

ICO3S 3/2 Exia Poppet Valve

Electromagnetically Actuated,
Direct Solenoid Operated



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Key Benefits

- > Port size: 1/4" (ISO G/NPT)
- > Direct acting - intrinsically safe solenoid valve
- > Reliable and long life, ideal for a one time installation
- > A direct solenoid operated valve for the control of pneumatic or hydraulic operated equipment
- > Global Approvals IECEX, ATEX, FM, CSA, TRCU, NEPSI
- > Safety integrity level SIL 2 / SIL 3 (SIL 4 redundant configuration only)
- > Environmental protection: NEMA 4X, IP66/X8



Technical Features

Medium:

Hydraulic and pneumatic – customer to specify and confirm compatibility

Operation:

Direct solenoid operated poppet valves

Mounting Position:

Solenoid vertical

Flow:

0,6 Cv (8,7Kv)

Port Size:

1/4 NPT, G1/4

Operating Pressure:

0 ... 12 bar (0 ... 174 psi)

Temperature:

Media: -55 ... +69°C

(-67 ... 156°F)

Ambient: See table on page 2

Air supply must be dry enough to avoid ice formation at temperatures below +2°C (+35°F)

Materials:

Valve body, trim, coil housing and top cover: stainless steel 1.4404 (316 L)
O-rings seats & seals: high NBR
Other seal materials available on request

Warning

These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures can exceed those listed under »**Technical features/data**«.

Before using these products with fluids other than those specified, for non-industrial applications, life-support systems or other applications not within published specifications, consult Thompson Valves Ltd.

Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes. The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure. System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided. System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.

For further information please contact: imithompson.sales@imi-critical.com

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Technical Data – Standard Models



Symbol	Port size	Function	Operating pressure (bar)	Manual override/reset	Conduit connection	ATEX	Temperature range Media (°C)	Ambient (°C)	Weight (kg)	Dimension No.	Model
	1/4 NPT	3/2 NC	0 ... 12	Without	M20 x 1,5	Ex II 2 GD, Ex ia IIC	-55 ... +69°C	-60 ... +69°C	2,0	1	YX13AA1H1BS
	G 1/4	3/2 NC	0 ... 12	Without	M20 x 1,5	Ex II 2 GD, Ex ia IIC	-55 ... +69°C	-60 ... +69°C	2,0	1	YX13AE1H1BS
	1/4 NPT NAMUR	3/2 NC	0 ... 12	Without	M20 x 1,5	Ex II 2 GD, Ex ia IIC	-55 ... +69°C	-60 ... +69°C	2,0	3	YX13ANAH1BS
	G 1/4 NAMUR	3/2 NC	0 ... 12	Without	M20 x 1,5	Ex II 2 GD, Ex ia IIC	-55 ... +69°C	-60 ... +69°C	2,0	3	YX13ANEH1BS
	1/4 NPT	3/2 NC	0 ... 12	PBMR*1)	M20 x 1,5	Ex II 2 GD, Ex ia IIC	-55 ... +69°C	-60 ... +69°C	2,5	2	YX13PA1H1BS
	G 1/4	3/2 NC	0 ... 12	PBMR*1)	M20 x 1,5	Ex II 2 GD, Ex ia IIC	-55 ... +69°C	-60 ... +69°C	2,5	2	YX13PE1H1BS
	1/4 NPT NAMUR	3/2 NC	0 ... 12	PBMR*1)	M20 x 1,5	Ex II 2 GD, Ex ia IIC	-55 ... +69°C	-60 ... +69°C	2,5	4	YX13PNAH1BS
	G 1/4 NAMUR	3/2 NC	0 ... 12	PBMR*1)	M20 x 1,5	Ex II 2 GD, Ex ia IIC	-55 ... +69°C	-60 ... +69°C	2,5	4	YX13PNEH1BS

*1) PBMR = Push button manual reset

Technical Data – Solenoid Operators

Nominal Voltages	12 V d.c. via an energy limiting barrier	Power Consumption	0,43 watts typical
Operating Current	>=32mA	Voltage Protection	Surge suppression diodes fitted as standard
Response Times	Pull-in 3 ... 4 seconds, drop out < 60 ms	Coil Encapsulation	Class H
Drop Out Current	>=6mA	Leak Performance	Bubble tight at 50°C < 30 cc/m at -55°C
Coil Rating	293 ohms	Coil Duty Cycle	100%

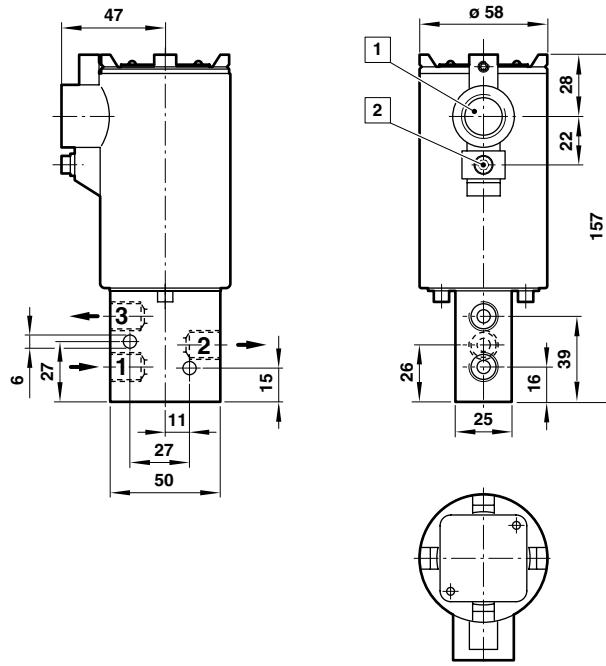
ICO3S 3/2 Exia Poppet Valve

Dimensions

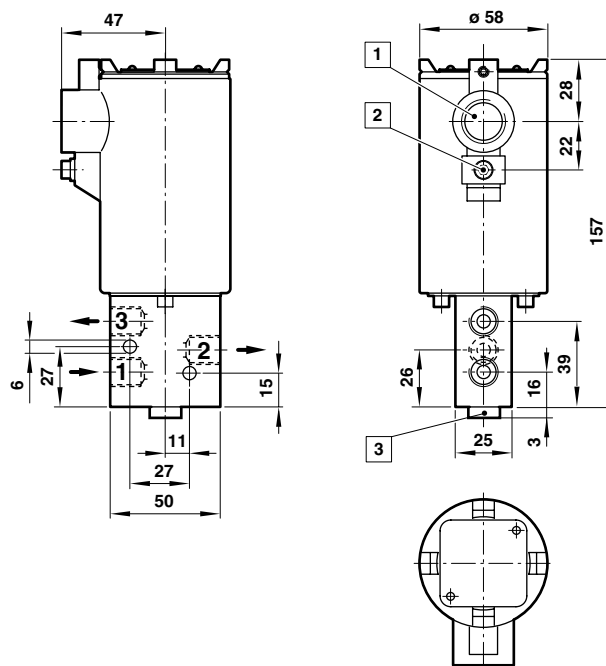
Dimensions in mm
Projection/First angle



1



2

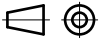


- 1 Conduit connection M20 x 1,5 or 1/2 NPT
- 2 External earth
- 3 Manual reset

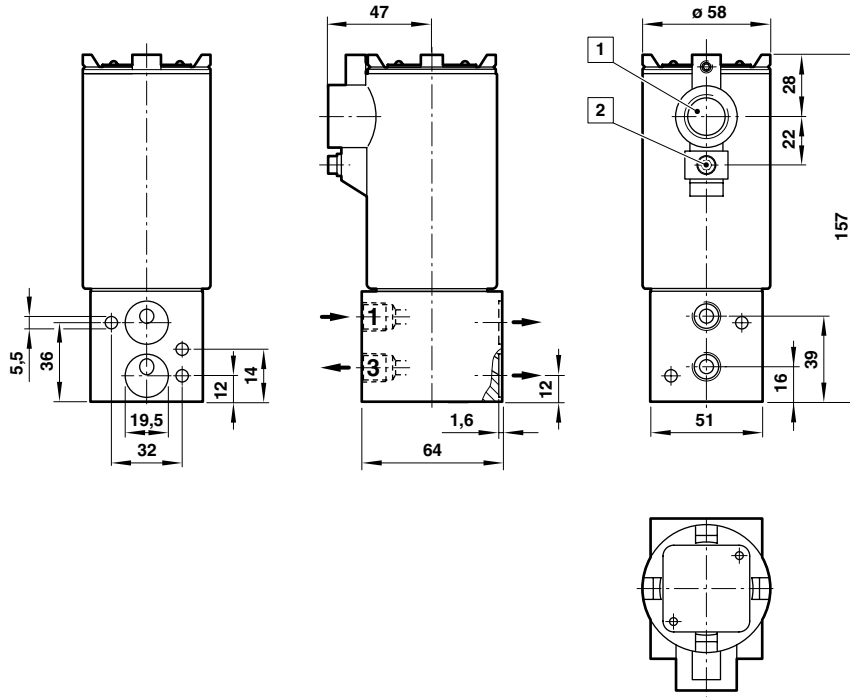
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Dimensions

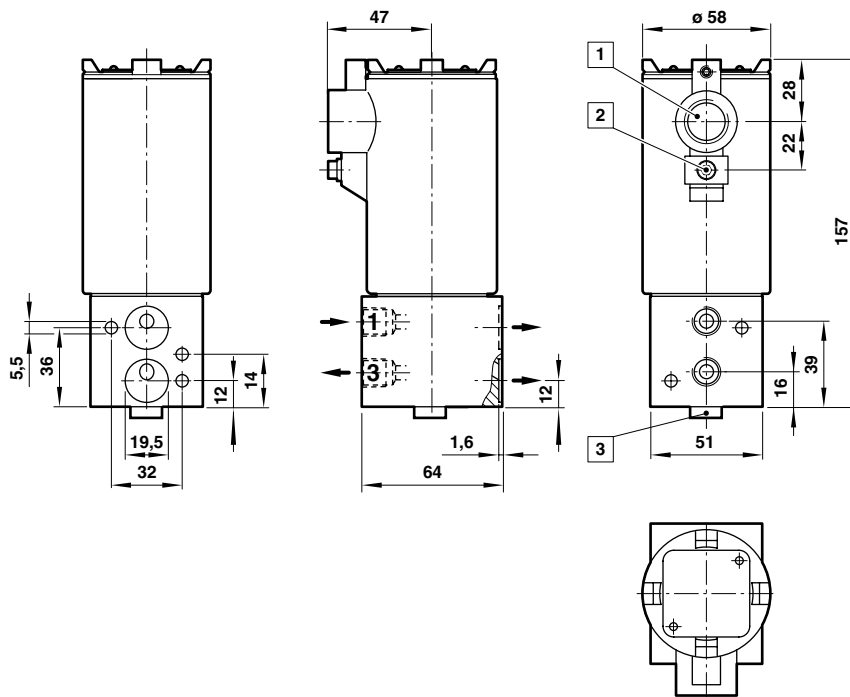
Dimensions in mm
Projection/First angle



3



4



- 1 Conduit connection M20 x 1,5 or 1/2 NPT
- 2 External earth
- 3 Manual reset

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