

**For single and double operated actuators**  
**Manual override with and without detent**  
**Simple design of soft seal spool system**  
**Easily interchangeable solenoid**  
**Maintenance-free**  
**All valves available with Ex protected coils (ATEX or other international approvals)**



Approval depends on magnetic system, see page 3!

**Technical features**

**Medium:** Compressed air, filtered, lubricated or non-lubricated  
**Operation:** Indirect solenoid operated T-spool valves  
**Port size:** G 1/4  
**Operating pressure:** max. 10 bar (145 psi) (see specifications)  
**Flow direction:** Fixed

**Mounting:** Optional, preferably with solenoid on top  
**Fluid/Ambient temperature:** -10 ... +60°C (+14 ... +140°F)  
Depending on solenoid system  
Air supply must be dry enough to avoid ice formation at temperatures below +2°C (+35°F).

**Materials:** Housing: aluminium anodised  
Pilot flange: plastic (POM)  
Seals: NBR

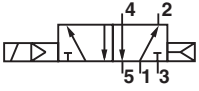
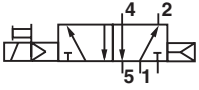
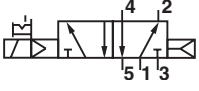
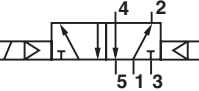
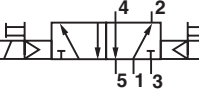
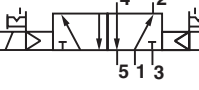
**Technical data**

**3/2 way**

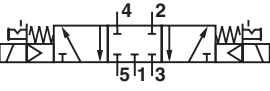
Symbol	Port size 1, 2	3, 4	Operating pressure (bar) min.	max.	Flow (l/min)	Switching time (ms)	Manual override with/without detent	Weight without solenoid (kg)	Dimension No.	Model *1)
	G 1/4	Flange	1	10	1200	35	-	0,24	1	8020745
	G 1/4	Flange	1	10	1200	35	without	0,24	1	8020746
	G 1/4	Flange	1	10	1200	35	with	0,24	1	8020747

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

## 5/2 way

Symbol	Port size 1, 2	3, 4	Operating pressure (bar) min.	max.	Flow (l/min)	Switching time (ms)	Manual override with/without detent	Weight without solenoid (kg)	Dimension No.	Model *1)
	G 1/4	Flange	1	10	1200	35	-	0,55	2	2636045
	G 1/4	Flange	1	10	1200	35	without	0,55	2	2636046
	G 1/4	Flange	1	10	1200	35	with	0,55	2	2636047
	G 1/4	Flange	1	10	1200	30	-	0,90	3	2636245
	G 1/4	Flange	1	10	1200	30	without	0,90	3	2636246
	G 1/4	Flange	1	10	1200	30	with	0,90	3	2636247

## 5/3 way

Symbol	Port size 1, 2	3, 4	Operating pressure (bar) min.	max.	Flow (l/min)	Switching time (ms)	Manual override with/without detent	Weight without solenoid (kg)	Dimension No.	Model *1)
	G 1/4	Flange	3	10	950	40	with	1,0	4	2636447

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

**Solenoid operators**

	Power consumption		Rated current		Ex-Protection (ATEX-Category)	Protection class *7)	Temperature Ambient/Fluid (°C)	Electrical connection	Weight (kg)	Dimension No.	Circuit diagram No.	Model
	24 V d.c. (W)	230 V a.c. (VA)	24 V d.c. (mA)	230 V a.c. (mA)								
	2,7	-	113	-	-	IP 65 with connector *5)	-25 ... +60 Fluid: max. 80	Connector DIN EN 175301-803 Form A *6)	0,15	1	1	0242
	-	4,2	-	-	-	IP 65 with connector *5)	-25 ... +60 Fluid: max. 80	Connector DIN EN 175301-803 Form A *6)	0,16	1	1	0245
	2,7	-	331	-	II3G II3D	Ex nA II T4 Ex tD A22 IP65 T90°C	-20 ... +60	Connector DIN EN 175301-803 Form A included in delivery	0,16	1	1	3215
	3,6	-	150	-	II2G II2D	Ex m II T4 Ex tD A21 IP66 T110°C *1)	-20 ... +70	Cable 3 m	0,4	5	4	0298 *8)
	-	4,6	-	18	II2G II2D	Ex m II T4 Ex tD A21 IP66 T110°C *1)	-20 ... +70	Cable 3 m	0,4	5	7	0299 *8)
	3,9	-	162	-	II2G II2D	Ex e mb IIC T4/T6 Gb Ex tb IIIC T130°C Db IP66 *2), *10)	-40 ... +55 T6 -40 ... +80 T4 -40 ... +80	M20 x 1,5 *6)	0,5	6	4	4210 *8)
	-	5,3	-	23	II2G II2D	Ex e mb IIC T4/T6 Gb Ex tb IIIC T130°C Db IP66 *2), *10)	-40 ... +55 T6 -40 ... +80 T4 -40 ... +80	M20 x 1,5 *6)	0,5	6	7	4211 *8)
	3,9	-	162	-	II2G II2D	Ex d mb IIC T4/T6 Gb Ex e mb IIC T4/T6 Gb Ex tb IIIC T130°C Db	-40 ... +55 T6 -40 ... +80 T4 -40 ... +80	1/2-14 NPT *6)	0,8	7	20	4610 *8)
	-	5,3	-	23	II2G II2D	Ex d mb IIC T4/T6 Gb Ex e mb IIC T4/T6 Gb Ex tb IIIC T130°C Db	-40 ... +55 T6 -40 ... +80 T4 -40 ... +80	1/2-14 NPT *6)	0,8	7	21	4611 *8)
	3,9	-	162	-	II2G II2D	Ex d mb IIC T4/T6 Gb Ex e mb IIC T4/T6 Gb Ex tb IIIC T130°C Db	-40 ... +55 T6 -40 ... +80 T4 -40 ... +80	M20 x 1,5 *6)	0,8	7	20	4612 *8)
	-	5,3	-	23	II2G II2D	Ex d mb IIC T4/T6 Gb Ex e mb IIC T4/T6 Gb Ex tb IIIC T130°C Db	-40 ... +55 T6 -40 ... +80 T4 -40 ... +80	M20 x 1,5 *6)	0,8	7	21	4613 *8)
	5,5	-	-	228	-	XP/DIP, Div. 1 u. 2 Cl. I, Gr. A-D Cl. II, Gr. E-G Cl. III, T3 (160°C) *4) NEMA 4, 4X, 6, 6P, 7, 9	-20 ... +60	Flying leads 450 mm	0,5	8	1	3722
	-	5,9	-	26	-	XP/DIP, Div. 1 u. 2 Cl. I, Gr. A-D Cl. II, Gr. E-G Cl. III, T3 (160°C) *4) NEMA 4, 4X, 6, 6P, 7, 9	-20 ... +60	Flying leads 450 mm	0,5	8	5	3723

Standard voltages 24 V d.c., 230 V a.c., other voltages on request.  
Design according to VDE 0580, EN 50014/50028. 100% duty cycle.

- \*1) EG-Type-Examination-Certificate KEMA 02 ATEX 1347X
- \*2) EG-Type-Examination-Certificate KEMA 98 ATEX 4452 X
- \*3) EG-Type-Examination-Certificate PTB 02 ATEX 2085 X
- \*4) CSA-LR 57643-6, FM Approval
- \*5) Required connector: type 0570275
- \*6) Connector cable gland not supplied, see table »Accessories«
- \*7) IP-Protection class according to EN60529

\*8) Suitable for outdoor installation

\*10) IEC Ex Certificate of Conformity

Attention:  
The protection class for coil series 46xx is determined by the choice of cable gland.  
Example: if an ATEX-certified cable gland is used that has Ex d type of protection, the solenoid will have the protection class Ex dmb;  
if a cable gland with Ex e type of protection is used, the solenoid will have protection class Ex emb.

## Accessories

Cable gland  
Protection class Ex e, Ex d  
(ATEX),  
Nickel plated brass



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Thread	Cable Ø	Material	Protection class (ATEX)	Model
M 20x1,5	5,0...8,0 mm	Nickel plated brass	I/2GD Ex e	0588819
M 20x1,5	10...14 mm	Nickel plated brass	I/2GD Ex d	0588851
1/2-14-NPT	7,5...11,9 mm	Nickel plated brass	I/2GD Ex d	0588925

## Accessories

Connector  
Form A



0570275

Silencer \*1)



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M/S2 (G1/4)  
C/S2 (1/4 NPT)

Exhaust guard \*2)



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0613422 (G1/4 or 1/4 NPT)

Throttle control plate



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4040239

Flange plate



Page 9

0612790 (NAMUR single connection plate)  
0612791 (NAMUR-rip use in combination with 0612790, Alu)

Yoke



Page 9

0540593

\*1) For indoors use

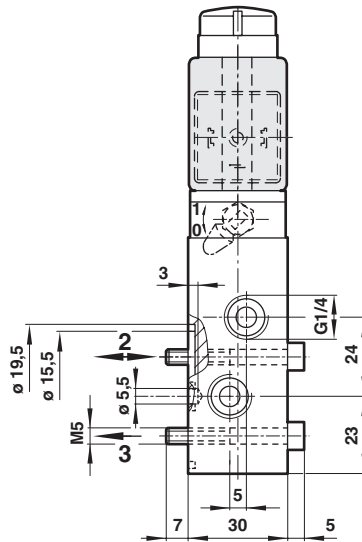
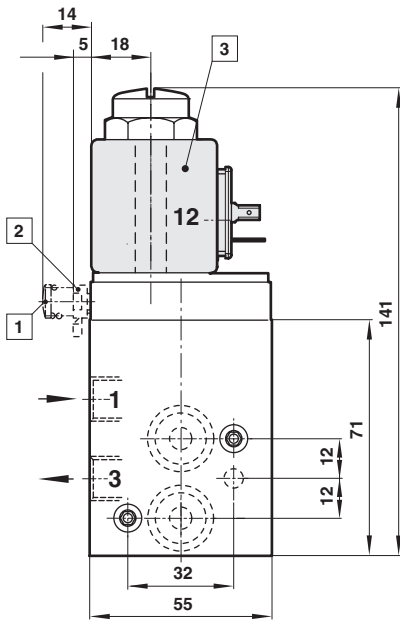
\*2) For outdoors use

**Dimensions  
Valves**

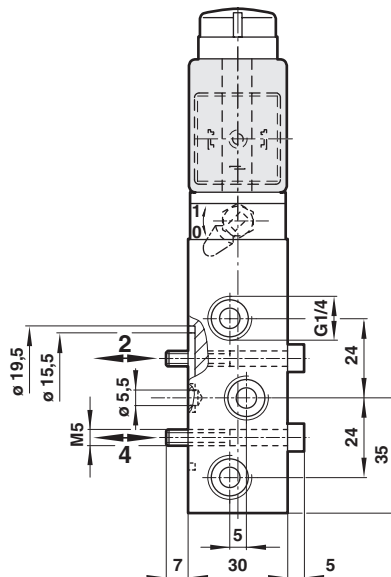
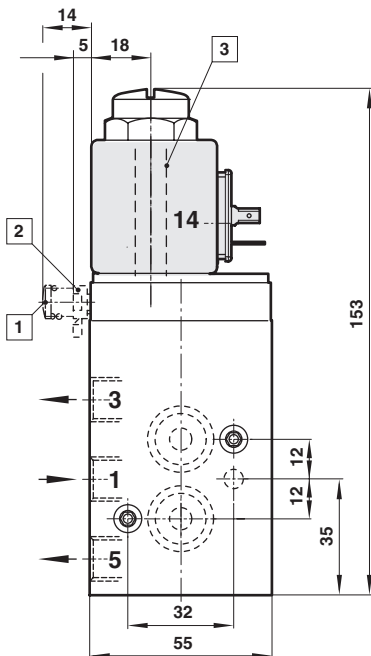
Dimensions shown in mm  
Projection/First angle



1



2



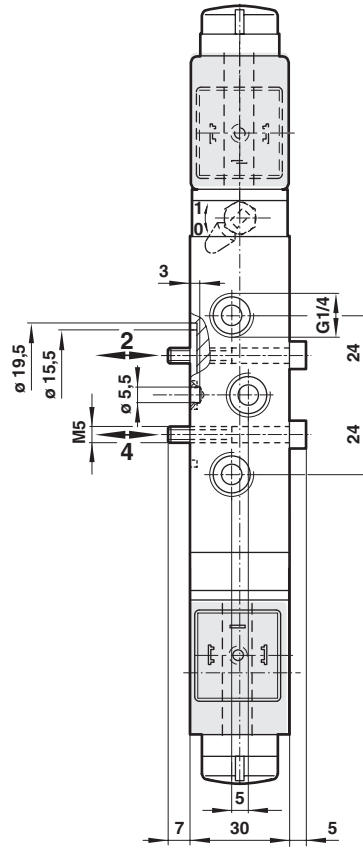
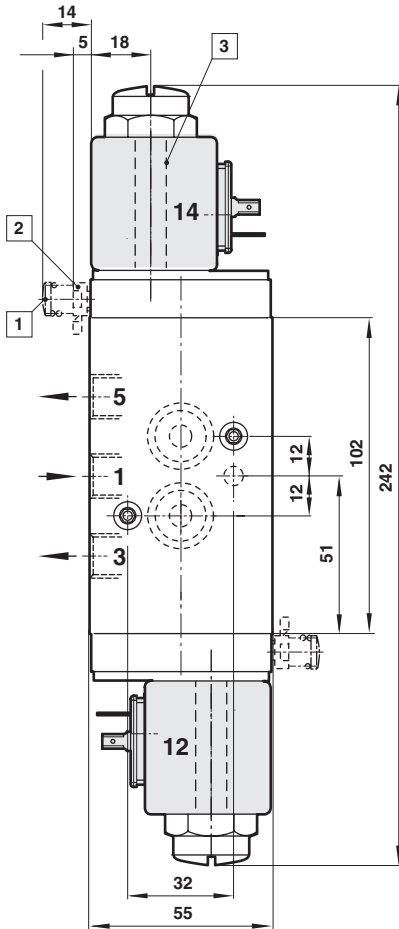
- 1 Manual override without detent
- 2 Manual override with detent
- 3 Solenoid 4 x 90° turnable

Dimensions shown in mm

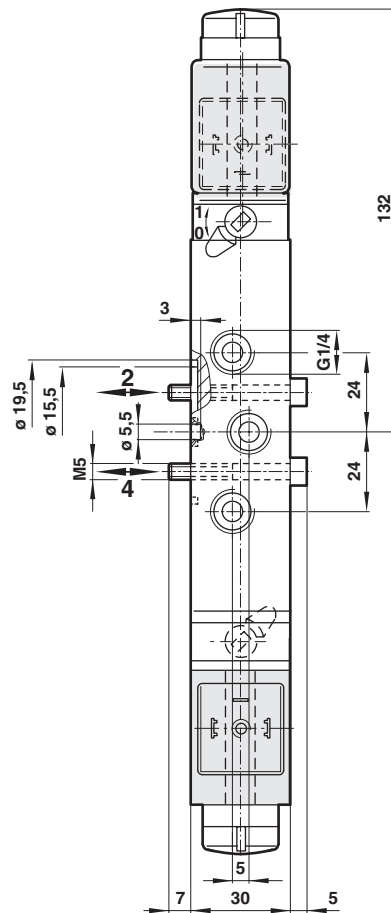
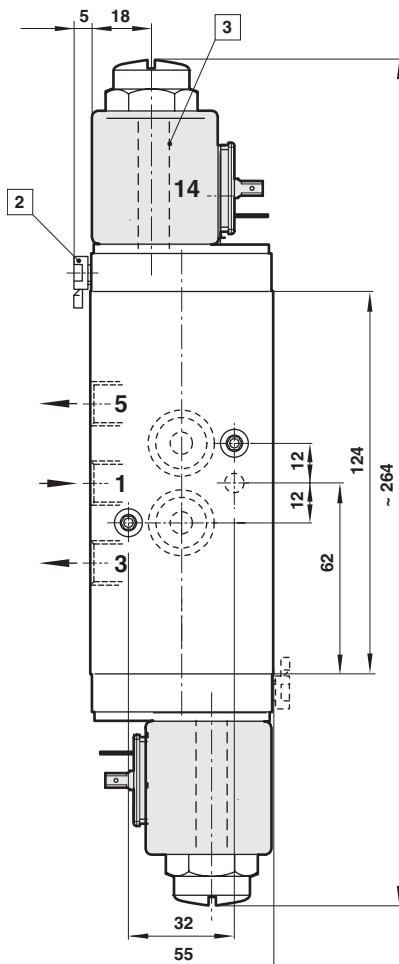
Projection/First angle



3



4



1 Manual override without detent

2 Manual override with detent

3 Solenoid 4 x 90° turnable

**Dimensions**

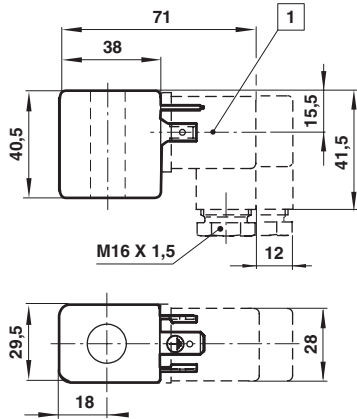
**Solenoid operators**

Dimensions shown in mm

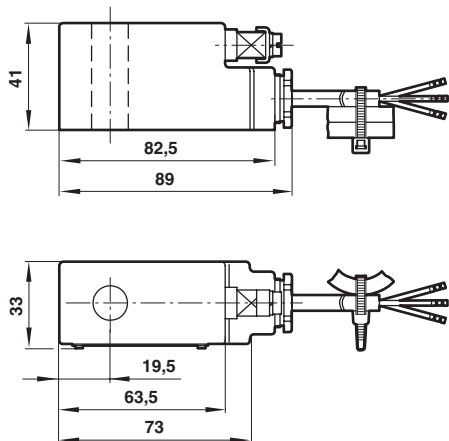
Projection/First angle



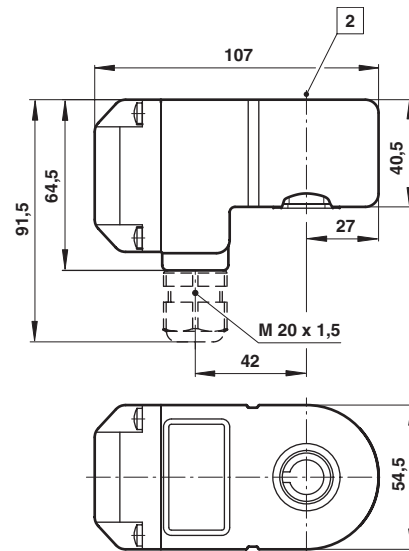
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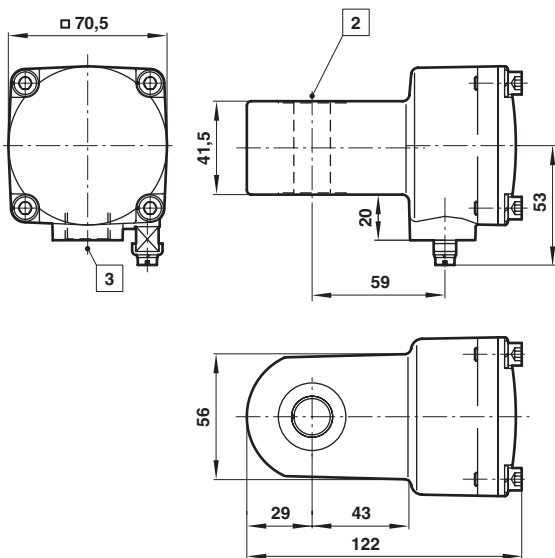
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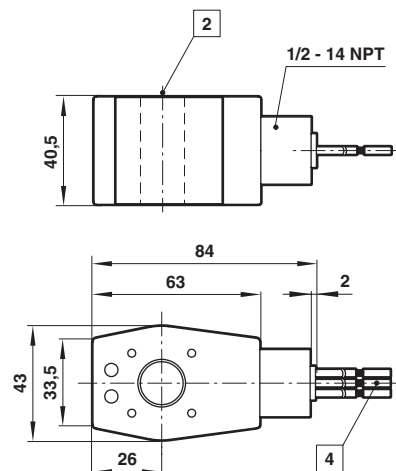
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7



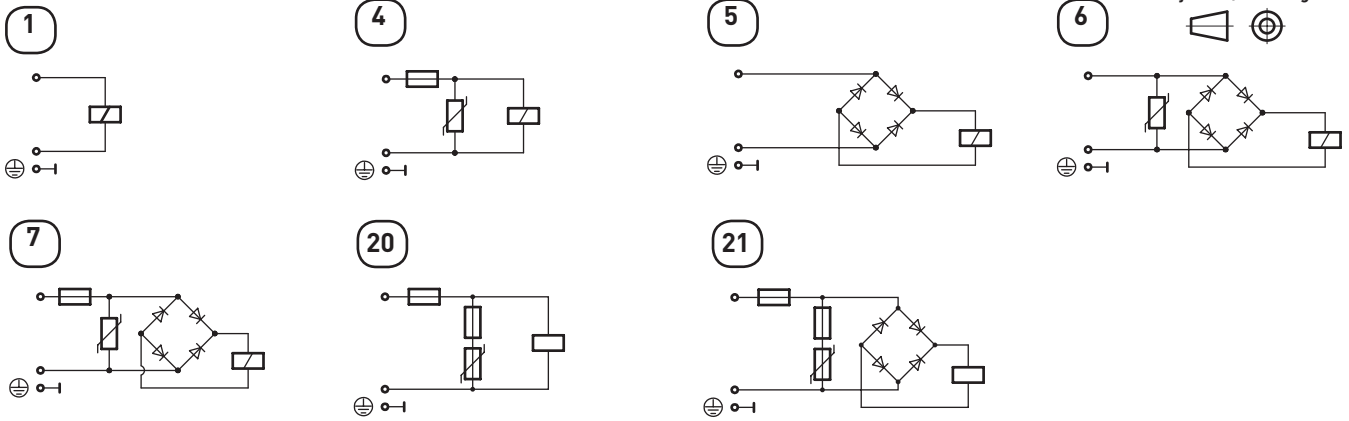
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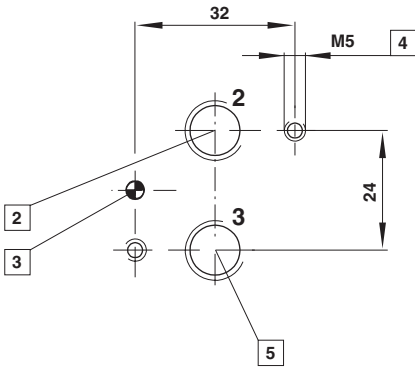
- 1 Connector can be indexed by 4x90°
- 2 Ø 16 or 13 (with spacer tube)
- 3 M20 x 1,5 or 1/2 - 14 NPT
- 4 Flying leads AWG 18 (450 mm long)

**Circuit diagrams**

Dimensions shown in mm  
Projection/First angle



**NAMUR hole pattern (driving side)**



NAMUR quick exhaust module for a better kv-value by exhaust see data sheet 5.4.820

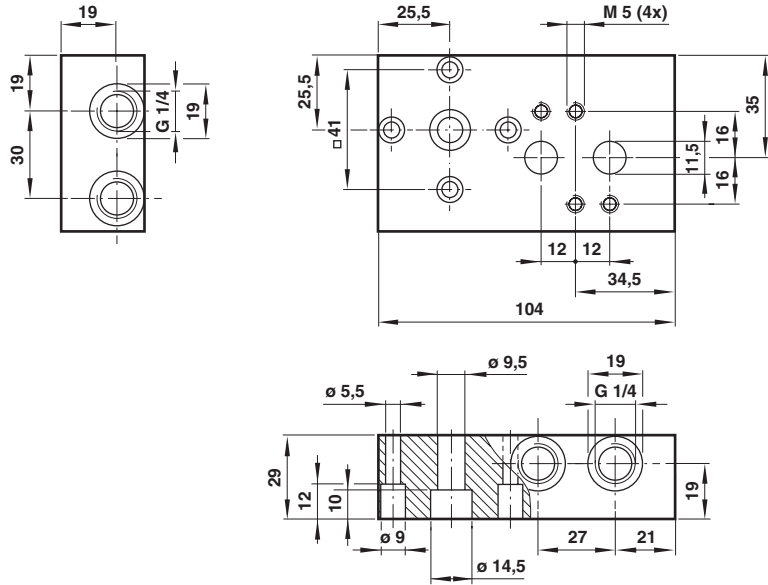
NAMUR interlinking plates in redundancy design for »safety exhausting« and »safety ventilating« see data sheet 5.4.830

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



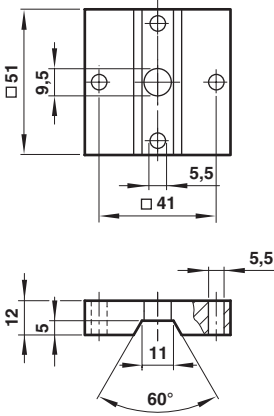
**Single connection plate**

Type: 0612790



**NAMUR slot**

Type: 0612791

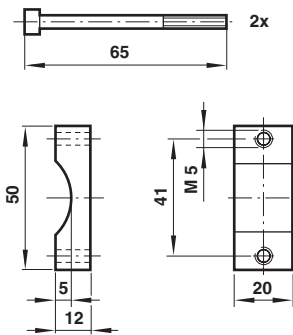


Dimensions shown in mm  
Projection/First angle



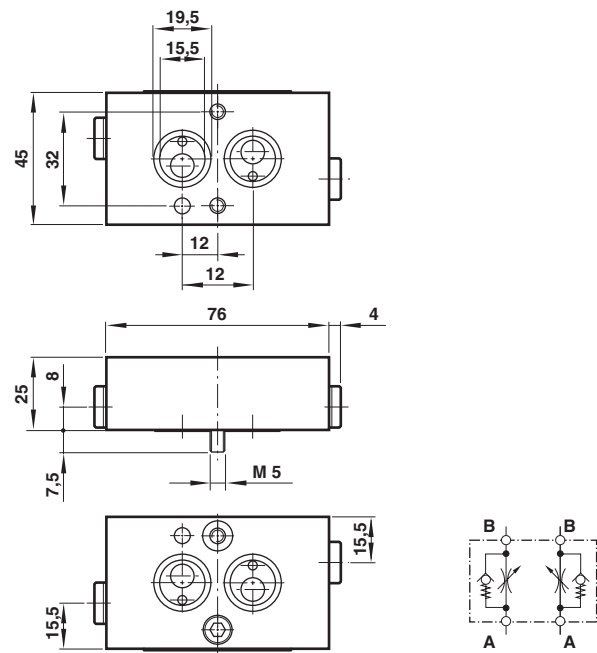
**Yoke**

Type: 0540593

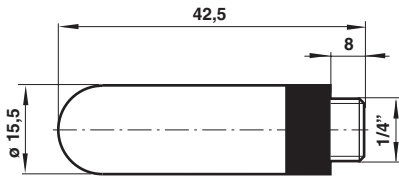


**Throttle control plate**

Model: 4040239

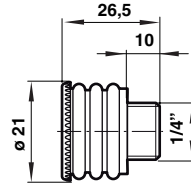


**Silencer**  
Model: M/S2, C/S2

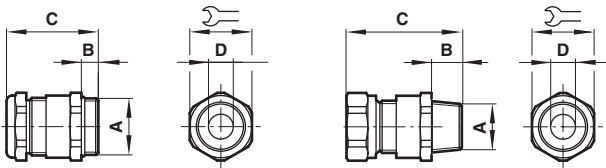


**Exhaust guard**  
Model: 0613422


Dimensions shown in mm



**Cable gland**



0588925 only

A	B	C	∅ D		Model
M20 x 1,5	9	36	5 ... 8	22	0588819
M20 x 1,5	14	39	10 ... 14	24	0588851
1/2-14 NPT	15	58	7,5 ... 11,9	24	0588925

**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 features**«.

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 pneumatic 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.