

2-WAY EX D SOLENOID VALVE

Model BE270

These 2-Way solenoid valves are pilot operated diaphragm type, requiring a minimum differential pressure to operate. They have an integrated pressure operated pilot valve, affording a high flow capacity.

The solenoid valve's design allows a small overall dimension with a relatively high flow-capacity . The solenoid coil is continuous duty design, with an epoxy molded or integral terminal box.

These 2-Way solenoid valves are suitable for activating BERMAD Deluge valves, Pre-action Valves and other Water Control Valves.



Model BE270-A-87



Features

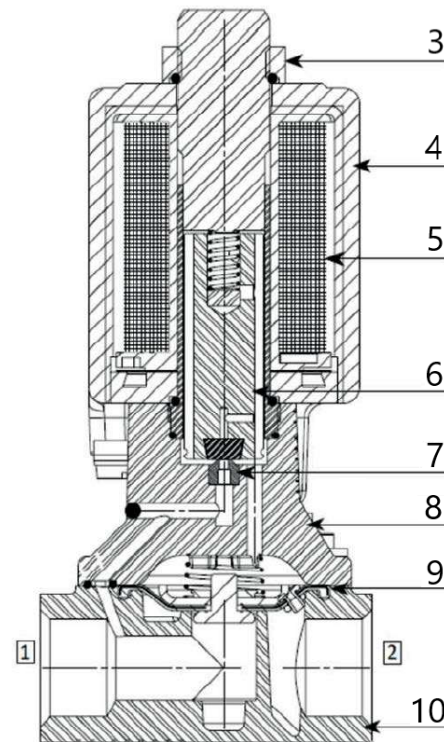
- UL-Listed/FM approved for 25bar/365psi
- High flow capacity, 12mm orifice
- Internal pilot operated
- Stainless steel 316 body as standard
- Integral terminal box
- Ex d IIC T6 Enclosure type 87

Electrical Specifications

- Power: 8 Watts or 1 or 3 Watt Low Power type (see selection table)
- Voltage: 24V DC, 110-120V DC/AC or 220-240V AC/50-60 Hz.
- Insulation Class: Class H
- Ingress protection: IP66/67 and US type 3, 3S, 4, 4X, 6, 6P (IP66 for 87 only)
- Maximum Duty Cycle (ED): 100% (continuous)
- Voltage tolerance for UL listed models: +10% -35%
- Pressure Connections ½" NPT
- Electric Cable Entry: ½" NPT

Materials

- Body: Brass, Stainless steel 316
- Internal parts: Stainless Steel
- Elastomer: HNBR
- Enclosure: Epoxy Coated Aluminum, SS316 optional



Part	Description
3	Coil Nut
4	Enclosure
5	Coil
6	Plunger
7	Seat
8	Cover
9	Diaphragm
10	Body

Port	Size	Connections
2	½" NPT	Inlet
1	½" NPT	Outlet



Installation and Maintenance

The Solenoid Valve is a critical unit within the Deluge system, and it should be installed and wired by qualified and trained personnel only. The conduit hub on the enclosure must be supported against torque during assembly, by using appropriate tools. While tightening a fitting into the conduit hub, attention must be paid that a max torque of 20 Nm is not exceeded. The coil should be wired in accordance with the requirements of the applied norm such as IEC, NEC, NFPA-70 or other code and standards. Ensure that the voltage supply and frequency correspond with the markings that appear on the enclosure label. A conduit hub on the enclosure side must be supported against torque during the assembly. Use appropriate tools while tightening fittings into the conduit connector.

Warning: This product shall be installed and wired by an authorized electrician only. The conduit hub on the enclosure must be supported against torque during assembly, by using appropriate tools. While tightening a fitting into the conduit hub, attention must be paid that a max torque of 20 Nm 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 and Maintenance) manual. It is recommended that the Solenoid Valve be inspected monthly for proper wiring and for leakage. The Solenoid valve must be tested annually, operated at the maximum system working conditions to simulate the most extreme conditions. The solenoid valve unit should be replaced if a malfunction occurs.

Technical Data

General Purpose Model BE270-FA-17

This solenoid valve is UL 429A Listed and FM approved as an electrically operated valve for fire protection. It has an epoxy coated aluminum coil enclosure, suitable for normal conditions and non-classified areas. The type 17 coil is equipped with an integral terminal box including screw terminals with 1/2" NPT cable entry.

This solenoid is of continuous duty design with class H coil insulation, complete with IP67 and US types 3, 3S, 4, 4X, 6 and 6P rated coil. The solenoid body is constructed of stainless steel 316 as standard.

Certifications: FM Approved and UL Listed to be installed on selected BERMAD deluge valves.

Ex d IIC T4-T6, Model BE270-FA-87

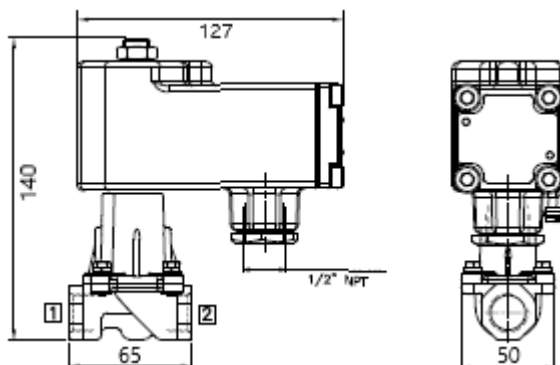
This solenoid valve is UL 429A Listed and FM approved as an electrically operated valve for fire protection, complete with an Ex d flameproof enclosure suited for zones 1 group IIC hazardous locations and IEC-EX and ATEX certified, including 8 Watts power consumption with a safety factor of 65% of the rated voltage. Working pressure certified for 365psi/25bar, brass or stainless steel 316 body with an epoxy coated aluminum or 316 stainless steel enclosure.

The electrical enclosure shall be Ex d with class H high temperature insulation, continuous duty rated and shall include an integrated terminal box with a suppression diode and terminal blocks, IP66, 67 and US type 3, 3S, 4, 4X, 6 and 6P rated.

Certifications: IEC-Ex, CE, ATEX, FM Approved and UL Listed to be installed on selected BERMAD deluge valves.

The solenoid body is constructed of stainless steel 316 as standard.

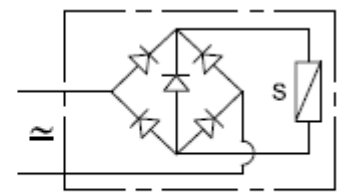
Dimensions



Wiring Circuits

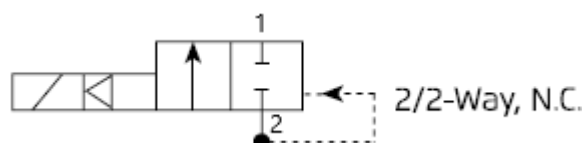


Model BE270-A-17
24 VDC



24 VDC, 110 or 220 VAC-DC
Suppression Diode/Rectified Circuit

Valve Symbol





Solenoid Valve Selection Table

MODEL	N.O. N.C.	Body Material	Enclosure Type/ Class color	Code	Cable Entry	bar/psi	Power Watts	Orifice mm	Certifications			
									UL(1) 429A	FM(2)	IECEX ATEX(3)	NEC(6)
BE270-FA-17	N.O.	SS316	IP67, NEMA 4X (blue)	-	½" NPT	25/365	8	12	V	V	V	-
BE270-FA-87		SS316	Ex d, IP66/67 (red)	9	½" NPT	25/365	8	12	V	V	V	-
BE270-FA-87N		SS316	Ex d, IP66/67 (SST)	9Jn	½" NPT	25/365	8	12	V	V	V	-
BE270-FA-88		SS316	Class I Division1(red)	7	½" NPT	25/365	8	12	V	V	-	V
BE270-FA-87-LP(7)		SS316	LP(7) Ex d, IP66/67 (red)	9	½" NPT	25/365	1	12	-	V	V	-
BE270-FA-87N-LP(7)		SS316	LP(7) Ex d, IP66/67(SST)	9	½" NPT	25/365	1	12	-	V	V	-
BE270-FA-17-LC2(4)		SS316	LC2 Latch (blue)	H2	½" NPT	25/365	3	12	V	V	V	-
BE270-FA-87-LC2(4)		SS316	LC2 Latch Ex d, IP66/67 (red)	9H2	½" NPT	25/365	3	12	V	V	V	-
BE270-FA-37-LC2(5)		SS316	LC3 Ex d, 67 (yellow)	9H3	½" NPT	25/365	3	12	-	V	V	-
BE24202	N.C.	SS316	Class I Division 1 (red)	7	½" NPT	20/290	8	12	-	-	V	-
5282-B-EX		SS316	Class I Division 1 (red)	7	½" NPT	16/232	8	12	-	-	-	V

Notes:

- (1) UL Listed according to UL429A for Electrically Operated Valves for Fire Protection Service. IP67 and US type 3, 3S, 4, and 4X
- (2) FM approved for BERMAD deluge valves, available with 24VDC only.
- (3) IEC-Ex ATEX and IMETRO certified for hazardous locations II 2 G Ex d IIC (gas group A, B, C) T4-T6 IP66/67 Ingress Protection and US type 3, 3S, 4 and 4X.
- (4) Magna-Latch, 2 Wires Last Position Change Over type, 24 VDC only. UL Listed according to UL429A for Electrically Operated Valves for Fire Protection Service. IP67 and US type 3, 3S, 4, and 4X
- (5) Magna-Latch, 3 Wires Last Position Internal double coils type, ATEX and IMETRO certified for hazardous locations II 2 G Ex d IIC (gas group A, B, C) T4-T6 IP66/67.
- (6) National Electrical Code (NEC): UL Certified for Ex-Proof Class I Division 1, Groups b, C and D and Class II, Groups E, F and G. Class III, Classification per NFPA 70 National Electrical Code.
- (7) 87P: Low Power 1Watt rated with no inrush value. 24VDC only. IEC-Ex, ATEX II 2 G Ex d IIC (gas group A, B, C) T4 - T6 IP66/67