

## Super High Pressure Solenoid Valve Series

- 2/2 Normally Closed ( BXYB/C/D 165)
- 2/2 Normally Open (BXYB/C/D 265) 265)



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## Solenoid Valve - 2/2 - Very High Pressures

### Benefits & Features

- High dependency applications
- Two Way Normally Closed or Normally Open
- Special high pressure model
- 304 or 316 Stainless Steel body
- IP65 with DIN 43650-A electrical socket connector

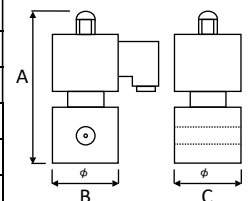


### Specification

<b>Configuration</b>	Pilot Piston
<b>Port Sizes</b>	1/4" BSP/NPT to 2" BSP/NPT
<b>Orifice</b>	see data tables below
<b>Kv</b>	see table below
<b>Body</b>	316 Stainless Steel
<b>Media</b>	Air, light oils, liquids, water etc. Subject to material compatibility
<b>Pressure ranges</b>	See individual data tables below
<b>Seal options</b>	VITON (-20 to +180°C)   PTFE (-20 to +350°C)

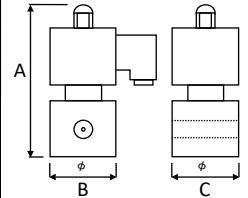
### Technical Data (B suffix) 1 - 150 Bar

	A	B	C	D	E	Port Size BSP or NPT	Orifice mm	Min. / Max. Operating Differential Pressures. BAR.		Dimensions mm			
								Min.	Maximum		A	B	C
									AC	DC			
BXYB165	1					1/8"	1	1	150	155	20	20	
BXYB165	8					1/4"	8	1	150	160	30	30	
BXYB165	10					3/8"	10	1	150	170	50	50	
BXYB165	15					1/2"	15	1	150	180	70	70	
BXYB165	20					3/4"	20	1	150	220	80	80	
BXYB165	25					1"	25	1	150	230	90	90	
BXYB165	32					1 1/4"	32	1	150	320	120	120	
BXYB165	40					1 1/2"	40	1	150	440	150	150	
BXYB165	50					2"	50	1	150	490	190	190	



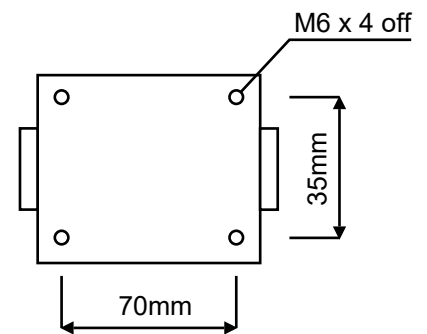
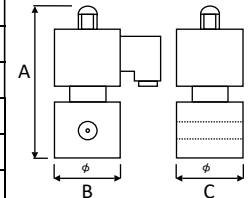
### Technical Data (C suffix) 1 - 300 Bar

	A	B	C	D	E	Port Size BSP or NPT	Orifice mm	Min. / Max. Operating Differential Pressures. BAR.		Dimensions mm			
								Min.	Maximum		A	B	C
									AC	DC			
BXYC165	H	1				1/8"	1	1	300	170	30	30	
BXYC165	H	8				1/4"	8	1	300	170	30	30	
BXYC165	H	10				3/8"	10	1	300	180	35	35	
BXYC165	H	15				1/2"	15	1	300	180	70	70	
BXYC165	H	20				3/4"	20	1	300	220	90	90	
BXYC165	H	25				1"	25	1	300	230	100	100	
BXYC165	H	32				1 1/4"	32	1	300	320	120	120	
BXYC165	H	40				1 1/2"	40	1	300	460	170	170	
BXYC165	H	50				2"	50	1	300	520	210	210	



### Technical Data (D suffix) 1 - 350 Bar

	A	B	C	D	E	Port Size BSP or NPT	Orifice mm	Min. / Max. Operating Differential Pressures. BAR.		Dimensions mm			
								Min.	Maximum		A	B	C
									AC	DC			
BXYD165	H	1				1/8"	1	1	350	170	30	30	
BXYD165	H	8				1/4"	8	1	350	170	30	30	
BXYD165	H	10				3/8"	10	1	350	180	35	35	
BXYD165	H	15				1/2"	15	1	350	180	70	70	
BXYD165	H	20				3/4"	20	1	350	220	90	90	
BXYD165	H	25				1"	25	1	350	230	100	100	
BXYD165	H	32				1 1/4"	32	1	350	320	120	120	
BXYD165	H	40				1 1/2"	40	1	350	460	170	170	
BXYD165	H	50				2"	50	1	350	520	210	210	



\* VITON: Special temp version (-20°C to + 180°C)  
 \* PTFE: Special temp version (-20°C to + 350°C)  
 \* Maximum pressure: 2000 Bar

### Order Codes

Model	A	Body	B	Port	C	Seals (fluid temp. min / max)	D	Protection	E	Solenoid Coil			
B	1-150bar	H	304 Stainless Steel	C	1/4" BSP	E	3/8" BSP	1	VITON (-20°C to + 180°C)	P	IP65 Safe Area	24VDC	SB165-HSD-COIL-24VDC
C	1-300bar	I	316 Stainless Steel	F	1/2" BSP	H	3/4" BSP	3	PTFE (-20°C to + 350°C)			110VDC	SB165-HSD-COIL-110VDC
D	1-350bar			L	1" BSP	N	1 1/4" BSP						
				O	1 1/2" BSP	P	2" BSP						

# 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

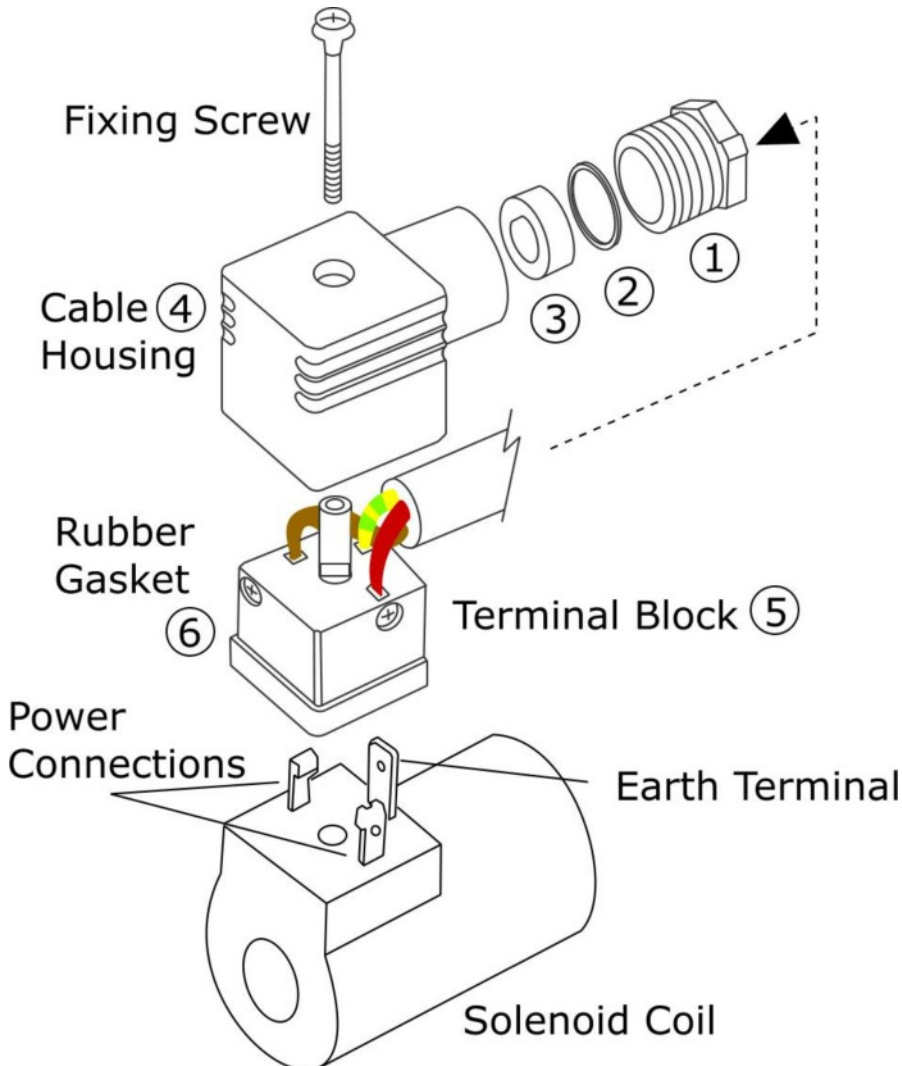
### Section 3: Maintenance Procedure for Solenoid Valves - IP67 Safe Area & EExd with Housing

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

## Solenoid Valve Wiring - IP65 DIN Connector

### IP65 DIN Connector



### 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