Maxseal Solenoid Operated Valves

ICO4S 1/2" 2/2 AUTO



Thompson Valves Ltd

Typical Applications

- 1/2” 2/2 ENERGISE TO OPEN - AUTOMATIC
- 1/2” 2/2 ENERGISE TO CLOSE - AUTOMATIC
- Actuator Control
- Direct Acting Shut Off Valve
- Oil & Gas Applications
- Turbine Fuel Control

Description

- Model: ICO4S 1/2" 2/2 EO & EC AUTO
- Direct Acting Solenoid Valve
- Low Pressure, High Flow
- Max Inlet Pressure 20 bar (290 psi)
- Reliable and long life, ideal for a one time installation
- Control of pneumatic or hydraulic operated equipment

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Standard Features	ICO4S 1/2" 2/2 Auto	
Solenoid Materials of Construction	Solenoid Pot - Stainless Steel - BFC 316	
	Top Cover - Stainless Steel- BFC 316	
	Valve Body & Trim Materials - 316 Stainless Steel	
	O-Rings Seats & Seals - High Nitrile (NBR)	
	Coil Insulation - Class H	
Maximum Inlet Pressure	20 Bar (290 PSI)	
Flow Rates	C_V = 4.2 USgpm for 1 psi Δp	
	K_V = 46 l/min for 1 bar Δp	
Temperature Ratings	Media (Min/Max -20°C/90°C) - Ambient (Min/Max 0°C/60°C)	
Valve Size	1/2" Balanced Poppet Valve	
Process Connections	1/2" NPT	
Conduit Connection	M20 x 1.5 Conduit Thread	
Media	Liquid & Gases	
Weight	6.0 Kg	

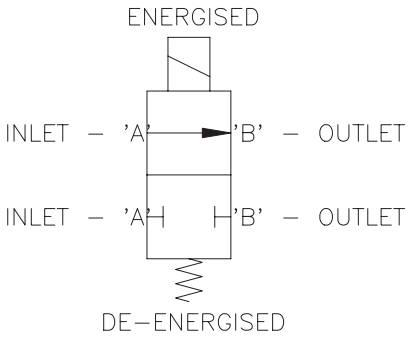
Recommended Spares Kits		
Soft Spares (O-rings, Springs etc)	Standard (Viton® & High Nitrile)	Y123A030000-SS
	Low Temperature valves	See Valve Data Sheet
Spare Coil Assembly	Standard 24V DC (15.1 Watts)	Y123A0301B0
	Other Variations	See Valve Data Sheet

Options		
Valve Body & Trim Materials	Aluminium Bronze - Sea Water Applications	
	Titanium - Extreme Service Applications	
Low Temperature Options	O-Rings - Low Nitrile/Fluorosilicone (Min Med/Amb -40°C/-40°C)	
High Temperature Options	High Temperature Spacer (Max Med/Amb 120°C/60°C)	
	Please Call for Dimensions	
Process Connections	Thread - 1/2" BSPP	
Conduit Connection	1/2" NPT	
Product lead time	Y121AA3H1BS - 2 WEEKS (SUBJECT TO QUANTITY)	
	Y122AA3H1BS - 2 WEEKS (SUBJECT TO QUANTITY)	
	Other Variations - Please call for possible delivery dates	

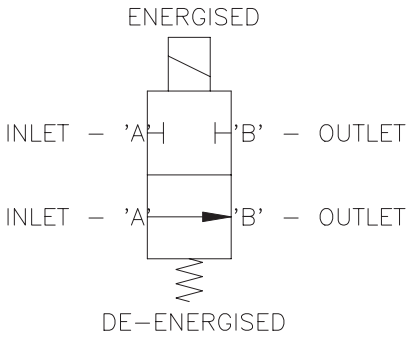
Technical Specification

Pressures	
Test (Proof) Pressure	30 bar (435 PSI)
Maximum Inlet Pressure	20 Bar (290 PSI)
ATEX Clasification	Complies with ATEX Directive 94/9/EC
ATEX Certificate	SIRA 00ATEX1147
Certification	II 2G
	EExd IIC T6 (T_a= -60°C to + 48°C) or
	EExd IIC T4 (T_a= -60°C to + 90°C)
IECEx	IECEx BAS 04.0019
	EExd IIC T6 (T_a = -40°C to + 60°C) or
	EExd IIC T4 (T_a = -40°C to + 90°C)
GOST 'K'	EExd IIC T6 (T_a = -40°C to + 60°C)
GOST 'R'	EExd IIC T6 (T_a = -40°C to + 60°C)
Safety Integrity Level	Suitable for SIL 3 Application in Simplex Mode
	Suitable for SIL 4 Application in Duplex Mode
Ingress Protection	IP66/X8, NEMA 4X
Voltage Surge Protection	Surge Suppression Diodes
Coil Insulation	Class H
Performance	
Pull-in Voltage	87.5% of Nominal
Response Times	Pull-In <150ms
	Drop-Out <80ms
Electromagnetic Compability (EMC)	EN50081-2/82-1

Valve Symbol



VALVE SYMBOL FOR ENERGISE TO OPEN (NORMALLY CLOSED) 20 BAR MAX WORKING PRESSURE



VALVE SYMBOL FOR ENERGISE TO CLOSE (NORMALLY OPEN) 20 BAR MAX WORKING PRESSURE

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1/2" 3/2

Ordering Information

Model	Operating Pressure	Port Config.		Operation	Process Connection	Seat/Seal Materials	Conduit Connection	Voltage	Body/Trim Materials
Y1	2	1	2	A	A3	H	1	B	S
ICO4S	0-20 Barg (290 psi)	2/2 ENG. TO OPEN	2/2 ENG. TO CLOSE	Automatic	A3 1/2" NPT E3 1/2" BSPP	H High Nitrile V Viton®	1 M20x1.5 2 1/2" NPT	A 18/33V DC B 24V DC C 50V DC D 110V DC E 125V DC G 25V AC J 110V AC M 240V AC	S 316 SS / 316 SS M Alu Brnz / Alu Brnz 3 Titanium / Titanium

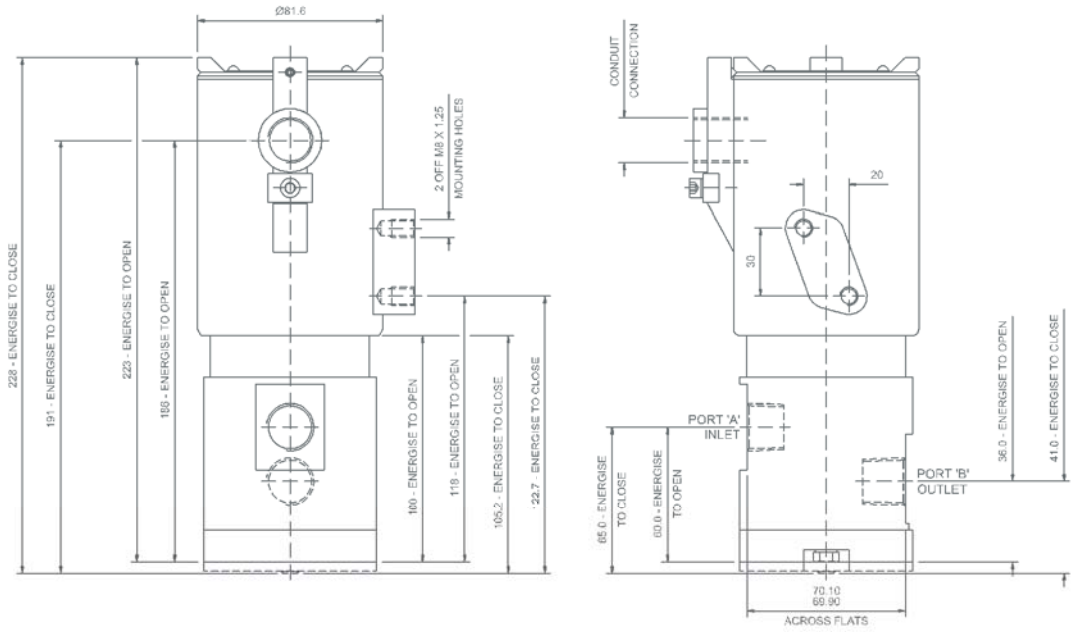
Ordering Example

Y1	2	1	A	E3	V	1	J	M
ICO4S	0-20 Barg (290 psi)	2/2 E/O	Auto	1/2" BSPP	VITON®	M20 x 1.5	110V AC	Alu Brnz / Alu Brnz

Power Consumption (At Nominal)

DC Standard		AC Standard	
18 / 33V DC (24V DC)	CALL	25V AC	13.3 W
24V DC	15.1 W	110V AC	14.2 W
50V DC	16.6 W	240V AC	17.9 W
110V DC	15.5 W		
125V DC	15.1 W		

Profile and Dimensions mm



2/2 ENERGISE TO OPEN

1. Valve is energised
   Valve 'changes over'
   Flow occurs between ports 'A' & 'B'
2. Valve is de-energised
   Valve resets
   No flow occurs between ports 'A' & 'B'

2/2 ENERGISE TO CLOSE

1. Valve is energised
   Valve 'changes over'
   No flow occurs between ports 'A' & 'B'
2. Valve is de-energised
   Valve resets
   Flow occurs between ports 'A' & 'B'

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