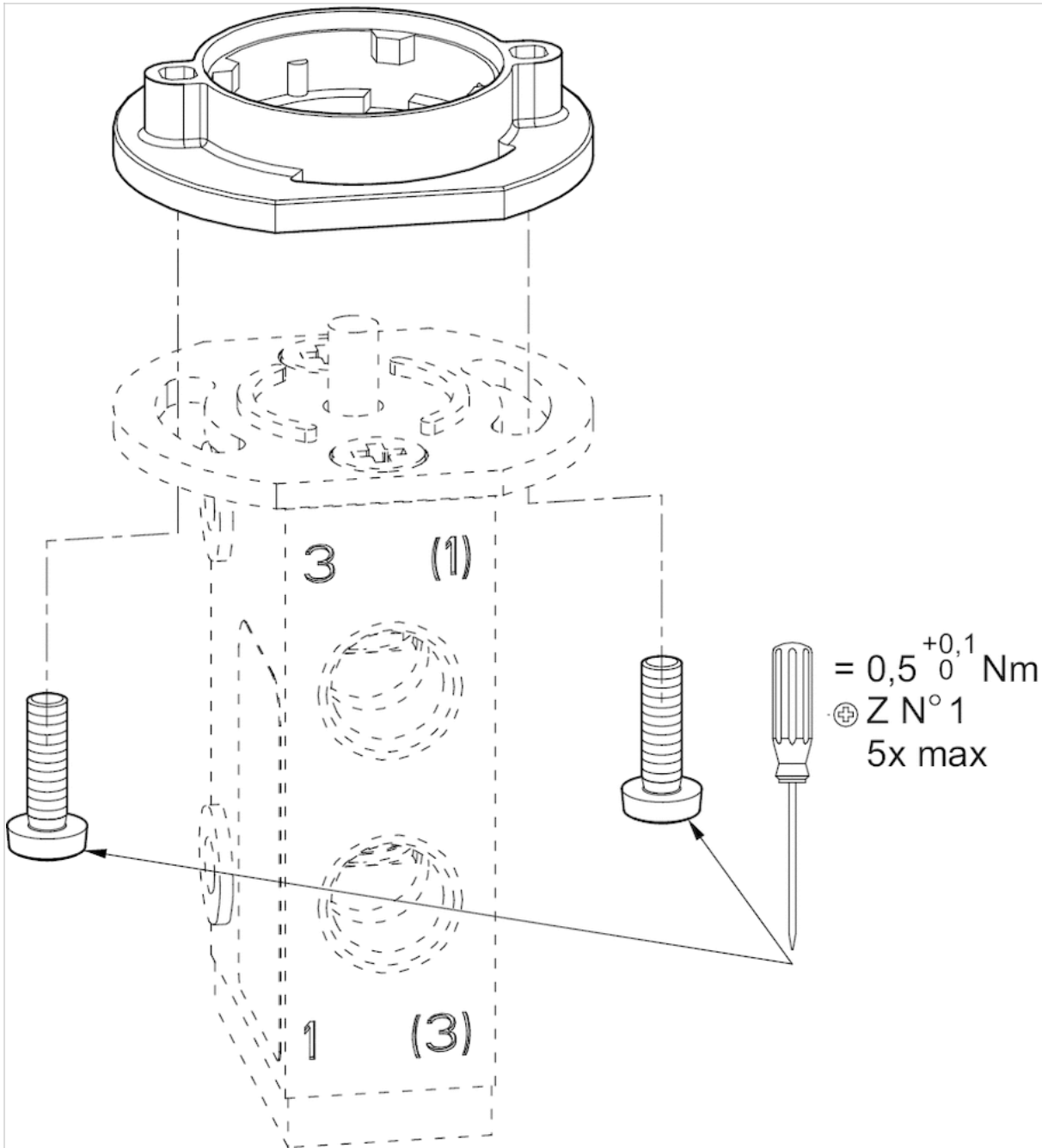
The adapter kit is only needed to connect the following actuating controls  
 R412012734, R412012735, R412012736, R412012737, R412012738, R412012739, R412012740,  
 R412012741, R412012742, R412012743, R412012744, R412012745, R412012746, R412012748  
 to the following valves 0820402024, 0820402025, 0820403024, 0820403025, 0820402106, 0820408007, 0820404025.

## Technical information

Material	
Housing	Polyamide

# Dimensions

## Dimensions



for panel-mounted valves

# Efficient pneumatic solutions, our program: cylinders and drives, valves and valve systems, air supply management



Visit us: [Emerson.com/Aventics](http://Emerson.com/Aventics)

Your local contact: [Emerson.com/contactus](http://Emerson.com/contactus)



Emerson.com



[Facebook.com/EmersonAutomationSolutions](https://www.facebook.com/EmersonAutomationSolutions)



[LinkedIn.com/company/Emerson-Automation-Solutions](https://www.linkedin.com/company/Emerson-Automation-Solutions)



[Twitter.com/EMR\\_Automation](https://twitter.com/EMR_Automation)

An example configuration is depicted on the title page. The delivered product may thus vary from that in the illustration. Subject to change. This Document, as well as the data, specifications and other information set forth in it, are the exclusive property of AVENTICS GmbH. It may not be reproduced or given to third parties without its consent. Only use the AVENTICS products shown in industrial applications. Read the product documentation completely and carefully before using the product. Observe the applicable regulations and laws of the respective country. When integrating the product into applications, note the system manufacturer's specifications for safe use of the product. The data specified only serve to describe the product. No statements concerning a certain condition or suitability for a certain application can be derived from our information. The information given does not release the user from the obligation of own judgment and verification. It must be remembered that the products are subject to a natural process of wear and aging.

The Emerson logo is a trademark and service mark of Emerson Electric Co. Brand logotype are registered trademarks of one of the Emerson family of companies. All other marks are the property of their respective owners. © 2017 Emerson Electric Co. All rights reserved.  
2019-03



## CONSIDER IT SOLVED™