



Process
Automation

Our product brands:
IMI MAXSEAL®

ICO4S 2/2 or 3/2 Hydraulic Poppet Valve

Electromagnetically Actuated,
Directly Controlled



Breakthrough
engineering for
a better world

ICO4S 2/2 or 3/2 Hydraulic Poppet Valve

Key Benefits

- Port size: 1/4" (ISO G/NPT or manifold version)
- Direct acting poppet type solenoid valve for the control of hydraulic equipment
- Zero leakage - (Gas tight)
- Pressure inlet up to 414 bar
- Reliable and long life, ideal for a one time installation
- Safety Integrity Level: SIL 2/SIL 3 (SIL 3 in a redundant configuration only)
- Certifications: ATEX, CSA, NEPSI, KOSHA, IECEx, FM, CRN, CCOE, IN-METRO
- 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	Cv 0,28
Port Size	1/4 NPT, G 1/4, or manifold versions
Operating Pressure	0 ... 207 bar (0 ... 3002 psi)
	0 ... 414 bar (0 ... 6004 psi)
Fluid Temperature	-20 ... +90°C (-4 ... +194°F)
	-40 (-40°F) option available on request Ambient Temperature: See table on page 2
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

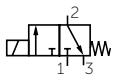

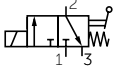
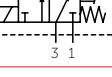
These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures can exceed those listed under »Technical features/data«. Before using these products with fluids other than those specified, for non-industrial applications, lifesupport 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

With Conduit Connection M20 x 1,5



Symbol	Port Size	Function	Operating Pressure (bar)	Material Seat Seal	Manual Override/Reset	Certification	Power Consumption at 24 V d.c. (W)	Ambient Temperature	Weight (kg)	Drawing No.	Model
	1/4 NPT	3/2 UNI	0 ... 207	NBR	Without	Exd IIC T6	9,6	T6 (-60 ... +48°C), T4 (-60 ... +90°C)	5,5	1	Y163AA1J1*S
	G 1/4	3/2 UNI	0 ... 207	NBR	Without	Exd IIC T6	9,6	T6 (-60 ... +48°C), T4 (-60 ... +90°C)	5,5	1	Y163AE1J1*S
	1/4 NPT	3/2 UNI	0 ... 414	NBR	Without	Exd IIC T6	15,1	T6 (-60 ... +48°C), T4 (-60 ... +90°C)	5,5	2	Y193AA1J1*S
	G 1/4	3/2 UNI	0 ... 414	NBR	Without	Exd IIC T6	15,1	T6 (-60 ... +48°C), T4 (-60 ... +90°C)	5,5	2	Y193AE1J1*S
	Manifold	3/2 UNI	0 ... 207	NBR	Without	Exd IIC T6	9,6	T6 (-60 ... +48°C), T4 (-60 ... +90°C)	6	3	Y163AKFJ1*S
	Manifold	3/2 UNI	0 ... 414	NBR	Without	Exd IIC T6	15,1	T6 (-60 ... +48°C), T4 (-60 ... +90°C)	6	3	Y193AKFJ1*S
	1/4 NPT	3/2 UNI	0 ... 414	NBR	LMR*1)	Exd IIC T6	4,5	T6 (-60 ... +48°C), T4 (-60 ... +90°C)	5,5	4	Y193LA1J1*S
	G 1/4	3/2 UNI	0 ... 414	NBR	LMR*1)	Exd IIC T6	4,5	T6 (-60 ... +48°C), T4 (-60 ... +90°C)	5,5	4	Y193LE1J1*S
	Manifold	3/2 UNI	0 ... 414	NBR	LMR*1)	Exd IIC T6	4,5	T6 (-60 ... +48°C), T4 (-60 ... +90°C)	6	5	Y193LKFJ1*S

* Insert voltage code - see option selector below

*1) LMR = Lever manual reset

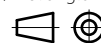
Option Selector

Y1 ★ ★ ★ ★ ★ ★ ★ ★ S

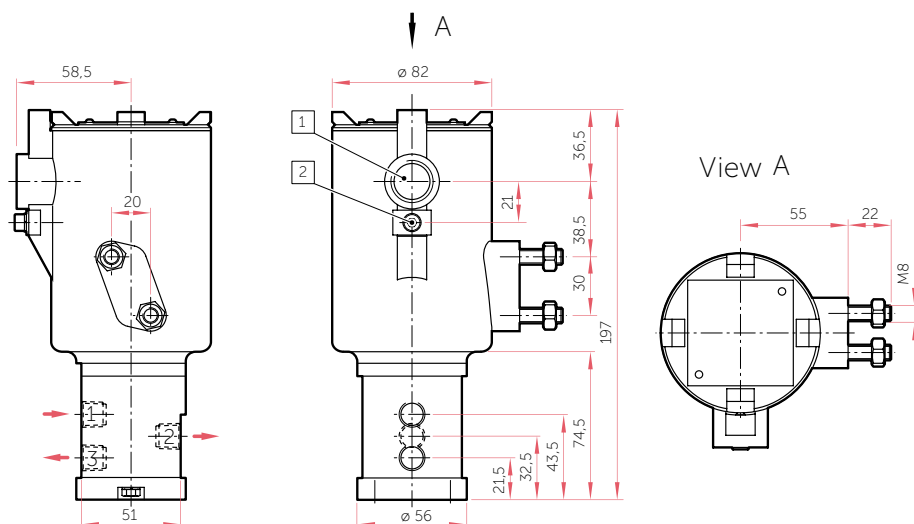
Operating Pressure	Substitute	Voltage	Substitute
0 ... 207 bar	6	24 V d.c.	B
0 ... 414 bar	9	48 /50 V d.c. (50 V)	C
		110 V d.c.	D
		125 V d.c.	E
		220 /240 V d.c. (240 V)	F
		110 V a.c.	J
		220 /240 V a.c. (240 V)	M
Port Configuration	Substitute	Conduit Connection	Substitute
2/2 NC	1	M20 x 1.5 mm	1
2/2 NO	2	1/2 NPT	2
3/2 (universal)	3		
Operation	Substitute	Seat/Seal Material	Substitute
Automatic	A	Nylon/Nitrile	J
Lever manual reset	L	Nylon/FKM	K
Lever Manual Override	M		
Port Size	Substitute		
1/4 NPT	A1		
G 1/4	E1		
Manifold	KF		

Dimensions

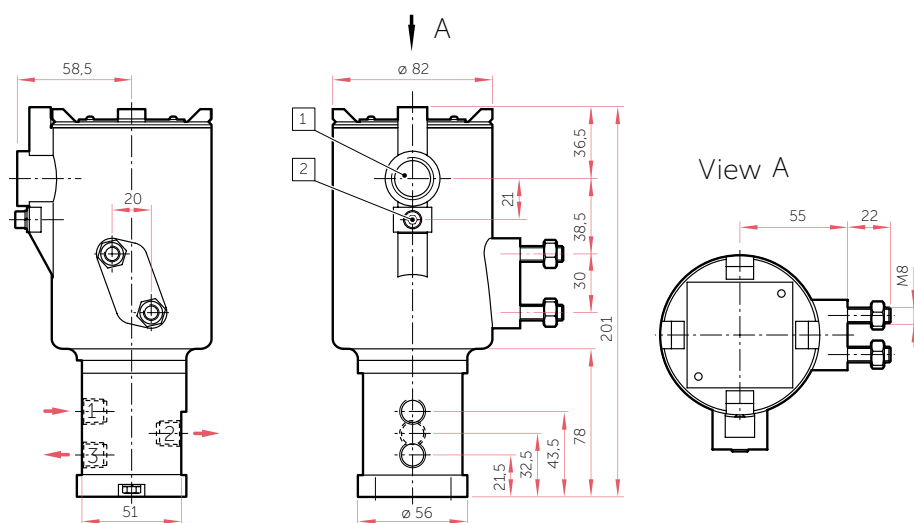
Dimensions in mm
Projection/First angle



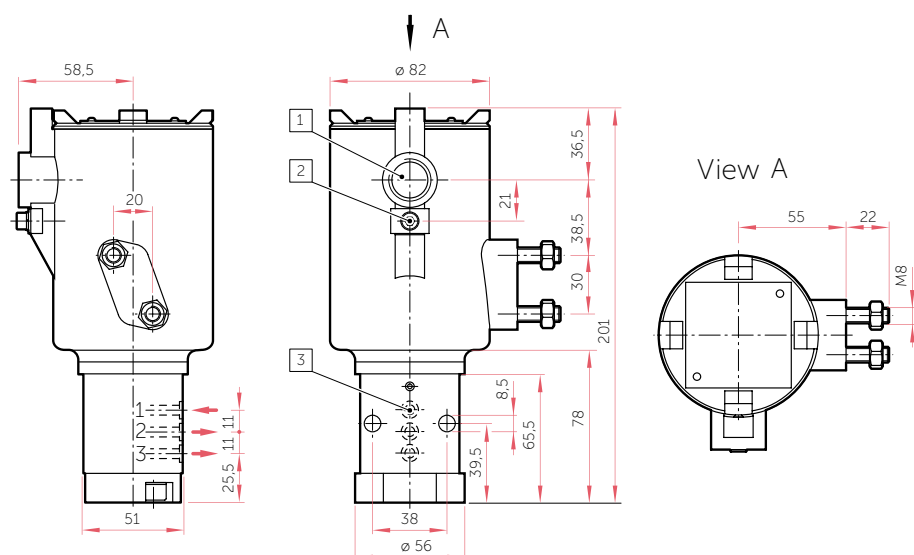
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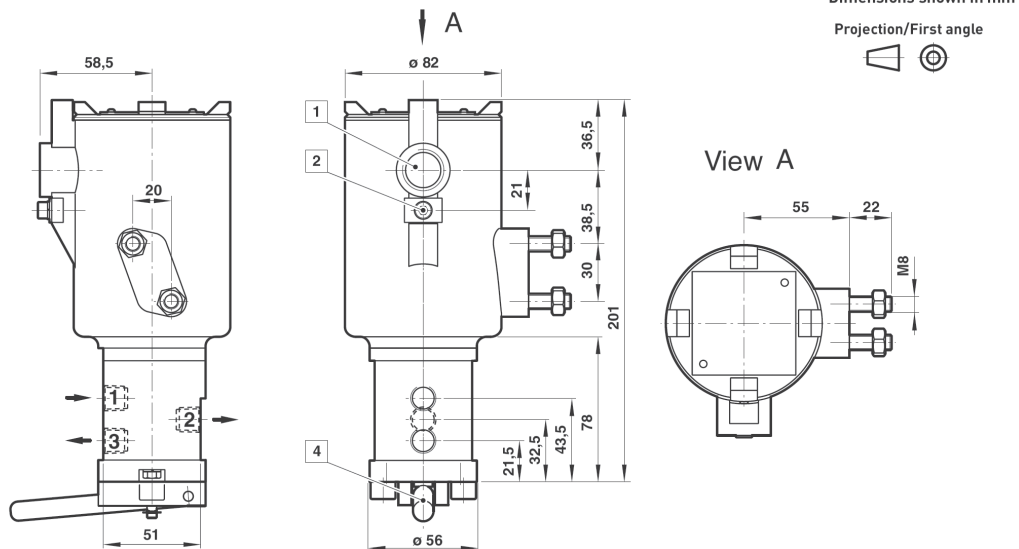


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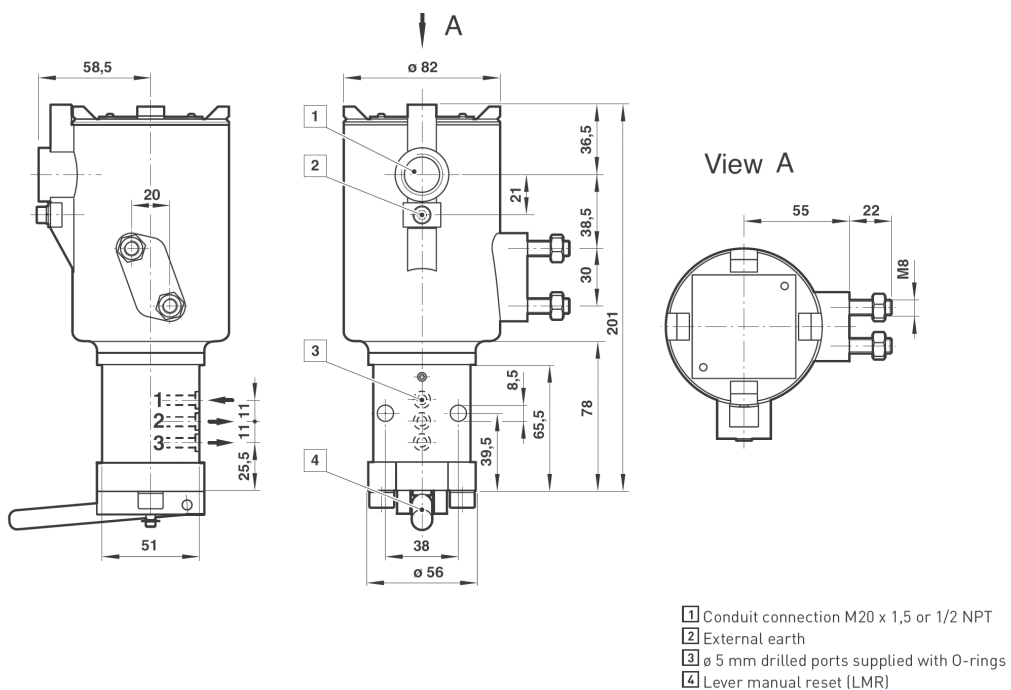


- 1 Conduit connection M20 x 1.5 or 1/2 NPT
- 2 External earth
- 3 $\varnothing 5$ mm drilled ports supplied with O-rings

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Process Automation

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