Maxseal Solenoid Operated Valves

ICO4S
1/4" 3/2
JSMO

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

Model: ICO4S 1/4" 3/2 Uni 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
Thompson Valves Ltd. - Maxseal Solenoid Operated Valves

Standard Features
- ICO4S 1/4" 3/2 JSMO
- 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

Maxseal
- Solenoid Operated Valves

Cv = 0.8 USgpm for 1 psi Δp
Kv = 11.5 l/min for 1 bar Δp

Temperature Ratings
- Media (Min/Max -20°C/90°C) - Ambient (Min/Max 0°C/60°C)
- 1/4" Balanced Poppet Valve
- 1/4" NPT
- M20 x 1.5 Conduit Thread
- Liquid & Gases
- 6.0 Kg

Maximum Inlet Pressure
- 20 Bar (290PSI)

Flow Rates
- Cv = 0.8 USgpm for 1 psi Δp
- Kv = 11.5 l/min for 1 bar Δp

Valve Size
- 1/4" Balanced Poppet Valve
- 1/4" NPT
- M20 x 1.5 Conduit Thread
- Liquid & Gases

Recommended Spares Kits
- Soft Spares (O-rings, Springs etc) - See Valve Data Sheet
- Standard & Extreme Service - Y123A010000-SS
- Low Temperature valves - See Valve Data Sheet

Spare Coil Assembly
- Standard 24V DC (4.5 Watts) - Y123A0101B0
- 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 - 1/4" BSPP
- 1/2" NPT

Conduit Connection
- Increased Power Consumption

Extreme Service
- Increased Power Consumption

Product lead time
- Y123SA1H1BS - 1 WEEK (SUBJECT TO QUANTITIES)
- 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)
- **Maximum Inlet Pressure when used in 'Universal Operation'**: 15 bar (218 PSI)

#### ATEX Classification
- **Complies with ATEX Directive 94/9/EC**

#### ATEX Certificate
- **SIRA 00ATEX1147**

#### Certification
- **II 2G**
- **IECEx BAS 04.0019**
- **EEEx IIC T6 (T_a = -40ºC to + 60ºC) or EExd IIIC T4 (T_a = -40ºC to + 90ºC)**
- **GOST 'K'**
- **EEEx IIC T6 (T_a = -40ºC to + 60ºC)**
- **GOST 'R'**
- **EEEx IIC T6 (T_a = -40ºC to + 60ºC)**

#### Ingress Protection
- **IP66/X6, NEMA 4X**

#### Voltage Surge Protection
- **Surge Suppression Diodes**

#### Coil Insulation
- **Class H**

#### Valve Symbol

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<table>
<thead>
<tr>
<th>INLET</th>
<th>1</th>
<th>2</th>
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<tbody>
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<td>INLET</td>
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DE-ENERGISED

```

**Valve Symbol for Energise to Open (De-energised to Close) (Normally Closed)**
- **20 Bar Max Working Pressure Standard Operation**

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<tr>
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<tr>
<td>INLET</td>
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DE-ENERGISED

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**Valve Symbol for Energise to Close (De-energised to Open) (Normally Open)**
- **15 Bar Max Working Pressure Universal Operation**

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<thead>
<tr>
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DE-ENERGISED

```

**Valve Symbol for Energise to Close (De-energised to Open) (Normally Open)**

**Extreme Service valves can be offered with 20 Bar (290 psi) for use in the Universal Operation**
Ordering Information

<table>
<thead>
<tr>
<th>Model</th>
<th>Operating Pressure</th>
<th>Port Config.</th>
<th>Operation</th>
<th>Process Connection</th>
<th>Seat/Seal Materials</th>
<th>Conduit Connection</th>
<th>Voltage</th>
<th>Body/Trim Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y1</td>
<td>2</td>
<td>3</td>
<td>S</td>
<td>A1</td>
<td>H</td>
<td>1</td>
<td>B</td>
<td>S</td>
</tr>
<tr>
<td>ICO4S</td>
<td>0-20 Barg (290 psi)</td>
<td>3/2</td>
<td>UNIVERSAL</td>
<td>B</td>
<td>S</td>
<td>1</td>
<td>M</td>
<td>316 SS / 316 SS</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>UNIVERSITY</td>
<td>E1</td>
<td>V</td>
<td>2</td>
<td>J</td>
<td>Alu Brnz / Alu Brnz</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1/4&quot; BSPP</td>
<td></td>
<td></td>
<td>R</td>
<td>Titanium / Titanium</td>
</tr>
</tbody>
</table>

Ordering Example

<table>
<thead>
<tr>
<th>Model</th>
<th>Operating Pressure</th>
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<td>H</td>
<td>1</td>
<td>B</td>
<td>M</td>
</tr>
<tr>
<td>ICO4S</td>
<td>0-20 Barg (290 psi)</td>
<td>3/2</td>
<td>JSMO</td>
<td>1/4&quot; BSPP</td>
<td>High Nitrile</td>
<td>M20 x 1.5</td>
<td>24V DC</td>
<td>Alu Brnz / Alu Brnz</td>
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Power Consumption (At Nominal)

<table>
<thead>
<tr>
<th>Voltage</th>
<th>DC Standard</th>
<th>AC Standard</th>
<th>Extreme Service</th>
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</thead>
<tbody>
<tr>
<td>18 / 33V DC</td>
<td>24V DC</td>
<td>24V DC</td>
<td>24V DC</td>
</tr>
<tr>
<td>24V DC</td>
<td>4.5 W</td>
<td>6.5 W</td>
<td>6.2 W</td>
</tr>
<tr>
<td>35V DC</td>
<td>5.5 W</td>
<td>6.5 W</td>
<td>6.2 W</td>
</tr>
<tr>
<td>110V DC</td>
<td>8.0 W</td>
<td>9.6 W</td>
<td>9.6 W</td>
</tr>
<tr>
<td>230V DC</td>
<td>10.4 W</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Profile and Dimensions mm

1. Jack screw in fully out (down) position
   Valve operates as an automatic
   Valve is energised
   Flow occurs between ports ‘A’ & ‘B’
   Valve is de-energised
   Flow occurs between ports ‘B’ & ‘C’

2. Jack screw in fully in (up) position
   Flow occurs between ports ‘A’ & ‘B’
   When the valve is energised or de-energised, the valve will remain until the Jack screw is returned to the fully out position