

### EEExd 3-Way Solenoid Valve Flameproof Type

This EEExd solenoid valve is equipped with a heavy-duty enclosure of Flame proof design. It is suitable for use in hazardous locations, where hazardous materials are present intermittently and defined by zones 1 or zone 2, Group II apparatus category according to ATEX 94/9/EC Directive.

This solenoid construction is designed for outdoor industrial applications, the solenoid enclosure and construction are designed to withstand an internal explosion and prevent the transmission of the explosion to the explosive environment surrounding the enclosure. The solenoids coil is IP66 (minimum) ingress protection rated, continuous duty design with class F insulation. This solenoid valve is suitable for activating BERMAD Deluge and other hydraulically controlled valves, used with filtered firewater or pneumatic supply.

#### Features

- Integral Terminal Box
- Interchangeable coil
- IP 66 ingress protection
- Heavy Duty construction

#### Power

- 8 Watts, 24 VDC or 120, 220 VAC/50-60 Hz.
- Tolerance: ±10%

#### Materials

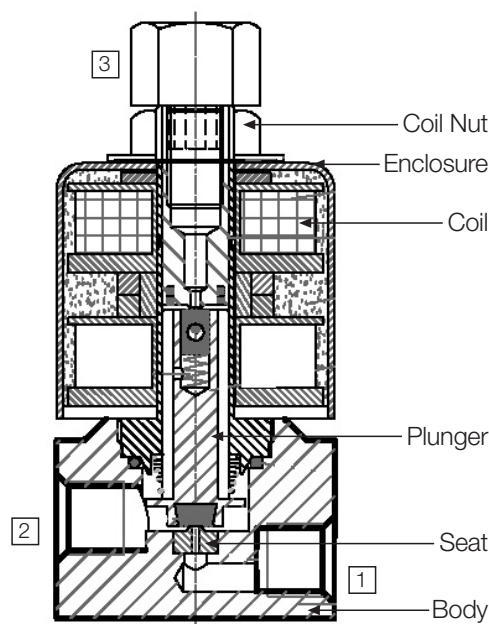
- Body: Stainless steel 316
- Internals: Stainless steel, NBR seals
- Enclosure: Epoxy Coated Aluminum

#### Temperature

- Nominal Ambient(1): 0.5° to 50°C (33° to 125°F)
- Maximum Fluid: 80°C (176°F)

#### Notes:

(1) Max. ambient temperature is determined under continuously energized conditions.



Note: Illustrations are for display only

#### Installation and Maintenance

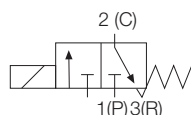
The Solenoid Valve is the most critical unit in the Deluge system. It should be installed and wired by qualified and trained personnel only. The coil should be wired in accordance with the requirements of the applied norm such as IEC or ATEX codes. Ensure that the voltage supply and frequency corresponds with the marking appeared on the enclosure label.

**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 the assembly by using appropriate tools. While tightening a fitting into the

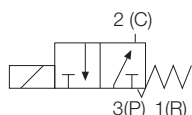
conduit hub, attention must be paid that a max. torque of 20Nm is not exceeded.

**Maintenance:** Proper operation of the Solenoid Valve should be periodically verified. Testing and Maintenance should be done 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 Function



3/2-way Normally Closed



3/2-way Normally Open

### Technical Data

#### Bermad EExd standard solenoid valve, model SX-370I

This solenoid valve is ATEX certified for hazardous locations II 2 G EEx d IIC T6, area classification for zone 1 or zone 2 according to ATEX directive 94/9/EC.

It is rated for IP 66 ingress protection, continuous duty design with class F coil insulation.

This enclosure is "EExd" Flame Proof design and is equipped with an integral epoxy coated aluminum terminal box, including screw terminals, with 1/2" NPT cable entry.

The solenoid valve body is constructed of Stainless steel 316

#### Special Executions - Options

- Isolated Design for Corrosive Fluids
- Seawater construction
- Harsh environments / offshore Enclosure
- High temperature coil insulation - H class

For further details and options please refer to the solenoids selection table.

#### Solenoid Valve Selection Table

##### EExd standard type

Model	Normally	Body Material	Enclosure Type/Class	Code	Cable Entry	Ports Size	Orifice mm	Pres. Bar	Power Watts	Approval See Notes
SX-3701-NC	N.C.	SS316	EEx d IIC T6	9	1/2" NPT	1/4	1.6	16	8	ATEX (4)
SX-3701-NO	N.O.	SS316	EEx d IIC T6	9	1/2" NPT	1/4	1.6	16	8	ATEX (4)

##### Isolated types for Corrosive Fluids

Model	Normally	Body Material	Enclosure Type/Class	Code	Cable Entry	Ports Size	Orifice mm	Pres. Bar	Power Watts	Approval See Notes
SR-780C	N.C.	SS316	EEx ed IIC T6	9	PA cable gland	1/4	2	16	3/30 (inrush)	ATEX (4)
SM1304B	UNI	Ni.Al. Brz	EEx d IIC T6	9	M20x1.5	1/4	7	20	9.6	ATEX (4)
SR-780D	N.O.	SS316	EEx ed IIC T6	9	PA cable gland	1/4	2	16	3/30 (inrush)	ATEX (4)

##### Harsh environments, Low Power

Model	Normally	Body Material	Enclosure Type/Class	Code	Cable Entry	Ports Size	Orifice mm	Pres. Bar	Power Watts	Approval See Notes
ED8320515	UNI	SS316	EEx d IIB T6	9	1/2" NPT	1/4	1.6	4	2.9	ATEX (4),(6)
SM1304S	UNI	SS316	EEx d IIC T6	9	M20x1.5	1/4	7	20	4.5	ATEX (4)
SM1303S	UNI	SS316	EEx d IIC T6	9	M20x1.5	1/4	2	12	3	ATEX (4)

##### Notes:

(4) ATEX certified for hazardous locations II 2 G EEx d IIC (gas group A, B, C) T6, IP 66 Ingress Protection to IEC Spec.

(5) Specifications subject to change without notice.

(6) Not including terminal box, for use only with pneumatic pressure supply.