

3/2-WAY SOLENOID VALVE

TYPE 82S



O₂ oxygene applications



DESCRIPTION

Valve type 82S is a compact 3/2-way direct acting normally open solenoid valve for general applications with gases and liquids for low to medium pressure. Pressure inlet and outlet are in the valve body.

CONSTRUCTION

Body material	brass
Internal parts	stainless steel, brass
Sealing material	NBR, EPDM, FPM
Voltages	24 V DC, 24 V 50Hz, 230 V 50Hz
Connections	G1/8

ON REQUEST

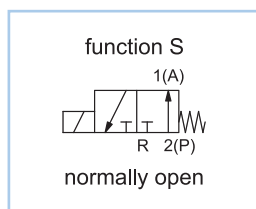
Valve for oxygene applications
 Non-standard coil voltages
 Higher ambient temperature range
 Non-standard equipment

SWITCHING PRESSURE

Orifice in mm	Normally closed in bar
1,0	12,0
1,2	7,5
1,5	6,0
2,0	3,0
2,5	2,5

See details on the website

VARIANTS



DETAILED INFORMATION

General	
type of construction	3/2-way poppet valve, normally open NO, coil 360° rotatable
operation	electrically
ports	G1/8
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 ² /s (cst)
material	body and plunger tube: brass internal parts: stainless steel and brass sealing: see type selection
mounting	installation into fixed piping systems, by use of 2 threads M4 or fixing holes diameter 3,2 mm on the bottom side
installation	in any position, preferable vertically 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 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 40
response time	12 - 20 ms
non-standard equipment on request	stainless steel AISI 303 in place of brass, coil type with cable, bright nickel-plated or chemical nickel-plated, coils for temperature class H (180°C), higher differential pressure, other sealing materials

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
C1DA	9	5	3
C2DA	13	10	6,5
C3AA	17	13	6,3

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O_2 oxygene applications

NORMALLY CLOSED VALVES

Type 82S, 3/2-way solenoid valve, normally closed, pressure at port 2 (P)													
type (order-no.)	NW DN in mm	ports	maximum differential pressure in bar										
			coil C1DA				coil C2DA				coil C3AA		
			fluid compr. air		fluid water		fluid compr. air		fluid water		fluid compr. air		
			50Hz	DC	50Hz	DC	50Hz	DC	50Hz	DC	50Hz	DC	
82S-1.1010AY-A	1,0	G1/8	12,0	12,0	5,0	5,0	12,0	12,0	5,0	5,0	12,0	12,0	
82S-1.1212AY-A	1,2	G1/8	7,5	7,5	4,0	4,0	7,5	7,5	4,0	4,0	7,5	7,5	
82S-1.1515AY-A	1,5	G1/8	5,0	5,0	6,0	6,0	5,0	5,0	6,0	6,0	5,0	5,0	
82S-1.2018AY-A	2,0	G1/8	3,0	3,0	3,0	3,0	3,0	3,0	3,0	3,0	3,0	3,0	
82S-1.2518AY-A	2,5	G1/8	1,2	1,2	2,5	2,5	1,2	1,2	2,5	2,5	1,2	1,2	

ORDER CODE

Type 82S														
order code	82	S	-	1	B	15	12	A	Y	-	A	C1DA	02400	
Code decoding														
type	type 82S, direct operated, body: brass, plunger tube: brass													
function	S = normally open, pressure relief via plunger tube													
ports	1 = G1/8													
seal material	B = NBR (Perbunan), E = EPDM, V = FPM													
nominal size seat	10 = 1,0 mm, 12 = 1,2 mm, 15 = 1,5 mm, 20 = 2,0 mm													
nominal size pole	12 = 1,2 mm, 15 = 1,5 mm, 18 = 1,8 mm													
external plunger spring	A													
internal plunger spring	Y													
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													

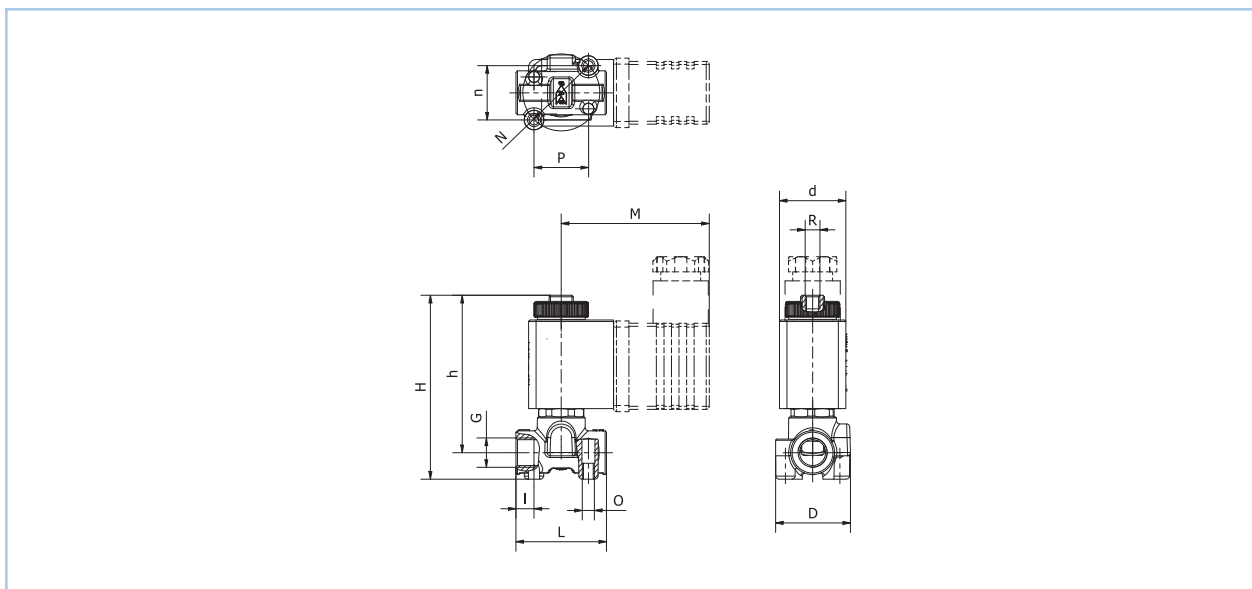
CONFIGURATION & PRESSURE RANGE

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

Type 82S, 3/2-way solenoid valve, normally closed, pressure at port 2 (P)

maximum differential pressure in bar											kv-value body nozzle in m ³ /h	kv-value pole nozzle in m ³ /h
coil C3AA		coil CWMA				coil CVFA						
fluid water		fluid compr. air		fluid water		fluid compr. air		fluid water				
50Hz	DC	50Hz	DC	50Hz	DC	50Hz	DC	50Hz	DC			
5,0	5,0	12,0	12,0	5,0	5,0	12,0	12,0	5,0	5,0	0,030	0,028	
4,0	4,0	7,5	7,5	4,0	4,0	7,5	7,5	4,0	4,0	0,045	0,040	
6,0	6,0	5,0	5,0	6,0	6,0	5,0	5,0	6,0	6,0	0,082	0,060	
3,0	3,0	3,0	3,0	3,0	3,0	3,0	3,0	3,0	3,0	0,133	0,071	
2,5	2,5	1,2	1,2	2,5	2,5	1,2	1,2	2,5	2,5	0,195	0,071	

DIMENSIONS



Dimension table for type 82S in mm, approx. weight in g

coil	G	N	n	P	M	H	h	l	L	O	R	D	d	approx. weight in g
C1DA	G1/8	25,4	18	18	48	61	52	6	30	M4	M5	24,5	22	110
C3AA	G1/8	25,4	18	18	52,5	61	52	6	30	M4	M5	24,5	30	161