Maxseal Solenoid Operated Valves

ICO2S 1/2" 2/2 AUTO



Thompson Valves Ltd

Typical Applications

- 1/2" 2/2 AUTOMATIC
- Intrinsically Safe
- Pilot Assisted Control Valve
- Hazardous Area Applications

Description

- Model ICO2S 1/2" 2/2 AUTO
- Pilot Assisted Solenoid Valve
- High Flow
- Max Inlet Pressure 20 bar (290 psi)
- Pilot Pressure 3-7 bar
- Reliable and long life, ideal for a one time installation
- A pilot assisted solenoid operated valve for the control of pneumatic or hydraulic operated equipment

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Standard Features

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)
Pilot Pressure	3-7 bar
Flow Rates	C_V = 4.2 USgpm for 1 psi Δp
	K_V = 60.48 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
Signal Connection	1/4" NPT
Media	Gas or Air
Pilot Media	Instrument Air
Weight	6 kg

Recommended Spares Kits

Soft Spares (O-rings, Springs, etc.)	Y2H21A03S000000-SS
Spare Coil Assembly	Please call

Options

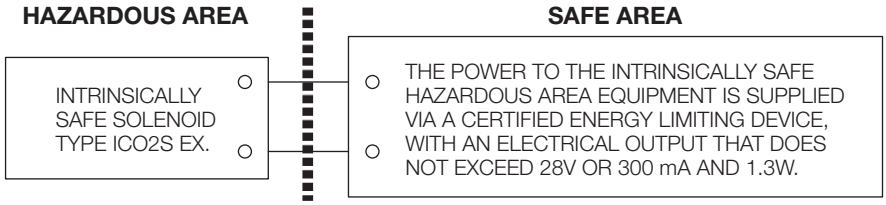
Process Connections	1/2" BSPP
Conduit Connection	1/2" NPT
Signal Connections	1/4" BSPP
Product Lead Time	Y2H21AA3SA10300 - 4 weeks
	Other variations: Please call for possible delivery dates

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Technical Specification

Pressures	
Test (Proof) Pressure	30 bar (435 psi)
Maximum Inlet Pressure	20 bar (290 psi)
Pilot Test (Proof) Pressure	12 bar (174 psi)
Pilot Pressure	3-7 bar (43-102 psi)
ATEX Classification	Complies with ATEX Directive 94/9/EC
ATEX Certificate	SIRA 00ATEX2113
Certification	II 1G
	Ex ia IIC T6 (T_a = -40°C to + 64°C)

Intrinsically Safe Circuit

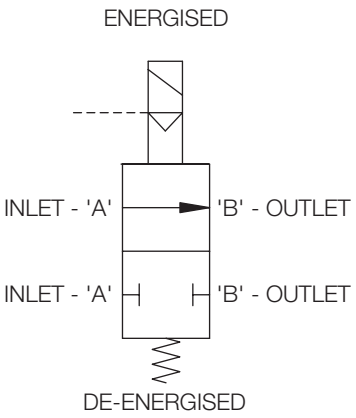


Ingress Protection	IP66/X8 to BS EN 6052:1992, NEMA 4X
Voltage Surge Protection	Surge Suppression Diodes
Coil Insulation	Class H

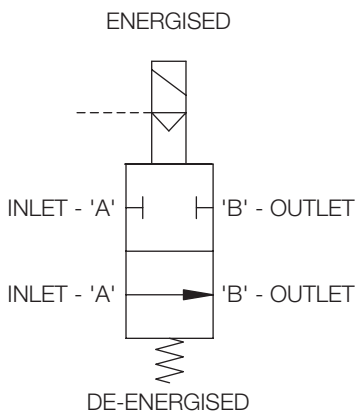
Performance

Pull-in Voltage	87.5% of Nominal
Response Times	Pull-In <150 ms
	Drop-Out <80 ms
Electromagnetic Compatibility (EMC)	EN50081-1 EN50082-1 EN61000-4 parts 2,4,5

Valve Symbol



VALVE SYMBOL FOR ENERGISE TO OPEN (NORMALLY CLOSED)



VALVE SYMBOL FOR ENERGISE TO CLOSE (NORMALLY OPEN)

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Ordering Information

Model	Seat/Seal Materials	Operating Pressure	Port Config.	Operation	Process Conn.	Protection / Coil Housing	Conduit / Sig. Conn.	Voltage/ Signal	Body/Trim Materials	Options
Y2	H	2	1	A	A3	S	A	1	03	00
ICO2S	H High Nitrile V Viton®	0-20 barg (290 psi)	1 ENG. to OPEN 2 ENG. to CLOSE	Automatic	A3 1/2" NPT E3 1/2" BSPP	Ex ia IIC T6	A M20 ISO 1/4" NPT B M20 ISO 1/4" BSPP D 1/2" NPT 1/4" NPT E 1/2" NPT 1/4" BSPP	24V DC / 3-7 barg	316SS / 316SS	None

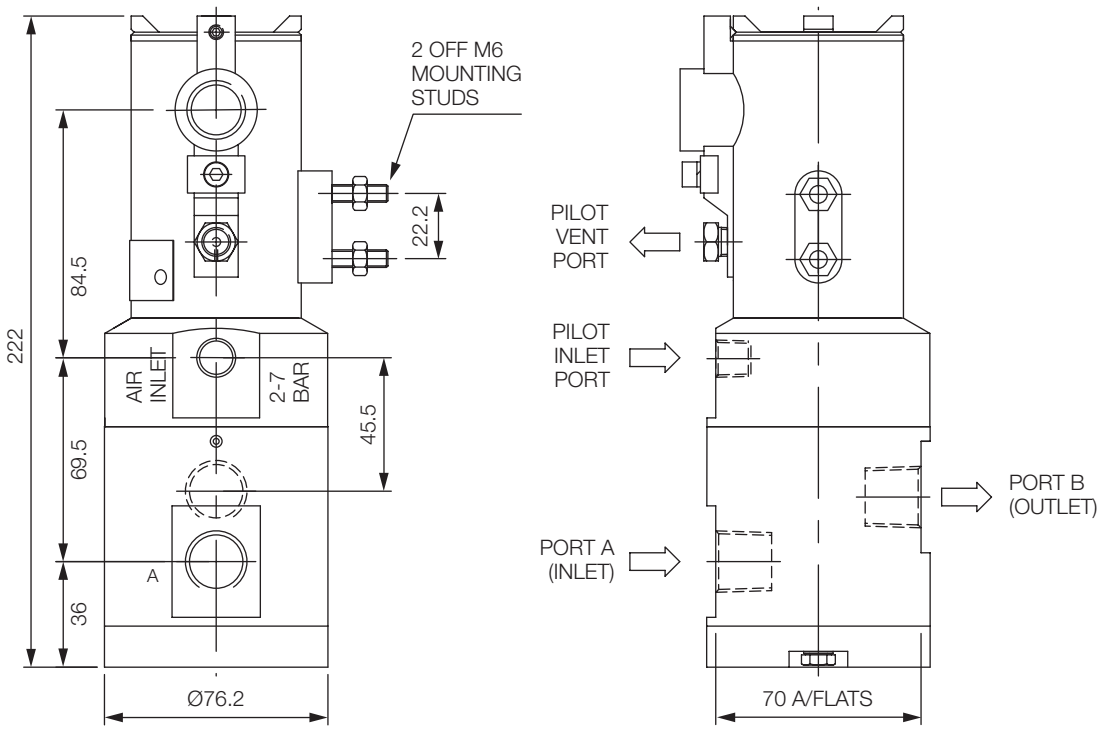
Ordering Example

Y2	V	2	2	A	E3	S	B	1	03	00
ICO2S	V Viton®	0-20 barg (290 psi)	2/2 EC	Auto	1/2" BSPP	Ex ia IIC T6	M20 ISO 1/4" BSPP	24V DC / 3-7 barg	316SS / 316SS	None

Power Consumption (At Nominal)

DC Standard	
24V DC	0.5W

Profile and Dimensions mm



2/2 ENERGISE TO OPEN

1. Valve is Energised & Pilot Pressure Applied
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 & Pilot Pressure Applied
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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