97100 NAMUR

3/2-, 5/2- and 5/3 Directional control valves
Actuation: electromagnetic
Indirectly controlled soft seal spool valves
Port size: G 1/4, 1/4 NPT
NAMUR Interface

For single and double operated actuators

Exhaust air recirculation (3 way function)

Crossover-free switching, switch-over function guaranteed even with small cross section air supply

Restposition in the event of power failure provided (monostable design)

3/2 or 5/2 way function in one valve

Manual override with detent

Compact design

Simple design of soft seal spool system

Easily interchangeable solenoid

The solenoid valves are applicable in the protection class EEx m and EEx ia, for zones 1, 2 (gases) ATEX cat.II 2 G, EEx nA, for zones 2 (gases), 22 (dust) ATEX cat.II 3 GD



Technical data

Medium:
Filtered, non-lubricated and dry compressed air *1)

Operation:
Solenoid, indirectly controlled

Flow direction:
Fixed

Mounting position:
Optional

Nominal diameter:
6 mm

Port size:
1: G 1/4, 1/4 NPT; 3 and 5: G 1/8, 1/8-NPT

Electrical connection:
See solenoid table

Operating pressure:
Max. 8 bar

Temperature:
Valve: -25* to +50°C
Solenoid: see solenoid table
*Please consult our technical service for use below +2°C.

Materials:

Housing: Aluminium anodized
Pilot flange: Plastic (PBT)
Seals: NBR (Perbunan)
*1) Oil recommendation: Shell Hydrol DO 32, ESSO Febis K 32 (as of July 1992) or comparable oils with DVI-values < 8 (DIN 53521) and ISO viscosity class 32-46 (DIN 51519).

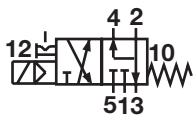
Ordering information

5/2 directional control valve, port size G 1/4, solenoid 24 V DC, with connector DIN EN 175 301-803 form A, Protection class IP 65
Type: 9710000.3036.024.00
connector: 0570275

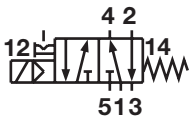
Connectors

See data sheet N/UK **7.7.**002

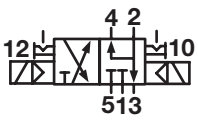
3/2



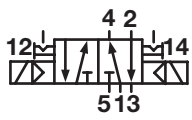
5/2



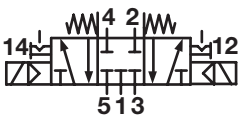
3/2



5/2

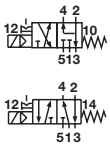
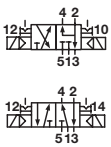
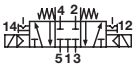


5/3



3/2, 5/2 and 5/3 directional valves for minimal electrical power, incl. EEx i

5/2 way or 3/2 way function (see conversion instructions page 6)

Symbol	Type	port size 1	3, 5	2, 4	Actuation	Operation pressure (bar)	Flow (l/min)	Weight (kg)	Dimensions No.
	9710002*	G 1/4	G 1/8	Flange	Solenoid/Spring	2 ... 8	750	0,25	1
	9710012*	1/4 NPT	1/8 NPT	Flange					
	9711002*	G 1/4	G 1/8	Flange	Solenoid/Solenoid	2 ... 8	750	0,35	2
	9711012*	1/4 NPT	1/8 NPT	Flange					
	9712002*	G 1/4	G 1/8	Flange	Solenoid/Solenoid	2 ... 8	500	0,40	3
	9712012*	1/4 NPT	1/8 NPT	Flange	mid position APB	2 ... 8	500	0,40	3

* When ordering please indicate solenoid, voltage and current type (frequency).
Outside free of nonferrous metals
Valve function: APB = All Ports Blocked

Solenoid actuators

	Type	Power consumption 24 V DC (W)	230 V AC (VA)	Rated current at 24 V DC (W)	230 V AC (VA)	Ex Protection Categorie	Protection class	Temperature Ambient/ Fluid (°C)	Weight (kg)	Dimensions No.	Circuit diagram No.
	3050	1,7	-	-	-		IP 65 (with connector) DIN EN 175301-803 Form B *6)	-40 ... +50	0,054	4	1
	3034	0,7	0,7 *2)	-	-		IP 65 (with connector) *6) DIN EN 175301-803 Form A	-40 ... +50	0,090	5	1
	3046	2	-	-	-	II3G II3D	EEx nA II T5 IP65 T 95°C with connector	-15 ... +50	0,300	5	1
	3062 *3)	2,7	-	115		II2G	EEx m II T5 Connector with 3 m cable	-20 ... +50	0,300	6	1
	3063 *3)	-	2,1 *2)		9 *2)	II2G	EEx m II T5 Connector with 3 m cable	-20 ... +50	0,300	6	8
	3071	2,7	-	115	-	-	IP 66 Connection M12x1 DIN EN 60947-5-2	-10 ... +50	0,110	7	8

Standard voltages 24 V DC, 230 V AC. Other voltages on request.Design acc. to VDE 0580, EN 50014/50028. 100% duty cycle.

For intrinsically safe circuits, protection class EEx ia IIC T6/T4

	Type	Nom. resistance R_N coil (Ω)	Required switching current (mA)	Resistqnce $R_{w\,50}$ coil	Required voltage at terminal $R_{w\,50}$	Ambient temperature (°C)	Fluid temperature max. (°C)	Weight (kg)	Dimensions No.	Circuit diagram No.
	3039 *4)	275	37	330	12,3	T6 -40 ... +80	T6 +70	0,83	8	13
						T4 -40 ... +80	T4 +85			

When selecting an intrinsically safe power supply, the permissible maximum values according to the Certificate of Conformity should be taken in account.
On the other hand, the low effective inductivity and capacity can be ignored.

*2) Valves can be operated with DC only. For 230 V AC application please use 206 V DC coil together with recifier plug 0663303
*3) Certificate of Conformity PTB No. PTB 03 ATEX 2015X
*4) Certificate of Conformity PTB 03 Atex 2134 PTP 03 IEC 2166, CSA -Certificate No. LR 51090-4, FM approved.
Required connector acc. to DIN EN 17031-801 form A or ISO 4400. Installation acc. to requirements of FM and CSA. Connector is not indicated in delivery.
*6) Connector is not indicated in delivery; required connector for DC: type 0680003 Form B, 0570275 Form A.