

**3/2 Directional control valves**  
**Direct solenoid operated poppet valves**  
**Internal thread: G1/4, 1/4-18 NPT or**  
**flanged with NAMUR interface**

**Main application: single operated process actuators**

**TÜV-approval based on IEC 61 508, DIN V 19 251**

**Approvals: DIN EN 161/3394 DVGW, group Rm and**  
**EN 13611**

**Valves for safety systems to SIL 4 or AK 7**

**Standard NAMUR type**

- manifold system for easy assembly

- redundancy: 1 of 2  
 2 of 3

- add-on manual override or inductive limit switches

**Value switches at power failure into starting position**  
**(mechanical return spring)**

**Rest position in the event of power failure provided**  
**by mechanical return spring**

**Suited for outdoor use under critical environment**  
**conditions (see solenoid list)**

**Solenoids and valves are ATEX approved**  
**(see solenoid table), additional protection class**  
**(FM, CSA) XP**



### Technical data

Medium:

Neutral gaseous liquids or aggressive fluids

Operation:

Solenoid

Flow direction:

Optional

Flow rate:

340 l/min

Port size:

G1/4, 1/4 NPT or NAMUR interface

Orifice:

DN 5

Operating pressure:

0 ... 10 bar

Temperature:

Fluid: -25... +80°C (NBR)

-10... +120°C (FKM) – water up to +95°C

-40... +60°C (VMQ)

Solenoid temperature: see solenoid table

Mounting:

Optional, preferably vertical

**Materials:**

Body: stainless steel 1.4404/316, brass,  
 hard anodized aluminium

Seat seal: FKM (Viton), NBR (Perbunan), (VMQ) Silicon

Inner parts: stainless steel, brass

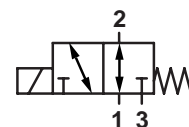
### Ordering information

3/2 Directional control valve, stainless steel,  
 with seat seal Viton, port size G 1/4,  
 solenoid 24 V DC

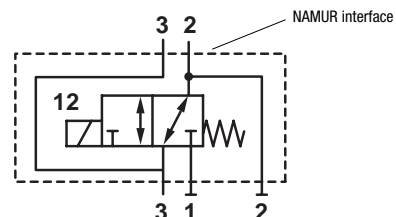
**Type: 2401127.4260.024.00**

**Cable gland: 0588819**


TÜV-Certificate for each valve on request




Switching function:  
 Pressure port  
 at 1, 2 or 3




## With threaded connection Brass valves

Symbol	Type *1	Solenoid group	Connection	Operating pressure (bar)*	Material Seat seal	Manual override	Weight (kg)	Test certificate IEC 61 508 *2)	Dimensions No.
	2401103	A + B	G 1/4	0 ... 10	NBR		0,65	X	1
	2401107	A + B	G 1/4	0 ... 10	NBR	push only	0,70		1
	2401119	A + B	G 1/4	0 ... 10	NBR	push and lock	0,70		1
	2401149	A + B	G 1/4	0 ... 10	NBR		0,65	X	1
	2401126	A + B	G 1/4	0 ... 10	FKM		0,65	X	1
	2401153	A + B	G 1/4	0 ... 10	Silicon *3)		0,65	X	1
	2401154	A + B	G 1/4	0 ... 10	Silicon *3)	semi-automatic	0,70		1
	2401138	A + B	1/4 NPT	0 ... 10	NBR		0,65	X	1
	2401148	A + B	1/4 NPT	0 ... 10	NBR	push only	0,70		1
	2401136	A + B	1/4 NPT	0 ... 10	NBR	push and lock	0,70		1
	2401140	A + B	1/4 NPT	0 ... 10	NBR	semi-automatic	0,70		1
	2401131	A + B	1/4 NPT	0 ... 10	FKM		0,65	X	1
	2401106	A + B	1/4 NPT	0 ... 10	Silicon *3)		0,65	X	1
	1025226	A + B	1/4 NPT	0 ... 10	Silicon *3)	semi-automatic	0,70		1

## Stainless steel valves (1.4404) for aggressive environment

Symbol	Type *1	Solenoid group	Connection	Operation pressure (bar)*	Material Seat seal	Manual override	Weight (kg)	Test certificate IEC 61 508 *2)	Dimensions No.
	2401186	A + B	G 1/4	0 ... 10	NBR	–	0,65	X	1
	2401112	A + B	1/4 NPT	0 ... 10	NBR	–	0,65	X	1

Symbol	Type *1	Solenoid group	Connection	Operation pressure (bar)*	Material Seat seal	Manual override	Weight (kg)	Dimensions No.
	2401127	A	G 1/4	0 ... 10	FKM		0,70	1
	2401170	A	G 1/4	0 ... 10	FKM	push only	0,70	1
	2401139	A	G 1/4	0 ... 10	FKM	push and lock	0,70	1
	2401155	A	G 1/4	0 ... 10	Silicon *3)		0,65	1
	2401147	A	1/4 NPT	0 ... 10	FKM		0,65	1
	2401146	A	1/4 NPT	0 ... 10	FKM	semi-automatic	0,70	1
	2401168	A	1/4 NPT	0 ... 10	Silicon *3)		0,65	1

\*1) When ordering please indicate solenoid, voltage and current type (frequency)

\*2) Approval is not included in delivery, part No. 0695241

\* Viscosity for gaseous or liquid fluids up to 40 mm<sup>2</sup>/s

- Particularly for valves with TÜV approval and attachment in plants based on safety standards DIN V 19250, IEC 61511, taking into account to the operating and maintenance instructions document 7503444.
- The responsibility for the maintenance and repair of the solenoid valves lies with the users or the supervisory authority for these process systems.

\*3) For ambient temperature down to -40°C

## With NAMUR interface

### Aluminium valves anodized

Symbol	Type *1)	Solenoid group	Connection	Operating pressure (bar)*	Material Seat seal	Manual override	Variants	Weight (kg)	Test certificate IEC 61 508 *2)	Dimensions No.
	2401191	A + B	G 1/4	0 ... 10	NBR	add-on		0,55	X	2
	1025333	A + B	G 1/4	0 ... 10	NBR	add-on	with limit switch	0,70		2
	1025254	A + B	1/4 NPT	0 ... 10	NBR	add-on		0,55	X	2
	2401133	A + B	G 1/4	0 ... 10	Silicon *3)	add-on		0,55	X	2
	2401109	A + B	G 1/4	0 ... 10	NBR	add-on	P in flange interface 3	0,55	X	3

### Stainless steel valves (1.4404) for aggressive environment

Symbol	Type *1)	Solenoid group	Connection	Operating pressure (bar)*	Material Seat seal	Manual override	Variants	Weight (kg)	Test certificate IEC 61 508 *2)	Dimensions No.
	2401196	A + B	G 1/4	0 ... 10	NBR	add-on		1,00	X	2
	2401142	A	G 1/4	0 ... 10	Silicon *3)	add-on		1,00		2
	1025212	A + B	G 1/4	0 ... 10	NBR	add-on	P in flange interface *4)	1,00	X	3
	1025328	A + B	1/4 NPT	0 ... 10	NBR	add-on	P in flange interface *4)	1,00	X	3

\*1) When ordering please indicate solenoid, voltage and current type (frequency).

\*2) Approval is not included in delivery, part No. 0695241

\* Viscosity for gaseous or liquid fluids up to 40 mm<sup>2</sup>/s

Approval S 137/01, SIL 4 for low demand mode, SIL 3 for high demand mode,

Approval S 83/96, AK 7 (request from manufacturer)






- Particular for valves with TÜV approval and attachment in plants based on safety standards DIN V 19250, IEC 61511, taking into account to the operating and maintenance instructions document 7503444.

- The responsibility for the maintenance and repair of the solenoid valves lies with the users or the supervisory authority for these process systems.






\*3) For ambient temperature down to -40 °C

\*4) Acc. to VDI/VDE 3845 port P in flange for attachment of positioners

## Solenoid operators group A

	Type	Power consumption		Rated current		Protection class	Temperature range Ambient/Fluid °C	Electrical connection	Weight (kg)	Dimensions No.	Circuit diagram No.
		24V DC (W)	230V AC (VA)	24V DC (mA)	230V AC (mA)						
	0800 *7)	16,9	-	703	-	IP00 w/o connector *5) IP65 with connector *5)	-25...+60 Form A *6)	DIN EN175W301-803	0,33	3	1
	3803 *7)	-	18	-	185	P00 w/o connector *5) IP65 with connector *5)	-25...+60 Form A *6)	DIN EN175W301-803	0,34	4	6
	4270 *8)	8,9	-	369	-	EEx me II T4/T5 *2) IP66 T130°C	-40...65/55	M20x1,5 *6)	0,6	5	4
	4271 *8)	-	10	-	43	EEx me II T4/T5 *2) IP66 T130°C	-40...65/55	M20x1,5 *6)	0,6	5	7
	4670 *8)	8,9	-	369	-	EEx md IIC T4/T6 *3) EEx me IIC T4/T6 *3) IP66 T130°C	-40...+65/55	1/2 NPT *6)	0,8	6	4
	4671 *8)	-	10	-	43	EEx md IIC T4/T6 *3) EEx me IIC T4/T6 *3) IP66 T130°C	-40...+65/55	1/2 NPT *6)	0,8	6	7
	4672 *8)	8,9	-	369	-	EEx md IIC T4/T6 *3) EEx me IIC T4/T6 *3) IP66 T130°C	-40...+65/55	M20x1,5 *6)	0,8	6	4
	4673 *8)	-	10	-	43	EEx md IIC T4/T6 *3) EEx me IIC T6 *3) IP66 T130°C	-40...+65/55	M20x1,5 *6)	0,8	6	7
	3826	13,6	-	566	-	XP NEMA *4) 4, 4X, 6, 6P, 7, 9	-20...+60	Flying leads 450 mm long	0,4	7	1
	3827	-	15,7	-	68	XP NEMA *4) 4, 4X, 6, 6P, 7, 9	-20...+60	Flying leads 450 mm long	0,4	7	5

## Solenoids operators group B

	Type	Power consumption		Current		Protection class	Temperatures Ambient/Fluid °C	Electrical connection	Weight (kg)	Dimensions No.	Circuit diagram No.
		24V DC (W)	230V AC (VA)	24V DC (mA)	230V AC (mA)						
	0827 *7)	6,8	-	282	-	IIPO0 without plug *5) IP65 with plug *5)	-25...+60	DIN EN175W301-803 Form A *6)	0,33	6	1
	3805 *7)	-	10,6	-	46	IP00 without plug *5) IP65 with plug *5)	-25...+60	DIN EN175W301-803 Form A *6)	0,34	7	6
	4260 *8)	4	-	162	-	EEx me II T4/T6 *2) IP66 T130°C	-40...+80/+55	M20 x 1,5 *6)	0,6	8	4
	4261 *8)	-	5,3	-	23	EEx me II T4/T6 *2) IP66 T130°C	-40...+80/+55	M20x1,5 *6)	0,6	8	7
	4660 *8)	4	-	162	-	EEx md IIC T4/T6 *3) EEx me IIC T4/T6 *3) IP66 T130°C	-40...+80/+55	1/2 NPT *6)	0,8	9	4
	4661 *8)	-	5,3	-	23	EEx md IIC T4/T6 *3) EEx me IIC T4/T6 *3) IP66 T130°C	-40...+80/+55	1/2 NPT *6)	0,8	9	7
	4662 *8)	4	-	162	-	EEx md IIC T4/T6 *3) EEx me IIC T4/T6 *3) IP66 T130°C	-40...+80/+55	M20x1,5 *6)	0,8	9	4
	4663 *8)	-	5,3	-	23	EEx md IIC T4/T6 *3) EEx me IIC T4/T6 *3) IP66 T130°C	-40...+80/+55	M20x1,5 *6)	0,8	9	7
	3824	8,9	-	370	-	NEMA *4) 4, 4X, 6, 6P, 7, 9	-20...+60	Flying leads 450 mm long	0,4	10	1
	3825	-	9,5	-	41	NEMA *4) 4, 4X, 6, 6P, 7, 9	-20...+60	Flying leads 450 mm long	0,4	10	5

Standard voltages 24V DC, 230V AC, other voltages on request. Design acc. to VDE 0580, EN 50014/50028.100% duty cycle.

\*2) Catégorie II 2 GD, EC-Type-Examination-Certificate KEMA 98 ATEX 4452 X

\*3) Catégorie II 2 GD, EC-Type-Examination-Certificate PTB 02 ATEX 2085 X

\*4) CSA-LR 57643-6, FM approved, for hazardous locations: Div. 1 and 2, Class I, II, III




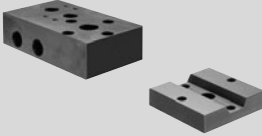

\*5) Required connector: type 0570275.

\*6) Connector cable gland not supplied

\*7) IP65 according to DIN 40050/IEC 529 and DIN EN 600068-2-38

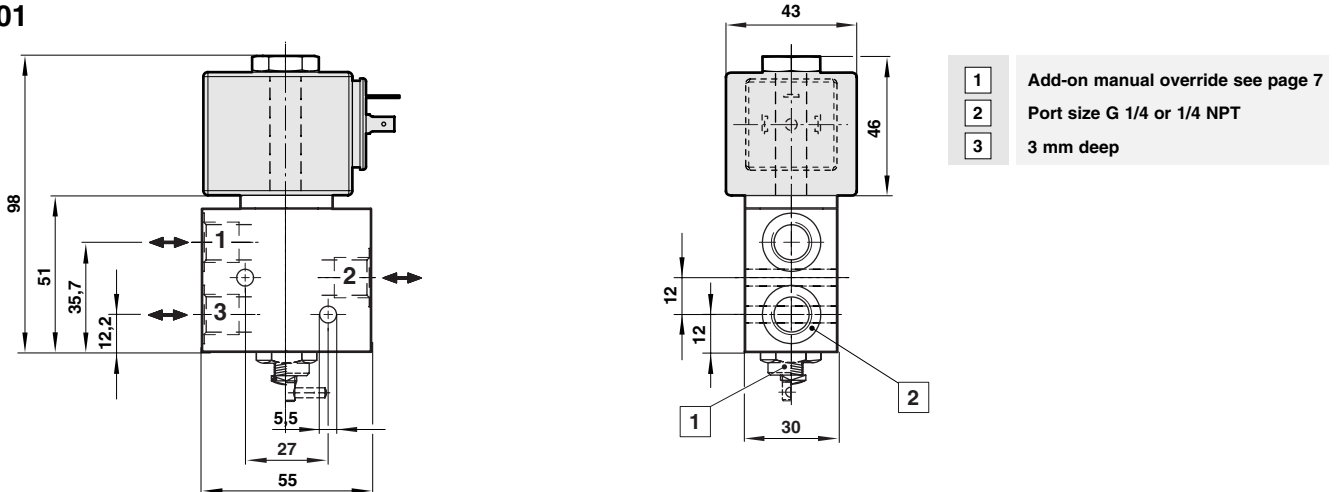
\*8) This solenoid has a fuse with an appropriate rating.

**Accessories**

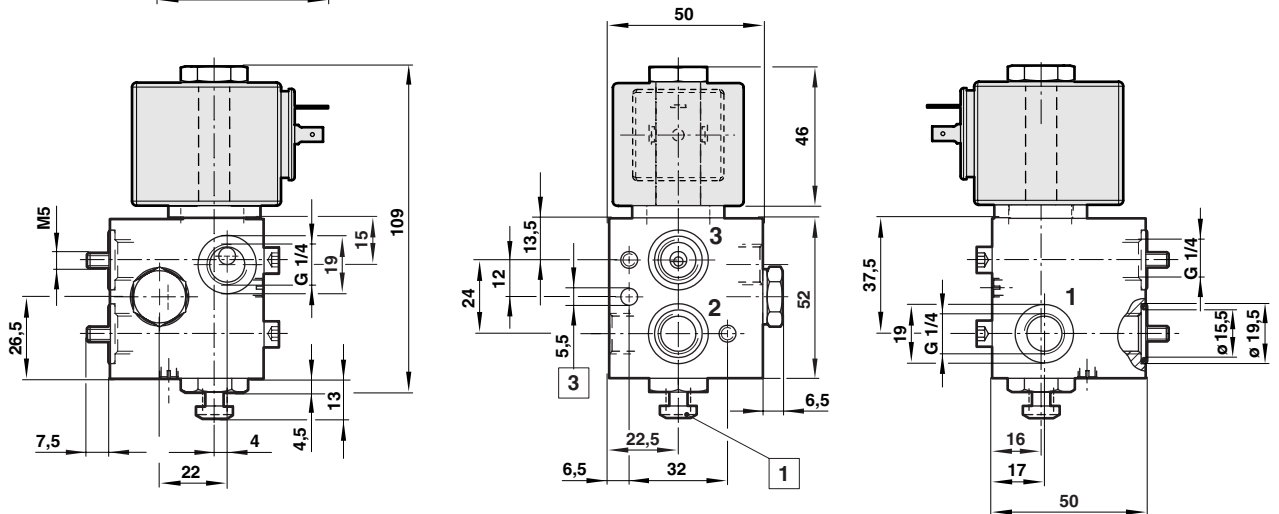
Cable gland Protection class EEx e (Atex), MS nickel plated brass	Silencer	Connectors	Flange plate	Yoke
				
EEx e 0588819 (for solenoid 42xx / 46xx M20 x 1,5)	C/S2 1/4 NPT	0570275	0612790 (NAMUR single connection plate)	0540593
EEx d 0588851 (for solenoid 46xx M20 x 1,5)	M/S2 G 1/4		0612791 NAMUR rip use in combination with 0612790 (Alu)	
EEx d, EEx e 0588925 (for solenoid 46xx 1/2-14 NPT)				

**Basic dimensions for valves**

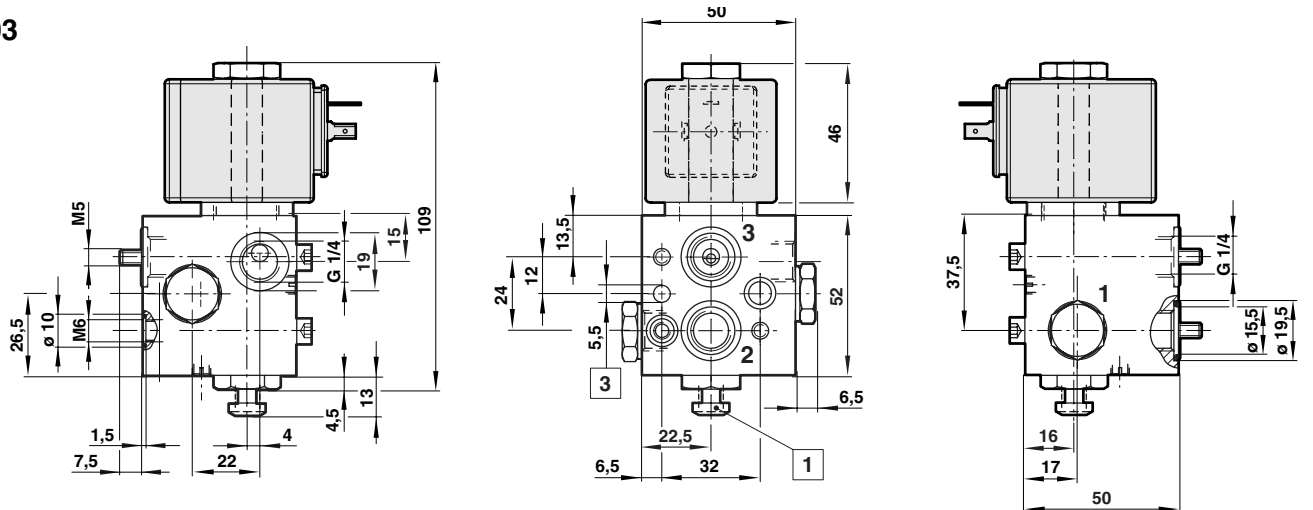
**M01**



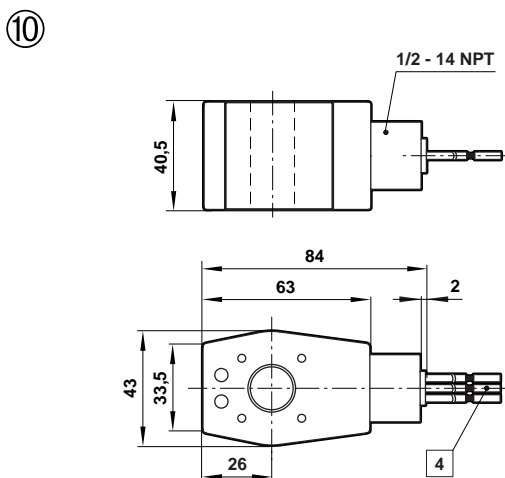
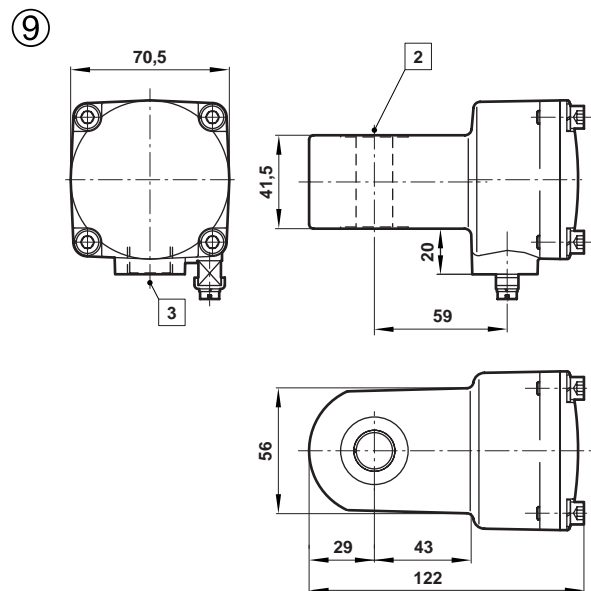
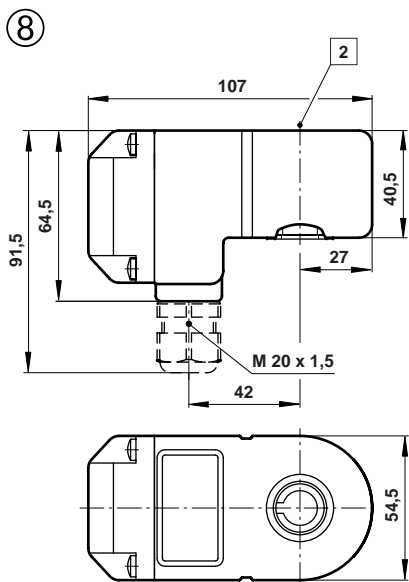
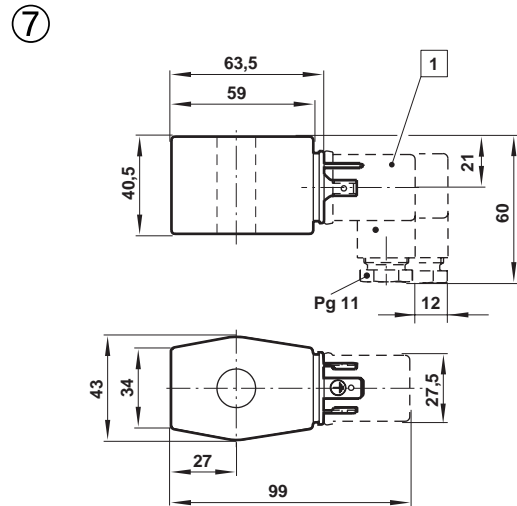
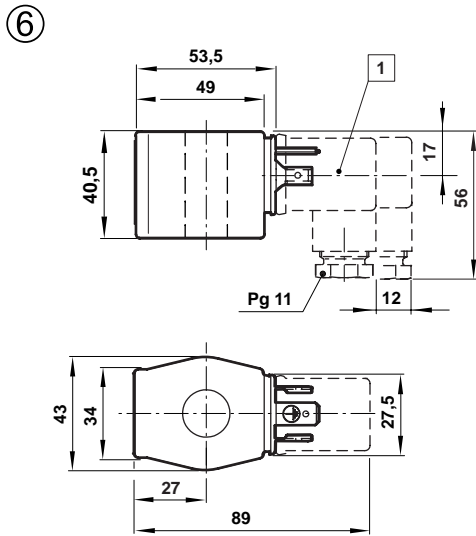
**M02**



**M03**

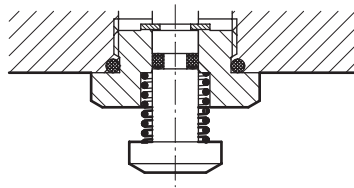


**Basic dimensions for solenoid operators**

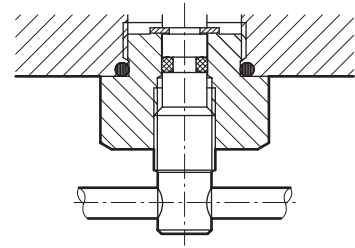


- |   |                                     |
|---|-------------------------------------|
| 1 | Connector can be indexed by 4 x 90° |
| 2 | Ø 13 (with spacer tube)             |
| 3 | M20 x 1,5 or 1/2 - 14 NPT           |
| 4 | Flying leads AWG 18 (450 mm long)   |

**Add-on manual override for versions with NAMUR interface**  
Type: 0600205



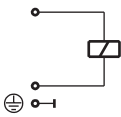
With detent  
Type: 0601765



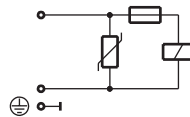
Please note: add-on manual override for NAMUR valves provided only for commissioning and tests

**Circuit diagrams**

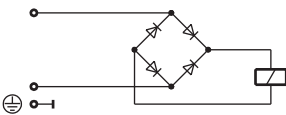
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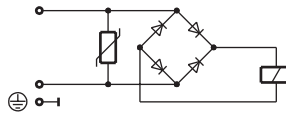
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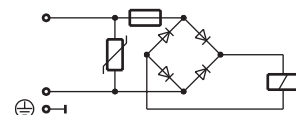
⑤



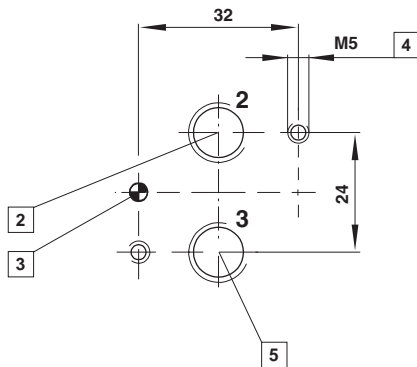
⑥



⑦



**NAMUR hole pattern**



- ② Port 2 (A)
- ③ Coding stud threaded
- ④ M5 (10 deep)
- ⑤ Port 3 (R)

NAMUR quick exhaust module for a better kv-value by exhaust see data sheet 7502144

NAMUR interlinking plates in redundancy design for „safety exhausting“ and „safety ventilating“ see data sheet 5.8.300 (7503386)

**Warning**

These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures can exceed those listed under 'Technical Data'. Before using these products with fluids other than those specified, for non-industrial applications, life-support systems, or other applications not within published specifications, consult NORGREN. Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes. The system designer is warned to consider the failure modes of all component parts used in

fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.

**System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.**

System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products where applicable.