

3-Way Magna-Latch Solenoid Valves

BE370D-U Type

The BERMAD BE370D-U Magna-Latch Solenoid Valves enable safer operation of a of Remote Control Deluge Valves, they consist of two coils that are incorporated in one enclosure and activated by a momentary electrical pulse, the valve is then latched in its last position by a Permanent Holding Magnet. To reset the valve an electrical pulse should be applied to the Reset Coil (S2), allowing the actuator to return to its normal position. BERMAD Magna-Latch solenoid technology drastically reduces power demand, increasing system reliability. The BE370D-U-17 is UL listed for use with BERMAD deluge valves in accordance with UL429A for 365 psi/25 bar rated working pressure. The unique safety design of this solenoid valve allows 3 Watts power only with a tolerance of 35% below the rated enabling long wiring installations. The BE370D-U is available with with Ex d certification, suited for zones 1 or zone 2, Group II category according to IEC-Ex and ATEX Directives, the enclosure is IP67, as well as type 4X, 6, 6X rated, continuous duty design with class H high temperature insulation rating.

Features

- UL-Listed/FM approved for use with BERMAD deluge valves
- Safer valve operation with remote reset feature
- 25 bar/365 psi max working pressure
- Low Power Technology
- IP67 Enclosure, Class H insulation and Integral Terminal Box
- Seawater option

Electrical Specifications

- 3 Watts Low Power Standard on 2-Wire type
- 8 Watts - 3-Wires type
- Voltage: 24 VDC, Tolerance: +10% -35%
- Insulation Class: Class H
- Ingress protection: IP67 and US type 3, 3S, 4, 4X, 6, 6P
- Duty Cycle (ED): 100% (continuous)

Materials

- Body: Brass or Stainless Steel 316
- Internals: Stainless steel, HNBR seals
- Enclosure: Epoxy Coated Aluminum or Stainless steel 316

Temperature

- Ambient Temperature(1): -60° to 100°C (T4), -60 to 65°C (T6) -76° to 212°F (T4), -60 to 149°F (T6)
- Fluid Temperature Rating(2): 70°C / 158°F

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

Installation

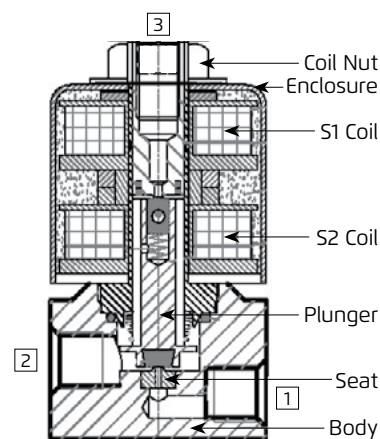
The BERMAD Magna-Latch solenoid type is suited for use with any conventional releasing panel. Wire the solenoid terminals according to the wiring diagram on the back page. The remote reset push button should be placed outside of the panel. The Solenoid Valve is the most critical unit in the deluge system, 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 NFPA, NEC, FM, IEC, or ATEX codes.

Warning: This product shall be installed and wired by an authorized electrician only. Certified fitting or cable gland shall be installed on the cable entry according to the applicable regulations.

Maintenance: Proper operation of the Solenoid Valve should be periodically verified. Testing and Maintenance should be done according to the IOM (Installation Operation & Maintenance) manual for the specific BERMAD Valve in use.



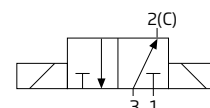
Model BE370D-U-B5-17



Magna-Latch BE370D-U Construction

Notes: Refer to selection table for specific data

Circuit Functions



Magna-Latch (Last Position)

Technical Data

Engineer Specifications for BE370D-U-17, 2-Wire Type

The solenoid valve shall be Magna-Latch 3-way, UL/FM certified, complete with IP67 and US type 4X rated enclosure, including 3 Watts Low Power coil with safety factor of 65% of 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. The electrical enclosure shall be with class H high temperature insulation, continuous duty and shall include an integrated terminal box.

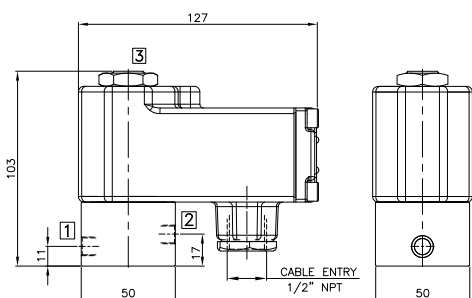
Explosion proof option (suffix 87): IEC-Ex and ATEX certified for II 2 G Ex d IIC T6 area classification for zone 1 or zone 2.

BE370D-U-37, 3-Wire Type

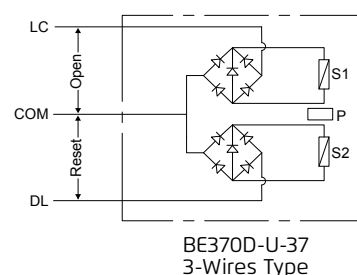
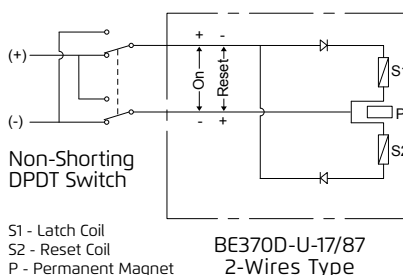
The BERMAD BE370D-U-37 type is FM approved for BERMAD Deluge valves, ATEX certified for II 2 G Ex d IIC T6 area classification for zone 1 or zone 2. It is rated for IP 66 Ingress protection, with class H coil insulation.

This enclosure has an Ex d Flame Proof design and equipped with an integral epoxy coated aluminum terminal box enclosure, including screw terminals, with 1/2" NPT cable entry and requires 3 wires (COM, LC and DL) for operation.

Dimensions



Wiring Circuit Diagrams



Solenoid Valve Selection Table

Magna-Latch Standard type

Model	Normally	Body Material	Enclosure Type	Code	Cable Entry	Ports Size "	Orifice mm	bar / psi	Power Watts	Certifications		
										IEC-Ex ⁽⁴⁾ , ATEX	UL429A ⁽³⁾	FM ⁽²⁾ Approved
BE370D-U-B2-17	Last Position	Brass	LC2, GP	-	1/2" NPT	1/4	1.2-1.6	25 / 365	3	-	✓	✓
BE370D-U-B2-87		Brass	LC2, Ex d	9	1/2" NPT	1/4	1.2-1.6	25 / 365	3	✓	✓	✓
BE370D-U-B2-37		Brass	LC3, Ex d	9	1/2" NPT	1/4	1.2-1.6	25 / 365	8	✓	-	✓
BE370D-U-B5-17		SS316	LC2, GP	-	1/2" NPT	1/4	1.2-1.6	25 / 365	3	-	✓	✓
BE370D-U-B5-87		SS316	LC2, Ex d	9	1/2" NPT	1/4	1.2-1.6	25 / 365	3	✓	✓	✓
BE370D-U-B5-87N		SS316	LC2, Ex d	9Jn	1/2" NPT	1/4	1.2-1.6	25 / 365	3	✓	✓	✓
BE370D-U-B5-37		SS316	LC3, Ex d	9	1/2" NPT	1/4	1.2-1.6	25 / 365	8	✓	-	✓
BE370D-U-B5-37N		SS316	LC3, Ex d	9Jn	1/2" NPT	1/4	1.2-1.6	25 / 365	8	✓	-	✓

Seawater and Corrosive Fluids

Model	Normally	Body Material	Enclosure Type	Code	Cable Entry	Ports Size "	Orifice mm	bar / psi	Power Watts	Certifications		
										IEC-Ex ⁽⁴⁾ , ATEX	UL429A ⁽³⁾	FM ⁽²⁾ Approved
BE370D-U-B5-C0-87N	Last Position	SS316	LC2, Ex d	FS-9	1/2" NPT	1/4	1.2-1.6	25 / 365	3	✓	✓	✓
BE370D-U-B5-C0-37N		SS316	LC3, Ex d	FS-9	1/2" NPT	1/4	1.2-1.6	25 / 365	8	✓	-	✓

Notes:

⁽¹⁾ Add Jn suffix to the BERMAD deluge valve code for cast stainless steel 316 enclosure.

⁽²⁾ FM approved for BERMAD deluge valves, with 24V coil.

⁽³⁾ UL-Listed for BERMAD deluge valves accordance with UL429A for Electrically Operated Valves for Fire Protection Service.

⁽⁴⁾ IEC-Ex and ATEX certified for hazardous locations II 2 G Ex d IIC (gas group A, B, C) T6.

⁽⁵⁾ Specifications subject to change without notice.

