

# Maxseal Solenoid Operated Valves



ICO3S  
1/4" 3/2  
PBMO



## Typical Applications

- 1/4" 3/2 PUSH BUTTON MANUAL OVERRIDE
- Actuator Control
- Direct Acting Shut Off Valve
- Oil & Gas Applications
- Turbine Fuel Control

## Thompson Valves Ltd

### Description

- Model ICO3S 1/4" 3/2 UNI
- Direct Acting Solenoid Valve
- High Flow
- Max Inlet Pressure 12 bar (174 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
- ATEX, CSA, GOST K & R and IECEx

**Standard Features**

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 Seats & Seals - Nitrile (NBR)
	<input type="checkbox"/>	Coil Insulation - Class H
Maximum Inlet Pressure	<input type="checkbox"/>	12 bar (174 psi)
Flow Rates	<input type="checkbox"/>	$C_V = 0.6$ USgpm for 1 psi $\Delta p$
	<input type="checkbox"/>	$K_V = 8.64$ l/min for 1 bar $\Delta p$
Temperature Ratings	<input type="checkbox"/>	Media (Min/Max -20°C/90°C) - Ambient (Min/Max -50°C/60°C)
Valve Size	<input type="checkbox"/>	1/4" Poppet Valve
Process Connections	<input type="checkbox"/>	1/4" NPT
Conduit Connection	<input type="checkbox"/>	M20 x 1.5 Conduit Thread
Media	<input type="checkbox"/>	Liquid & Gases
Weight	<input type="checkbox"/>	2.5 kg

**Recommended Spares Kits**


Soft Spares (O-rings, Springs, etc.)	<input type="checkbox"/>	Standard	Y013C01H000-SS
	<input type="checkbox"/>	Low Temperature valves	See Valve Data Sheet
Spare Coil Assembly	<input type="checkbox"/>	Standard 24V DC (3.0W)	Y01300101B0
	<input type="checkbox"/>	Other Variations	See Valve Data Sheet

**Options**

Valve Body & Trim Materials	<input type="checkbox"/>	Please call for details
Low Temperature Options	<input type="checkbox"/>	Please call for details
High Temperature Options	<input type="checkbox"/>	Please call for details
Process Connections	<input type="checkbox"/>	Thread 1/4" BSPP
Conduit Connection	<input type="checkbox"/>	1/2" NPT
Extreme Service	<input type="checkbox"/>	Increased Power Consumption - Please call for details
Product Lead Time	<input type="checkbox"/>	Y013CA1H1BS - 1 week (subject to quantities)
	<input type="checkbox"/>	Other variations: Please call for possible delivery dates

**Technical Specification**

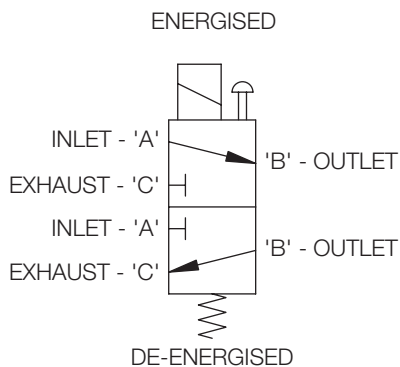
**Pressures**

Test (Proof) Pressure	<input type="checkbox"/> 15 bar (218 psi)
Maximum Inlet Pressure	<input type="checkbox"/> 12 bar (174 psi)
ATEX Classification	<input type="checkbox"/> Complies with ATEX Directive 94/9/EC
ATEX Certificate	<input type="checkbox"/> SIRA 00ATEX1156 and SIRA 05 ATEX 5284
Certification 	<input type="checkbox"/> II 2GD <input type="checkbox"/> Ex d IIC T6 (T <sub>a</sub> = -60°C to + 50°C) or <input type="checkbox"/> Ex d IIC T4 (Max Ambient = + 90°C) <input type="checkbox"/> Ex mbe IIC T4 (T <sub>a</sub> = -60°C to + 80°C)
IECEX Certificate	<input type="checkbox"/> IECEX SIR 05.0029 and IECEX SIR 05.0056
IECEX	<input type="checkbox"/> Ex d IIC T6 (T <sub>a</sub> = -60°C to + 50°C) or <input type="checkbox"/> Ex d IIC T4 (Max Ambient = + 90°C)
GOST 'K'	<input type="checkbox"/> Ex d IIC T6 (T <sub>a</sub> = -60°C to + 50°C)
GOST 'R'	<input type="checkbox"/> Ex d IIC T6 (T <sub>a</sub> = -60°C to + 50°C)
Safety Integrity Level	<input type="checkbox"/> SIL 3 or SIL 4 (SIL 4 in redundant configuration only)
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

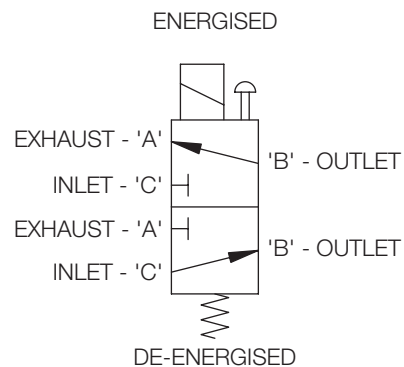
**Performance**

Pull-In Voltage	<input type="checkbox"/> 87.5% of Nominal
Response Times	<input type="checkbox"/> Pull-In <80 ms <input type="checkbox"/> Drop-Out <60 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)



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

**Ordering Information**

Model	Operating Pressure	Port Config.	Operation	Process Conn.	Seat/Seal Materials	Conduit Connection	Voltage	Body/Trim Materials
Y0	1	3	C	A1	H	1	B	S
Y0 ICO3S Ex d	0-12 barg (174 psi)	3/2 UNIVERSAL	PBMO	A1 1/4" NPT	H Nitrile	1 M20 x 1.5	B 24V DC	S 316 SS / 316 SS
YZ ICO3S Ex mbe				E1 1/4" BSPP	V Viton®	2 1/2" NPT	E 125V DC	

**Ordering Example**

Y0	1	3	C	A1	V	2	E	S
ICO3S Ex mbe	0-12 barg (174 psi)	3/2 UNI	PBMO	1/4" NPT	Viton®	1/2" NPT	125V DC	316 SS / 316 SS

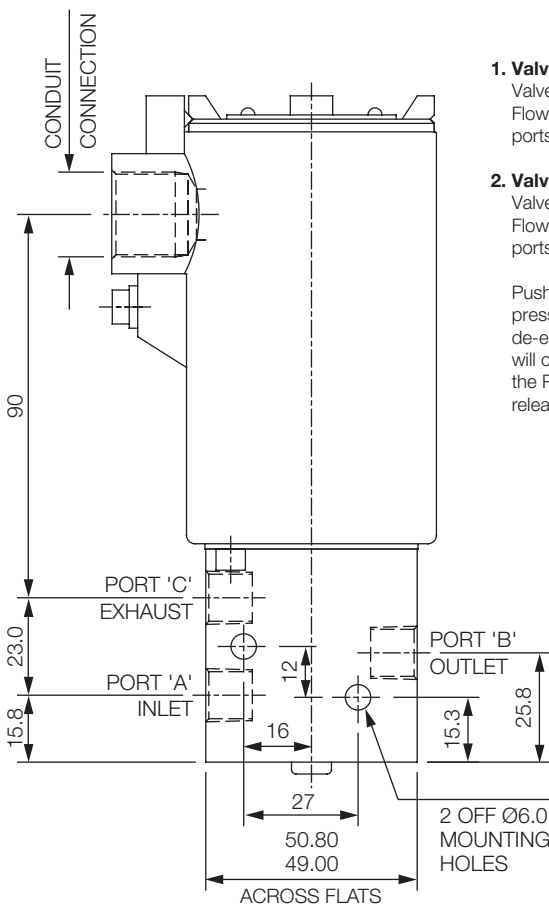
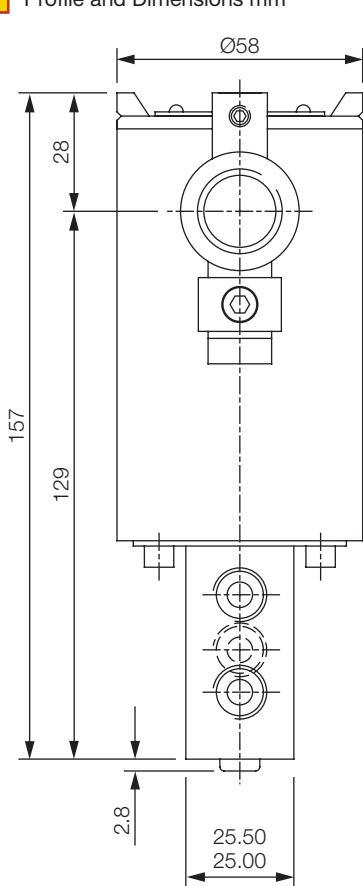
**Power Consumption (At Nominal)**

DC Standard	
24V DC	3.0W
125V DC	3.0W

AC Standard
Please Call for Information

Extreme Service
Please Call for Information

**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 'C' & 'B'

Push-button can be  
pressed when valve is  
de-energised and the valve  
will change over until  
the Push-button is  
released.

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