3/2, 5/2 and 5/3 Directional Control Valves
Actuation: Electromagnetic
Indirectly-controlled soft seal spool valves
Connections G 1/4, G 1/2

- **Straight-through flow, high C_v-factor**
- **Compact design**
- **Maintenance free**
- **Easy to service**
- **Easily interchangeable solenoid system**
- **Standard manual override**

Technical data

Operating medium:
Solenoid valve for filtered, lubricated[1] or non-lubricated air
Action:
Solenoid operated indirectly controlled
Flow direction:
Fixed
Mounting position:
Optional
Nominal size:
6 and 12 mm
Port size:
G 1/4, G 1/2
Electrical connection:
Connector interface to DIN 43650 form A and B
Operating pressure:
1 to 10 bar
Temperature range:
-10* to +50 °C
* With minus temperatures use conditioned dry air. If installed in the open protect all connections against the penetration of moisture!
Material:

Housing:	Aluminium
Pilot flange:	Plastic (PBT)
Seal:	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 example

3/2 directional control valve, connection G 1/4, actuating solenoid 24 V DC, with connector DIN 43650 form B,
protection class IP 65
Type: 8010750.3053.024.00

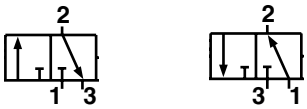
Further versions

NPT

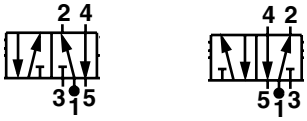
Accessories

	see data sheet
Manifold system	750**1074**
Connectors	750**3364**

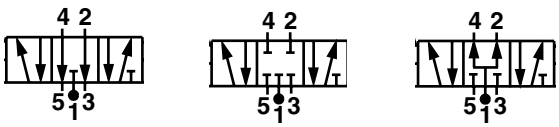
3/2



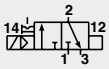
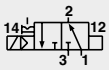
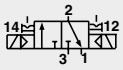
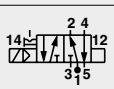
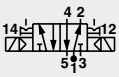
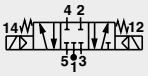
5/2

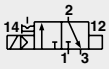
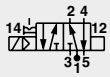


5/3



General information

Symbol	Type	Function	Port size	Nominal size	Operating pressure (bar) Min.	Max.	Flow (l/min)	Manual override Detend with	without	Power drawn (W)	Weight (kg)	Dimensional drawing No.
	**8010750. *** [1]	3/2 mono NC	G 1/4	6	1.0	10	1200	●		< 5	0.40	M01
	8010752. *	3/2 mono NC	G 1/4	6	1.0	10	1200		●	< 5	0.40	M01
	8010850. *	3/2 mono NC	G 1/2	12	1.5	10	3000	●		< 5	0.70	M02
	8010852. *	3/2 mono NC	G 1/2	12	1.5	10	3000		●	< 5	0.70	M02
	**8012750. *** [1]	3/2 mono NO	G 1/4	6	1.0	10	1200	●		< 5	0.40	M01
	8012850. *	3/2 mono NO	G 1/2	12	1.5	10	3000	●		< 5	0.70	M02
	**8011750. ***	3/2 bi	G 1/4	6	1.0	10	1200	●		< 5	0.77	M03
	8011850. *	3/2 bi	G 1/2	12	1.5	10	3000	●		< 5	0.90	M04
	**2623000. ***	5/2 mono	G 1/4	6	1	10 [2]	1200	●		< 5	0.4	M05
	2623002. *	5/2 mono	G 1/4	6	1	10 [2]	1200		●	< 5	0.4	M05
	2623500. *	5/2 mono	G 1/2	12	2	10 [2]	3000	●		< 5	0.7	M06
	**2623100. ***	5/2 bi	G 1/4	6	1	10	1200	●		< 5	0.4	M07
	2623600. *	5/2 bi	G 1/2	12	2	10	3000	●		< 5	0.7	M08
	**2623200. ***	5/3	G 1/4	6	3	10	900	●		< 5	1.0	M09
	2623700. *	5/3	G 1/2	12	2.5	10	2200	●		< 5	1.6	M10
	**2623300. ***	5/3	G 1/4	6	3	10	900	●		< 5	1.0	M09
	2623800. *	5/3	G 1/2	12	2.5	10	2200	●		< 5	1.6	M10
	**2623400. ***	5/3	G 1/4	6	3	10	900	●		< 5	1.0	M09

Symbol	Type	Function	Port size	Nominal size	Operating pressure (bar) Min.	Max.	Flow (l/min)	Manual override Detend with	without	Power drawn (W)	Weight (kg)	Dimensional drawing No.
	**8010751. ***	3/2 mono NC	G 1/4	6	2.0	8	1200	●		< 2	0.40	M01
	8010753. *	3/2 mono NC	G 1/4	6	1.0	10	1200		●	< 2	0.40	M01
	8010851. *	3/2 mono NC	G 1/2	12	2.0	8	3000	●		< 2	0.70	M02
	8010853. *	3/2 mono NC	G 1/2	12	2.0	8	3000		●	< 2	0.70	M02
	**2623001. ***	5/2 mono	G 1/4	6	2	8 [2]	1200	●		< 2	0.4	M05
	2623003. *	5/2 mono	G 1/4	6	2	8 [2]	1200		●	< 2	0.4	M05
	2623501. *	5/2 mono	G 1/2	12	2	8 [2]	3000	●		< 2	0.7	M06
	**2623101. ***	5/2 bi	G 1/4	6	2	8	1200	●		< 2	0.4	M07
	2623601. *	5/2 bi	G 1/2	12	2	8	3000	●		< 2	0.7	M08

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

[1] Port 3 is not throttleable

[2] Stagnation pressure at R ≤ operating pressure minus 1 bar.

Warning

These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures can exceed those listed under **'Technical Data'**.

Before using these products with fluids other than those specified, for non-industrial applications, life-support systems, or other applications not within published specifications, consult NORGREN.

Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes. The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.

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

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

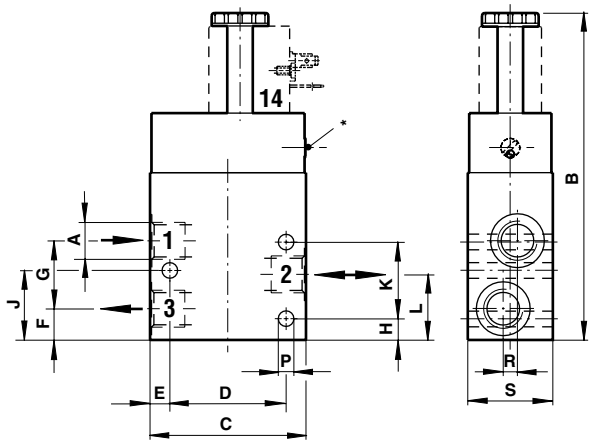
Parameters for solenoids

	Type	Power drawn 24 V DC (W)	Power drawn 230 V AC (VA)	Protection with/without connector	Temperatures Fluid max. (°C)	Temperatures Ambience (°C)	Weight (kg)	Dimensional drawing No.	Electrical circuit diagram No.
	**3052** **3050**	4,8 1,7	8,5 4,3	IP 00 without connector	+50	-10 to +50	0.06	M11	SB01
	3053 **3051**	4,8 1,7	8,5 4,3	IP 65 with connector DIN 43650 form B	+50	-10 to +50	0.08	M11	SB01
	**3030** **3036**	4,5 1,6	8,0 3,5	IP 00 without connector	+50	-10 to +50	0.09	M12	SB01
	3031 **3037**	4,5 1,6	8,0 3,5	IP 65 with connector DIN 43650 form A	+50	-10 to +50	0.12	M12	SB01
	**3042**	3,3	–	EEx m II T5 with cable 3 m	+80	-10 to +50	0.13	M13	SB01
	3043	–	3,3	EEx m II T5 with cable 3 m	+80	-10 to +50	0.13	M13	SB08

Attention:
Valves and solenoids can only be combined if their electrical ratings correspond with each other (see table General information).
For valve with power consumption < 5 watt please use 4.8 or 4.5 watt solenoids.
For valve with power consumption < 2 watt please use 1.7 or 1.6 watt solenoids.
EEx m-solenoids 3.3 watt are for valves with power consumption < 5 watt.

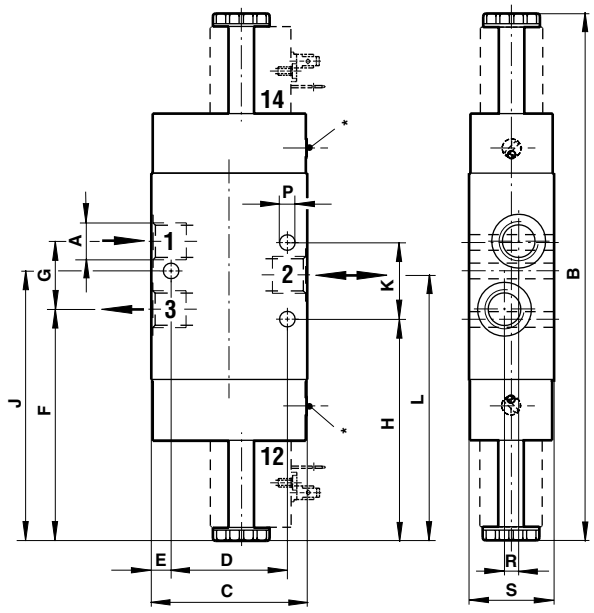
Standard voltages 24 V DC, 230 V AC. Further versions available on request.

Dimensional drawings



*** Manual override**

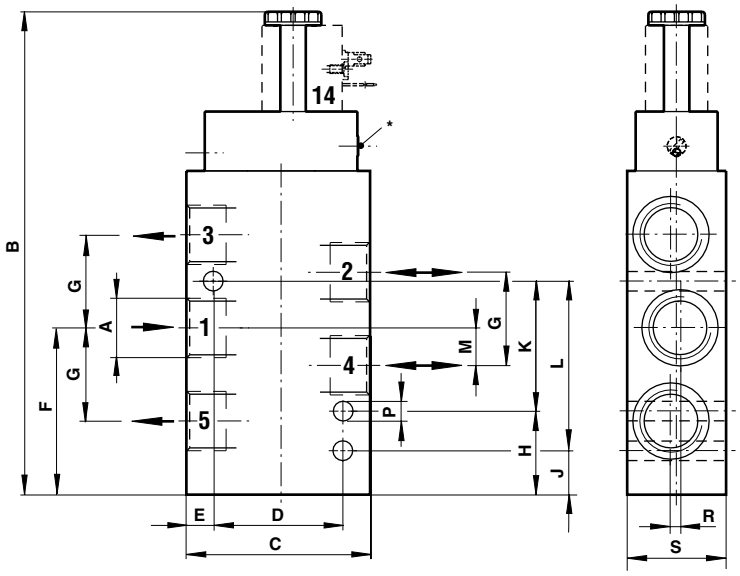
Dimensional drawing No.	A	B	C	D	E	F	G	H	J	K	L	Ø P	R	S
M01	G 1/4	115.5	55	41	7	11	24	7.5	24.5	27	23	5.5	5	30
M02	G 1/2	143.5	65	46	9.5	29	33	31.5	–	46	50	7	2.5	35



*** Manual override**

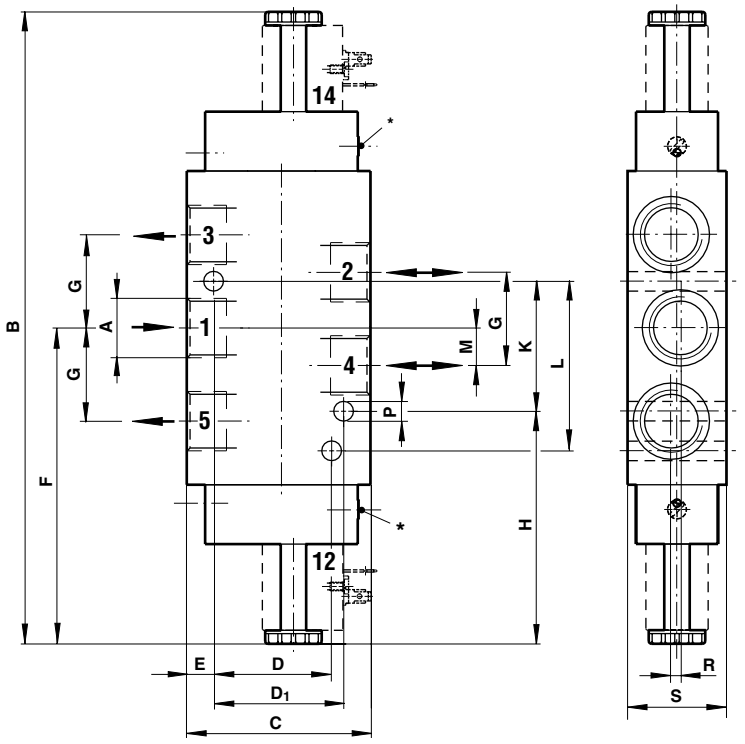
Dimensional drawing No.	A	B	C	D	E	F	G	H	J	K	L	Ø P	R	S
M03	G 1/4	186.5	55	41	7	81.5	24	78	95	27	93.5	5.5	5	30
M04	G 1/2	195.5	65	46	9.5	81	33	81	–	46	100.5	7	2.5	35

Dimensional drawings



*** Manual override**

Dimensional drawing No.	A	B	C	D	E	F	G	H	J	K	L	M	Ø P	R	S
M05	G 1/4	139.5	55	40	7.5	35	24	–	5	–	67	12	7	5	30
M06	G 1/2	171.5	65	46	9.5	59.5	33	30	16	46	60	13	7	3	35

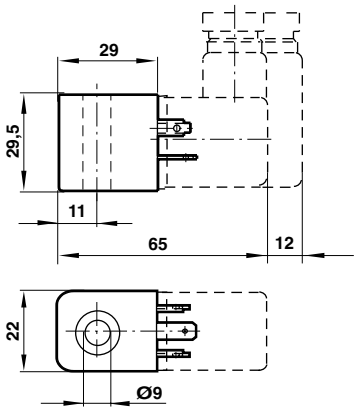


*** Manual override**

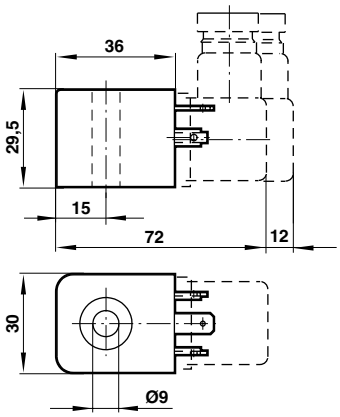
Dimensional drawing No.	A	B	C	D	D_1	E	F	G	H	K	L	M	Ø P	R	S
M07	G 1/4	214.5	55	40	40	7.5	107.5	24	77.5	67	–	12	7	5	30
M08	G 1/2	223.5	65	46	46	9.5	112	33	82.5	46	60	13	7	3	35
M09	G 1/4	232.5	55	40	40	7.5	118	24	88	67	–	12	7	5	30
M10	G 1/2	289	70	46	50	10	144.5	33	–	50	60	16.5	7	4	40

Dimensional drawings - solenoids

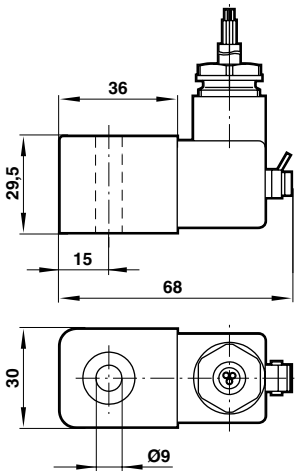
M11



M12

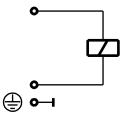


M13



Electrical circuit diagrams

SB01



SB08