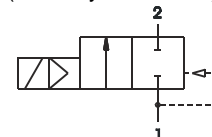


2/2 way solenoid valve normally closed or normally open

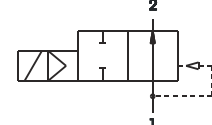
type 51, body brass
pilot operated, DN 15-50mm, G3/8 – G2



function A
(normally closed NC)



function B
(normally open)



SPECIFICATION	
General	
type of construction	2/2-poppet valve, with diaphragm, normally closed NC or normally open NO, coil 360° rotatable
operator	solenoid, manual override
ports	G3/8 – G2
ambient temperature	-20 °C to +50 °C, higher allowed ambient temperatures on request
fluid temperature	dependent on sealing material and coil
viscosity	max. 21mm ² /s (cst) or 3°E
material	body brass, inner parts stainless steel and brass, sealing see type selection
mounting	installation into fixed piping system
installation	in any position, preferable vertical fixed solenoid coil
unit of supply	without connector
electrical data	
voltage	DC voltage or AC voltage
standard voltage	24V DC, 24V AC, 230V AC
special voltage on request	6V-200V DC, 12V-240V, 50Hz or 60Hz
acceptable voltage tolerance	+/- 10%
power consumption	see specifications at solenoid coils
coil type	temperature class F (155°C), winding class H (180°C)
duty cycle	100% ED (DB), continuous operation
protection class	IP65 according DIN EN 60529 (DIN 40050) with correctly mounted connector
pneumatic – hydraulic	
flow medium	all liquids and gases, which don't attack the used material
max. body housing pressure	G3/8 to G1 PN 20 (bar), above PN 16 (bar)
response time	depending on operating pressure and fluid
special equipment on request	stainless steel AISI304 in place of brass, coil type with cable, bright nickel-plated or chemical nickel-plated, coils for temperature class H (180°C)

E & OE: We reserve the right to change design, dimensions or materials without notice.

type 51A, normally closed								
type * (order-nr.)	NW DN (mm)	ports	maximum differential pressure in bar **					kv-value (m ³ /h)
			coil C2DA		coil CXFA			
			~ (50Hz)	= (DC)	~ (50Hz)	= (DC) fluid temperature		
					40°C	80°C		
51A – 3. – AC...	15	G3/8	0,5 – 16	0,5 – 12	0,5 – 16	0,5 – 10	0,5 – 7,5	3,0
51A – 4. – AC...	15	G1/2						3,4
51A – 5. – AC...	19	G3/4						4,8
51A – 6. – AC...	25	G1						8,5

type * (order-nr.)	NW DN (mm)	ports	maximum differential pressure in bar **					kv-value (m ³ /h)
			coil E1AA		coil EXFA			
			~ (50Hz)	= (DC)	~ (50Hz)	= (DC) fluid temperature		
					40°C	80°C		
51A – 7. – AE...	40	G 1 1/4	0,5 – 12	0,5 – 12	0,5 – 12	0,5 – 12	0,5-12	15
51A – 8. – AE...	40	G 1 1/2						19,5
51A – 9. – AE...	48	G 2						30,5

* Type designation (order-nr.) must be completed with sealing material, coil and supply voltage.

** Ex-coils may be used up to 80°C fluid temperature only.

sealing material	Code	fluid temperature	applicable for	standard voltage	Code
NBR (Perbunan)	B	max. 80°C	neutral gases and liquids	24V = DC	02400
EPDM	E	max. 130°C	hot water, steam, not for oil and grease	24V ~ (50Hz)	02450
FPM	V	max. 130°C	oil, petrol, oxygen	230V ~ (50Hz)	23050

coil power consumption at 20 °C, protection class, interface					
coil type	inrush power ~ (50Hz) VA	rated power ~ (50Hz) VA	power = (DC) (W)	protection class with/without connector	interface
C2DA	13	10	6,5	IP65 / IP00	Connector (DIN 43650) type B industrial standard
CXFA	5,5	5,5	5,2	IP65	Ex-coil EExmII T4, cable length 3m
E1AA	32	14	12	IP65 / IP00	Connector DIN EN 175301-803 (DIN 43650) type A
EXFA	9	9	10,3	IP65	Coil explosion proof according to ATEX II 2G Ex mb II T4 II 2D ExtDA21 IP65 T130°C cable length 3 meter

ORDER CODE	
	51 A - 9 B - A EXFA 23050
type	type 51, body brass
function	A = normally closed, B = normally open
ports	3 = G3/8, 4 = G1/2, 5 = G3/4, 6 = G1, 7 = G1 1/4, 8 = G1 1/2, 9 = G2
seal material	B = NBR (Perbunan), E = EPDM, V = FPM
short circuit ring	A = copper short circuit ring, X = without short circuit ring (on request)
coil type	see specifications of the particular coil
supply voltage	always 5-digit, see code of standard voltage

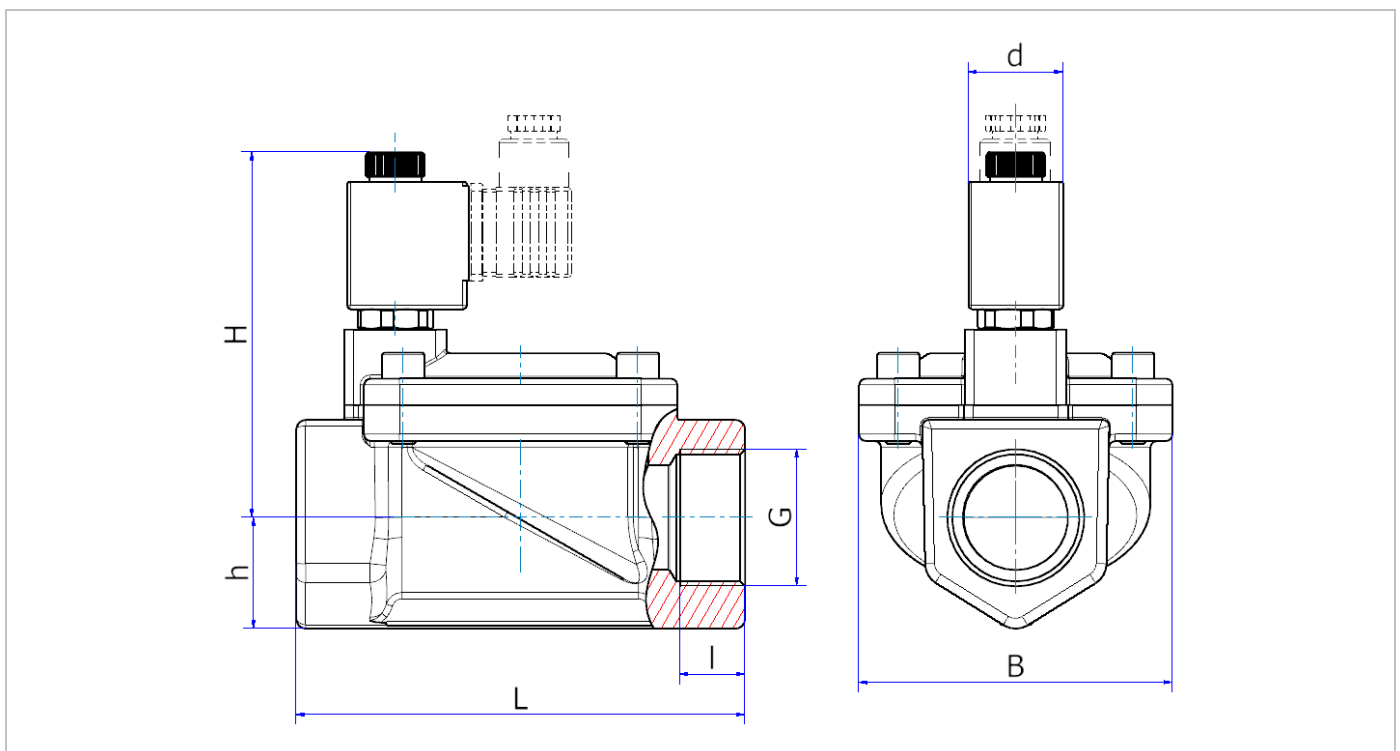
for type 51A a bistable manual override is optional available. If needed please write into plaintext.

type 51B, normally open								
type * (order.-nr.)	NW DN (mm)	ports	maximum differential pressure in bar **					kv-value (m ³ /h)
			coil C2DA		coil CXFA			
			~ (50Hz)	= (DC)	~ (50Hz)	= (DC) fluid temperature		
					40°C	80°C		
51B - 3. - AC...	15	G3/8	0,5 - 10	0,5 - 10	0,5 - 5	0,5 - 5	0,5 - 5	3,0
51B - 4. - AC...	15	G1/2						3,4
51B - 5. - AC...	19	G3/4						4,8
51B - 6. - AC...	25	G1						8,5

type 51B, normally open								
type * (order.-nr.)	NW DN (mm)	ports	maximum differential pressure in bar **					kv-value (m ³ /h)
			coil E1AA		coil EXFA			
			~ (50Hz)	= (DC)	~ (50Hz)	= (DC) fluid temperature		
					40°C	80°C		
51B - 7. - AE...	40	G1 1/4	0,5 - 10	0,5 - 10	0,5 - 10	0,5 - 10	0,5 - 10	15
51B - 8. - AE...	40	G1 1/2						19,5
51B - 9. - AE...	48	G2						30,5

* Type designation (order.-nr.) must be completed with sealing material, coil and supply voltage.

** Ex-coils may be used up to 80°C fluid temperature only. Higher differential pressures for Ex-valves on request.



dimension table for type 51A (normally closed) in mm										
type	B	d		G	h	H		I	L	weight * (approx. kg.)
		C2, E1	CX, EX			C2, E1	CX, EX			
51A - 3. - AC...	48	22	22	G 3/8	15	76	76	12	65	0,52 / 0,77
51A - 4. - AC...				G 1/2						
51A - 5. - AC...	57,8	30	36	G 3/4	18	78,5	78,5	17	74,5	0,72 / 0,97
51A - 6. - AC...	69,8			G 1	22,1	89,6	89,6		96	1,07 / 1,32
51A - 7. - AE...	96			G 1 1/4	34,1	112	112		137,5	1,63 / 1,99
51A - 8. - AE...	96	30	36	G 1 1/2	34,1	112	112	19	137,5	2,22 / 2,58
51A - 9. - AE...	119			G 2	34,5	124,5	124,5	22	168	4,14 / 4,5

dimension table for type 51B (normally open) in mm										
type	B	d		G	h	H		I	L	weight * (approx. kg.)
		C2, E1	CX, EX			C2, E1	CX, EX			
51B - 3. - AC...	48	22	22	G 3/8	15	77,5	77,5	12	65	0,53 / 0,78
51B - 4. - AC...				G 1/2						
51B - 5. - AC...	57,8	30	36	G 3/4	18	80	80	17	74,5	0,73 / 0,98
51B - 6. - AC...	69,8			G 1	22,1	91,1	91,1		96	1,08 / 1,33
51B - 7. - AE...	96			G 1 1/4	34,1	118	118		137,5	1,85 / 2,01
51B - 8. - AE...	96	30	36	G 1 1/2	34,1	118	118	19	137,5	2,24 / 2,60
51B - 9. - AE...	119			G 2	34,5	130,2	130,2	22	168	4,16 / 4,52

* Weigth value before diagonal slash is for standard coil, value after diagonal slash is for Ex-coil.