IP65 EExm

SX23

Solenoid Valve - Model SX23 - 3/8” - 2”. 2/2 Normally Closed

Manual Override Option

Measure Monitor Control

SX23

Solenoid Valve - 2/2 - Normally Closed

Benefits & Features

- Water, air, high pressure fluids etc
- Media temperature: -10°C to +140°C
- Two way normally closed
- Ideal for high flow, zero differential applications
- Brass body (3/8” to 2”). Screwed port or flanged
- Optional Manual Override (rotate manual control)
- IP65 safe area

Specification

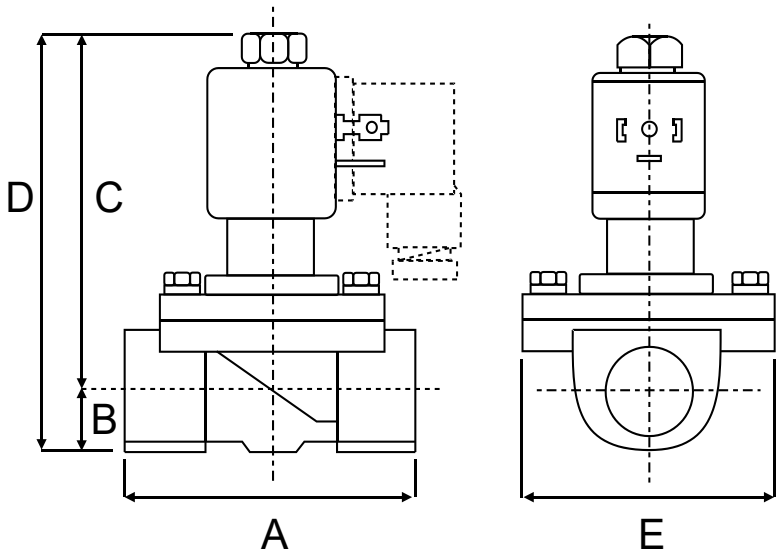
Configuration	Lift assisted diaphragm
Port Sizes	3/8” to 2” BSP (flanged option available)
Orifice	see table below
Kv	see table below
Body	Brass
Media	Air, water, liquids etc. Subject to material compatibility
Pressure ranges	see data table below
Seals	see order codes table

Technical Data

	A		B	C	D	E	Port Size BSP	Orifice mm	Pressure in Bar: Min. / Max. Operating Differential Pressures: Min.	Maximum: Coil C45: AC: Gaseous	Maximum: Coil C45: AC: Liquid	Maximum: Coil C45: DC: Gaseous	Maximum: Coil C45: DC: Liquid	KV Flow Factor L/min.	Weight Kg	Vac. (torr)
SX23		18					⅜”	18	0	12	9	4	4	43	0.9	10^{-1}
SX23		18					½”	18	0	12	9	4	4	57	0.9	10^{-1}
SX23		23					¾”	23	0	11	9	3.5	3.5	97	1.0	10^{-1}
SX23		28					1”	28	0	11	9	3	3	157	1.4	10^{-1}
SX23		33					1 ¼”	33	0	10	9	1.5	2	229	1.8	1
SX23		33					1 ½”	33	0	10	9	1.5	2	300	1.8	1
SX23		44					1 ½”	44	0	10	5.5	1	1	372	3.5	1
SX23		44					2”	44	0	10	5.5	1	1	443	3.5	1

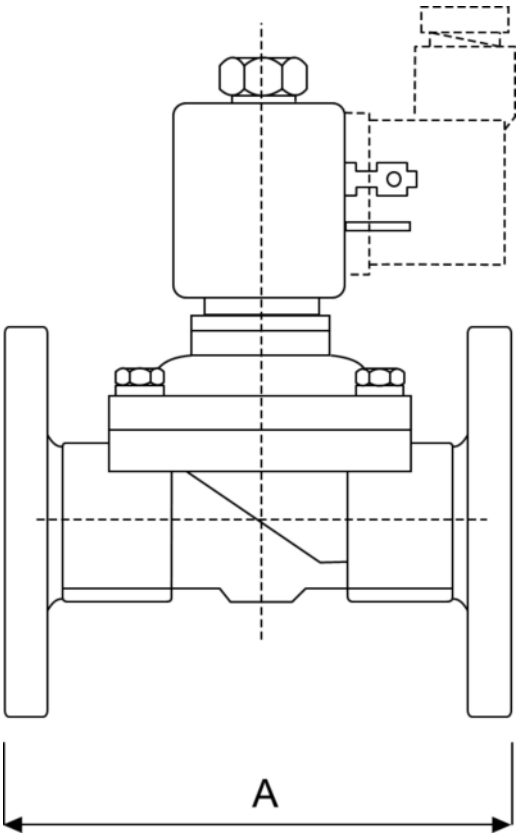
Solenoid Valve - 2/2 - Normally Closed

Weights & Dimensions



Optional Manual Override

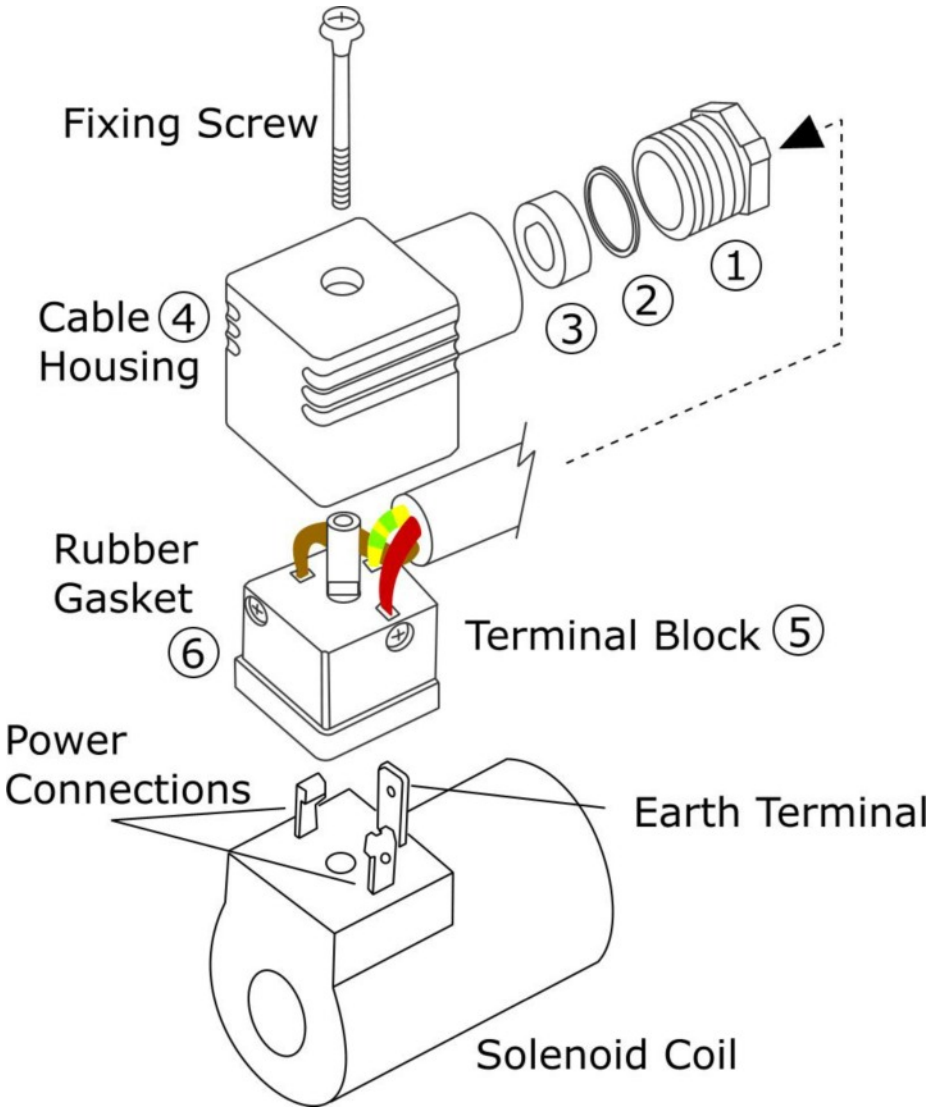
Port Size	Weight Kg	Dimensions mm					
		Ported	Flanged				
		A		B	C	D	E
3/8”	0.9	71	98	14	98	112	51
1/2”	0.9	71	98	14	98	112	51
3/4”	1.0	80	108	17	101	118	61
1”	1.4	90	138	20	104	124	71
1 1/4”	1.8	97	155	29	112	141	76
1 1/2”	1.8	97	155	29	112	141	76
1 1/2”	3.5	118	155	35	125	160	98
2”	3.5	118	175	35	125	160	98



Order Codes

A	Body	B	Screwed Port		C	Seals (fluid temp. min / max)	D	Protection	E	Options
T	Brass	E	3/8” BSP	F	1/2” BSP	0	NBR (-10°C to + 80°C)	P	IP65	FL	Flanged
		H	3/4” BSP	L	1” BSP	1	VITON (-10°C to + 120°C)			SG	Degreased for Oxygen Service
		N	1 1/4” BSP	O	1 1/2” BSP	6	EPDM (-10°C to + 120°C)			X	Manual Override (turn type)
		P	2” BSP								

DIN electrical socket connectors to protect solenoid coil terminals and wiring.



Section 1: DIN Connector Assembly

- Insert the electrical power cable through the gland assembly (1,2,3)
- Push the cable through cable housing (4)
- Connect power and earth cables to terminal block 5
- Push terminal block (5) backwards, inside cable housing (4)
- Place rubber gasket (6) on terminal block (5) front face
- Push terminal block onto solenoid coil terminals
- Push fixing screw through complete assembly
- Tighten fixing screw with small screwdriver
- Do not over tighten
- Tighten cable gland (1,2,3) by hand

Solenoid Valve Installation & Maintenance

Installation Procedures & Methods

Section 1: How to install Solenoid Valves

Solenoid Valves can normally be installed and operate in any orientation. However, certain models are designed to operate in horizontal installations. Please contact Red Dragon for further information.

Installation Procedure:

Check that the Solenoid Valve is the correct product ordered for the application:

- Isolate the site electrical power supply
- Isolate the site media supply (dependant on the application)...air, water, steam etc. Leave until cool/safe.
- Insert the valve onto the pipe, ensuring that the flow direction is observed.....IN for incoming media, or an arrow stamped on the valve body.
- Ensure that the pipe connections are free from burrs or loose pipe thread tape
- Tighten all pipe joints
- Connect electrical power supply via DIN electrical socket connector, as detailed in section 1
- Ensure that DIN connector is properly connected to solenoid coil and the gasket is installed correctly
- Apply media pressure and check for leaks

Section 2: Maintenance Procedure for Solenoid Valves - IP65 Safe Area

In the unlikely event of a valve malfunction, or routine maintenance, follow these instructions:

- Isolate the site electrical power supply
- Isolate the site media supply (dependant on the application)...air, water, steam etc.
- Remove the solenoid coil by unscrewing the coil retention nut anti-clockwise
- Remove the coil tube stem by unscrewing anti-clockwise
- Carefully remove the plunger assembly (inside the coil stem)
- Check the plunger assembly for damage or worn seals
- Check the face inside the coil stem for foreign particles that could prevent correct operation
- For Pilot Diaphragm Solenoid Valves: remove the top cover housing and check the diaphragm for damage and blocked transfer port.
- Re-assemble the valve in reverse order, ensuring that all parts are cleaned and assembled correctly

Section 3: Maintenance Procedure for Solenoid Valves - EExm Flying Lead

In the unlikely event of a valve malfunction, or routine maintenance, follow these instructions:

- Isolate the site electrical power supply
- Isolate the site media supply (dependant on the application)...air, water, steam etc.
- Remove the solenoid coil by unscrewing the coil retention nut anti-clockwise
- Remove the coil tube stem by unscrewing anti-clockwise
- Carefully remove the plunger assembly (inside the coil stem)
- Check the plunger assembly for damage or worn seals
- Check the face inside the coil stem for foreign particles that could prevent correct operation
- For Pilot Diaphragm Solenoid Valves: remove the top cover housing and check the diaphragm for damage and blocked transfer port.
- Re-assemble the valve in reverse order, ensuring that all parts are cleaned and assembled correctly

Physikalisch-Technische Bundesanstalt

Braunschweig und Berlin

2. S U P P L E M E N T

according to Directive 94/9/EC Annex III.6

to EC-TYPE-EXAMINATION CERTIFICATE PTB 03 ATEX 2086 X

(Translation)

Equipment: Valve solenoid, type 0518/1218

Marking: **II 2 D Ex mb II T6, T5, T4 resp.**
II 2 G Ex mtD A21 IP 65 T 80 °C, T95 °C, T 130 °C

Manufacturer: nass magnet GmbH

Address: Eckenerstraße 4-6, 30179 Hannover, Deutschland

Description of supplements and modifications

In the future the valve solenoid type 0518 / 1218 shall be marked as follows:

II 2 G Ex mb IIC T6, T5, T4
II 2 D Ex mb tb IIIC T80 °C, T95 °C, T130 °C

or

II 2 G Ex mb IIC T6, T5, T4 Gb
II 2 D Ex mb tb IIIC T80 °C, T95 °C, T130 °C Db

All other specifications of the examination certificate and the supplement apply without changes.

Applied standards

EN 60079-0:2009, EN 60079-18:2009, EN 60079-31:2009

Test report: PTB Ex 12-22111

ZSEx10101e.dotm

Zertifizierungssektor Explosionsschutz
On behalf of PTB:

Braunschweig, May 7, 2012

Dr.-Ing. U. Johannsmeyer
Direktor und Professor

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