Solenoid Valve - Model L02 - 1/8”-3/8” 2/2 Normally Closed

Measure Monitor Control

L02

Solenoid Valve - 2/2 - Normally Closed

Benefits & Features

- High dependency applications
- Direct acting
- High pressure model is available
- Internal moving parts available as spares kit
- Brass or nickel plated brass bodies
- IP65 solenoid coil protection

Specification

Configuration	Direct Acting
Port Sizes	1/8” BSP, 1/4” BSP & 3/8” BSP
Orifice	see table below
Kv	see table below
Body	Brass or nickel plated brass
Media	Air, light oils, water etc. Subject to material compatibility
Pressure ranges	See individual data tables below

Technical Data

							Port Size BSP	Orifice mm	Nominal Max. Bar	Min. / Max. Differential Pressures. Bar.					KV Flow Factor L/min.
										Min.	C3 Coil		C4 Coil		
											Maximum				
A		B	C		D	E					AC	DC	AC	DC	
	L02	B/C		10		1	⅛”, ¼”	1	100	0	-	-	100	90	0.8
	L02	B/C		12		1	⅛”, ¼”	1.2	100	0	-	-	100	90	1.0
	L02	B/C		15			⅛”, ¼”	1.5	100	0	30	26	60	55	1.2
	L02	B/C		20			⅛”, ¼”	2.0	100	0	22	20	45	40	1.7
	L02	B/C		25			⅛”, ¼”	2.5	100	0	16	14	35	33	2.5
	L02	B/C		35			⅛”, ¼”	3.5	100	0	10	8	20	19	5.4
	L02	B/C		45			⅛”, ¼”	4.5	100	0	6.5	3.5	14	13	6.9
	L02	B/C	E	48		Z2	⅛”, ¼”	4.8	100	0	2.2	1.8			7.2
	L02	C/D		52			⅜”, ¼”	5.2	100	0	4.0	1.8	9	9	7.9
	L02	D		60			⅜”	6.0	100	0	2.7	1.1	5	5	10.5
	L02	D		75			⅜”	7.5	100	0	1.8	0.7	3.5	3.5	15

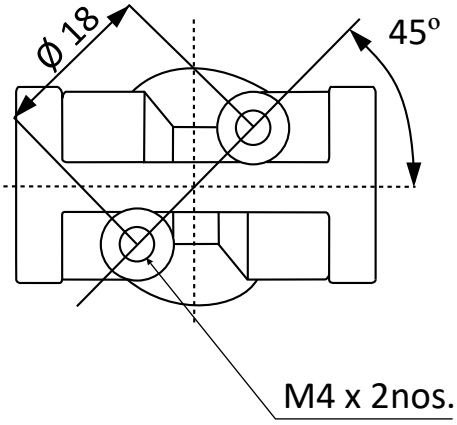
Options

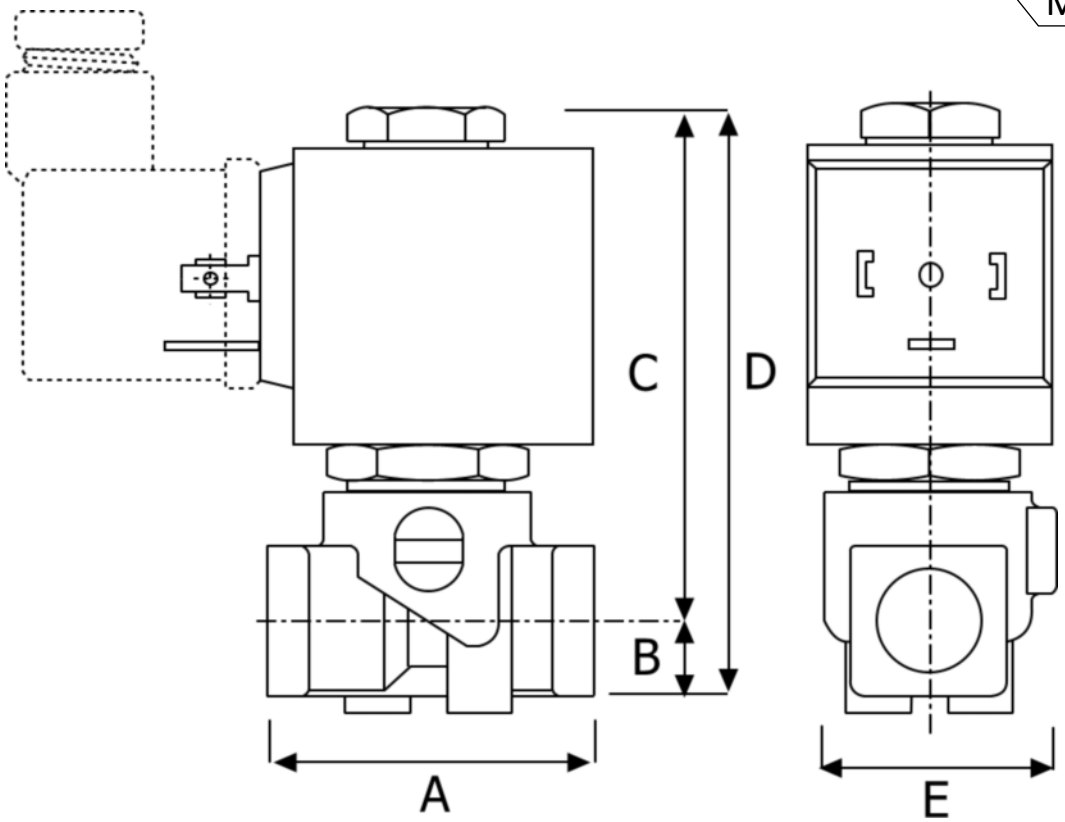
Manual Override (screwdriver slot)

Solenoid Valve - 2/2 - Normally Closed

Weights & Dimensions

Port	Weight Kg	Dimensions mm				
		A	B	C	D	E
⅛", ¼"	0.3	41	12	68	90	29
⅜"	0.3	41	12	68	90	29





Order Codes

A	Coil Voltage	B	Port Connection	C	Seals (fluid temp. min / max)	D	Body Material	E	Options
A	AC	B	1/8" BSP	B	NBR (-15°C to + 90°C)	T	Brass	Z	Stainless Steel Orifice
C	DC	C	1/4" BSP	V	VITON (-15°C to + 130°C)	N	Nickel Plated Brass	1	Kicker Plunger for High Pressure
		D	3/8" BSP	E	EPDM (-15°C to + 130°C)			2	Nickel Plated Armature

Solenoid Valve - Model L02 - Spare Parts

Pilot Assembly

Seal Material	Port Size (AC Power Supply)	Port Size (DC Power Supply)
	⅛", ¼", ⅜"	⅛", ¼", ⅜"
NBR	AP85UBI	CP85UBI
VITON	AP85UVI	CP85UVI
EPDM	AP85UEI	CP85UEI

Plunger Assembly (Armature)

Seal Material	Port Size	Seal Material	Port Size
	⅛", ¼", ⅜"		⅛", ¼", ⅜"
NBR	20181001	*EPDM	20181N03
VITON	20181002	UREPAN	20181014
EPDM	202181003	EPDM	202181003

Solenoid Coil

C3 Solenoid Coil

H=39mm, W=30mm, D=38mm

C4 Solenoid Coil

H=39mm, W=36mm, D=47mm

Voltage	Port Size (AC Power Supply)	Port Size (DC Power Supply)	Port Size (AC Power Supply)	Port Size (AC Power Supply)
	⅛", ¼", ⅜"		⅛", ¼", ⅜"	⅛", ¼", ⅜"
	C3 Series		C4 Series	C4 Series
12	3AN03	30N08	4AN04	40H09
24	3BN03	31N08	4BN04	41H09
48	3CN03	32N08	4CN04	42H09
110	3DN03	33N08	4DN04	43H09
220	3EN03	34N08	4EN04	44H09
415	3GN03		4GN04	

Solenoid Connector

C3 Solenoid Connector

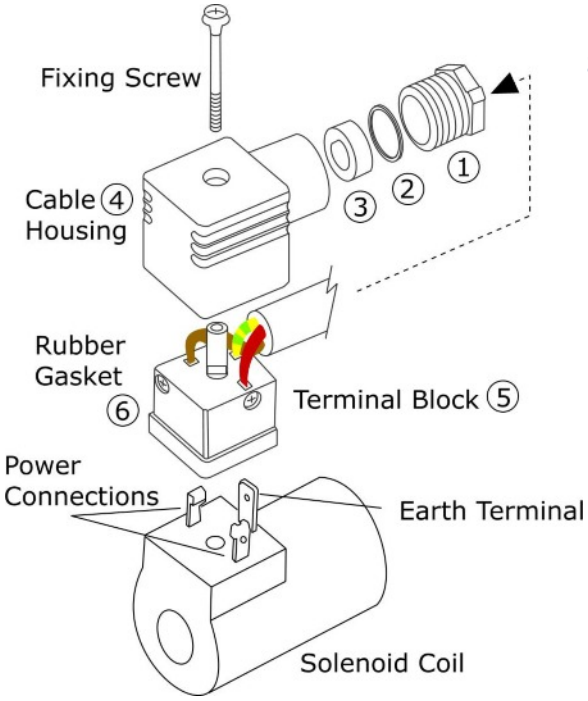
30mm

Voltage	Code	RED LED
Any	20221000	NO
24	20222002	YES
115	20222004	YES
230	20222005	YES

IP65 SAFE AREA INSTALLATION & MAINTENANCE

SAFE AREA SOLENOID VALVES DIN 43650-A (Large) DIN 43650-B (Small)

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

Section 2: 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 3: Maintenance Procedure for Solenoid Valves

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