

3-Way Solenoid Valve

General Purpose and UL-Listed Types

These solenoid valves are direct-acting and suitable for use with a normal firewater supply, providing safe and long-life operation.

The 3-way construction does not require a minimum operating pressure and can be mounted in any position.

The coil is designed for continuous duty, with a molded epoxy or integral terminal box construction, suited for use in corrosive environments.

The BERMAD BE370 models with suffix D are UL listed for use with BERMAD deluge valves in accordance with UL429A standard for Electrically Operated Valves for Fire protection Service with 365psi/25 bar rated working pressure. The unique safety design of this solenoid valve allows voltage tolerance of 35% below the rated voltage at the maximum working pressure, enabling long wiring installations.



Model 0330D-US-SS



Model BE370D-B5-17



Note:
Images, illustrations and icons are for display only, refer to selection table for specific data.

Features

- Model BE370D is UL-Listed/FM Approved for use with BERMAD deluge valves
- IP67 Enclosure, Integral Terminal Box - BE370D only
- Suitable for freshwater or air
- Seawater compatible construction available
- Cable Entry: 1/2" NPT

Electrical Specification for BE370 type

- Power: 8 Watts
- Voltage: 24 VDC, 110 VDC/110-120 VAC (50-60 Hz), 220 VDC/220-240 VAC (50-60 Hz)
- Insulation Class: Class H
- Ingress protection: IP67 and US type 3, 3S, 4, 4X, 6, 6P
- Duty Cycle (ED): 100% (continuous)
- Voltage Tolerance: +10% -35%

Materials

- Body: Brass or Stainless Steel 316
- Internals: Stainless steel
- Seals: NBR, HNBR
- Enclosure: Epoxy Coat Aluminium on BE370, Molded Epoxy on other models
A SS316 enclosure option is available for BE370 type

Temperature

- Maximum Ambient⁽¹⁾: -60° to 100°C / -76° to 212°F
- Fluid Temperature Rating⁽²⁾: 70°C / 158°F

Notes: ⁽¹⁾Max. ambient temperature is determined under continuously energized conditions.
⁽²⁾ Minimum temperature shall be kept above the fluid freezing value

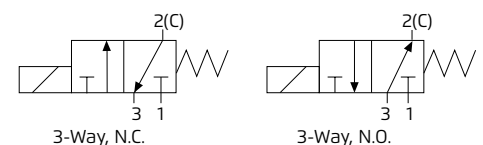
Installation and Maintenance

The Solenoid Valve is the most critical unit in the deluge system, it should be installed and wired by qualified and trained personnel only. The coil should be wired in accordance with the requirements of the applied norm such as NEC/NFPA, NEMA, NEC or other code and standards. Ensure that the voltage supply and frequency corresponds with the markings on the enclosure label. After installation, the cable or conduit must be well supported to avoid excessive load on the conduit hub.

Warning: The solenoid enclosure bolts must not be loosened or disassembled. Loosening or disassembling the solenoid enclosure may result in changing of the factory seal adjustment and may effect the proper operation of the valve, rendering void the warranty and the manufacturer's liability. This product shall be wired by an authorized electrician only. The conduit hub on the enclosure must be supported against torque during the assembly using appropriate tools. While tightening a fitting into the conduit hub, attention must be paid that a max. torque of 20Nm is not exceeded.

Maintenance: Proper operation of the Solenoid Valve should be periodically verified. Testing and Maintenance should be performed according to the IOM (Installation Operation & Maintenance) Manual for the specific BERMAD Valve in use. It is recommended that the Solenoid Valve be inspected monthly for proper wiring and for leakage. The Solenoid valve must be Tested Annually. It must be operated when maximum system working conditions are applied to simulate the extreme conditions. The unit should be replaced if a malfunction occurs.

Circuit Functions



Technical Data

Engineer Specifications for BE370D-B2/B5-17

The solenoid valve shall be 3-way, UL Listed according to UL429A electrically operated valve for fire protection service, complete with IP67 and US type 4X rated enclosure. The solenoid valve shall have a power consumption of 8 Watts and an operational tolerance of 35% below the rated voltage. The solenoid valve rated working pressure shall be certified to 365 psi/25 bar, brass or stainless steel 316 body material with epoxy coated aluminum or stainless steel 316 enclosure with class H high coil, continuous duty rated and shall include an integrated terminal box with a suppression diode and terminal blocks.

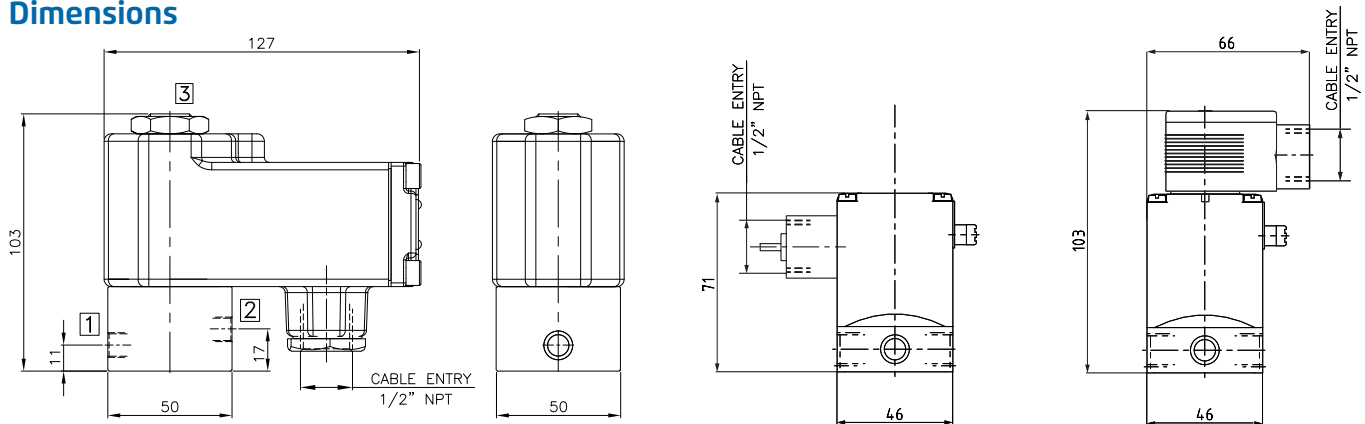
Certifications: UL/FM approved to be installed on the selected fire protection deluge valve.

Class I Div. 1 or Div. 2 Models

This Explosion proof solenoid valve is FM Approved to be used Class I Div. 1 or Div. 2 Groups A, B, C, D.

The solenoid enclosure is watertight, NEMA 4 an IP65 rated, continuous duty design with T4 class F coil insulation. For further data refer to the Solenoid valve Selection Table.

Dimensions



Solenoid Valve Selection Table

Model	Normally	Body Material	Enclosure Type / Class	Code	Cable Entry	Port Size"	Orifice mm	bar / psi	Power Watts	Certifications (see notes)		
										UL ⁽¹⁾ 429A	FM ⁽⁴⁾ Approved	Exp proof Approval
BE370C-B2-17	N.C.	Brass	Terminal Box	-	1/2" NPT	1/4	1.6	20 / 300	8	-	-	-
0330C-US		Brass	Div. 2 Cable Plug	-	1/2" NPT	1/4	2	16 / 232	8	-	-	(2)
0330C-EX		Brass	Div. 1 Flying leads	7	1/2" NPT	1/4	2	16 / 232	8	-	-	(3)
BE370C-B5-17		SS316	Terminal Box	K/N	1/2" NPT	1/4	1.6	20 / 300	8	-	-	-
0330C-US-SS		SS316	Div. 2 Cable Plug	K/N	1/2" NPT	1/4	2	16 / 232	8	-	-	(2)
0330C-EX-SS		SS316	Div. 1 Flying leads	K7	1/2" NPT	1/4	2	16 / 232	8	-	-	(3)
BE370D-B5-17	N.O.	Brass	Terminal Box	-	1/2" NPT	1/4	1.6	25 / 365	8	✓	✓	-
8320G136		Brass	Flying leads	-	1/2" NPT	1/8	1.2	14 / 200 ⁽⁵⁾	10.6	✓	-	-
0330D-UL		Brass	Div. 2 Cable Plug	-	1/2" NPT	1/4	2	16 / 230	8	-	-	(2)
0330D-EX		Brass	Div. 1 Flying leads	7	1/2" NPT	1/4	2	16 / 230	8	-	-	(3)
BE370D-B5-17		SS316	Terminal Box	K/N	1/2" NPT	1/4	1.6	25 / 365	8	✓	✓	-
BE370D-B5-CO-17		SS316	Terminal Box	FS	1/2" NPT	1/4	2	25 / 365	8	✓	✓	-
0330D-US-SS		SS316	Div. 2 Cable Plug	K/N	1/2" NPT	1/4	2	16 / 232	8	-	-	(2)
0330D-EX-SS		SS316	Div. 1 Flying leads	K7	1/2" NPT	1/4	2	16 / 232	8	-	-	(3)

Notes:

⁽¹⁾ UL Listed according to UL429A electrically operated valve for use with BERMAD Deluge and water Control valves, type 4X and IP67 ingress protection rated.

⁽²⁾ FM Approved for Class I, Div 2, Groups A, B, C, D.

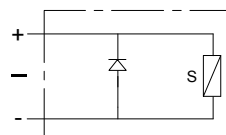
⁽³⁾ Approved for hazardous locations Class I, Division 1, Groups A, B, C, D.

⁽⁴⁾ FM approved for BERMAD Deluge valves, with 24V coil.

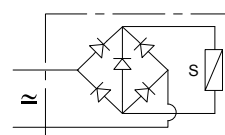
⁽⁵⁾ UL-Listed for 12bar/175psi for use with BERMAD Deluge valves.

⁽⁶⁾ Specifications subject to change without notice.

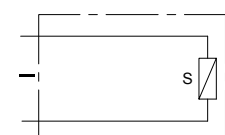
Wiring Circuit Diagrams



BE370, 24 VDC Models



BE370, 110 and 220 VAC-DC Models



330 and 8320G136 Models

