

# 2/2-WAY SOLENOID VALVE

## TYPE 76



O<sub>2</sub> oxygene applications



### DESCRIPTION

Valve type 76 is a 2/2-way force pilot operated solenoid valve for general applications with gases and liquids for high flow rates.

### CONSTRUCTION

Body material	stainless steel
Internal parts	stainless steel
Sealing material	NBR, EPDM, FPM
Voltages	24 V DC, 24 V 50Hz, 230 V 50Hz
Connections	G3/8 - G2

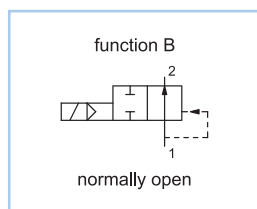
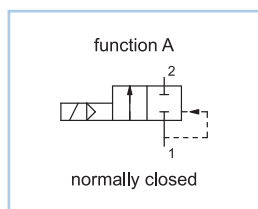
### ON REQUEST

Valve for oxygene applications  
Non-standard coil voltages  
Higher ambient temperature range  
Non-standard equipment  
Manual override

### SWITCHING PRESSURE

Ports	Normally closed in bar	Normally open in bar
G3/8	14,0	14,0
G1/2	14,0	14,0
G3/4	14,0	14,0
G1	14,0	14,0
G1 1/4	10,0	8,0
G1 1/2	10,0	7,5
G2	10,0	5,0
See details on the website		

### VARIANTS



## DETAILED INFORMATION

General	
type of construction	2/2-way poppet valve, with diaphragm, normally closed NC or normally open NO, coil 360° rotatable
operation	electrically, on request: manual override
ports	G3/8 - G2
ambient temperature	-20°C to +50°C, higher acceptable ambient temperature range on request
fluid temperature	dependent on sealing material and coil
viscosity	max. 21 mm <sup>2</sup> /s (cst)
material	body: AISI 304 plunger tube: AISI 303 internal parts: AISI 303 sealing: see type selection
mounting	installation into fixed piping system
installation	only with vertical fixed solenoid coil
unit of supply	without connector

Electrical	
voltage	DC voltage or AC voltage
standard voltages	24 V DC, 24 V 50Hz, 230 V 50Hz
non-standard voltage on request	6 V - 200 V DC, 12 V - 240 V 50Hz or 60Hz
acceptable voltage tolerance	±10%
power consumption	see specifications at solenoid coils
coil temperature classification	temperature class F (155°C), winding & coil E3 temperature class H (180°C)
duty cycle	100%, continuous operation
protection class	IP65 according DIN EN 60529 (DIN 40050) with correctly mounted connector

Pneumatic – Hydraulic	
fluid	all liquids and gases, non-aggressive to the used material
max. valve body pressure	PN 16
response time	depending on operating pressure and fluid
non-standard equipment on request	coil type with cable, coils for temperature class H (180°C)

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O<sub>2</sub> oxygene applications

### CONFIGURATION & PRESSURE RANGE

Coil power consumption at 20°C			
coil type	inrush power 50Hz in VA	rated power 50Hz in VA	power DC in W
E1AA	32	14	12
E2AA	42	19	17
E3AE	70	32	27
F1AA	70	35	27
G1AA	80	40	32

Sealing material	Code	Fluid temperature	Applicable for
NBR (Perbunan)	B	-10°C to 80°C	neutral gases and liquids
EPDM	E	-10°C to 130°C	hot water, steam, not for oil and grease
FPM	V	-10°C to 130°C	oil, petrol, oxygen

### NORMALLY CLOSED VALVES

Type 76A, normally closed													
type (order- no.)	NW DN in mm	ports	maximum differential pressure in bar										kv- value in m <sup>3</sup> /h
			coil E1AA		coil E2AA		coil E3AE		coil F1AA		coil G1AA		
			50Hz	DC	50Hz	DC	50Hz	DC	50Hz	DC	50Hz	DC	
76A-3.-A...	16	G3/8	11,0	-	14,0	1,5	14,0	6,0	14,0	12,0	-	-	3,5
76A-4.-A...	16	G1/2	11,0	-	14,0	1,5	14,0	6,0	14,0	12,0	-	-	3,8
76A-5.-A...	20	G3/4	11,0	-	14,0	1,5	14,0	6,0	14,0	12,0	-	-	4,7
76A-6.-A...	25	G1	11,0	-	14,0	1,5	14,0	6,0	14,0	9,0	-	-	5,5
76A-7.-A...	32	G1 1/4	-	-	-	-	-	-	10,0	2,5	10,0	9,0	13,0
76A-8.-A...	40	G1 1/2	-	-	-	-	-	-	10,0	1,5	10,0	7,0	16,8
76A-9.-A...	50	G2	-	-	-	-	-	-	10,0	1,2	10,0	5,0	30,2

## NORMALLY OPEN VALVES

Type 76B, normally open												
type (order-no.)	NW DN in mm	ports	maximum differential pressure in bar								kv- value in m <sup>3</sup> /h	
			coil E1AA		coil E2AA		coil E3AE		coil F1AA			
			50Hz	DC	50Hz	DC	50Hz	DC	50Hz	DC		
76B-3.-A...	16	G3/8	12,0	-	12,0	12,0	12,0	12,0	12,0	14,0	14,0	3,5
76B-4.-A...	16	G1/2	12,0	-	12,0	12,0	12,0	12,0	12,0	14,0	14,0	3,8
76B-5.-A...	20	G3/4	12,0	-	12,0	12,0	12,0	12,0	12,0	14,0	14,0	4,7
76B-6.-A...	25	G1	12,0	-	12,0	12,0	12,0	12,0	12,0	14,0	14,0	5,5
76B-7.-A...	32	G1 1/4	-	-	-	-	-	-	-	8,0	8,0	13,0
76B-8.-A...	40	G1 1/2	-	-	-	-	-	-	-	7,5	7,5	16,8
76B-9.-A...	50	G2	-	-	-	-	-	-	-	5,0	5,0	30,2

## ORDER CODE

Type 76A, normally closed										
order code	76	A	-	6	B	-	A	E3AE	02400	
Type 76B, normally open										
order code	76	B	-	6	B	-	A	E3AE	02400	
Code decoding										
type		type 76, force pilot operated, body and plunger tube: stainless steel								
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								
coil type		see specifications of the particular coil								
supply voltage		always 5-digits, see code for standard voltage								

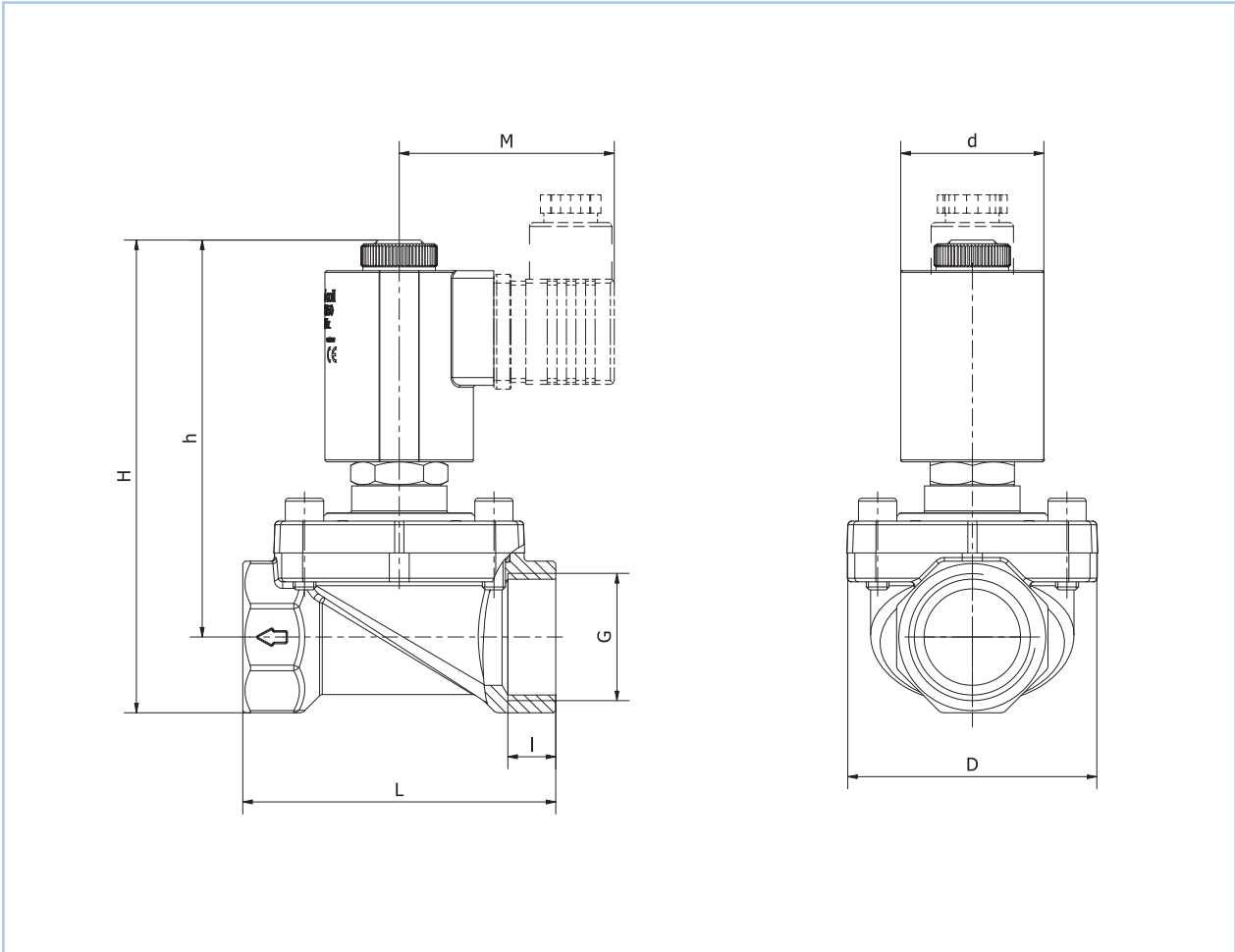
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$O_2$  oxygene applications

### DIMENSIONS



Dimension table for type 76 in mm, approx. weight in g												
coil	G	type 76A		type 76B		M	d	L	I	D	approx. weight in g	
		H	h	H	h						76A	76B
E1	G1/2	101	88	118	105	52,5	30	60	12	45	450	540
E3	G1/2	101	88	118	105	54	36	60	12	45	520	610
F1	G1/2	111	98	130	117	55	39	60	12	45	600	720
E1	G3/4	106,5	90,5	124	108	52,5	30	68	11	50	550	640
E3	G3/4	106,5	90,5	124	108	54	36	68	11	50	620	710
F1	G3/4	117	100,5	136	119,5	55	39	68	11	50	700	820
E1	G1	114	94,5	132	112	52,5	30	84	11	66,5	800	890
E3	G1	114	94,5	132	112	54	36	84	11	66,5	870	960
F1	G1	125	104,5	142	122	55	39	84	11	66,5	950	1 070
F1	G1 1/4	136	111,5	153	128	55	39	105	18	82,5	1 370	1 490
G1	G1 1/4	147,5	122,5	170	144,5	61	46	105	18	82,5	1 610	1 690
F1	G1 1/2	142	114	161	133	55	39	112	22	86	1 510	1 630
G1	G1 1/2	155	127	175,5	147,5	61	46	112	22	86	1 750	1 830
F1	G2	156	122	175	141	55	39	140	22	108	2 330	2 450
G1	G2	169	135	188	154	61	46	140	22	108	2 570	2 650