

Maxseal Solenoid Operated Valves



ICO4S
1/4" 3/2
414B
AUTO



- Typical Applications
- 1/4" 3/2 AUTOMATIC
- Actuator Control
- Direct Acting Shut Off Valve
- Oil & Gas Applications
- Turbine Fuel Control

Thompson Valves Ltd

- Description
- Model ICO4S 1/4" 3/2 UNI
- Direct Acting Solenoid Valve
- High Flow
- Max Inlet Pressure 414 bar (6000 psi)
- A direct acting solenoid operated valve for the control of pneumatic or hydraulic operated equipment
- Reliable and long life, ideal for a one time installation

Standard Features

<input type="checkbox"/> Solenoid Materials of Construction	<input type="checkbox"/> Solenoid Pot - Stainless Steel - BFC 316
	<input type="checkbox"/> Top Cover - Stainless Steel - BFC 316
	<input type="checkbox"/> Valve Body & Trim Materials - 316 Stainless Steel
	<input type="checkbox"/> O-Rings & Seals - High Nitrile (NBR)
	<input type="checkbox"/> Seats - Nylon 66
	<input type="checkbox"/> Coil Insulation - Epoxy Resin to Class H
<input type="checkbox"/> Maximum Inlet Pressure	<input type="checkbox"/> 414 bar Hydraulic Only / 300 bar - Gases & Hydraulic
<input type="checkbox"/> Flow Rates	<input type="checkbox"/> $C_v = 0.28$ USgpm for 1 psi Δp
	<input type="checkbox"/> $K_v = 4.03$ l/min for 1 bar Δp
<input type="checkbox"/> Temperature Ratings	<input type="checkbox"/> Media (Min/Max -20°C/90°C) - Ambient (Min/Max -50°C/60°C)
<input type="checkbox"/> Valve Size	<input type="checkbox"/> 1/4" Poppet Valve
<input type="checkbox"/> Process Connections	<input type="checkbox"/> 1/4" NPT
<input type="checkbox"/> Conduit Connection	<input type="checkbox"/> M20 x 1.5 Conduit Thread
<input type="checkbox"/> Media	<input type="checkbox"/> Liquid & Gases
<input type="checkbox"/> Weight	<input type="checkbox"/> 5.5 kg

Recommended Spares Kits


<input type="checkbox"/> Soft Spares (O-rings, Springs, etc.)	<input type="checkbox"/> Standard & Extreme Service	Y193A010000-SS
	<input type="checkbox"/> Low Temperature valves	See Valve Data Sheet
<input type="checkbox"/> Spare Coil Assembly	<input type="checkbox"/> Standard 24V DC (15.1W)	Y193A0101B0
	<input type="checkbox"/> Other Variations	See Valve Data Sheet

Options

<input type="checkbox"/> High Temperature Options	<input type="checkbox"/> High Temperature Spacer (Max Med/Amb -120°C/60°C)
	Please call for dimensions
<input type="checkbox"/> Process Connections	<input type="checkbox"/> Thread 1/4" BSPP
<input type="checkbox"/> Conduit Connection	<input type="checkbox"/> 1/2" NPT
<input type="checkbox"/> Extreme Service	<input type="checkbox"/> Please call
<input type="checkbox"/> Product Lead Time	<input type="checkbox"/> Y193AA1J1BS - 1 week
	<input type="checkbox"/> Other variations - 4 to 6 weeks
	Please call for possible delivery dates

Technical Specification

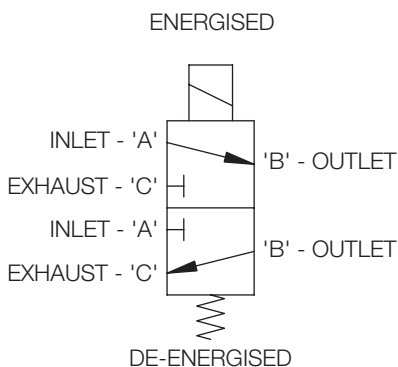
Pressures

Test (Proof) Pressure	<input type="checkbox"/> 621 bar (9000 psi)
Maximum Inlet Pressure	<input type="checkbox"/> 414 bar (6000 psi)
ATEX Classification	<input type="checkbox"/> Complies with ATEX Directive 94/9/EC
ATEX Certificate	<input type="checkbox"/> SIRA 00ATEX1147
Certification 	<input type="checkbox"/> II 2G <input type="checkbox"/> Ex d IIC T6 (T _a = -60°C to + 48°C) or <input type="checkbox"/> Ex d IIC T4 (T _a = -60°C to + 90°C)
IECEX	<input type="checkbox"/> IECEX BAS 04.0019 <input type="checkbox"/> Ex d IIC T6 (T _a = -60°C to + 48°C) or <input type="checkbox"/> Ex d IIC T4 (T _a = -60°C to + 90°C)
GOST 'K'	<input type="checkbox"/> Ex d IIC T6 (T _a = -40°C to + 60°C) or
GOST 'R'	<input type="checkbox"/> Ex d IIB T6 (T _a = -40°C to + 60°C) or
Safety Integrity Level	<input type="checkbox"/> Suitable for SIL 3 Application in Simplex Mode <input type="checkbox"/> Suitable for SIL 4 Application in Duplex Mode
Ingress Protection	<input type="checkbox"/> IP66/X8 to BS EN 6052:1992, NEMA 4X
Voltage Surge Protection	<input type="checkbox"/> Surge Suppression Diodes
Coil Insulation	<input type="checkbox"/> Class H

Performance

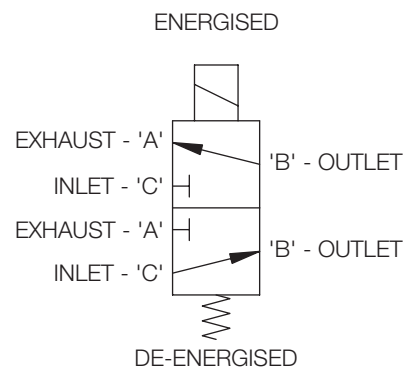
Pull-In Voltage	<input type="checkbox"/> 87.5% of Nominal
Response Times	<input type="checkbox"/> Pull-In <150 ms <input type="checkbox"/> Drop-Out <80 ms
Electromagnetic Compatibility (EMC)	<input type="checkbox"/> EN50081-1 EN50082-1 EN61000-4 parts 2,4,5

Valve Symbol



VALVE SYMBOL FOR
ENERGISE TO OPEN
(DE-ENERGISED
TO CLOSE)
(NORMALLY CLOSED)

414 BAR MAX HYD
300 BAR MAX GAS
STANDARD
OPERATION



VALVE SYMBOL FOR
ENERGISE TO CLOSE
(DE-ENERGISED
TO OPEN)
(NORMALLY OPEN)

300 BAR MAX HYD
150 BAR MAX GAS
UNIVERSAL
OPERATION

Ordering Information

Model	Operating Pressure	Port Config.	Operation	Process Conn.	Seat/Seal Materials	Conduit Connection	Voltage	Body/Trim Materials
Y1	9	3	A	A1	J	1	B	S
ICO4S	0-414 barg (6000 psi)	3/2 UNIVERSAL	Automatic	A1 1/4" NPT	J Nylon / High Nitrile	1 M20 x 1.5	A 18/33V DC B 24V DC C 50V DC D 110V DC D 125V DC	S 316 SS / 316 SS
				E1 1/4" BSPP	K Nylon / Viton®	2 1/2" NPT	G 25V AC J 110V AC M 240V AC	

Ordering Example

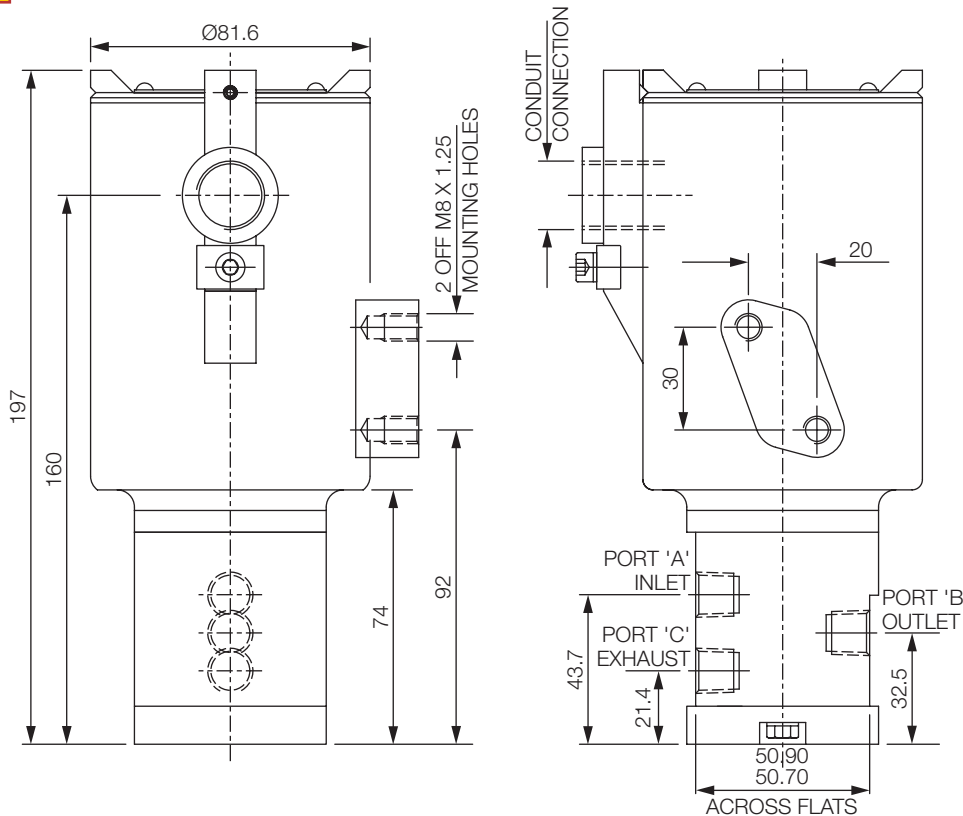
Y1	9	3	A	A1	J	1	B	S
ICO4S	0-414 barg (6000 psi)	3/2 UNI	Auto	1/4" NPT	Nylon / High Nitrile	M20 x 1.5	24V DC	316 SS / 316 SS

Power Consumption (At Nominal)

DC Standard	
18 / 33V DC (24V DC)	CALL
24V DC	13.3W
50V DC	16.6W
110V DC	15.5W
125V DC	15.1W

AC Standard	
25V AC	13.3W
110V AC	14.2W
240V AC	17.9W

Profile and Dimensions mm



- 1. Valve is Energised**
Valve 'changes over'

Flow occurs between ports 'A' & 'B'
- 2. Valve is De-Energised**
Valve resets

Flow occurs between ports 'B' & 'C'

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