

97105 NAMUR

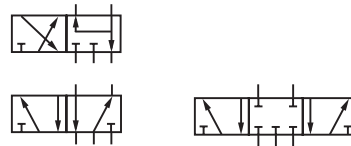
3/2, 5/2 & 5/3 spool valves, indirect solenoid actuated G 1/4, 1/4 NPT, G 1/2, 1/2 NPT or flanged with NAMUR interface

For single and double operated actuators
Valves for safety systems up to SIL 4 (IEC 61508)
Crossover-free switching, switch-over function guaranteed
Add-on manual override
Rest position in the event of power failure provided by mechanical spring return (monostable design)

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: IEC Ex, FM, CSA others on request.



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

Certificated valves and temperature ranges see valve table on page 2 and 3

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 mm, DN 8 mm

Port size::

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

Operating pressure:

2,5 ... 8 bar with internal air supply

0 ... 8 bar with external air supply, control pressure

2,5 ... 8 bar (by G1/2, 1/2 NPT or low power pilot system only)

Fluid/Ambient temperature:

Valve: -40 ... +65°C (NBR)

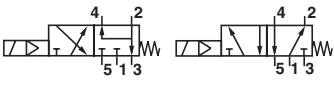
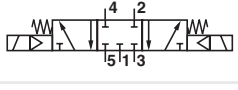
-25 ... +80°C (HNBR)

Depending on solenoid system
Air supply must be dry enough to avoid ice formation at temperatures below 2°C.

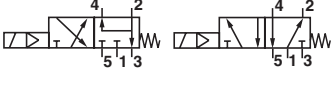
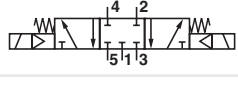
Materials:

Housing: aluminium anodized 3.0615, brass 2.0401/Ms 58 or stainless steel 1.4404/316
Seals: NBR (special perbunan) or HNBR

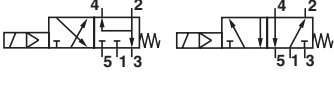
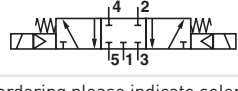
Valves with seals NBR -40 ... +65°C *3)
Housing: aluminium anodized

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	2,5...8	2600		0,80	7	9710595
	1/2 NPT	Flange	Solenoid/spring	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 Models (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)

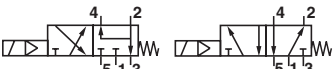
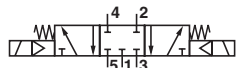
*6) Connecting pipe/fitting: In order to ensure and a pressure collapse avoid the flow, the supply air cross section should with 1/4: ≥ 8 mm; with 1/2: ≥ 10 mm its.
With smaller cross section the inlet should more largely, however at least equally large line at the port its.

APB = All Ports Blocked

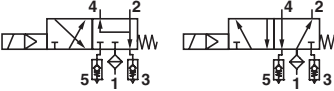
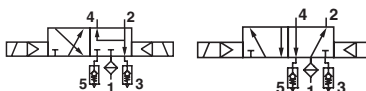
3/2 or 5/2 way function (Conversion instructions see page 14)

Valves with seals HNBR -25 ... +80°C *3)

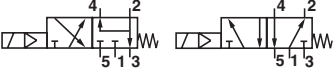
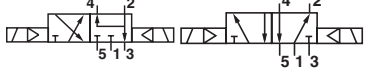
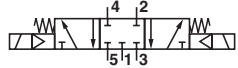
Housing: aluminium anodized

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	2,5...8	2600	x	0,80	7	9710295
	1/2 NPT	Flange	Solenoid/spring	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

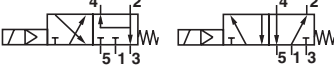
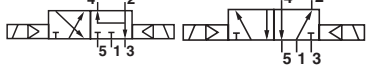
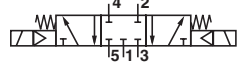
Housing: aluminium anodized, Inlet filter and exhaust guard

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

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 Models (frequency)

*2) Since May 2008, Date code A8192

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

*4) Test certificate without inlet filter and exhaust guard

*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 its.
With smaller cross section the inlet should more largely, however at least equally large line at the port its.

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
Special design	9
Ports size	Substitute
G 1/4	0
1/4 NPT	1
G 1/2	9
1/2 NPT (in connection with version Number code 6)	9

APB = All Ports Blocked

Air supply	Substitute
Internal	0
External (only for G 1/2, 1/2 NPT or low power pilot)	Z
Voltage	Substitute
24 V d.c.	024.0
230 V a.c.	230.5
Solenoid	Substitute
see solenoid table	
Version	Substitute
Without manual override (retrofit)	5
Semi automatic (on request)	7
Low power pilot (see page 5)	9
For 1/2 NPT + NAMUR (manual override retrofit)	6

Solenoid operators

	Power consumption 24 V d.c. (W)	230 V a.c. (VA)	Rated current 24 V d.c. (mA)	230 V a.c. (mA)	Ex-Protection (ATEX- Categorie)	Protection class *7)	Temperature Ambient/ Fluid (°C)	Electrical connection	Weight (kg)	Dimension No.	Circuit diagram No.	Model
	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 *7)
	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)
	-	5,3	-	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 emb II T5/T6 Ex tD A21 IP66 T130° *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 emb II T5/T6 Ex tD A21 IP66 T130° *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 dmb IIC T5/T6 Ex emb II T5/T6 Ex tD A21 IP66 T130° *3)	-40 ... +80 T5 -40 ... +70 T6 -40 ... +80	1/2 NPT *6)	0,8	17	4	4600 *8)
	0,8	-	33	-	II2G II2D	Ex dmb IIC T5/T6 Ex emb II T5/T6 Ex tD A21 IP66 T130° *3)	-40 ... +80 T5 -40 ... +70 T6 -40 ... +80	M20 X 1,5 *6)	0,8	17	4	4602 *8)
	-	1,3	-	6	II2G II2D	Ex dmb IIC T5/T6 Ex emb II T5/T6 Ex tD A21 IP66 T130° *3)	-40 ... +80 T5 -40 ... +70 T6 -40 ... +80	1/2 NPT *6)	0,8	17	7	4601 *8)
	-	1,3	-	6	II2G II2D	Ex dmb IIC T5/T6 Ex emb II T5/T6 Ex tD A21 IP66 T130° *3)	-40 ... +80 T5 -40 ... +70 T6 -40 ... +80	M20 X 1,5 *6)	0,8	17	7	4603 *8)
	0,8	-	33	-	II2G II2D	Ex mb d IIC T4/T6 Ex mb e II T4/T6 Ex tD A21 IP66 T100° *2), *10)	-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), *10)	-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) IEC Ex Certificate of Conformity

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

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

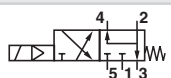
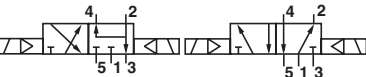
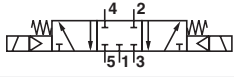
Cable gland is included in delivery

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

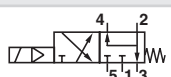
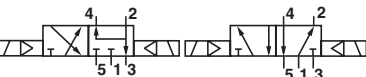
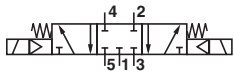
Ui = 45 V, Ii = 500 mA, according to Tab. A. 1, EN 60079-11

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

Valves, indirect solenoid actuated using low-power pilot system in protection class Ex ia IIC T4/T6, seals NBR -40 ... +65° 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	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

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) 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 its. With smaller cross section the inlet should more largely, however at least equally large line at the port its.

APB = All Ports Blocked

3/2 or 5/2 way function (Conversion instructions see page 13)

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.

*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 its. With smaller cross section the inlet should more largely, however at least equally large line at the port its.

Ordering example

9710509.	2085.	005.	00
Valve	Pilot 6,3 mW	Electrical connection	00 internal air supply
		005 M16 x 1,5 cable gland	02 external air supply

Accessories

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



Connector



0570275

0663303 (with rectifier)

Page 17
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, Ex e	0588925
M 20x1,5	9,0...13 mm	Stainless steel 1.4571	II2GD Ex e	0589385
M 20x1,5	7,0...12 mm	Stainless steel 1.4404	II2GD Ex d	0589395
M 20x1,5	10...14 mm	Stainless steel 1.4404	II2GD Ex d	0589387

Inlet filter



Page 17

0613487

Silencer *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)

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)

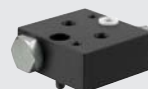
Yoke



Page 15

0540593

Distance plate for coils



Page 15

0540109

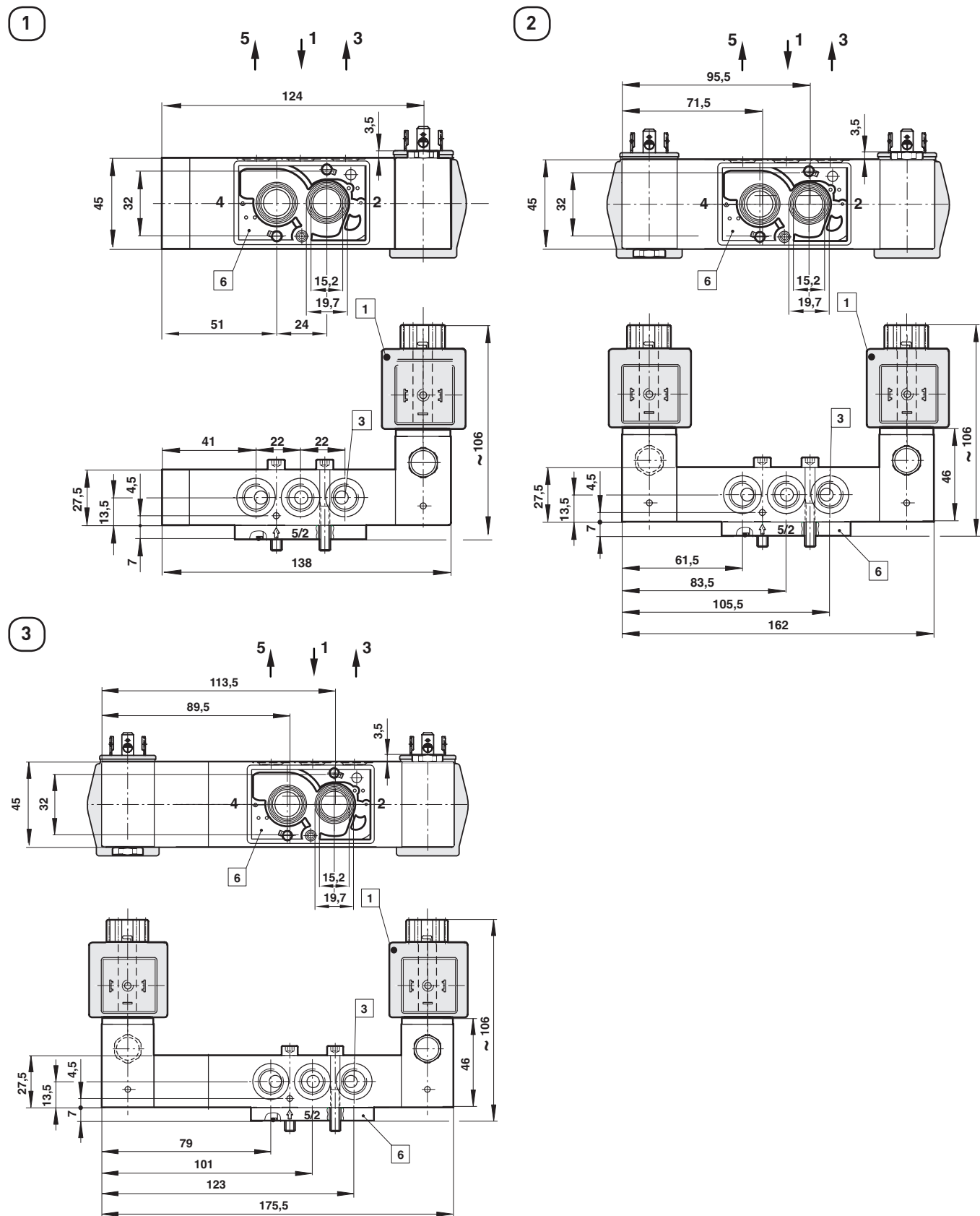
Mounting plate 90° and 270°



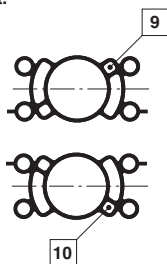
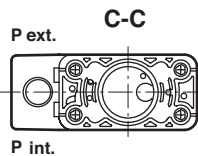
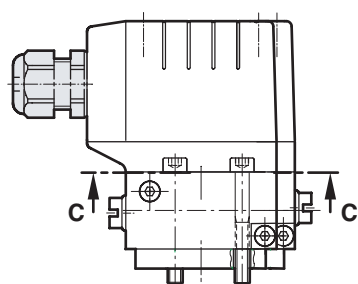
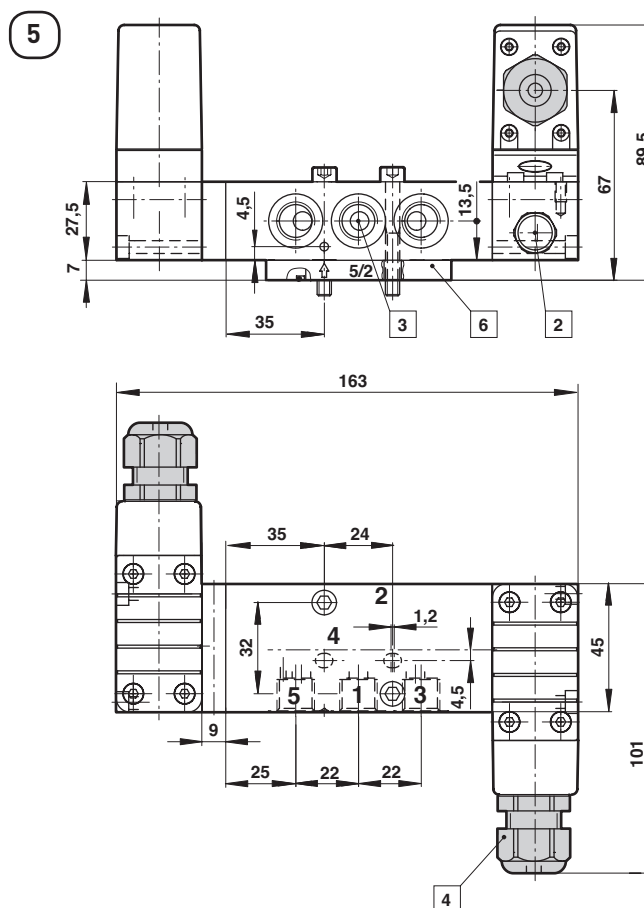
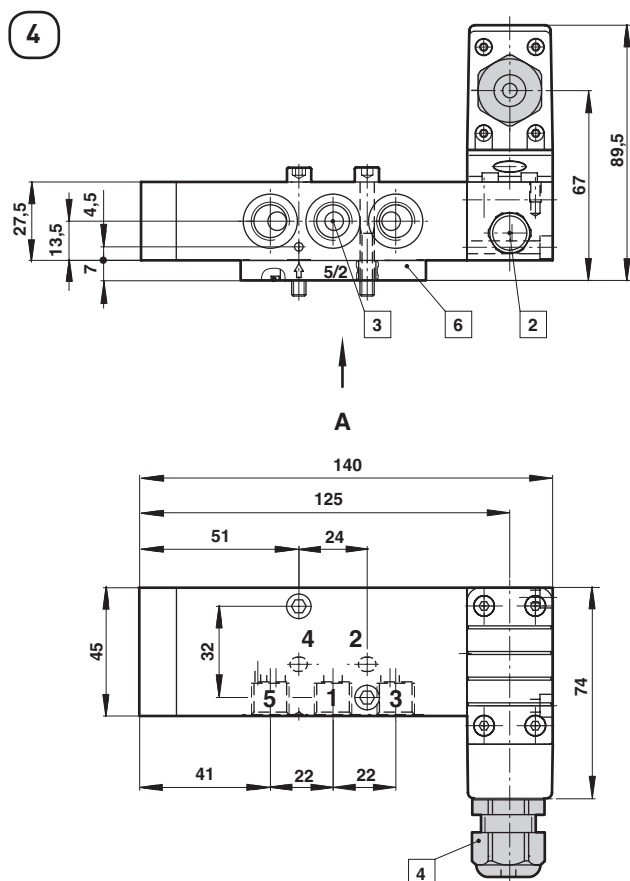
Page 15

0613453 (90°)
0613556 (270°)

**Dimensions
Valves**



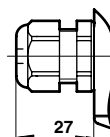
- 1 Solenoid optional turnable
- 3 Port G 1/4 or 1/4 NPT
- 6 NAMUR connection plate 3/2 or 5/2 way function



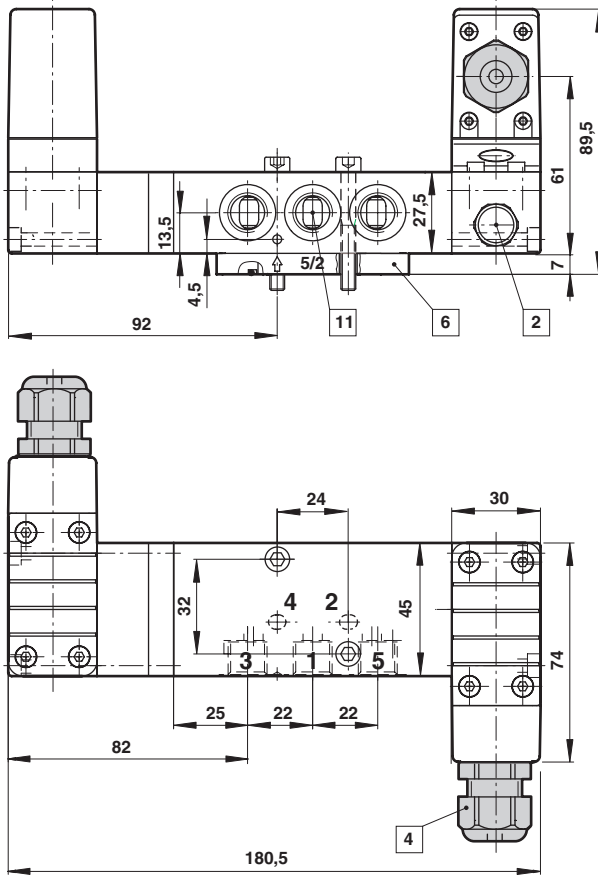
- 2 External control pressure connection G1/8 or 1/8 NPT
- 3 Port G1/4 or 1/4 NPT
- 4 Electrical connection selectable version 005
- 6 NAMUR connection plate 3/2 or 5/2 way function
- 9 Position of gasket internal pilot air
- 10 Position of gasket external pilot air

Electrical connection

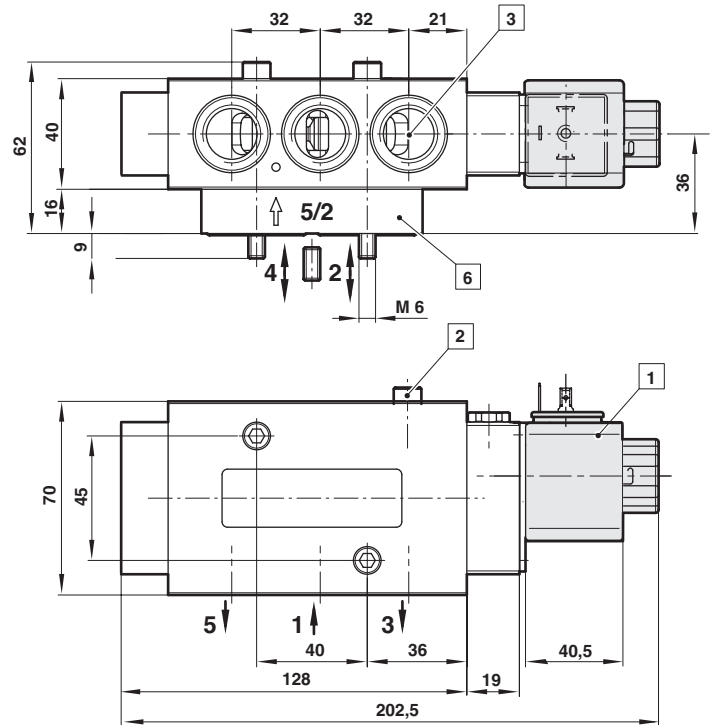
005



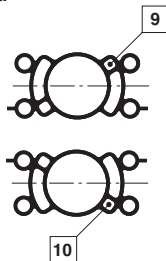
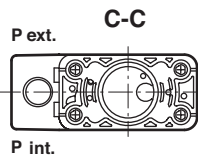
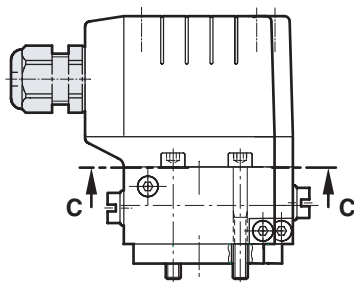
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7

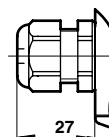


- 1 Solenoid optional turnable
- 2 External control pressure connection G1/8 or 1/8 NPT
- 3 Port G1/2 or 1/2 NPT
- 4 Electrical connection selectable version 005
- 6 NAMUR connection plate 3/2 or 5/2 way function
- 9 Position of gasket internal pilot air
- 10 Position of gasket external pilot air
- 11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

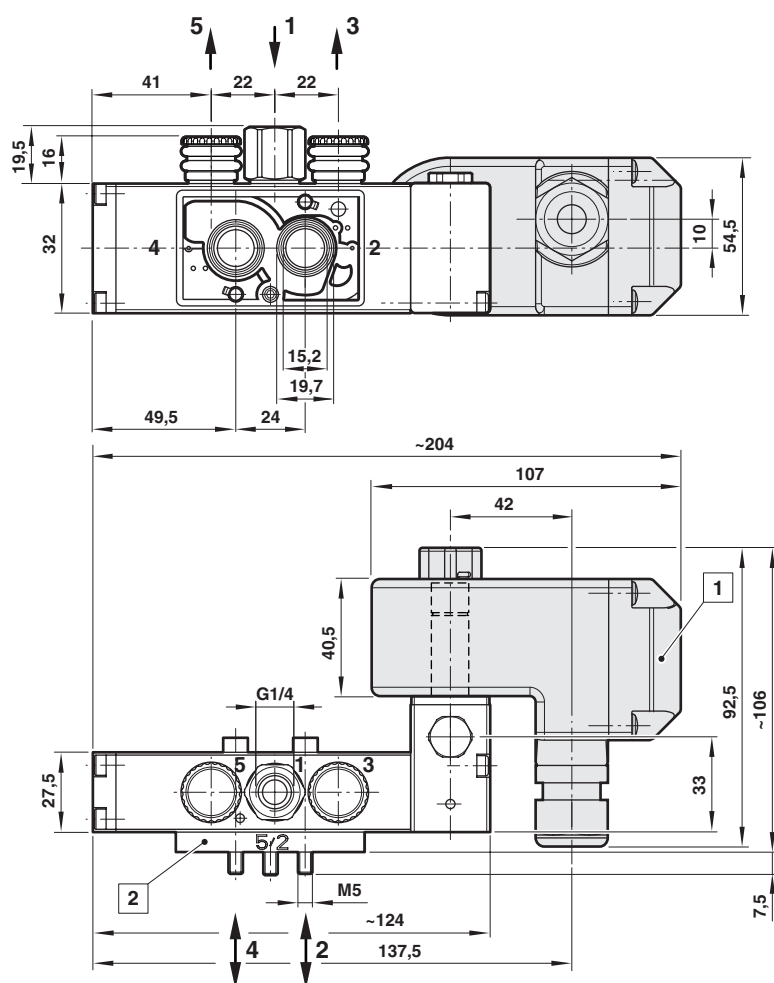


Electrical connection

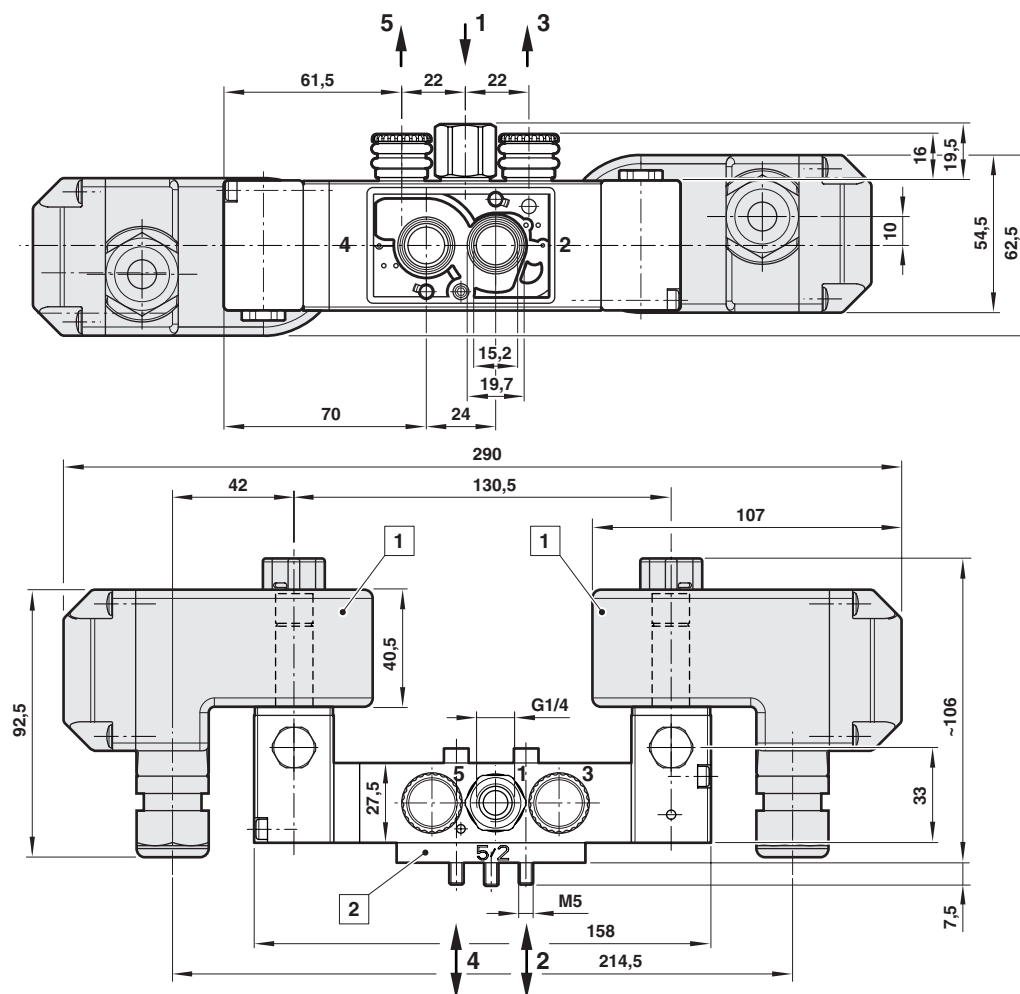
005



8



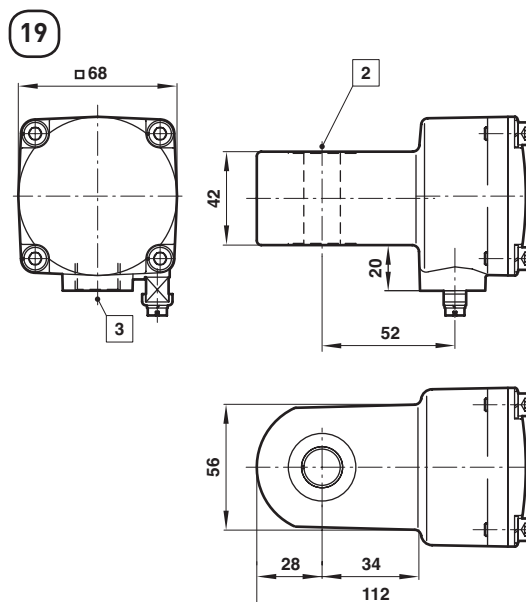
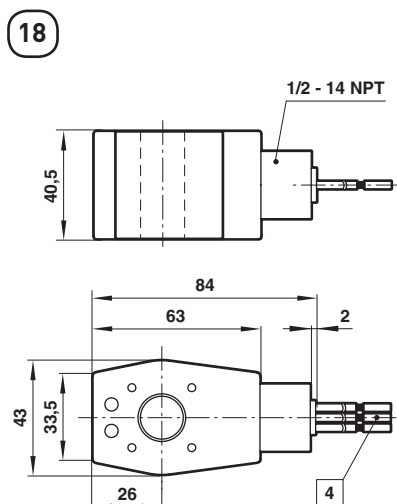
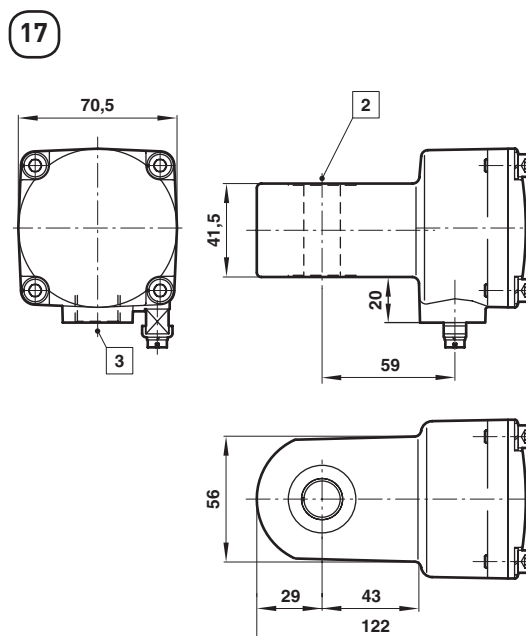
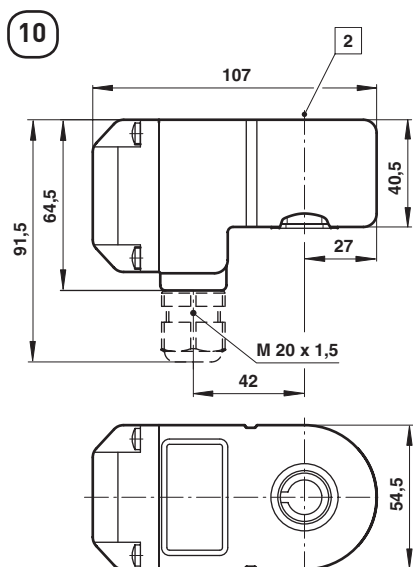
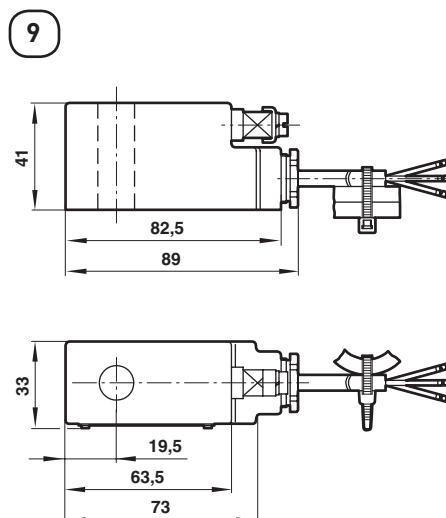
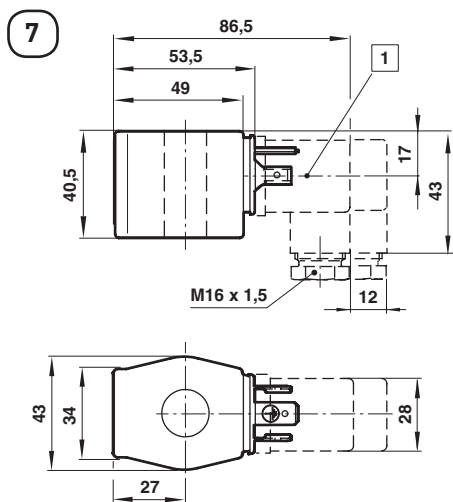
- 1 Solenoid optional turnable
- 2 NAMUR connection plate 3/2 or 5/2 way function



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

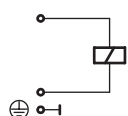
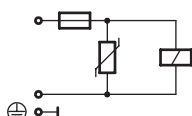
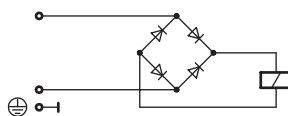
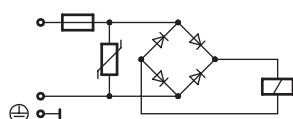
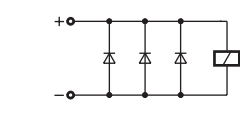
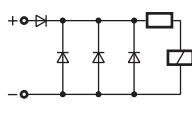
Dimensions

Solenoid operators

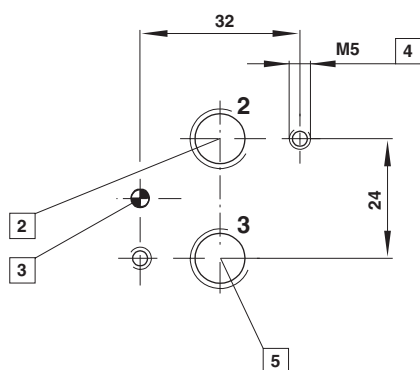


- 1 Connector 4 x 90° turnable
- 2 Ø 13 (with spacer tube)
- 3 M20 x 1,5 or 1/2 - 14 NPT
- 4 Flying leads 450 mm long

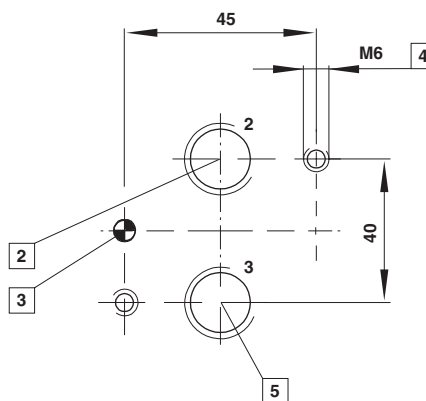
Circuit diagrams

1

4

5

7

10

11


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



Port size G1/2

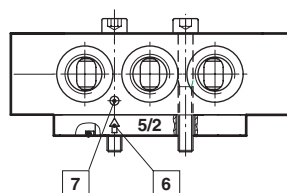


- 2** Port 2 (A)
- 3** Coding stud threaded
- 4** M5 & M6 (10 deep)
- 5** Port 3 (R)

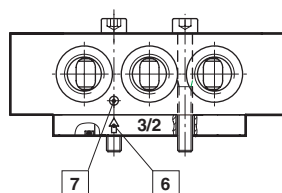
NAMUR quick exhaust module for a better kv-value by exhaust see data sheet 5.4.820

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

5/2 way function (original mode of supply)

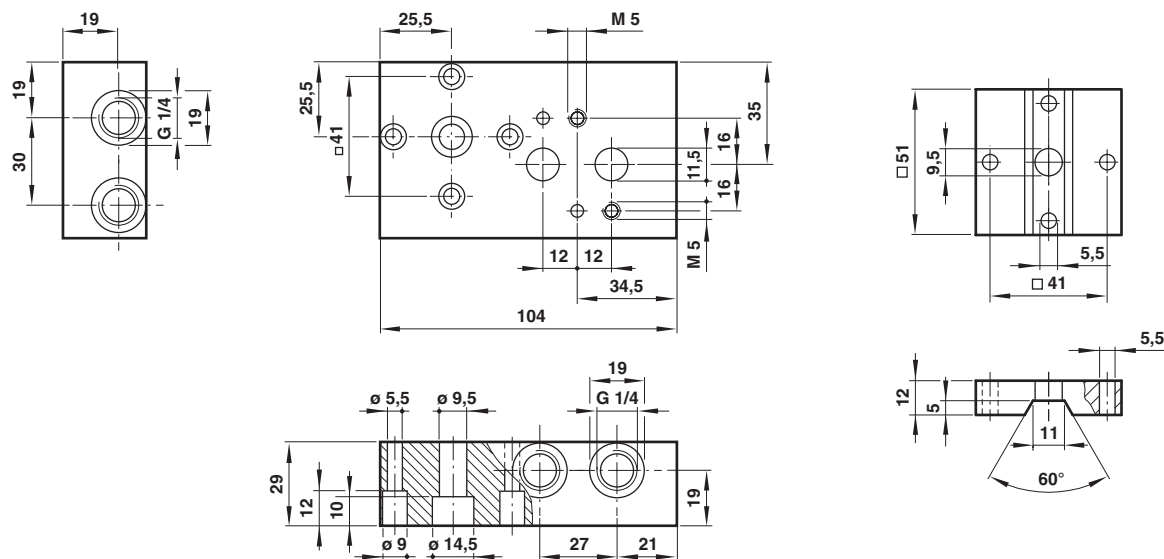
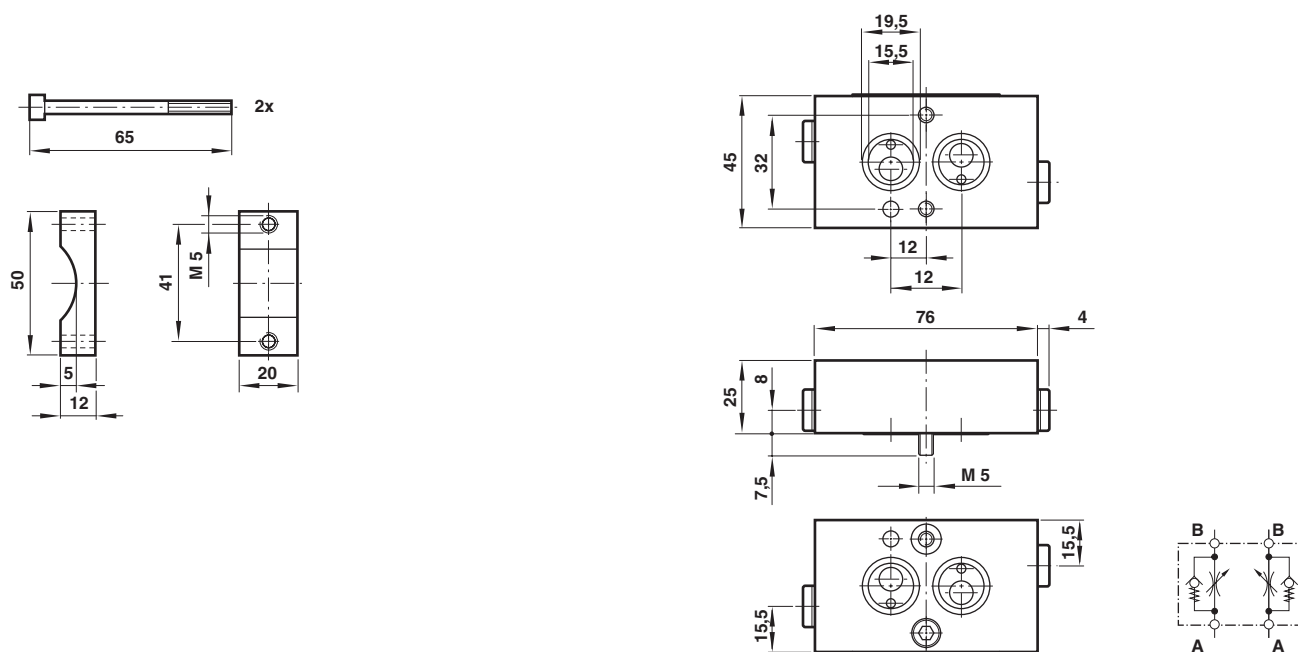


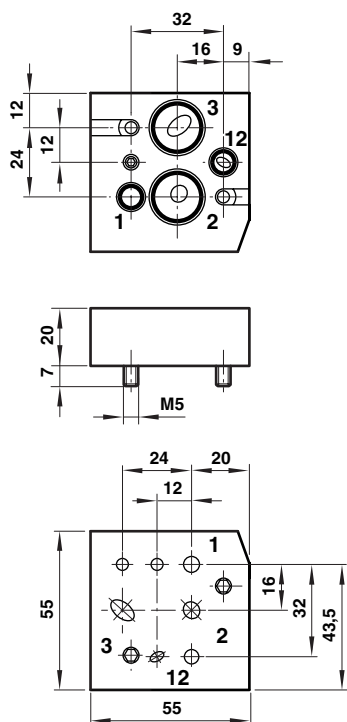
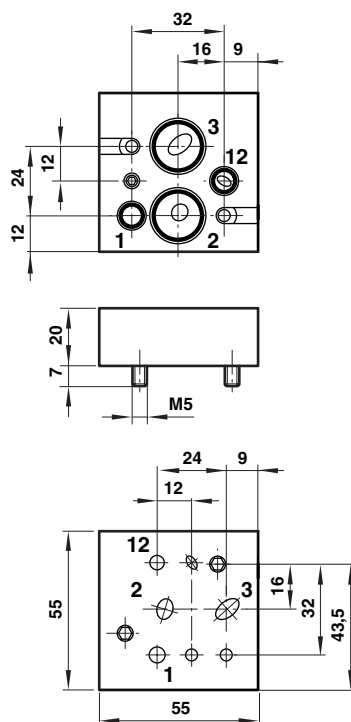
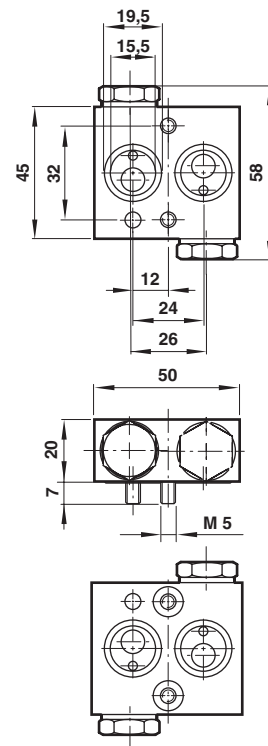
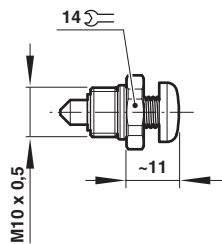
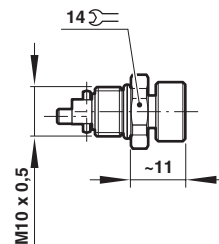
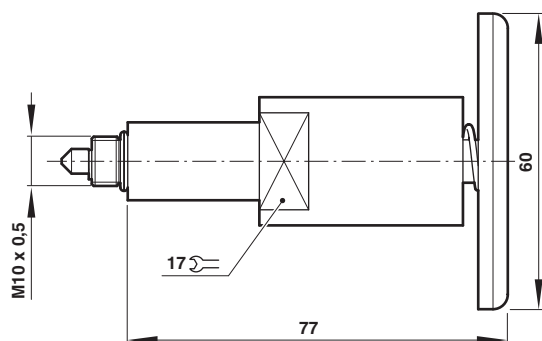
3/2 way function



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. Original mode of supply: 5/2 function.

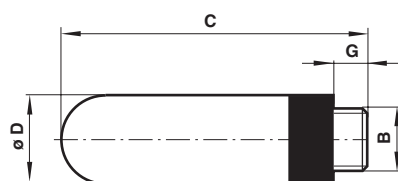
- 6** Arrow
- 7** Marker

Single connection plate
Model: 0612790
NAMUR slot
Model: 0612791

Yoke
Model: 0540593
Throttle control plate
Model: 4040239


90° Mounting plate
Model: 0613453

270° Mounting plate
Model: 0613556

Distance plate
Model: 0540109

Manual override
Model: 0553886

Model: 0553887

Model: 0613379


Silencer

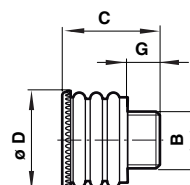
Model: M/S2, M/S4, C/S2, C/S4



Model	B	G	C	Ø D	Weight (g)	Model
M/S2, C/S2	1/4"	7	35,5	15,5	2,9	0613422
M/S4, C/S4	1/2"	12	67	23	11,5	0613423

Exhaust guard

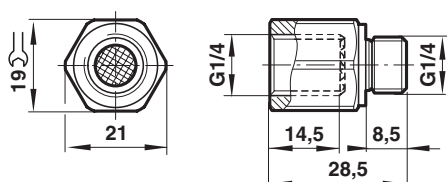
Model: 0613422, 0613423



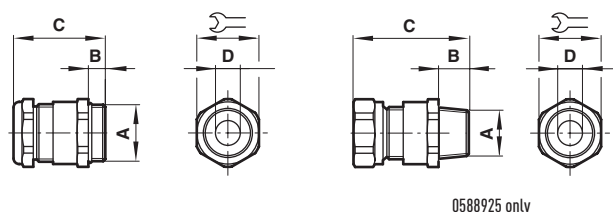
B	Suitable for	G	C	Ø D	Weight (g)	Model
1/4"	G1/4, 1/4 NPT	10	26,5	21	5	0613422
1/2"	G1/2, 1/2 NPT	12	33,5	29	11	0613423

Inlet filter

Model: 0613487



Cable gland



0588925 only

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 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.