

For single and double operated actuators

Exhaust air recirculation at 3 way function

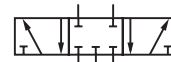
Use of monostable valves for safety systems up to SIL 4 (IEC 61508)

Add-on manual override

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

The solenoid valves are applicable in the protection classes Ex emb, Ex dmb, Ex mb, Ex ia for zones 1 & 2 (gas), 21 & 22 (dust), ATEX cat. II 2GD

International approvals: IECEx, FM, CSA others on request



Approval depends on magnetic system, see page 5 and 6!

Technical features

Medium:

Filtered, non-lubricated and dried compressed air, instrument air, nitrogen and other non-flammable neutral, dry fluids

Operation:

Indirect solenoid operated spool valves

Mounting position:

Optional, impuls valves preferably horizontally

Orifice:

DN 6 or DN 8

Port size:

G 1/4, 1/4 NPT, G 1/2, 1/2 NPT, NAMUR-Flange

Operating pressure:

2,5 ... 8 [36 ... 116 psi] with internal air supply
0 ... 8 bar [0 ... 116 psi] with external air supply (G1/2, 1/2 NPT or low power pilot system only)

Fluid/Ambient temperature:

Valve:

-40 ... +65°C [NBR] [-40...+149°F]

-25 ... +80°C [HNBR]

[-13...+176°F]

Depending on solenoid system

Air supply must be dry enough to avoid ice formation at

temperatures below +2°C

[+35°F].

Installed in the open protect all

connections against the

penetration of moisture!

Materials:

Body: aluminium 3.0615 with surface treatment for critical environmental conditions

(approved according to DIN 50018:

Condensate test with alternating

temperatures in sulphuric

atmosphere,

DIN 50021/ASTM B117-73:

Salt spray test with different

sodium chloride solutions,

tested in ammonia atmosphere),

brass 2.0401 (Ms 58)

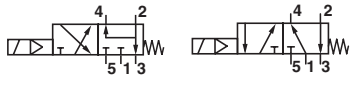

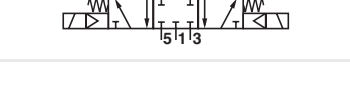

stainless steel 1.4404 [316 L]

Seals:

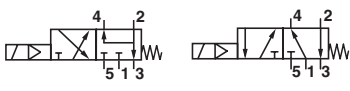

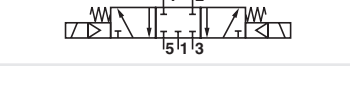
NBR [special perbunan] or

HNBR

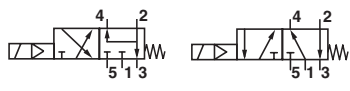

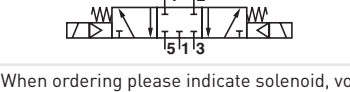
3/2, 5/2 and 5/3 way valves with seals NBR -40 ... +65°C*3
Housing: aluminium anodized

Symbol	Ports 1, 3, (5)	2, 4	Actuation	Operating pressure (bar)	Flow *6) (l/min)	Test certification IEC 61508 *2)	Weight (kg)	Dimension No.	Model *1)
	G 1/4	Flange	Solenoid/spring	2,5...8	1300	x	0,45	1	9710505
	1/4 NPT	Flange	Solenoid/spring	2,5...8	1300	x	0,45	1	9710515
	G 1/2	Flange	Solenoid/spring	(0) 2,5...8	2600		0,80	7	9710595
	1/2 NPT	Flange	Solenoid/spring	(0) 2,5...8	2600		0,80	7	9710596
	G 1/4	Flange	Solenoid/solenoid	2,5...8	1300		0,65	2	9711505
	1/4 NPT	Flange	Solenoid/solenoid	2,5...8	1300		0,65	2	9711515
	G 1/4	Flange	Solenoid/solenoid (APB)	2,5...8	950		0,7	3	9712505
	1/4 NPT	Flange	Solenoid/solenoid (APB)	2,5...8	950		0,7	3	9712515

Housing: brass

Symbol	Ports 1, 3, (5)	2, 4	Actuation	Operating pressure (bar)	Flow *6) (l/min)	Test certification IEC 61508 *2)	Weight (kg)	Dimension No.	Model *1)
	G 1/4	Flange	Solenoid/spring	2,5...8	1300	x	1,00	1	9710605
	1/4 NPT	Flange	Solenoid/spring	2,5...8	1300	x	1,00	1	9710615
	G 1/4	Flange	Solenoid/solenoid	2,5...8	1300		1,40	2	9711605
	1/4 NPT	Flange	Solenoid/solenoid	2,5...8	1300		1,40	2	9711615
	G 1/4	Flange	Solenoid/solenoid (APB)	2,5...8	950		1,50	3	9712605
	1/4 NPT	Flange	Solenoid/solenoid (APB)	2,5...8	950		1,50	3	9712615

Housing: stainless steel

Symbol	Ports 1, 3, (5)	2, 4	Actuation	Operating pressure (bar)	Flow *6) (l/min)	Test certification IEC 61508 *2)	Weight (kg)	Dimension No.	Model *1)
	G 1/4	Flange	Solenoid/spring	2,5...8	1300	x	1,00	1	9710705
	1/4 NPT	Flange	Solenoid/spring	2,5...8	1300	x	1,00	1	9710715
	G 1/4	Flange	Solenoid/solenoid	2,5...8	1300		1,40	2	9711705
	1/4 NPT	Flange	Solenoid/solenoid	2,5...8	1300		1,40	2	9711715
	G 1/4	Flange	Solenoid/solenoid (APB)	2,5...8	950		1,50	3	9712705
	1/4 NPT	Flange	Solenoid/solenoid (APB)	2,5...8	950		1,50	3	9712715

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

*2) Since May 2008, Date code A8192

*3) For operation in plants according to IEC 61511/61508 -40 ... +40°C see test certificate (on request)

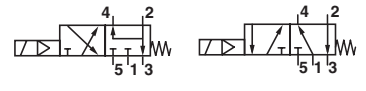

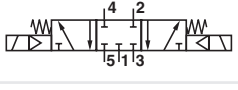
*6) Flow characteristics conforms to ISO6358 [6 » 5 bar]

Note for *6): Connecting pipe/fitting: In order to ensure and a pressure collapse avoid the flow, the supply air cross section should with 1/4: ≥ 8 mm; with 1/2: ≥ 10 mm. With smaller cross section the inlet (A1) should more largely, however at least equally large line at the port (A2; A1).

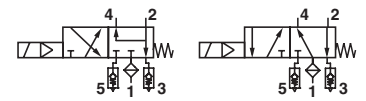
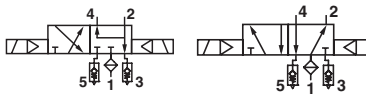
Valve function: APB = All Ports Blocked

3/2 or 5/2 way function (Conversion instructions see page 14)

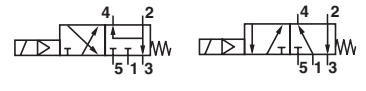
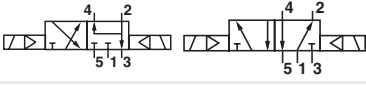
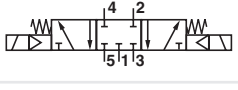
3/2, 5/2 and 5/3 way valves with seals HNBR -25 ... +80°C *3)
Housing: aluminium anodized

Symbol	Ports 1, 3, (5)	2, 4	Actuation	Operating pressure (bar)	Flow *6) (l/min)	Test certification IEC 61508 *2)	Weight (kg)	Dimension No.	Model *1)
	G 1/4	Flange	Solenoid/spring	2,5...8	1300	x	0,45	1	9710205
	1/4 NPT	Flange	Solenoid/spring	2,5...8	1300	x	0,45	1	9710215
	G 1/2	Flange	Solenoid/spring	(0) 2,5...8	2600	x	0,80	7	9710295
	1/2 NPT	Flange	Solenoid/spring	(0) 2,5...8	2600	x	0,80	7	9710296
	G 1/4	Flange	Solenoid/solenoid	2,5...8	1300		0,65	2	9711205
	1/4 NPT	Flange	Solenoid/solenoid	2,5...8	1300		0,65	2	9711215
	G 1/4	Flange	Solenoid/solenoid (APB)	2,5...8	950		0,7	3	9712205
	1/4 NPT	Flange	Solenoid/solenoid (APB)	2,5...8	950		0,7	3	9712215

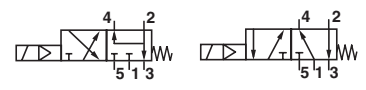

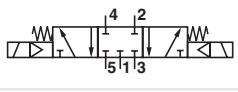
Housing: aluminium anodized, Inlet filter and exhaust guard

Symbol	Ports 1, 3 (5)	2, 4	Actuation	Operating pressure (bar)	Flow *6) (l/min)	Test certification IEC 61508 *2)	Weight (kg)	Dimension No.	Model *1)
	G 1/4	Flange	Solenoid/spring	2,5...8	1300	x *4)	0,45	8	9710901
	G 1/4	Flange	Solenoid/solenoid	2,5...8	1300	-	0,65	9	9711901
	G 1/4	Flange	Solenoid/solenoid	2,5...8	1300	-	0,65	9	9711901
	G 1/4	Flange	Solenoid/solenoid	2,5...8	1300	-	0,65	9	9711901

Housing: brass

Symbol	Ports 1, 3, (5)	2, 4	Actuation	Operating pressure (bar)	Flow *6) (l/min)	Test certification IEC 61508 *2)	Weight (kg)	Dimension No.	Model *1)
	G 1/4	Flange	Solenoid/spring	2,5...8	1300	x	1,00	1	9710305
	1/4 NPT	Flange	Solenoid/spring	2,5...8	1300	x	1,00	1	9710315
	G 1/4	Flange	Solenoid/solenoid	2,5...8	1300		1,40	2	9711305
	1/4 NPT	Flange	Solenoid/solenoid	2,5...8	1300		1,40	2	9711315
	G 1/4	Flange	Solenoid/solenoid (APB)	2,5...8	950		1,50	3	9712305
	1/4 NPT	Flange	Solenoid/solenoid (APB)	2,5...8	950		1,50	3	9712315

Housing: Stainless steel

Symbol	Ports 1, 3, (5)	2, 4	Actuation	Operating pressure (bar)	Flow *6) (l/min)	Test certification IEC 61508 *2)	Weight (kg)	Dimension No.	Model *1)
	G 1/4	Flange	Solenoid/spring	2,5...8	1300	x	1,00	1	9710405
	1/4 NPT	Flange	Solenoid/spring	2,5...8	1300	x	1,00	1	9710415
	G 1/4	Flange	Solenoid/solenoid	2,5...8	1300		1,40	2	9711405
	1/4 NPT	Flange	Solenoid/solenoid	2,5...8	1300		1,40	2	9711415
	G 1/4	Flange	Solenoid/solenoid (APB)	2,5...8	950		1,50	3	9712405
	1/4 NPT	Flange	Solenoid/solenoid (APB)	2,5...8	950		1,50	3	9712415

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

*2) Since May 2008, Date code A8192

*3) For operation in plants according to IEC 61511/61508 61508 -25 ... +65°C or 0...+80°C see test certificate (on request)

*4) Test certificate without inlet filter and exhaust guard

*6) Flow characteristics conforms to ISO6358 [6 » 5 bar]

Note for *6): Connecting pipe/fitting: In order to ensure and a pressure collapse avoid the flow, the supply air cross section should with 1/4: ≥ 8 mm; with 1/2: ≥ 10 mm. With smaller cross section the inlet (A1) should more largely, however at least equally large line at the port (A2; A1).

Valve function: APB = All Ports Blocked

3/2 or 5/2 way function [Conversion instructions see page 14]

Option selector

971*****.*****.*****

Function	Substitute
5/2 way with spring return (3/2 way with adapter plate for NAMUR flange)	0
5/2 way impuls (3/2 way with adapter plate for NAMUR flange)	1
5/3 way with spring return (ABP)	2
Material: Housing/seals	Substitute
Aluminium/HNBR (-25 ... + 80°C)	2
Brass/HNBR (-25 ... + 80°C)	3
Stainless steel/HNBR (-25 ... + 80°C)	4
Aluminium/NBR (-40 ... + 65°C)	5
Brass/NBR (-40 ... + 65°C)	6
Stainless steel/NBR (-40 ... + 65°C)	7
Ports size	Substitute
G 1/4	0
1/4 NPT	1
G 1/2	9
1/2 NPT (in connection with 'version code 6' below described)	9
Version	Substitute
Without manual override (retrofit)	5
Semi automatic (on request)	7
Low power pilot (see page 5)	9
For 1/2 NPT only + NAMUR (manual override retrofit)	6

Air supply	Substitute
Internal	0
External	Z
Voltage	Substitute
24 V d.c.	024.0
230 V a.c.	230.5
Solenoid	Substitute
see solenoid table	

Valve function:
APB = All Ports Blocked

Solenoid operators

	Power consumption		Rated current		ATEX-Category	Protection class *7)/ Ex-Protection class	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)								
	1,9	2,1 *5)	78	10		IP00 without connector *5) IP65 with connector *5)	-25 ... +60	DIN EN 175 301-803 Form A	0,3	7	1/5	0763
	3,6	-	150	-	II2G II2D	Ex mb II T4 *1) Ex tD A21 IP66 T110°	-20 ... +70	3 m Cable	0,4	9	4	0298 *8)
	-	4,6	-	18	II2G II2D	Ex mb II T4 *1) Ex tD A21 IP66 T110°	-20 ... +70	3 m Cable	0,4	9	7	0299 *8)
	0,8	-	33	-	II2G II2D	Ex e mb IIC T5/T6 Gb Ex tb IIIC T130°C Db IP66 *2), *10)	-40 ... +80 T5 -40 ... +70 T6 -40 ... +80	M20 X 1,5 *6)	0,6	10	4	4200 *8)
	-	1,3	-	6	II2G II2D	Ex e mb IIC T5/T6 Gb Ex tb IIIC T130°C Db IP66 *2), *10)	-40 ... +80 T5 -40 ... +70 T6 -40 ... +80	M20 X 1,5 *6)	0,6	10	7	4201 *8)
	0,8	-	33	-	II2G II2D	Ex d mb IIC T5/T6 Gb Ex e mb IIC T5/T6 Gb Ex tb IIIC T130°C Db IP66 *3), *10)	-40 ... +80 T5 -40 ... +70 T6 -40 ... +80	1/2 NPT *6)	0,8	17	20	4600 *8)
	0,8	-	33	-	II2G II2D	Ex d mb IIC T5/T6 Gb Ex e mb IIC T5/T6 Gb Ex tb IIIC T130°C Db IP66 *3), *10)	-40 ... +80 T5 -40 ... +70 T6 -40 ... +80	M20 X 1,5 *6)	0,8	17	21	4602 *8)
	-	1,3	-	6	II2G II2D	Ex d mb IIC T5/T6 Gb Ex e mb IIC T5/T6 Gb Ex tb IIIC T130°C Db IP66 *3), *10)	-40 ... +80 T5 -40 ... +70 T6 -40 ... +80	1/2 NPT *6)	0,8	17	20	4601 *8)
	-	1,3	-	6	II2G II2D	Ex d mb IIC T5/T6 Gb Ex e mb IIC T5/T6 Gb Ex tb IIIC T130°C Db IP66 *3), *10)	-40 ... +80 T5 -40 ... +70 T6 -40 ... +80	M20 X 1,5 *6)	0,8	17	21	4603 *8)
Stainless steel 	0,8	-	33	-	II2G II2D	Ex mb d IIC T4/T6 Ex mb e II T4/T6 Ex tD A21 IP66 T100° *2), *12)	-40 ... +50 T4 -40 ... +40 T6 -40 ... +80	M20 X 1,5 *6)	1,2	19	4	4802 *8), *11)
	-	1,3	-	6	II2G II2D	Ex mb d IIC T4/T6 Ex mb e II T4/T6 Ex tD A21 IP66 T100° *2), *12)	-40 ... +50 T4 -40 ... +40 T6 -40 ... +80	M20 X 1,5 *6)	1,2	19	7	4803 *8), *11)
	1,4	-	59	-		XP/DIP, Div. 1 & 2 Cl. I, Gr. A-D Cl. II / III, Gr. E-G T3 (160°C) *4) NEMA 4, 4X, 6, 6P, 7, 9	-20 ... +60	Flying leads 450 mm long	0,4	18	1	3720

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 1347 X

*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 Approvals

*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) IECEx Certificate of Conformity IECEx KEM 09.0068X


*11) EG-Type-Examination-Certificate PTB 06 ATEX 2054 X

*12) IECEx Certificate of Conformity IECEx PTB 07.0039X

Attention: The protection class for coil series 46xx and 48xx 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.

Solenoid actuators for intrinsically-safe circuits

	Nominal resistance RN coil (Ω)	Min. required switching current (mA)	Resistance Rw 60 coil (Ω)	Required voltage at terminal Rw 60 (V)	Protection class	Temperature Ambient/Fluid (°C)	Weight (kg)	Dimension No.	Circuit diagram No.	Model
	200	33	240	8	Ex ia IIC T6	-40 ... +60	0,85	6	10	2050
	391	24	460	11	Ex ia IIC T4	-40 ... +80	0,85	6	10	2051
	736	17	880	15	Ex iaD 21 T80°C	-40 ... +60	0,85	6	10	2052
	1220	13	1460	19	Ex iaD 21 T100°C	-40 ... +80	0,85	6	10	2053

EG-Type-Examination-Certificate PTB 07 ATEX 2019 (Kat. II 2 GD)

IECEx Certificate of Conformity IECEx PTB 07.0017

Cable gland is included in delivery

When selecting an intrinsically safe power supply, the permissible maximum values according to the Certificate of Conformity should be taken into account.

Ui = 45 V, Ii = 500 mA according to Tab. A. 1, EN 60079-11

Pi = 2,0 W, Li and Ci can be ignored.

3/2, 5/2 and 5/3 way valves, indirect solenoid actuated using low-power pilot system in protection class Ex ia IIC T4/T6, seals NBR -40 ... +65°C (-40...+149°F)

Symbol	Ports 1, 3, [5]	2, 4	Actuation	Material	Operating pressure (bar)	Flow *6) (l/min)	Weight (kg)	Dimension No.	Model *1)
	G 1/4	Flange	Solenoid/spring	Aluminium	2,5...8	1300	0,45	4	9710509
	1/4 NPT	Flange	Solenoid/spring	Aluminium	2,5...8	1300	0,45	4	9710519
	G 1/4	Flange	Solenoid/solenoid	Aluminium	2,5...8	1300	0,65	5	9711509
	1/4 NPT	Flange	Solenoid/solenoid	Aluminium	2,5...8	1300	0,65	5	9711519
	G 1/4	Flange	Solenoid/solenoid (APB)	Aluminium	2,5...8	950	0,7	6	9712509
	1/4 NPT	Flange	Solenoid/solenoid (APB)	Aluminium	2,5...8	950	0,7	6	9712519

3/2, 5/2 and 5/3 way valves, indirect solenoid actuated using low-power pilot system in protection class Ex ia IIC T4/T6, seals HNBR -25° ... +80°C

Symbol	Ports 1, 3 (5)	2, 4	Actuation	Material	Operating pressure (bar)	Flow *6) (l/min)	Weight (kg)	Dimension No.	Model *1)
	G 1/4	Flange	Solenoid/spring	Aluminium	2,5...8	1300	0,45	4	9710209
	1/4 NPT	Flange	Solenoid/spring	Aluminium	2,5...8	1300	0,45	4	9710219
	G 1/4	Flange	Solenoid/solenoid	Aluminium	2,5...8	1300	0,65	5	9711209
	1/4 NPT	Flange	Solenoid/solenoid	Aluminium	2,5...8	1300	0,65	5	9711219
	G 1/4	Flange	Solenoid/solenoid (APB)	Aluminium	2,5...8	950	0,7	6	9712209
	1/4 NPT	Flange	Solenoid/solenoid (APB)	Aluminium	2,5...8	950	0,7	6	9712219

*1) When ordering please indicate solenoid, voltage and electrical connection, see below

*6) Flow characteristics conforms to ISO6358 [6 » 5 bar]

Note for *6): Connecting pipe/fitting: In order to ensure and a pressure collapse avoid the flow, the supply air cross section should with 1/4: ≥ 8 mm; with 1/2: ≥ 10 mm. With smaller cross section the inlet (A1) should more largely, however at least equally large line at the port (A2; A1).

Valve function: APB = All Ports Blocked

3/2 or 5/2 way function (Conversion instructions see page 14)

Low-power pilot system in protection class Ex ia IIC T4/T6

	Power P (+20°C)	Switch-on voltage U on (+20°C)	Switch-on voltage U on (+80°C)	Switch-off voltage U off (+20°C)	Switch-off voltage U off (-25°C)	Rated current I on	Resistance coil R (+20°C)	Protection class	Temperature Ambient	Circuit diagram No.	Model *4)
	6,3 mW	≥ 4,3 V	≥ 5,2 V	≤ 1,44 V	≤ 1,2 V	≥ 1,45 mA	2800 Ω	Ex ia IIC T4	-40 bis +80°C	11	2085
	23,2 mW	≥ 16 V	≤ 16,8 V	≤ 5,4 V	≤ 4,7 V	≥ 1,45 mA	10900 Ω	Ex ia IIC T6	-40 bis +60°C	11	2086

Max. values Ex i

Ui (V)	Ii (mA)	Pi *5) (mW)
25	150	250
27	125	250
28	115	250
30	100	250
32	85	250

*4) Category II2G, EG-Type-Examination-Certificate PTB 06 ATEX 2001U

Air consumption: home position ≤ 60 l/h, operating position ≤ 15 l/h

*5) Model 2086 without Pi limiting. Ci and Li can be ignored.

Ordering example

9710509.	2085.	005.	00
Valve	Pilot 6,3 mW	Electrical connection 005 M16 x 1,5 cable gland	00 internal air supply 0Z external air supply

Accessories

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



Connector



0570275

0663303 (with rectifier)

Page 1

Thread

Cable Ø

Material

Protection class (ATEX)

Model

Page 1 Thread	Cable Ø	Material	Protection class (ATEX)	Model
M 20x1,5	5,0...8,0 mm	Nickel plated brass	II2GD Ex e	0588819
M 20x1,5	10...14 mm	Nickel plated brass	II2GD Ex d	0588851
1/2-14-NPT	7,5...11,9 mm	Nickel plated brass	II2GD Ex d	0588925
M 20x1,5	9,0...13 mm	Stainless steel 1.4571 (316 Ti)	II2GD Ex e	0589385
M 20x1,5	7,0...12 mm	Stainless steel 1.4404 (316 L)	II2GD Ex d	0589395
M 20x1,5	10...14 mm	Stainless steel 1.4404 (316 L)	II2GD Ex d	0589387

Adaptor complete
(Adaptor, inlet filter and
seal ring)



Page 17

0613487

Inlet filter



Page 17

0681173 (G1/4, 1/4 NPT)

Silencer (plastic) *1)



Page 17

M/S2 (G1/4)
C/S2 (1/4 NPT)
M/S4 (G1/2)
C/S4 (1/2 NPT)

Exhaust guard *2)



Page 17

0613422 (G1/4, 1/4 NPT)
0613423 (G1/2, 1/2 NPT)

Silencer (stainless steel) *1)



Page 17

0014613 (G 1/4)
0613678 (1/4 NPT)
0014813 (G 1/2)
0613679 (1/2 NPT)

Manual override



Page 16

0553886 (without detent)
0553887 (with detent)

Manual override
(for start-up only)



Page 16

0613379 (without detent)

*1) For indoors use only

*2) For outdoors use

Throttle control plate



Page 15

4040239 (only for G1/4)

Flange plate, for G1/4 only



Page 15

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

Yoke



Page 15

0540593

Distance plate for coils



Page 15

0540109

Mounting plate
90° and 270°



Page 15

0613453 (90°)
0613556 (270°)

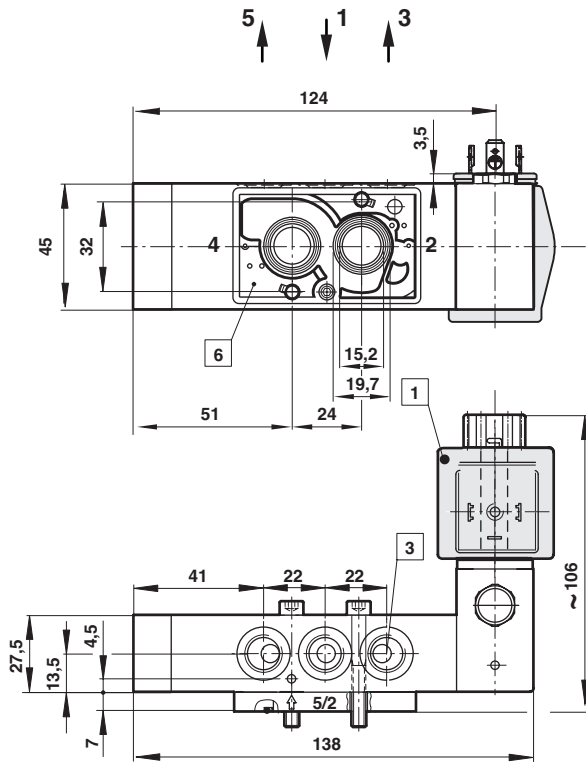
**Dimensions
Valves**

Dimensions shown in mm

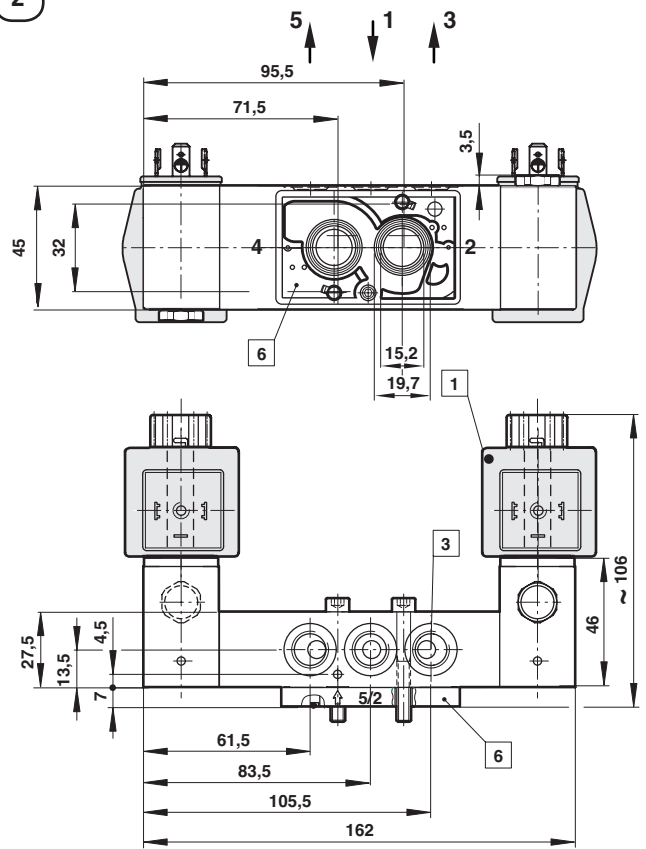
Projection/First angle



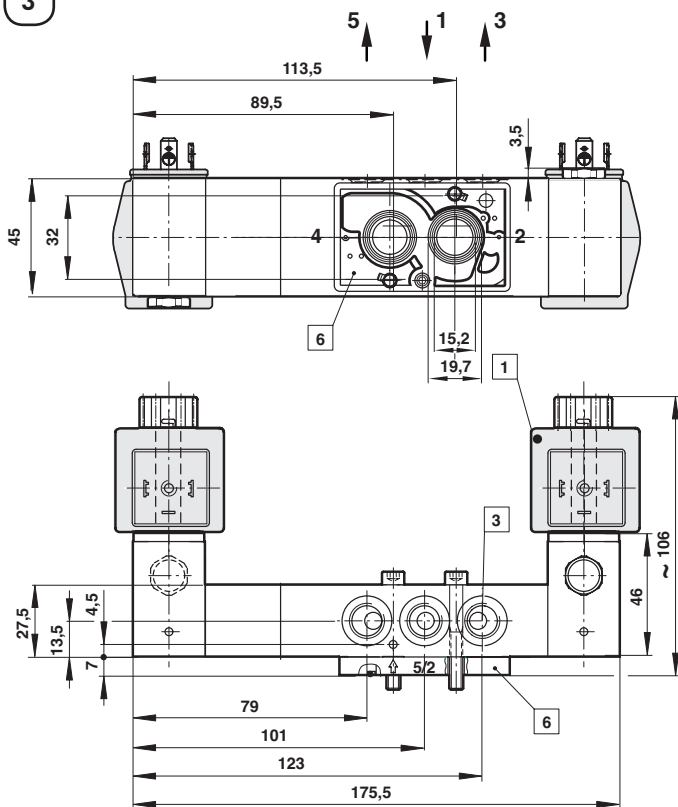
1



2



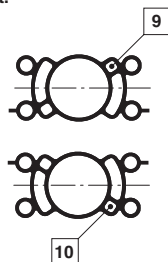
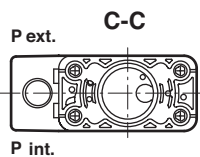
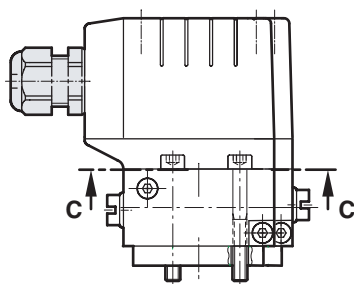
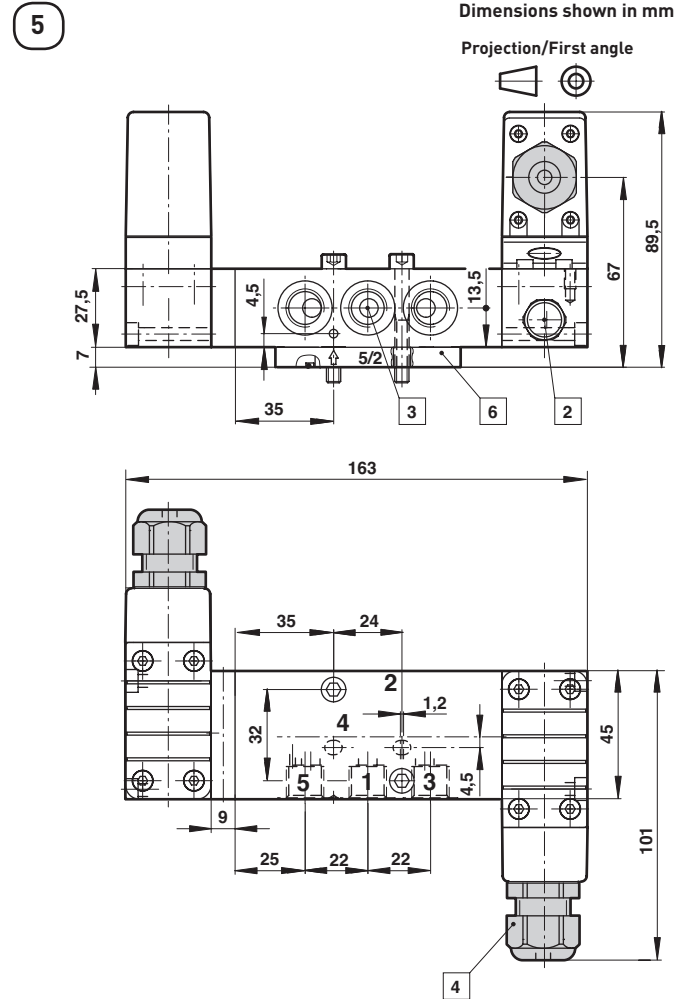
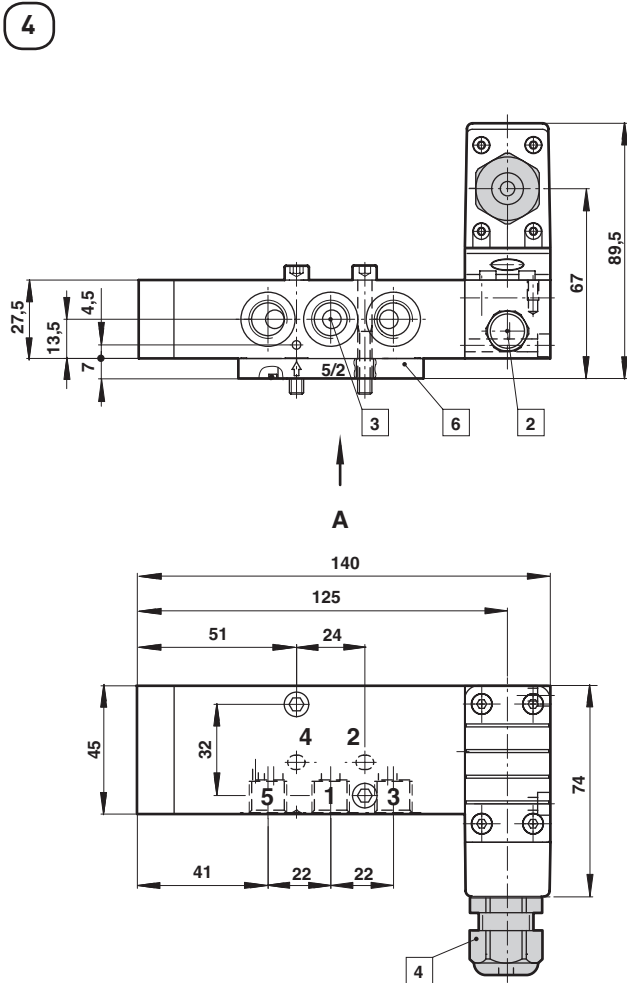
3



- 1 Solenoid dimensions on page 13
- 3 Port G 1/4 or 1/4 NPT
- 6 NAMUR connection plate 3/2 or 5/2 way function

Dimensions shown in mm

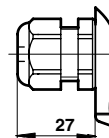
Projection/First angle



- 2 External control pressure connection G1/8 or 1/8 NPT
- 3 Port G1/4 or 1/4 NPT
- 4 Electrical connection 005
- 6 NAMUR connection plate 3/2 or 5/2 way function
- 7 Position of gasket internal pilot air
- 10 Position of gasket external pilot air

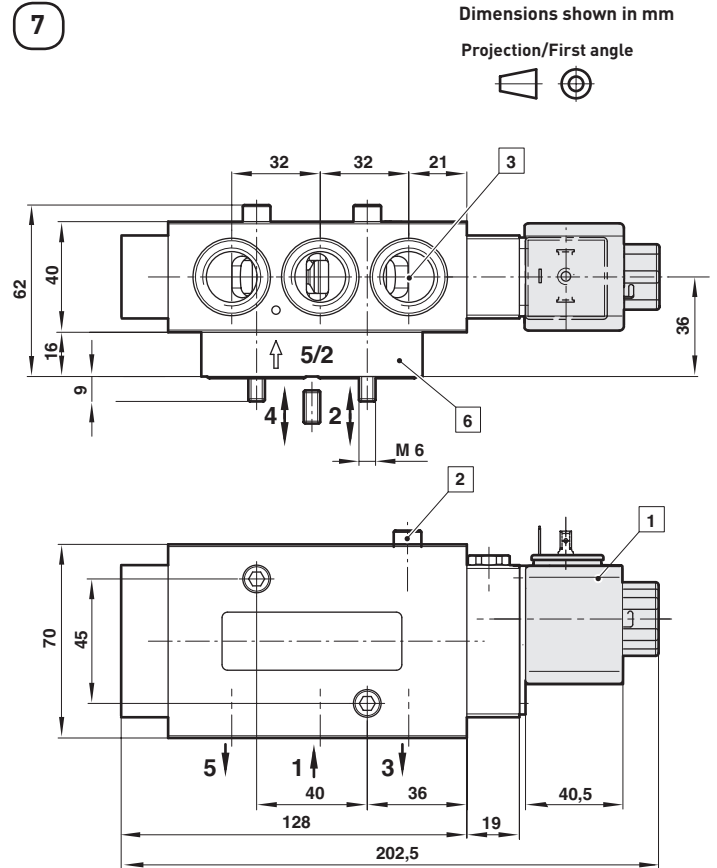
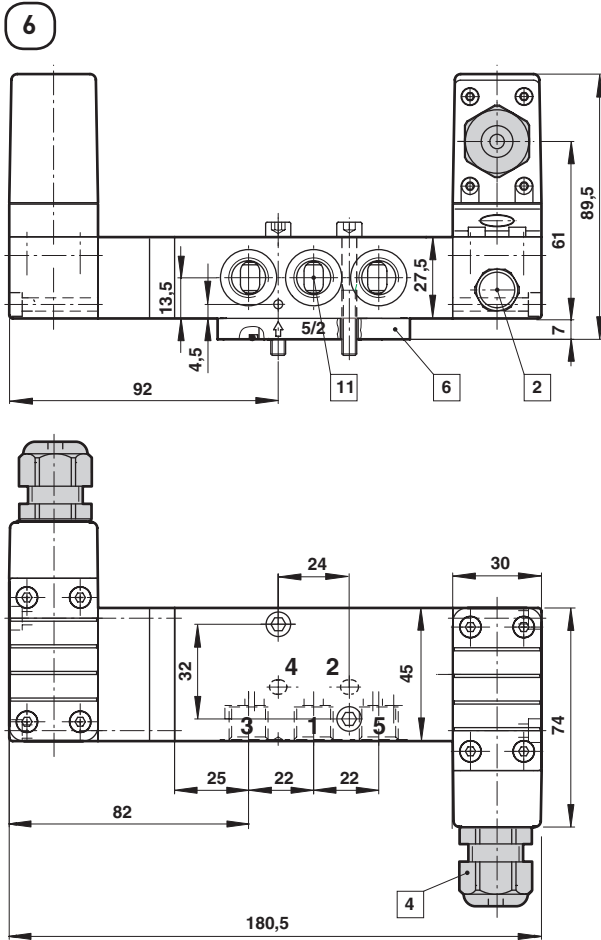
Electrical connection

005

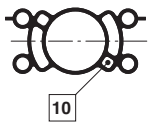
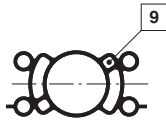
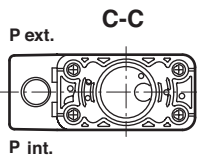
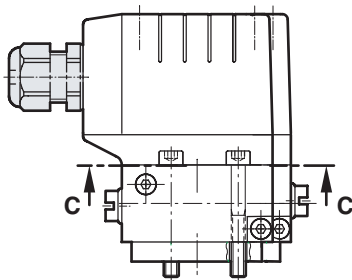


Dimensions shown in mm

Projection/First angle

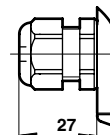


- 1 Solenoid optional turnable
- 2 External control pressure connection G1/8 or 1/8 NPT
- 3 Port G1/2 or 1/2 NPT
- 4 Electrical connection 005
- 6 NAMUR connection plate 3/2 or 5/2 way function
- 9 Position of gasket internal pilot air
- 10 Position of gasket external pilot air
- 11 Port G1/4 or 1/4 NPT



Electrical connection

005

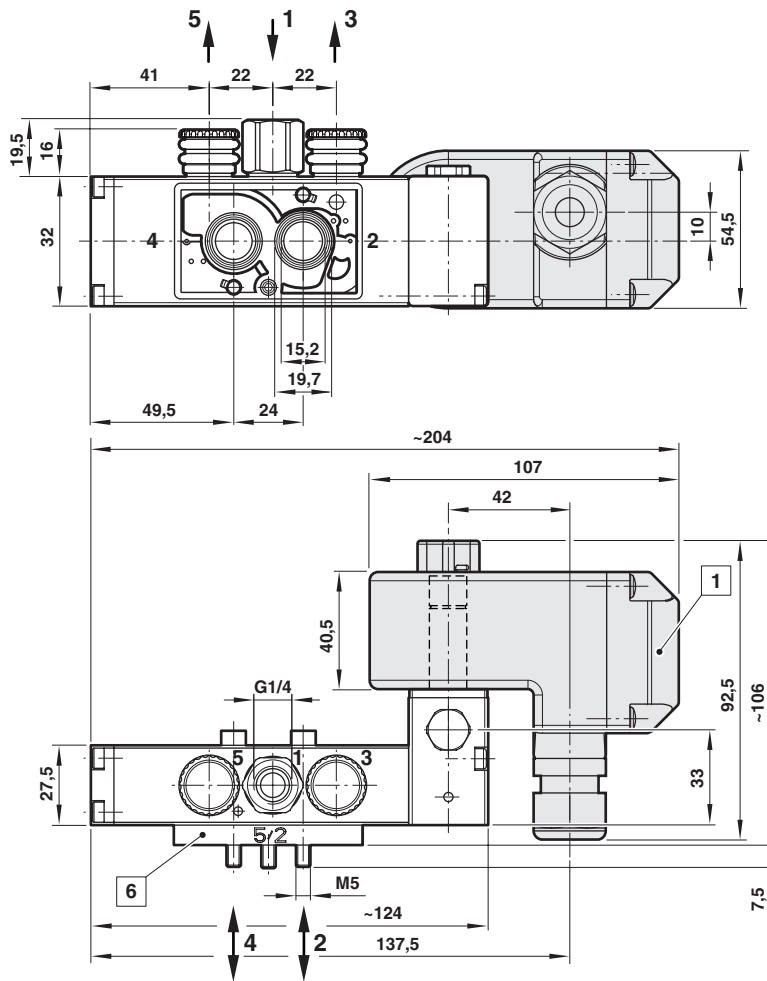


Dimensions shown in mm

Projection/First angle



8



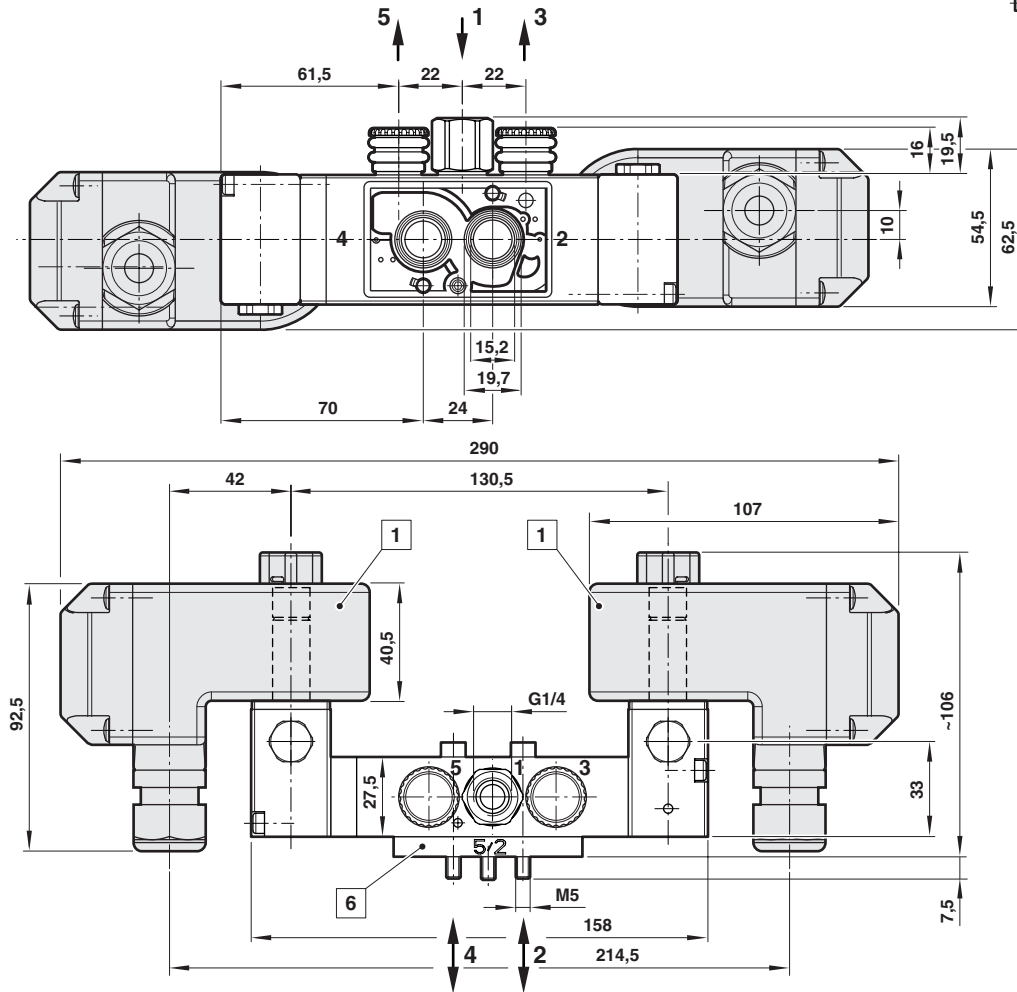
- 1 Solenoid turnable
- 6 NAMUR connection plate 3/2 or 5/2 way function

Dimensions shown in mm

Projection/First angle



9



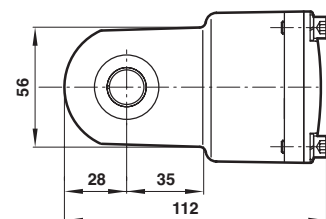
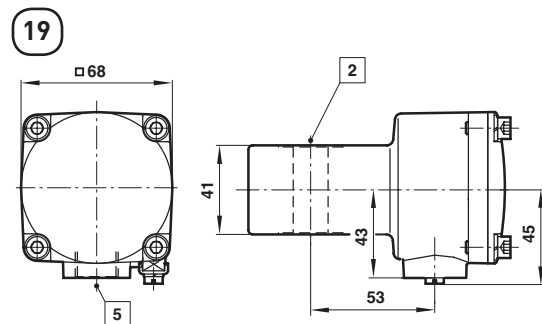
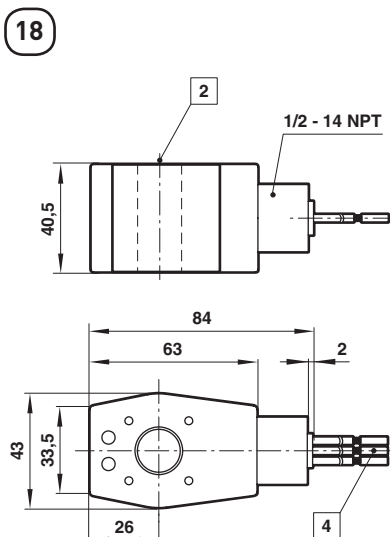
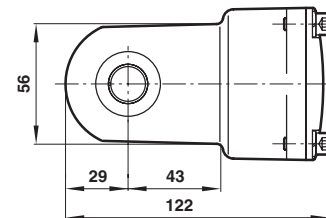
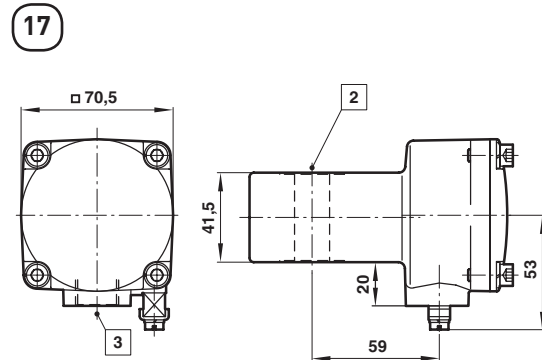
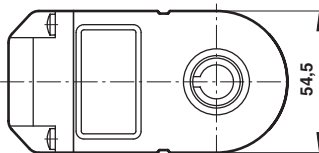
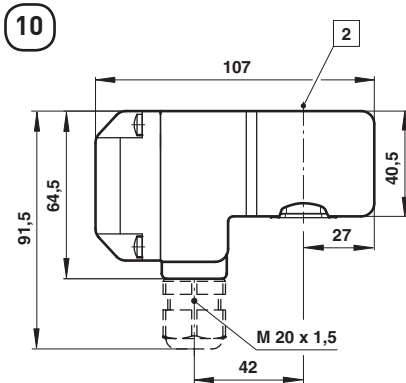
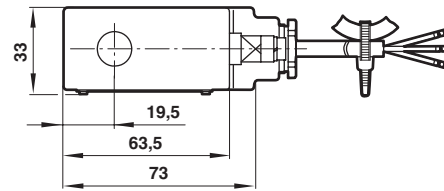
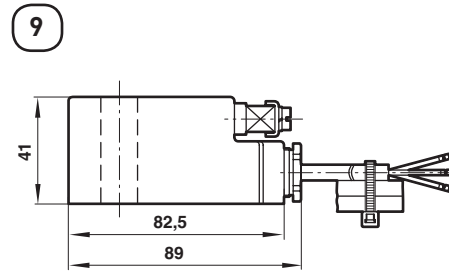
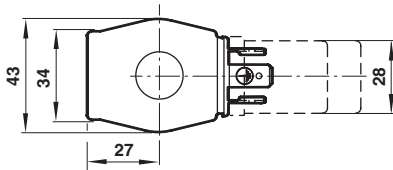
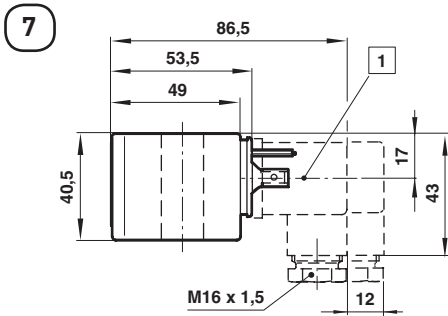
- 1 Solenoid turnable
- 6 NAMUR connection plate 3/2 or 5/2 way function

Dimensions

Solenoid operators

Dimensions shown in mm

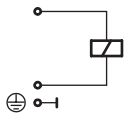
Projection/First angle



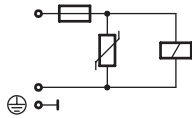
- 1 Connector 4 x 90° turnable
- 2 Ø 13 (with spacer tube)
- 3 M20 x 1,5 or 1/2 - 14 NPT
- 4 Flying leads 450 mm long
- 5 M20 x 1,5

Circuit diagrams

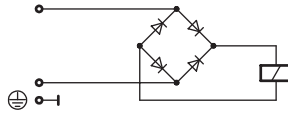
1



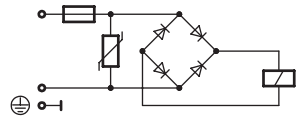
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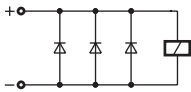
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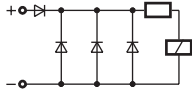
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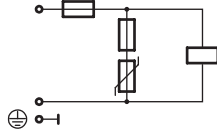
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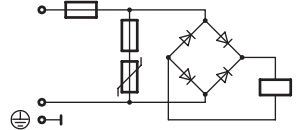
11



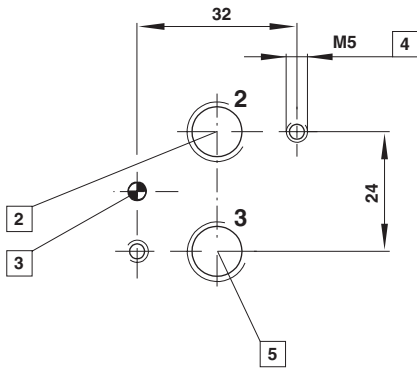
20



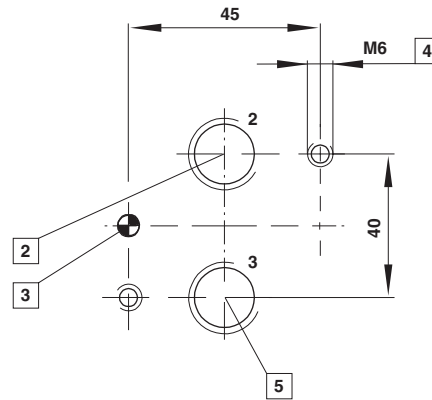
21



**NAMUR hole pattern (driving side)
Port size G1/4**



Port size G1/2



2 Port 2 (A)

3 Hole for coding stud

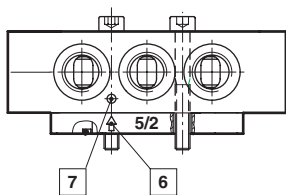
4 M5 & M6 (10 deep)

5 Port 3 (R)

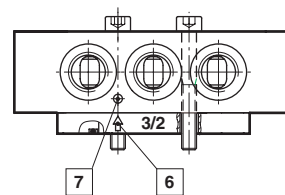
NAMUR quick exhaust module for a better kv-value by exhaust see data sheet 5.4.820

**Conversion instructions of 5/2 into
3/2 way function**

5/2 way function (original mode of supply)



3/2 way function



3/2 resp. 5/2 way function according to version by swapping or turning enclosed adaptor plates. Make sure Marker and Arrow do match as shown on above drawing.

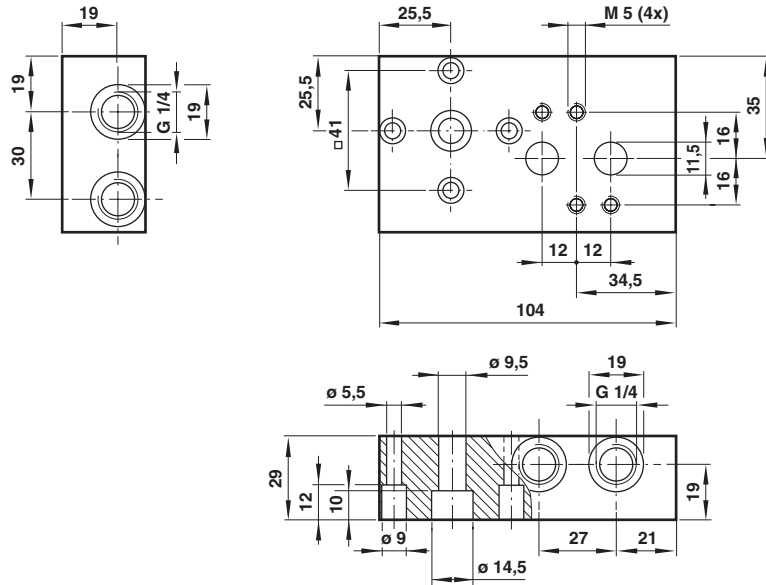
6 Arrow

7 Marker

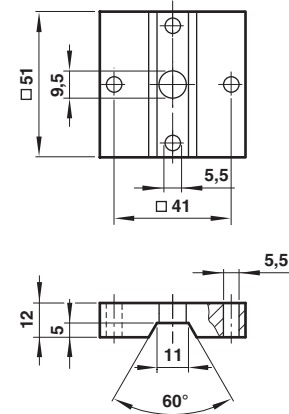
Single connection plate
Model: 0612790

Dimensions shown in mm

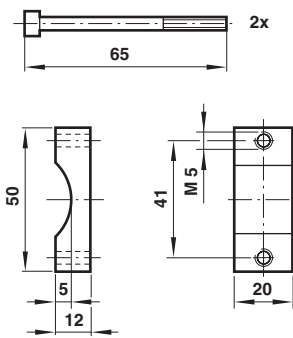
Projection/First angle



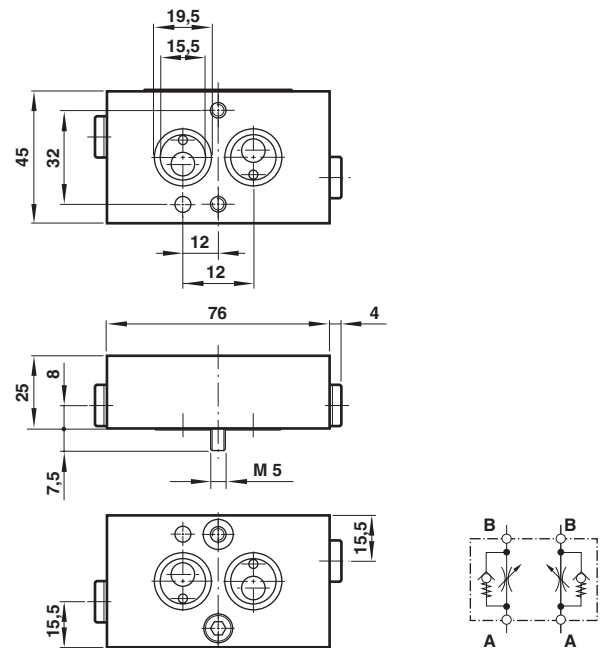
NAMUR slot (in connection with 0612790 only)
Model: 0612791



Yoke
Model: 0540593



Throttle control plate
Model: 4040239

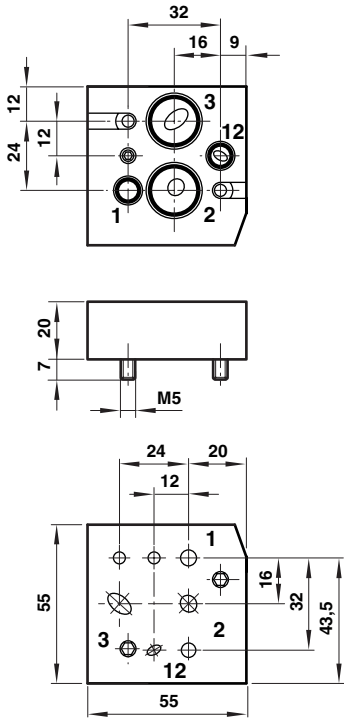


Dimensions shown in mm

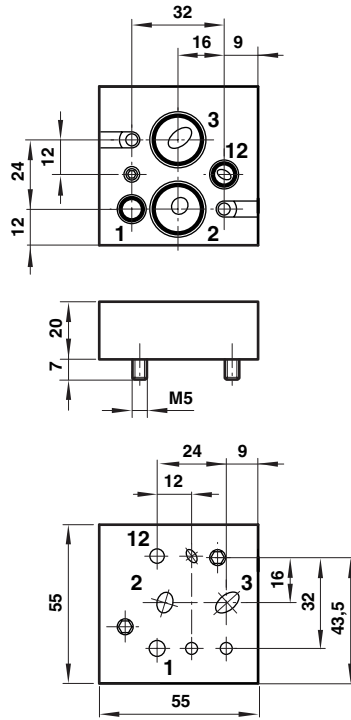
Projection/First angle



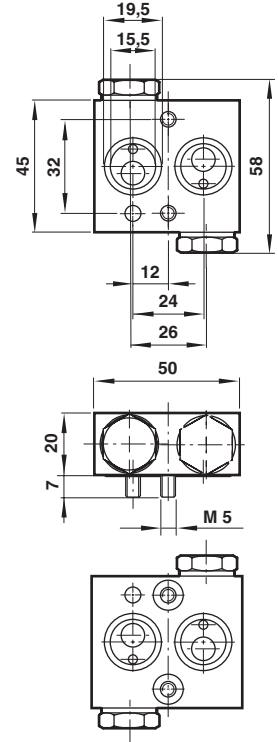
90° Mounting plate
Model: 0613453



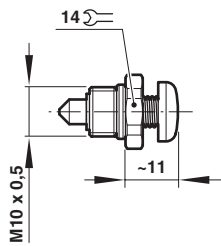
270° Mounting plate
Model: 0613556



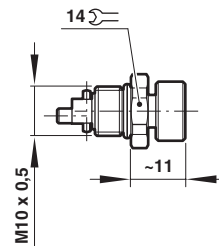
Distance plate for solenoids
Model: 0540109



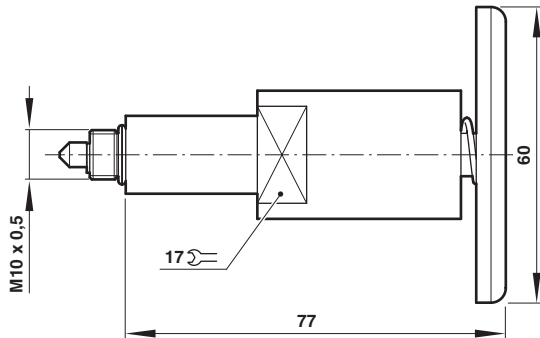
Manual override
Model: 0553886



Model: 0553887

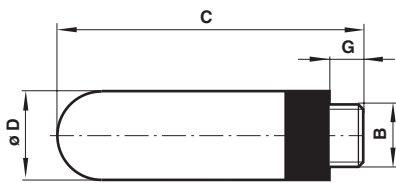


Model: 0613379



Silencer (plastic)

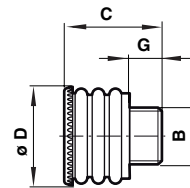
Model: M/S2, M/S4, C/S2 & C/S4



B	G	C	Ø D	Weight (g)	Model
G1/4	7	35,5	15,5	2,9	M/S2
1/4 NPT	7	35,5	15,5	2,9	C/S2
G1/2	12	67	23	11,5	M/S4
1/2 NPT	12	67	23	11,5	C/S4

Exhaust guard

Model: 0613422 & 0613423



B	Suitable for	G	C	Ø D	Weight (g)	Model
1/4"	G1/4, 1/4 NPT	10	26,5	21	5	0613422
1/2"	G1/2, 1/2 NPT	12	33,5	29	11	0613423

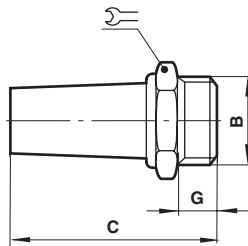
Dimensions shown in mm

Projection/First angle



Silencer (stainless steel)

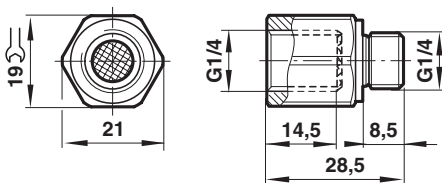
Model: 0014613, 0014813, 0613678 & 0613679



B	C	G		Weight (g)	Model
G 1/4	36	8	16	23	0014613
1/4 NPT	36	8	16	67	0613678
G 1/2	49	12	24	81	0014813
1/2 NPT	49	12	24	235	0613679

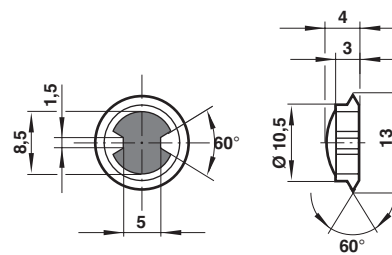
Adaptor complete

Model: 0613487



Inlet filter

Model: 0681173

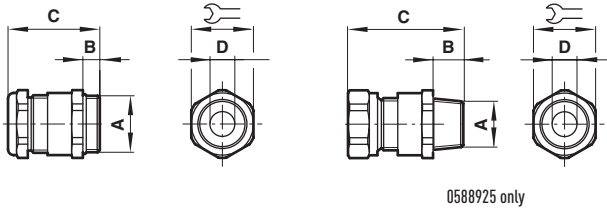


Thread pitch diameter max. 11,85 mm

Cable gland

Dimensions shown in mm

Projection/First angle



A	B	C	ø D		Model
M20 x 1,5	9	36	5 ... 8	22	0588819
M20 x 1,5	6,5	27,5	9 ... 13	22	0589385
M20 x 1,5	14	39	10 ... 14	24	0588851
1/2-14 NPT	15	58	7,5 ... 11,9	24	0588925
M20 x 1,5	14	39	7 ... 12	24	0589395
M20 x 1,5	10	34	10 ... 14	24	0589387

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.

Functional safety according to DIN EN 61508 SIL:

Suitable for certain applications can only be evaluated through examination of each safety-related overall system with regard to the requirements of IEC 61508 / 61511.