



**Process  
Automation**

Our product brands:  
**IMI MAXSEAL®**

## ICO3S 3/2 Ex ia Poppet Valve

Electromagnetically Actuated,  
Direct Solenoid Operated



Breakthrough  
engineering for  
a better world

# ICO3S 3/2 NC Poppet Valve

## Key Benefits

- Port size: 1/4" (ISO G/NPT)
- Direct acting - intrinsically safe solenoid valve
- A direct solenoid operated valve for the control of pneumatic or hydraulic operated equipment
- Certification: ATEX, IECEx, FM, CSA, NEPSI
- Safety Integrity Level: SIL 2/SIL 3 (SIL 3 in a redundant configuration only)
- Environmental protection: NEMA 4X, IP66/X8



## Technical Features

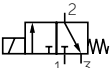
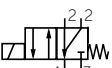
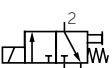
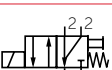
Medium	Hydraulic and pneumatic – customer to specify and confirm compatibility
Operation	Direct solenoid operated poppet valves
Mounting Position	Solenoid vertical
Flow	0.6 Cv
Port Size	1/4 NPT, G1/4, NAMUR
Operating Pressure	0 ... 12 bar (0 ... 174 psi)
Temperature	Media: -55...+69°C (-67...+156°F) 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

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, lifesupport 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.

## Technical Data - Standard Models



Symbol	Port size	Function	Operating pressure (bar)	Manual override/reset	Conduit connection	ATEX	Temperature range		Weight (kg)	Dimension No.	Model
							Media (°C)	Ambient (°C)			
	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 - Standard Models

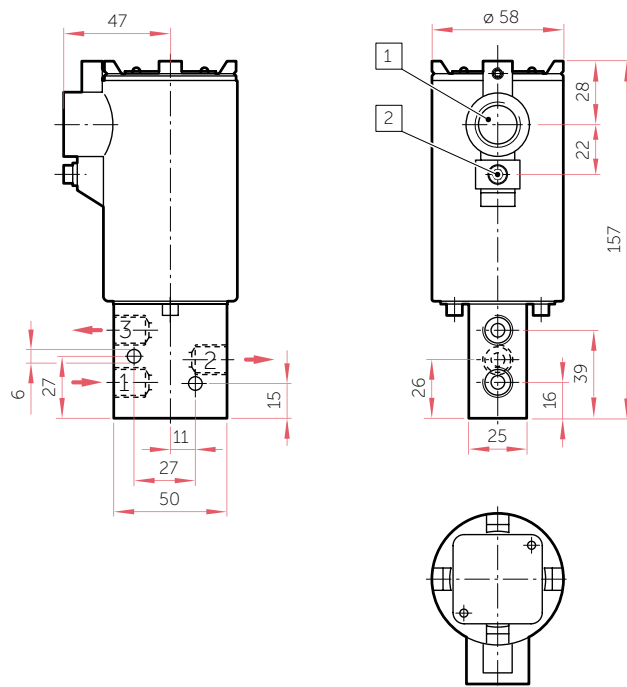
Nominal Voltages	12 V d.c. via an energy limiting barrier	Power Consumption	0,43 watts typical
Operating Current	>=32mA	Voltage Protection	Surge suppression diodes fitted as standard
Response Times	Pull-in 3 ... 4 seconds, drop out < 60 ms	Coil Encapsulation	Class H
Drop Out Current	>=6mA	Leak Performance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

# Dimensions

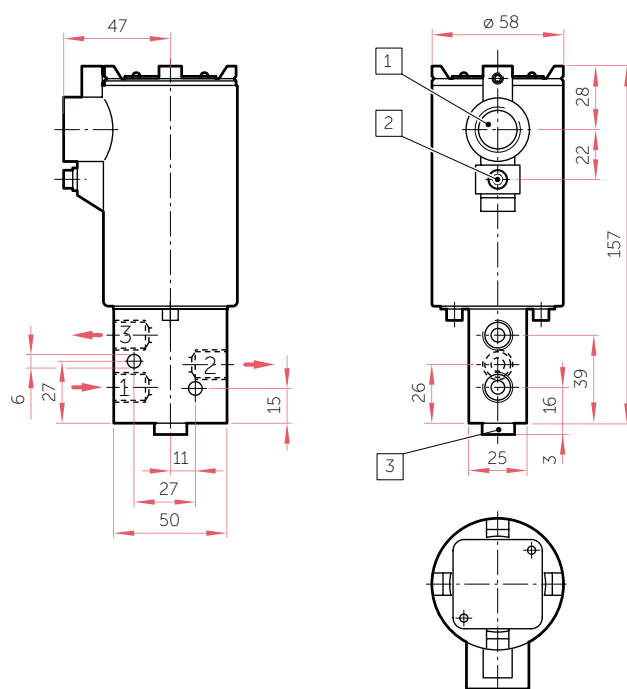
Dimensions in mm  
Projection/First angle



1



2



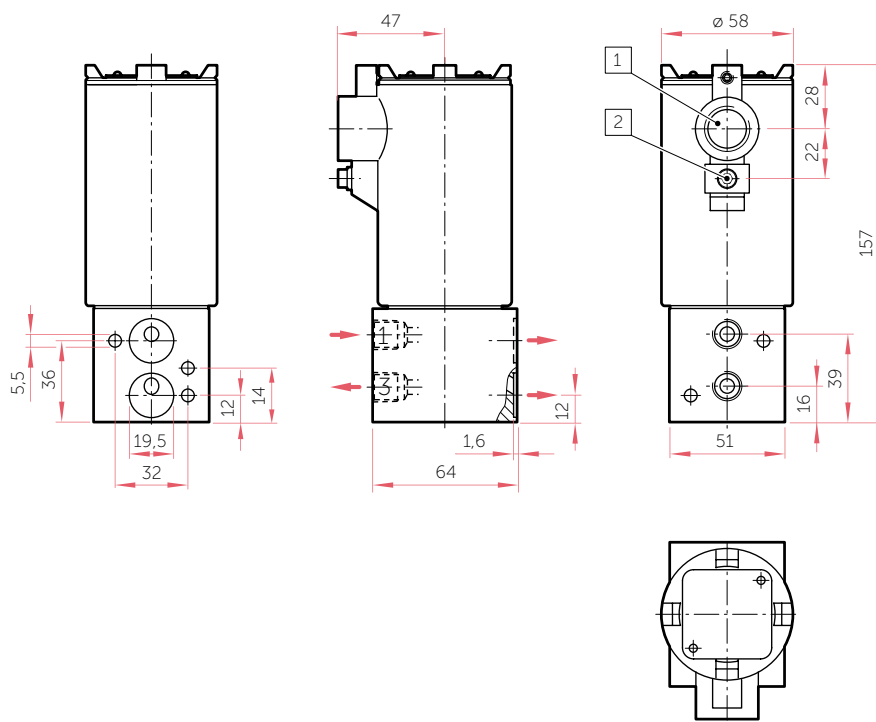
- 1 Conduit connection M20 x 1,5 or 1/2 NPT
- 2 External earth
- 3 Manual reset

# Dimensions

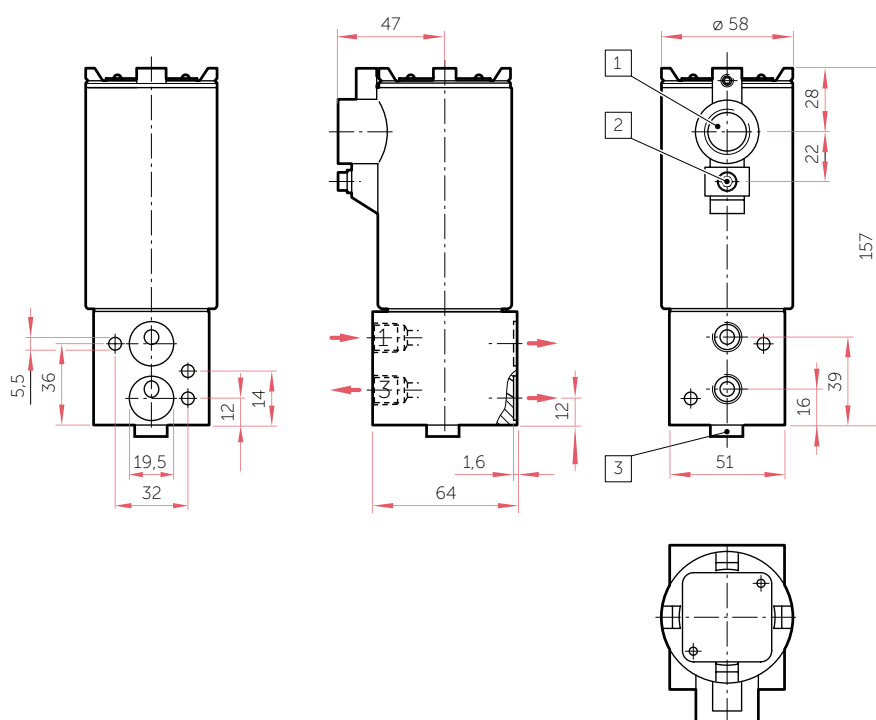
Dimensions in mm  
Projection/First angle



3



4



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

# Process Automation

The information in this brochure is provided for general informational purposes only. Specifications for products and services are subject to change without prior notice. IMI plc and its subsidiaries own all product brands mentioned herein.

IMI makes no warranties or representations about the accuracy or completeness of the content in this brochure and assumes no liability for any errors or omissions it may contain. We reserve the right to modify, enhance, or discontinue any product or service described herein without prior notification.

## IMI Thompson Valves

17 Balena Close,  
Creekmoor, Poole  
BH17 7EF  
United Kingdom

[www.imiplc.com/process-automation](http://www.imiplc.com/process-automation)  
14008.02/24en

