

# Solenoid Valve Type 3967

for the control of pneumatic actuators



## General

The Type 3967 Solenoid Valve is used to control rotary actuators with NAMUR interface or linear actuators with NAMUR rib.

Intrinsically safe, low-power binary signals issued by automation or fieldbus systems can be used for controlling purposes.

Different nominal signals and connection types allow the solenoid valve to be tailor-made to the specific task. Special features of the Type 3967 Solenoid Valve include:

### General features

- Safety Integrity Level SIL according to IEC 61508 (Certificate no. V 177 2009 C2/C6)
- Safety of machinery PL e according to ISO13849 (Certificate no. V 177 2010 C4)
- Service life with over 20 million switching cycles
- Ambient temperature  $-45$  to  $+80^{\circ}\text{C}$
- Corrosion-resistant enclosure with degree of protection IP 65 for humid and aggressive environments
- NAMUR interface according to VDI/VDE 3845 for rotary actuators or connection block with positioner for SAMSON Type 3277 Linear Actuators
- Adapter plate for linear actuators with NAMUR rib according to IEC 60534-6-1, panel, wall or rail mounting (accessories)
- Restrictor plate with supply air or exhaust air restrictor (accessories)

### Electric features

- e/p binary converter with flapper/nozzle assembly
- Types of protection "Intrinsically safe"
  - II 2G Ex ia IIC T6 (gases in zone 1),
  - II 3G Ex nA II T6/II 3G Ex ic IIC T6 (gases in zone 2),
  - II 2D Ex tb IIIC T80°C IP65 (dusts in zone 21),
  - II 3D Ex tc IIIC T80°C IP65 (dusts in zone 22),
 according to ATEX, GOST and IECEx
- Nominal signal 6/12/24 V DC
- Power consumption 6 to 27 mW
- Manual override
- Connection to terminals with cable gland M 16 x 1.5

### Pneumatic features

- Plug/seat valve with return spring
- 3/2-way function with exhaust air return
- $K_{VS}$  value 0.32, 2.0 or 4.3
- Air supply 1.4 to 10.0 bar
- Operating pressure max. 10.0 bar
- Threaded connection G (NPT)  $1/4$  and  $1/2$

## Versions



Version with  $K_{VS}$  value 0.32



Version with  $K_{VS}$  value 2.0



Version with  $K_{VS}$  value 4.3

Fig. 1 · Type 3967 Solenoid Valve

## Function

The solenoid valve consists of an e/p binary converter (A) with manual override (B) and a single actuated booster valve (C) with return spring (Fig. 2).

The air supply for the e/p binary converter (A) is connected internally over connection 1 or externally over connection 9. Rotating a flat gasket allows the connection to external air supply (see Mounting and Instruction Manual EB 3967 EN).

The pressure reducer (5) reduces the air supply pressure to 1.4 bar.

In the normal position the flapper (2) is lifted off the outlet nozzle (1) by the spring (3). As a result, a pressure lower than the switch-off pressure of the booster valve (C) builds up in the pressure divider that consists of the restriction (6) and the outlet nozzle (1). When the solenoid (4) is energized by an electrical binary signal, the outlet nozzle (1) is closed by the flapper (2) against the force of the spring (3). As a result, the pressure in the pressure divider rises above the switch-on pressure of the booster valve (C), thus switching it to the operating position. After de-energizing the electrical binary signal, the booster valve (C) is switched to the normal position by a return spring.

## Function diagram

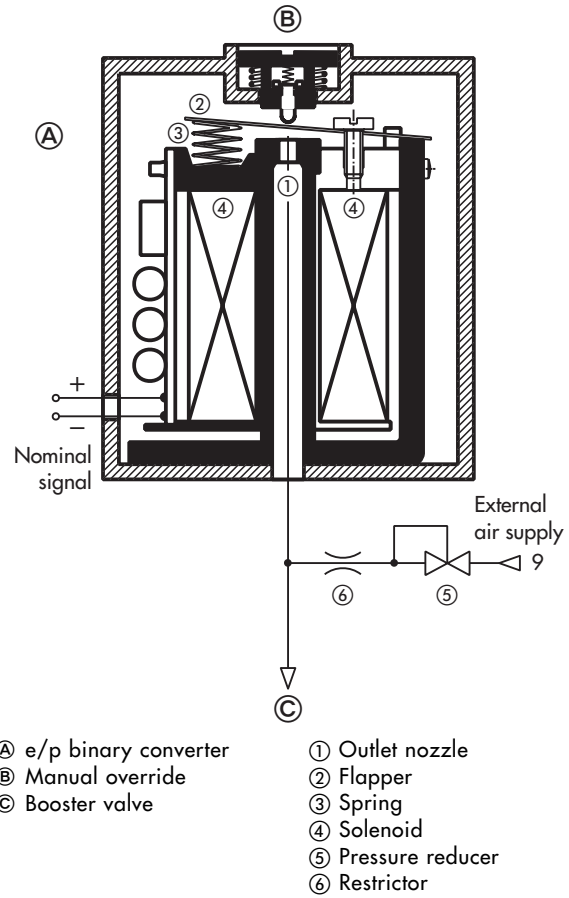
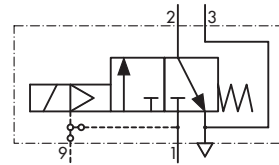
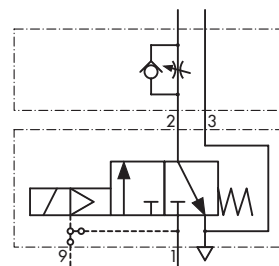


Fig. 2

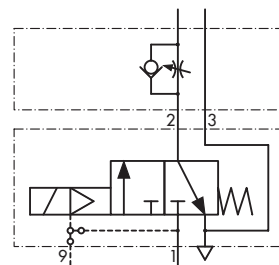
## Symbols



3/2-way function ( $K_{VS}$  value 0.32)



3/2-way function ( $K_{VS}$  value 0.32) with supply air restrictor



3/2-way function ( $K_{VS}$  value 0.32) with exhaust air restrictor

Fig. 3

## Technical data

<b>Solenoid valve with <math>K_{VS}</math> value 0.32, single actuated</b>		
Switching function	3/2-way function with exhaust air return	
$K_{VS}$ value <sup>1)</sup>	0.32	
Safety function	SIL <sup>2)</sup> and PL <sup>3)</sup>	
Construction	Solenoid with flapper/nozzle assembly and plug/seat valve with return spring	
Material	Enclosure	Polyamide PA 6-3-T-GF35, black
	Connection plate	AlMgSiPb, powder-coated, black
	Adapter plate	AlMgSiPb, powder-coated, grayish beige RAL 1019, or stainless steel 1.4404
	Screws	Stainless steel A2-70
	Springs	Stainless steel 1.4310
	Gaskets	Silicone rubber
Air supply	Instrument air, free of corrosive particles, or nitrogen	
Air supply pressure	1.4 ... 10.0 bar <sup>4)</sup> , 1.4 ... 6.0 bar (at 0 ... 6.0 bar operating pressure) <sup>5)</sup> , 1.9 ... 10.0 bar (at 0 ... 10.0 bar operating pressure) <sup>5)</sup>	
Operating medium	Instrument air, free of corrosive particles, or nitrogen <sup>4)</sup> , Instrument air, free of corrosive particles, oil containing air or noncorrosive gases <sup>5)</sup>	
Operating pressure	1.4 ... 10.0 bar <sup>4)</sup> , 0 ... 10.0 bar <sup>5)</sup>	
Output signal	Operating pressure	
Air consumption (e/p binary converter) at 1.4 bar air supply	≤ 25 l/h (actuated), ≤ 80 l/h (unactuated)	
Switching time	≤ 65 ms	
Electrical connection	Screw terminal, 2-poles, with cable gland M 16 × 1.5	
Air connection	G (NPT) 1/4"/NAMUR interface 1/4" <sup>6)</sup>	
Degree of protection	IP 65	
Ambient temperature <sup>7)</sup>	-20 ... +80 °C, -45 ... +80 °C	
Weight approx.	0.45 kg, 0.80 kg (with adapter plate)	

1) Air flow at  $p_1 = 2.4$  bar and  $p_2 = 1.0$  bar can be calculated according to the following equation:  $Q = K_{VS} \times 36.22$ , expressed in  $m^3/h$ .

2) Safety Integrity Level SIL according to IEC 61508 (Certificate no. V 177 2009 C2/C6).

3) Safety of machinery PL e according to ISO 13849 (Certificate no. V 177 2010 C4).

4) With internal air supply.

5) With external air supply.

6) NAMUR interface according to VDI/VDE 3845.

7) The permissible maximum ambient temperature depends on the permissible ambient temperature of the cable gland, the type of protection and the temperature class.

Electrical data see page 5.

**Technical data** (continued from page 3)

<b>Solenoid valve with <math>K_{VS}</math> value 2.0 or 4.3, single actuated</b>		
Switching function	3/2-way function with exhaust air return	
$K_{VS}$ value <sup>1)</sup> (in direction of flow)	1.1 (4→3), <b>2.0</b> (3→5)	1.9 (4→3), <b>4.3</b> (3→5)
Safety function	SIL <sup>2)</sup> and PL <sup>3)</sup>	
Construction	Solenoid with flapper/nozzle assembly and plug/seat valve with return spring	
Material	Enclosure	Polyamide PA 6-3-T-GF35, black, GD AlSi 12, powder-coated, grayish beige RAL 1019, or stainless steel 1.4404
	Connection plate	AlMgSiPb, powder-coated, black
	Adapter plate	AlMgSiPb, powder-coated, grayish beige RAL 1019, or stainless steel 1.4404
	Screws	Stainless steel A2-70 or 1.4404
	Springs	Stainless steel 1.4310
	Gaskets	Chloroprene (−20 ... +80 °C) or silicone rubber (−45 ... +80 °C)
	Diaphragm	Chloroprene (−20 ... +80 °C) or silicone rubber (−45 ... +80 °C)
Air supply	Instrument air, free of corrosive particles, or nitrogen	
Air supply pressure	1.4 ... 10.0 bar <sup>3)</sup> , 1.4 ... 6.0 bar (at 0 ... 6.0 bar operating pressure <sup>4)</sup> ), 1.9 ... 10.0 bar (at 0 ... 10.0 bar operating pressure <sup>4)</sup> )	
Operating medium	Instrument air, free of corrosive particles, or nitrogen <sup>3)</sup> , Instrument air, free of corrosive particles, oil containing air or noncorrosive gases <sup>4)</sup> )	
Operating pressure max.	10 bar	
Output signal	Output pressure	
Air consumption (e/p binary converter) at 1.4 bar air supply	≤ 25 l/h (actuated), ≤ 80 l/h (unactuated)	
Switching time	≤ 65 ms	
Electrical connection	Screw terminal, 2-poles, with cable gland M 16 × 1.5	
Air connection	G (NPT) 1/4 and 1/2/NAMUR interface 1/4" <sup>5)</sup>	G (NPT) 1/4 and 1/2/NAMUR interface 1/2" <sup>5)</sup>
Degree of protection	IP 65	
Ambient temperature <sup>7)</sup>	−20 ... +80 °C, −45 ... +80 °C	
Weight approx.	1.65 kg, 1.95 kg (with adapter plate)	1.6 kg, 1.9 kg (with adapter plate)

<sup>1)</sup> Air flow at  $p_1 = 2.4$  bar and  $p_2 = 1.0$  bar can be calculated according to the following equation:  $Q = K_{VS} \times 36.22$ , expressed in  $m^3/h$ .

<sup>2)</sup> Safety Integrity Level SIL according to IEC 61508 (manufacturer's declaration).

<sup>3)</sup> With internal air supply.

<sup>4)</sup> With external air supply.

<sup>5)</sup> NAMUR interface according to VDI/VDE 3845.

<sup>6)</sup> The permissible maximum ambient temperature depends on the permissible ambient temperature of the cable gland, the type of protection and the temperature class.

Electrical data see page 5.

**Technical data** (continued from page 4)

<b>Electrical data</b>				
<b>Type 3967</b>		<b>-XXX1</b>	<b>-XXX2</b>	<b>-XXX3</b>
Nominal signal	$U_N$	<b>6 V DC</b>	<b>12 V DC</b>	<b>24 V DC</b>
	$U_{max}$ <sup>1)</sup>	27 V	40 V	60 V
Switching point "On"	$U_{+80^\circ C}$	$\geq 4.8$ V	$\geq 9.6$ V	$\geq 18$ V
	$P_{+20^\circ C}$	$\geq 5.47$ mW	$\geq 13.05$ mW	$\geq 26.71$ mW
	"Off" $U_{-25^\circ C}$	$\leq 1.0$ V	$\leq 2.3$ V	$\leq 4.6$ V
Impedance	$R_{+20^\circ C}$	2.6 k $\Omega$	5.3 k $\Omega$	10.5 k $\Omega$
Temperature effect to R		0.4 %/ $^\circ C$	0.2 %/ $^\circ C$	0.1 %/ $^\circ C$
<b>Type of protection Ex ia IIC/Ex tb IIIC<sup>2)</sup></b>				
<b>Type 3967</b>		<b>-1101</b>	<b>-1102</b>	<b>-1103</b>
Nominal signal	$U_N$	<b>6 V DC</b>	<b>12 V DC</b>	<b>24 V DC</b>
Maximum values for connection to a certified intrinsically safe circuit see EC Type Examination Certificate PTB 06 ATEX 2027.				
<b>Type of protection Ex nA II/Ex tc IIIC<sup>3)</sup></b>				
<b>Type 3967</b>		<b>-8101</b>	<b>-8102</b>	<b>-8103</b>
Nominal signal	$U_N$	<b>6 V DC</b>	<b>12 V DC</b>	<b>24 V DC</b>
Maximum values for connection to a certified energy-limited circuit see Certificate of Conformity PTB 06 ATEX 2028 X.				

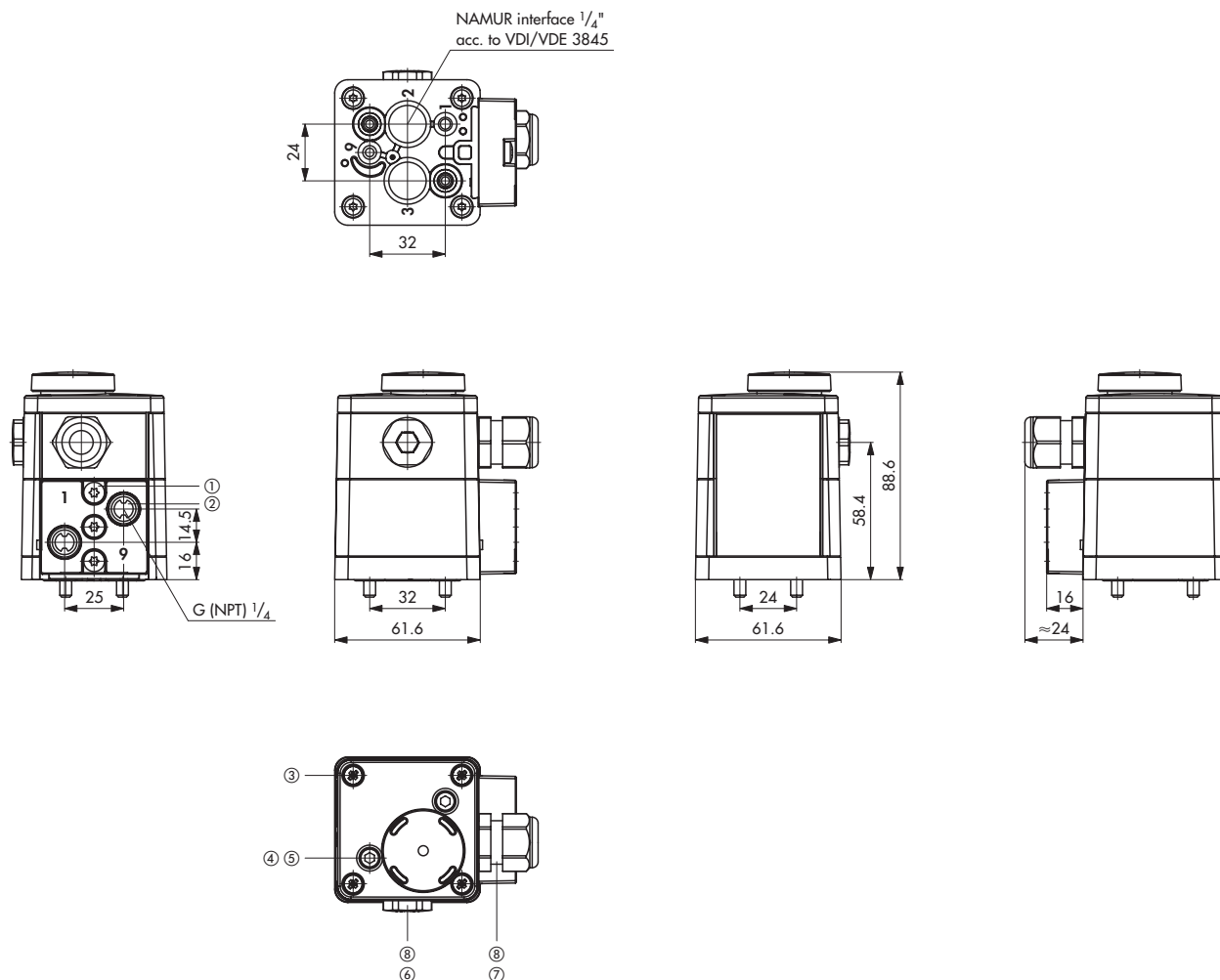
1) Permissible maximum value during 100 % duty. For Ex versions the permissible maximum value  $U_i$  is relevant.

2) Marking II 2G Ex ia IIC T6 (gases in zone 1),  
Marking II 2D Ex tb IIIC T80 $^\circ C$  IP65 (dusts in zone 21)

3) Marking II 3G Ex nA II T6/II 3G Ex ic IIC T6 (gases in zone 2),  
Marking II 3D Ex tc IIIC T80 $^\circ C$  IP65 (dusts in zone 22)

## Dimensions

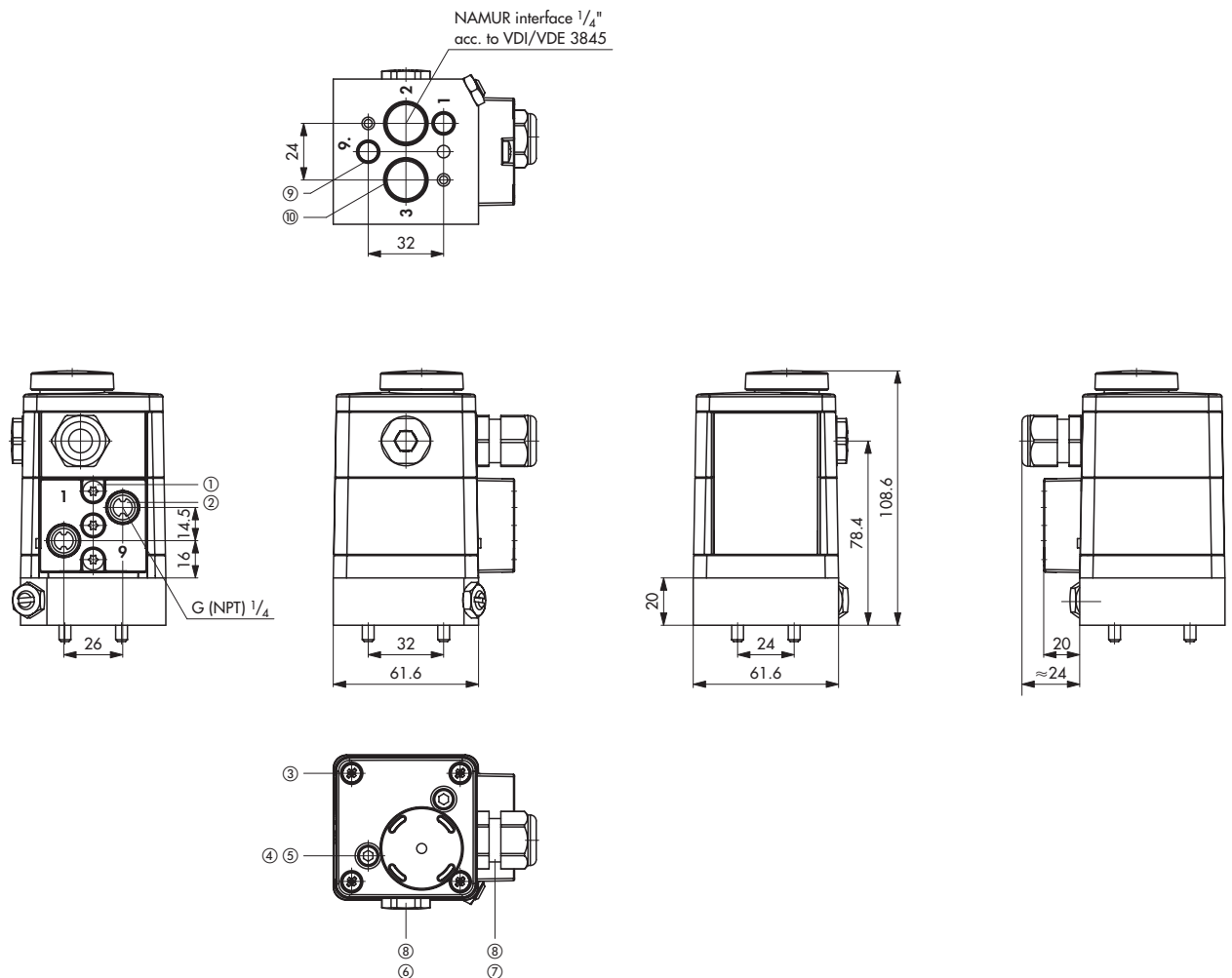
Version with NAMUR interface  $\frac{1}{4}$ " according to VDI/VDE 3845



- ① 3 × Self-tapping screw DIN 7964 – M 5 × 20
- ② 2 × Filter  $\frac{1}{4}$ "
- ③ 4 × Screw ISO 3506-1 – M 4 × 18
- ④ 2 × Hexagon socket head screw ISO 4762 – M 5 × 80
- ⑤ 2 × Split washer DIN 127 – form B 5
- ⑥ 1 × Blanking plug M 16 × 1.5
- ⑦ 1 × Cable gland M 16 × 1.5
- ⑧ 2 × O-ring 14 × 1.5

Fig. 4 · Dimensions in mm

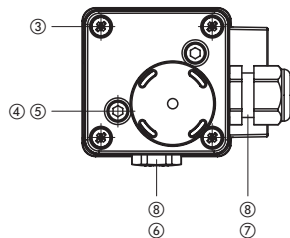
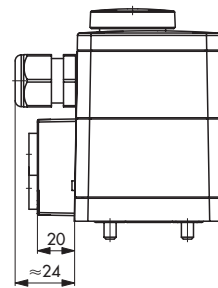
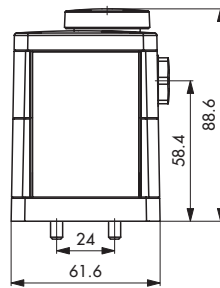
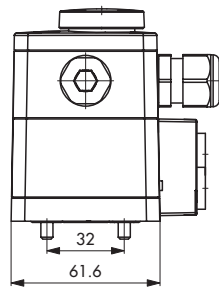
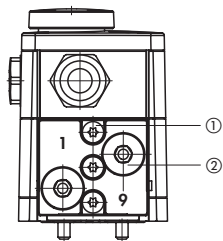
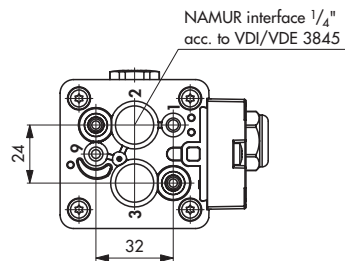
Version with NAMUR interface  $\frac{1}{4}$ " according to VDI/VDE 3845 and restrictor plate



- ① 3 × Self-tapping screw DIN 7964 – M 5 × 20
- ② 2 × Filter  $\frac{1}{4}$ "
- ③ 4 × Screw ISO 3506-1 – M 4 × 18
- ④ 2 × Hexagon socket head screw ISO 4762 – M 5 × 80
- ⑤ 2 × Split washer DIN 127 – form B 5
- ⑥ 1 × Blanking plug M 16 × 1.5
- ⑦ 1 × Cable gland M 16 × 1.5
- ⑧ 2 × O-ring 14 × 1.5
- ⑨ 2 × O-ring 6 × 1.5
- ⑩ 2 × O-ring 16 × 1.5

Fig. 5 · Dimensions in mm

Version with NAMUR interface 1/4" according to VDI/VDE 3845 for connection block with positioner

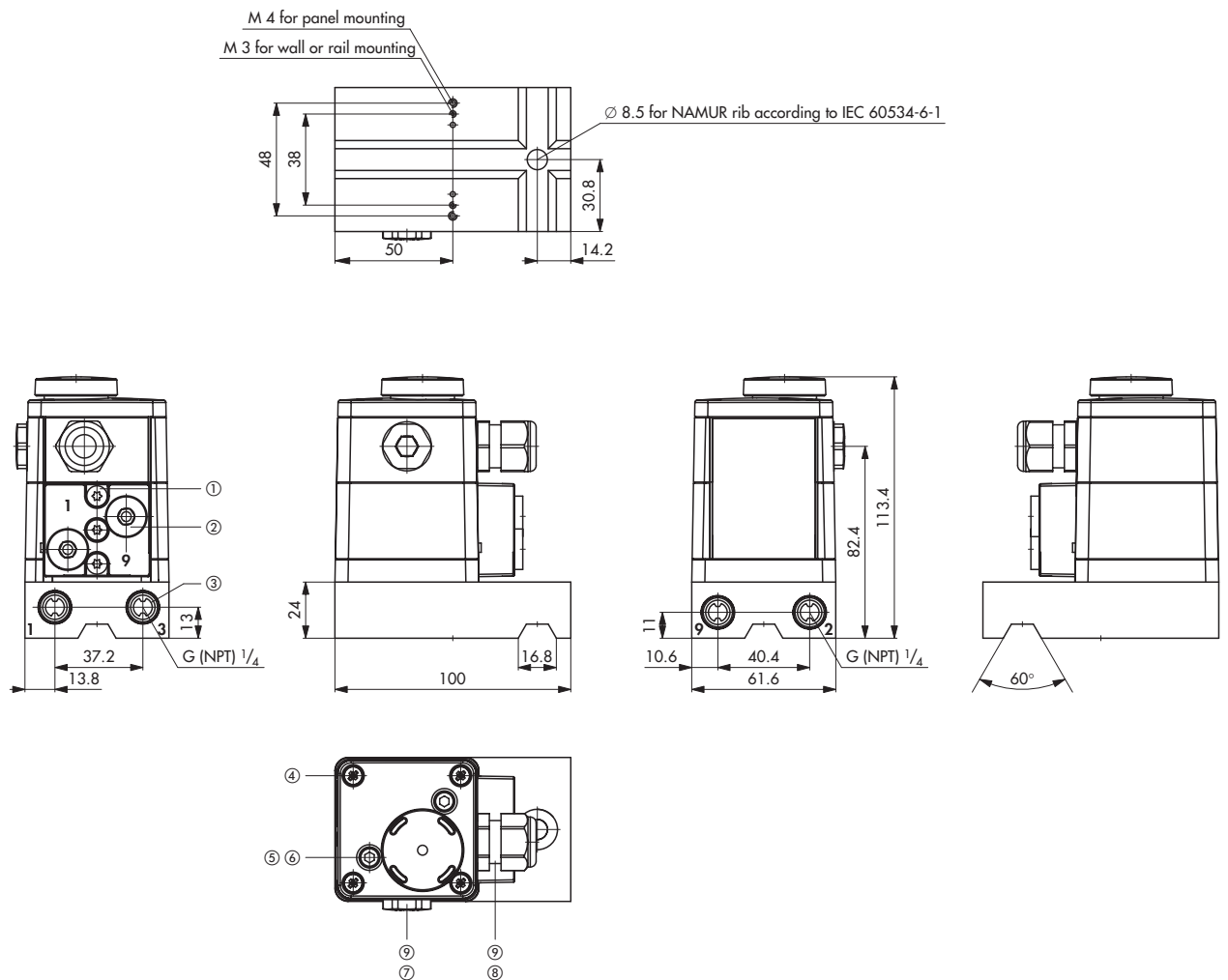


- ① 3 × Self-tapping screw DIN 7964 – M 5 × 20
- ② 2 × Blanking plug G (NPT) 1/4
- ③ 4 × Screw ISO 3506-1 – M 4 × 18
- ④ 2 × Hexagon socket head screw ISO 4762 – M 5 × 80
- ⑤ 2 × Split washer DIN 127 – form B 5
- ⑥ 1 × Blanking plug M 16 × 1.5
- ⑦ 1 × Cable gland M 16 × 1.5
- ⑧ 2 × O-ring 14 × 1.5

Fig. 6 · Dimensions in mm



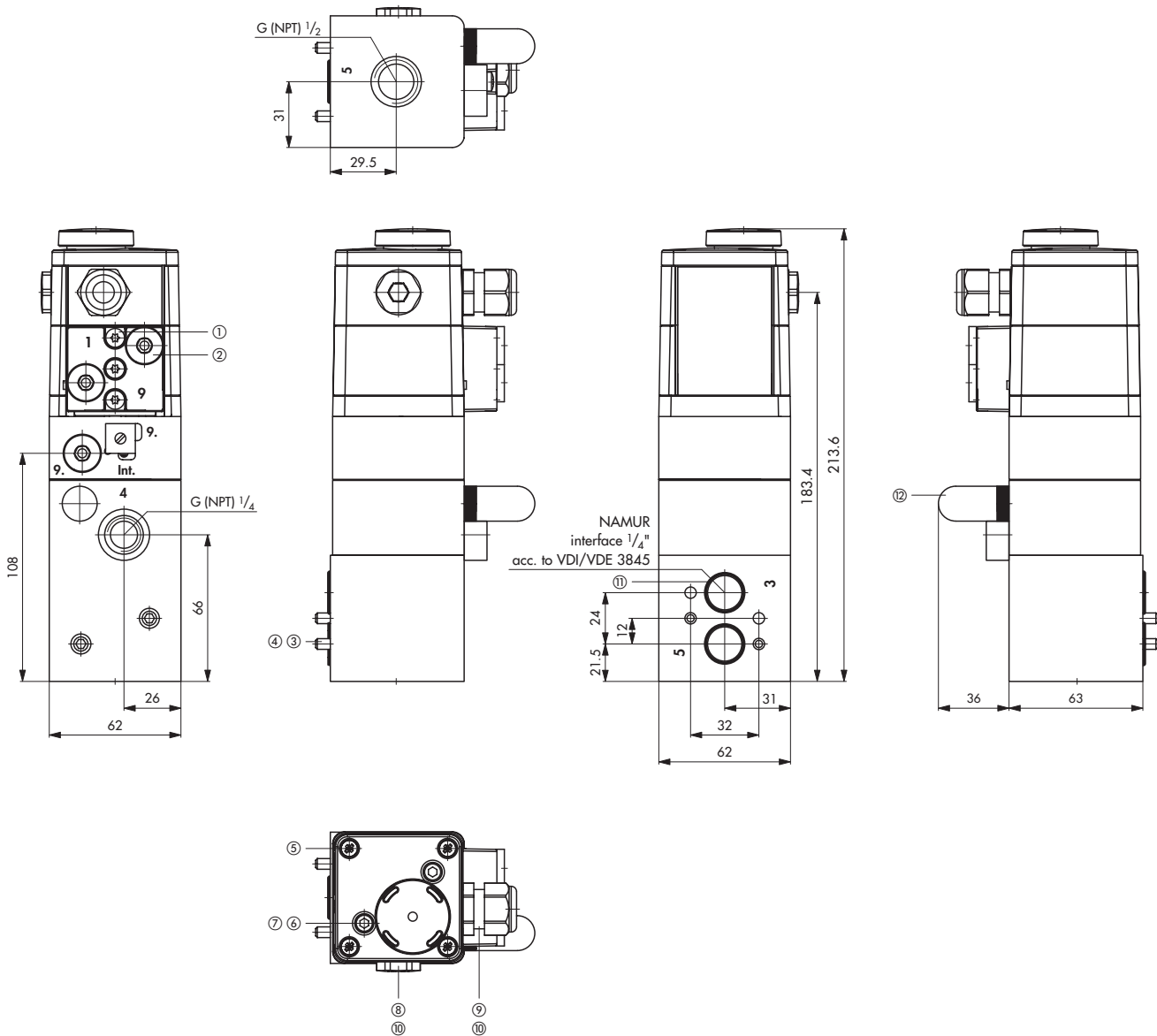
Version with adapter plate for linear actuators with NAMUR rib according to IEC 60534-6-1, panel, wall or rail mounting



- ① 3 × Screw DIN 7964 – M 5 × 20
- ② 2 × Blanking plug G (NPT) 1/4
- ③ 4 × Filter 1/4"
- ④ 4 × Screw ISO 3506-1 – M 4 × 18
- ⑤ 2 × Hexagon socket head screw ISO 4762 – M 5 × 80
- ⑥ 2 × Split washer DIN 127 – form B 5
- ⑦ 1 × Blanking plug M 16 × 1.5
- ⑧ 1 × Cable gland M 16 × 1.5
- ⑨ 2 × O-ring 14 × 1.5

Fig. 7 · Dimensions in mm

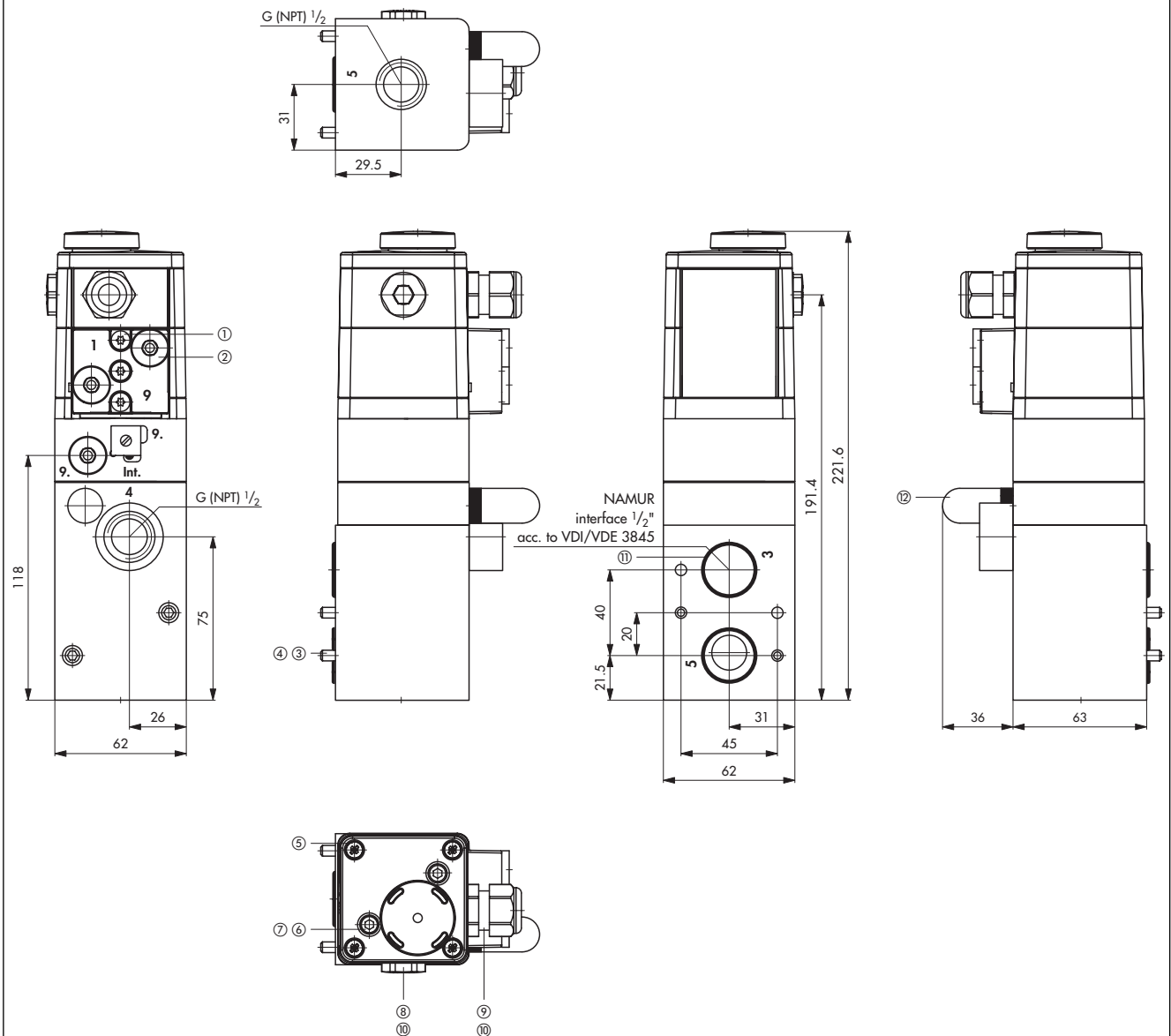
Version with booster valve ( $K_{VS}$  value 2.0)



- ① 3 × Screw DIN 7964 – M 5 × 20
- ② 2 × Blanking plug G (NPT) 1/4
- ③ 2 × Hexagon socket head screw ISO 4762 – M 5 × 60
- ④ 2 × Split washer DIN 127 – form B 5
- ⑤ 4 × Screw ISO 3506-1 – M 4 × 18
- ⑥ 2 × Hexagon socket head screw ISO 4762 – M 5 × 80
- ⑦ 2 × Split washer DIN 127 – form B 5
- ⑧ 1 × Blanking plug M 16 × 1.5
- ⑨ 1 × Cable gland M 16 × 1.5
- ⑩ 2 × O-ring 14 × 1.5
- ⑪ 2 × O-ring 16 × 2
- ⑫ 1 × Filter IP 54

Fig. 8 · Dimensions in mm

Version with booster valve ( $K_{VS}$  value 4.3)



- ① 3 × Screw DIN 7964 – M 5 × 20
- ② 2 × Blanking plug G (NPT) 1/4
- ③ 2 × Hexagon socket head screw ISO 4762 – M 5 × 60
- ④ 2 × Split washer DIN 127 – form B 5
- ⑤ 4 × Screw ISO 3506-1 – M 4 × 18
- ⑥ 2 × Hexagon socket head screw ISO 4762 – M 5 × 80
- ⑦ 2 × Split washer DIN 127 – form B 5
- ⑧ 1 × Blanking plug M 16 × 1.5
- ⑨ 1 × Cable gland M 16 × 1.5
- ⑩ 2 × O-ring 14 × 1.5
- ⑪ 2 × O-ring 24 × 2
- ⑫ 1 × Filter IP 54

Fig. 9 · Dimensions in mm

## Versions and ordering data

Type 3967 Solenoid Valve		Order no. 3967-																		
Type of protection	Without explosion protection	0	0	0	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
	II 2G Ex ia IIC T6/II 2D Ex tb IIIC T80°C IP65 (ATEX) <sup>1)</sup>	1	1	0																
	Ex ia IIC T6/Ex tD A21 IP65 T80°C (IECEX) <sup>2)</sup>	1	1	2																
	0Ex ia IIC T6/T5/T4 Ga/Ex tb IIIC T80°C Db (GOST) <sup>3)</sup>	1	1	3																
	II 3G Ex nA II T6/II 3G Ex ic IIC T6/II 3D Ex tc IIIC T80°C IP65 (ATEX) <sup>4)</sup>	8	1	0																
	Ex nA II T6/Ex nL IIC T6/Ex tD A22 IP65 T80°C (IECEX) <sup>5)</sup>	8	1	2																
Nominal signal	2Ex nA II T6/T5/T4 Gc X /2Ex ic IIC T6/T5/T4 Gc X/Ex tc IIIC T80°C Dc X (GOST) <sup>3)</sup>	8	1	3																
	6 V DC				1															
Manual override	12 V DC				2															
	24 V DC				3															
	Pushbutton underneath the enclosure cover				0															
Switching function	Pushbutton on the enclosure cover				1															
	Pushbutton switch on the enclosure cover				2															
	3/2-way function with spring return mechanism				0	0														
Mounting	NAMUR interface 1/4" according to VDI/VDE 3845 for rotary actuators																	0		
	NAMUR rib according to IEC 60534-6-1 for linear actuators, panel, wall or rail mounting																	2		
	For connection block with positioner for SAMSON Type 3277 Linear Actuators																	3		
	NAMUR interface 1/2" according to VDI/VDE 3845 for rotary actuators																	4		
K <sub>vs</sub> value <sup>6)</sup>	0.32																	0		
	2.0																	2		
	4.3																	4		
Material	Polyamide/aluminum, powder-coated																	1		
	Polyamide/stainless steel 1.4404																	2		
Air connection	2 × Blanking plug (connection at the adapter plate or at the connection block with positioner)																	0		
	G 1/4																	1		
	1/4 NPT																	2		
	G 1/2																	3		
	1/2 NPT																	4		
Connection at the pilot valve	2 × Blanking plug (connection at the adapter plate or at the connection block with positioner)																	0		
	1 × G (NPT) 1/4 (with internal air supply)																	1		
	2 × G (NPT) 1/4 (with external air supply)																	2		
Air supply	Internal air supply over connection 1 (for on/off valves)																	0		
	External air supply over connection 9 (for control valves or connection block with positioner)																	1		
Electrical connection	Without cable gland																	0	0	
	Cable gland M 16 × 1.5 made of polyamide, black (min. -20°C)																	0	1	
	Cable gland M 16 × 1.5 made of polyamide, blue (min. -20°C)																	1	1	
	Cable gland M 16 × 1.5 made of polyamide, black (Ex e, manufactured by CEAG) (min. -20°C)																	1	3	
	Cable gland M 16 × 1.5 made of brass, nickel-plated (min. -45°C)																	1	4	
	Cable gland M 16 × 1.5 made of brass, blue (min. -45°C)																	1	5	
Degree of protection	IP 65																	0		
Ambient temperature <sup>7)</sup>	-20 to +80°C																		0	
	-45 to +80°C																		1	
Safety function	None																		0	
	SIL <sup>8)</sup> and PL <sup>9)</sup>																		1	
Special versions	With exhaust air restrictor plate																			0 0 1
	With supply air restrictor plate																			0 0 2
	With exhaust air and supply air restrictor plate																			0 0 3

<sup>1)</sup> According to EC Type Examination Certificate PTB 06 ATEX 2027

<sup>2)</sup> According to IECEx Examination Certificate IECEx PTB 08.0036

<sup>3)</sup> According to GOST-R Certificate of Compliance POCC DE.GB05.B03117 and Operating License PPC 00-042126

<sup>4)</sup> According to Statement of Conformity PTB 06 ATEX 2028 X

<sup>5)</sup> According to IECEx Statement of Conformity IECEx PTB 08.0038 X

<sup>6)</sup> Air flow at p<sub>1</sub>=2.4 bar and p<sub>2</sub>=1.0 bar can be calculated according to the following equation: Q = K<sub>vs</sub> × 36.22, expressed in m<sup>3</sup>/h

<sup>7)</sup> The maximum permissible ambient temperature depends on the permissible ambient temperature of the cable gland, the type of protection and the temperature class

<sup>8)</sup> Safety Integrity Level SIL according to IEC 61508 (Certificate no. V 177 2009 C2/C6 or manufacturer's declaration)

<sup>9)</sup> Safety of machinery PL e according to ISO 13849 (Certificate no. V 177 2010 C4)

## Spare parts and accessories

Spare parts	
Order no.	Designation
<b>1089-1527</b>	Enclosure cover complete, with pushbutton
<b>1089-1528</b>	Enclosure cover complete, with pushbutton switch
<b>1099-6236</b>	Enclosure cover complete
<b>0430-1941</b>	Gasket (for enclosure cover)
<b>8320-1163</b>	Screw ISO 3506-1 – M 4 × 18 (for enclosure cover)
<b>0070-0808</b>	Venting plug
<b>0520-1370</b>	Diaphragm (for venting plug)
<b>8336-0769</b>	Cross head screw ISO 3506 – 3 × 10 (for venting plug)
<b>0070-0858</b>	Blanking plug G 1/4 made of stainless steel 1.4571 (for threaded connections)
<b>0070-0862</b>	Blanking plug 1/4 NPT made of stainless steel 1.4571 (for threaded connections)
<b>8421-0070</b>	O-ring 14 × 1.5 made of nitrile butadiene rubber (for blanking plug G 1/4)
<b>0550-0213</b>	Filter 1/4" (for connection plate)
<b>0430-1884</b>	Reversible gasket (for connection plate)
<b>8336-1108</b>	Screw DIN 7964 – M 5 × 20 (for connection plate)
<b>0430-1883</b>	Molded gasket (for NAMUR interface 1/4", K <sub>VS</sub> value 2.0)
<b>8421-0364</b>	O-ring 16 × 2 made of nitrile butadiene rubber, –20 ... +80 °C (for NAMUR interface 1/4", K <sub>VS</sub> value 2.0)
<b>8421-0368</b>	O-ring 16 × 2 made of silicone rubber, –45 ... +80 °C (für NAMUR interface 1/4", K <sub>VS</sub> value 2.0)
<b>8421-1077</b>	O-ring 24 × 2 made of nitrile butadiene rubber, –20 ... +80 °C (for NAMUR interface 1/2", K <sub>VS</sub> value 4.3)
<b>8421-0425</b>	O-ring 24 × 2 made of silicone rubber, –45 ... +80 °C (für NAMUR interface 1/2", K <sub>VS</sub> value 4.3)
<b>8333-1318</b>	Hexagon socket head screw ISO 4762 – M 5 × 80 (for mounting the device)
<b>0270-2758</b>	Split washer DIN 127 – B 5 (for locking the hexagon socket head screw)

Accessories	
Order no.	Designation
8808-1010	Cable gland M 16 × 1.5 made of polyamide, black, cable Ø 5 ... 10 mm
8808-2007	Cable gland M 16 × 1.5 made of polyamide, black, cable Ø 5.5 ... 10 mm (Ex e, manufactured by CEAG)
8808-2008	Cable gland M 16 × 1.5 made of polyamide, blue, cable Ø 4 ... 8 mm
8808-2009	Cable gland M 16 × 1.5 made of brass, nickel-plated, cable Ø 4 ... 8 mm
1991-6471	Cable gland M 16 × 1.5 made of brass, blue, cable Ø 4 ... 8 mm
8808-2011	Enlargement gland M 16 × 1.5 to M 20 made of polyamide, blue (–20 ... +70 °C)
8808-1024	Plug M 16 × 1.5 made of polyamide, black (for cable entry)
8421-0070	O-ring 14 × 1.5 made of nitrile butadiene rubber (for cable gland and blanking plug)
8504-0066	Filter made of polyethylene, connection G 1/4, degree of protection IP 54
8504-0068	Filter made of polyethylene, connection G 1/2, degree of protection IP 54
1790-7408	Filter-check valve with screw-in case G 1/4 made of polyamide, degree of protection IP 65
1790-7253	Filter-check valve with screw-in case G 1/4 made of stainless steel 1.4301, degree of protection IP 65
1790-9645	Filter-check valve with screw-in case G 1/4 made of polyamide, degree of protection NEMA 4
1790-9646	Filter-check valve with screw-in case G 1/4 made of stainless steel 1.4301, degree of protection NEMA 4
1400-0095	Adapter plate with NAMUR interface 1/4" according to VDI/VDE 3845 made of stainless steel 1.4404 for Type 3351 Control Valves, nominal size DN 15 ... 80/1/2 ... 3", including mounting material
1400-5930	Mounting base according to EN 60715 with slotted cheese head screw ISO 1207 – M 3 × 8 for G profile G 32 (2 pcs. required!)
1400-5931	for top hat rail TH 35 (2 pcs. required!)
1400-6726	Mounting plate for wall mounting with 2 hexagon socket head screws ISO 4762 – M 3 × 8
1400-9598	Adapter plate for NAMUR rib according to IEC 60534-6-1, panel, wall or rail mounting, with hexagon socket head screw ISO 4762 – M 8 × 35 and split washer DIN 127 – form B 8, made of AlMgSiPb, powder-coated, grayish beige RAL 1019, connection G 1/4
1400-9599	made of AlMgSiPb, powder-coated, grayish beige RAL 1019, connection 1/4 NPT
1400-9600	made of stainless steel 1.4404, connection G 1/4
1400-9601	made of stainless steel 1.4404, connection 1/4 NPT
1400-9602	Restrictor plate with two threaded bolts M 5, with exhaust air restrictor, K <sub>VS</sub> value 0.01 ... 0.24, adjustable made of AlMgSiPb, powder-coated, grayish beige RAL 1019
1400-9603	with supply air restrictor, K <sub>VS</sub> value 0.01 ... 0.24, adjustable made of AlMgSiPb, powder-coated, grayish beige RAL 1019,
1402-0139	with supply air restrictor, K <sub>VS</sub> value 0.01 ... 0.28, adjustable, made of AlMgSiPb, powder-coated, grayish beige RAL 1019 <b>SIL</b>
1402-0140	with supply air restrictor, K <sub>VS</sub> value 0.01 ... 0.28, adjustable, made of stainless steel 1.4404 <b>SIL</b>
1402-0141	with exhaust air restrictor, K <sub>VS</sub> value 0.01 ... 0.28, adjustable, made of AlMgSiPb, powder-coated, grayish beige RAL 1019 <b>SIL</b>
1402-0142	with exhaust air restrictor, K <sub>VS</sub> value 0.01 ... 0.28, adjustable, made of stainless steel 1.4404 <b>SIL</b>
3994-0158	Cable break protection device with enclosure for top hat rail TH 35 according to EN 60715, IP 20 (for Type 3967-XXX1)

<b>Accessories</b> (continued from page 14)	
<b>Order no.</b>	<b>Designation</b>
<b>1400-9743</b>	Distance plate with NAMUR interface $\frac{1}{2}$ " to NAMUR interface $\frac{1}{2}$ ", made of aluminum, powder-coated, grayish beige RAL 1019
<b>0360-3945</b> <b>0360-3946</b> <b>0360-3947</b> <b>0360-3948</b>	Adapter plate with NAMUR interface $\frac{1}{2}$ ", connection G $\frac{1}{2}$ ", made of aluminum, powder-coated, grayish beige RAL 1019 connection $\frac{1}{2}$ NPT, made of aluminum, powder-coated, grayish beige RAL 1019 connection G $\frac{1}{2}$ ", made of stainless steel 1.4404 connection $\frac{1}{2}$ NPT, made of stainless steel 1.4404
<b>1380-1795</b> <b>1380-1796</b>	Adapter plate with NAMUR interface $\frac{1}{2}$ " to NAMUR interface $\frac{1}{4}$ ", made of aluminum, powder-coated, grayish beige RAL 1019 made of stainless steel 1.4404
<b>1402-0827</b> <b>1402-0828</b> <b>1402-0829</b> <b>1402-0830</b>	Adapter plate with NAMUR interface $\frac{1}{2}$ " to NAMUR rib, connection G $\frac{1}{2}$ ", made of aluminum, powder-coated, grayish beige RAL 1019 connection G $\frac{1}{2}$ ", made of stainless steel 1.4404 connection $\frac{1}{2}$ NPT, made of aluminum, powder-coated, grayish beige RAL 1019 connection $\frac{1}{2}$ NPT, made of stainless steel 1.4404
<b>1402-0095</b> <b>1409-3001</b> <b>8333-1237</b> <b>0790-6118</b>	Adapter plate with NAMUR interface $\frac{1}{4}$ " made of stainless steel 1.4404 for SAMSON Type 3351 On/off Valves for SAMSON Type 3353 Angle Seat Valves and SAMSON Type 3354 Globe Valves Hexagon socket head screw ISO 4762 – M 5 × 6 made of stainless steel 1.4404 (for adapter plate) Gasket M 5 (for hexagon socket head screw)
<b>1402-0023</b> <b>1402-0024</b> <b>1402-0602</b> <b>1402-0603</b> <b>1402-0280</b>	Diversion plate with NAMUR interface $\frac{1}{4}$ ", 90°, made of aluminum, powder-coated, grayish beige RAL 1019 with NAMUR interface $\frac{1}{4}$ ", 90°, made of stainless steel 1.4404 with NAMUR interface $\frac{1}{2}$ ", 90°, made of aluminum, powder-coated, grayish beige RAL 1019 with NAMUR interface $\frac{1}{4}$ ", 90°, made of stainless steel 1.4404 with NAMUR interface $\frac{1}{4}$ ", 180°, made of aluminum, powder-coated, grayish beige RAL 1019
<b>1402-0149</b> <b>1402-0150</b>	Universal restrictor plate with NAMUR interface $\frac{1}{4}$ ", made of aluminum, powder-coated, grayish beige RAL 1019 made of stainless steel 1.4404
<b>1402-0011</b> <b>1402-0012</b> <b>1402-0013</b> <b>1402-0014</b>	Redundancy plate "Reliable fail-safe action to vent the actuator" with NAMUR interface $\frac{1}{4}$ ", connection G $\frac{1}{4}$ ", made of aluminum, powder-coated, grayish beige RAL 1019 connection G $\frac{1}{4}$ ", made of stainless steel 1.4404 connection $\frac{1}{4}$ NPT, made of aluminum, powder-coated, grayish beige RAL 1019 connection $\frac{1}{4}$ NPT, made of stainless steel 1.4404
<b>1170-3767</b> <b>1170-3848</b> <b>1170-3849</b> <b>1170-3850</b>	Pneumatic switching element "Reliable fail-safe action to vent the actuator" with NAMUR interface $\frac{1}{4}$ ", connection G $\frac{1}{2}$ ", made of aluminum, powder-coated, grayish beige RAL 1019 connection G $\frac{1}{2}$ ", made of stainless steel 1.4404 connection $\frac{1}{2}$ NPT, made of aluminum, powder-coated, grayish beige RAL 1019 connection $\frac{1}{2}$ NPT, made of stainless steel 1.4404
<b>1170-4126</b> <b>1170-4127</b> <b>1170-4128</b> <b>1170-4129</b>	Pneumatic switching element "Reliable fail-safe action to fill the actuator with air" with NAMUR interface $\frac{1}{4}$ ", connection G $\frac{1}{2}$ ", made of aluminum, powder-coated, grayish beige RAL 1019 connection G $\frac{1}{2}$ ", made of stainless steel 1.4404 connection $\frac{1}{2}$ NPT, made of aluminum, powder-coated, grayish beige RAL 1019 connection $\frac{1}{2}$ NPT, made of stainless steel 1.4404
<b>1402-0695</b>	Adapter block, fourfold, with NAMUR interface $\frac{1}{4}$ " to line-up solenoid valves, connection G $\frac{1}{4}$ ", made of aluminum, powder-coated, grayish beige RAL 1019

<b>Connection blocks and accessories for SAMSON Type 3277 Linear Actuators</b>	
<b>Order no.</b>	<b>Designation</b>
<b>1400-8813</b> <b>1400-8814</b>	Connection block for SAMSON Type 3277 Linear Actuators, connection G $\frac{1}{4}$ connection $\frac{1}{4}$ NPT
<b>1400-6950</b>	Pressure gauge build-on block, 1 × "Output" and 1 × "Supply", made of stainless steel/brass (for connection block)
<b>1400-6444</b> <b>1400-6445</b> <b>1400-6446</b> <b>1400-6447</b> <b>1400-6448</b> <b>1400-6449</b>	Piping kit for actuator "Stem retracts", actuator size 240 cm <sup>2</sup> , made of steel, zinc-coated actuator size 240 cm <sup>2</sup> , made of stainless steel actuator size 350 cm <sup>2</sup> , made of steel, zinc-coated actuator size 350 cm <sup>2</sup> , made of stainless steel actuator size 700 cm <sup>2</sup> , made of steel, zinc-coated actuator size 700 cm <sup>2</sup> , made of stainless steel

(Specifications subject to change without notice.)

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**SAMSOMATIC GMBH**

Weismüllerstraße 20–22  
60314 Frankfurt am Main · Germany

Phone: +49 69 4009-0  
Fax: +49 69 4009-1644  
E-mail: [samsomatic@samsomatic.de](mailto:samsomatic@samsomatic.de)  
Internet: <http://www.samsomatic.de>

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