

Maxseal Solenoid Operated Valves



ICO4S
1/4" 3/2
50B 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
- Low Pressure, High Flow
- Max Inlet Pressure 50 bar (725 psi)
- Reliable and long life, ideal for a one time installation
- Control of pneumatic or hydraulic operated equipment

| | |
|---|---|
| <input type="checkbox"/> Standard Features | <input type="checkbox"/> ICO4S 1/4" 3/2 50B AUTO |
| <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 Seats & Seals - High Nitrile (NBR) <input type="checkbox"/> Coil Insulation - Class H |
| <input type="checkbox"/> Maximum Inlet Pressure | <input type="checkbox"/> 50 Bar (725 PSI) |
| <input type="checkbox"/> Flow Rates | <input type="checkbox"/> $C_v = 0.6$ USgpm for 1 psi Δp <input type="checkbox"/> $K_v = 8.64$ l/min for 1 bar Δp |
| <input type="checkbox"/> Temperature Ratings | <input type="checkbox"/> Media (Min/Max -20°C/90°C) - Ambient (Min/Max 0°C/60°C) |
| <input type="checkbox"/> Valve Size | <input type="checkbox"/> 1/4" Balanced 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 |

| | |
|---|--|
| <input type="checkbox"/> Recommended Spares Kits | |
| <input type="checkbox"/> Soft Spares (O-rings, Springs etc) | <input type="checkbox"/> Standard & Extreme Service Y133A010000-SS <input type="checkbox"/> Low Temperature valves See Valve Data Sheet |
| <input type="checkbox"/> Spare Coil Assembly | <input type="checkbox"/> Standard 24V DC (9.6 Watts) Y133A0101B0 <input type="checkbox"/> Other Variations See Valve Data Sheet |

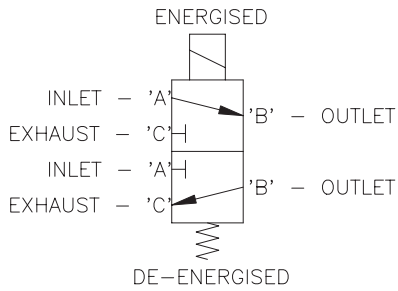
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|--|--|
| <input type="checkbox"/> Options | |
| <input type="checkbox"/> Valve Body & Trim Materials | <input type="checkbox"/> Aluminium Bronze - Sea Water Applications <input type="checkbox"/> Titanium - Extreme Service Applications |
| <input type="checkbox"/> Low Temperature Options | <input type="checkbox"/> O-Rings - Low Nitrile / Fluorosilicone (Min Med/Amb -40°C/-40°C) |
| <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"/> Increased Power Consumption |
| <input type="checkbox"/> Product lead time | <input type="checkbox"/> Y133AA1H1BS - 1 WEEK (SUBJECT TO QUANTITIES) <input type="checkbox"/> Other Variations - Please call for possible delivery dates |

Technical Specification

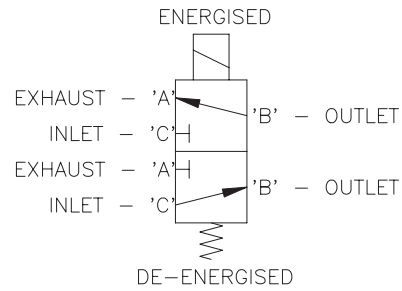
Pressures

| | |
|-----------------------------------|--|
| Test (Proof) Pressure | <input type="checkbox"/> 75 bar (1088 PSI) |
| Maximum Inlet Pressure | <input type="checkbox"/> 50 Bar (725 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"/> EExd IIC T6 (T _a = -60°C to + 48°C) or |
| | <input type="checkbox"/> EExd IIC T4 (T _a = -60°C to + 90°C) |
| IECEX | <input type="checkbox"/> IECEX BAS 04.0019 |
| | <input type="checkbox"/> EExd IIC T6 (T _a = -40°C to + 60°C) or |
| | <input type="checkbox"/> EExd IIC T4 (T _a = -40°C to + 90°C) |
| GOST 'K' | <input type="checkbox"/> EExd IIC T6 (T _a = -40°C to + 60°C) |
| GOST 'R' | <input type="checkbox"/> EExd IIC T6 (T _a = -40°C to + 60°C) |
| 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, 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 <150ms |
| | <input type="checkbox"/> Drop-Out <80ms |
| Electromagnetic Compability (EMC) | <input type="checkbox"/> EN50081-2/82-1 |

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 Connection | Seat/Seal Materials | Conduit Connection | Voltage | Body/Trim Materials |
|-------|------------------------|------------------|-----------|--------------------|---------------------|--------------------|-------------|-----------------------------|
| Y1 | 3 | 3 | A | A1 | H | 1 | B | S |
| ICO4S | 0-50 Barg (725 psi) | 3/2 UNIVERSAL | Automatic | A1 | H | 1 | A 18/33V DC | S 316 SS / 316 SS |
| | | | | 1/4" NPT | High Nitrile | M20x1.5 | B 24V DC | M Alu Brnz / Alu Brnz |
| | | | | E1 | V | 2 | C 50V DC | 3 Titanium / Titanium |
| | | | | 1/4" BSPP | Viton® | 1/2" NPT | G 25V AC | |
| | | | | | | | J 110V AC | |
| | | | | | | | M 240V AC | |
| | | | R 115V DC | | | | | |

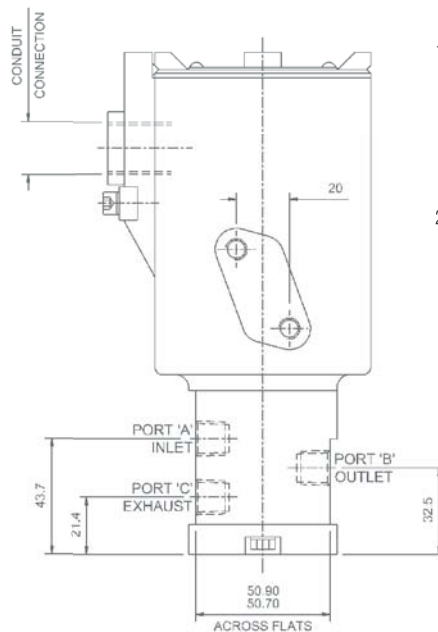
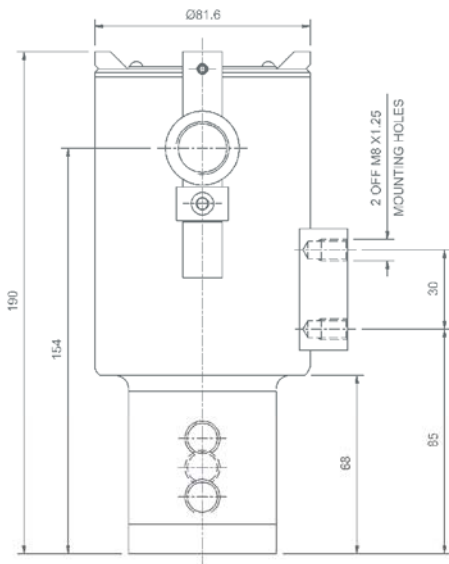
Ordering Example

| | | | | | | | | |
|-------|------------------------|---------|------|-----------|--------------|-----------|--------|--------------------|
| Y1 | 3 | 3 | A | E1 | H | 1 | C | S |
| ICO4S | 0-50 Barg (725 psi) | 3/2 UNI | Auto | 1/4" BSPP | High Nitrile | M20 x 1.5 | 50V DC | 316 SS / 316 SS |

Power Consumption (At Nominal)

| DC Standard | | AC Standard | | Extreme Service | |
|----------------------|--------|-------------|--------|------------------|--------|
| 18 / 33V DC (24V DC) | 7.7 W | 25V AC | 13.3 W | 24V DC | 15.1 W |
| 24V DC | 9.6 W | 110V AC | 9.5 W | Others Available | |
| 50V DC | 10.4 W | 240V AC | 9.3 W | | |
| 115V DC (110V DC) | 8.0 W | | | | |
| 115V DC (125V DC) | 10.4 W | | | | |

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'

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