Maxseal Solenoid Operated Valves

ICO4S 1/4" 3/2 207B AUTO

Model: ICO4S 1/4" 3/2 Uni Direct Acting Solenoid Valve
High Pressure
Max Inlet Pressure 207 bar (3000 psi)
Reliable and long life, ideal for a one time installation
Control of pneumatic or hydraulic operated equipment

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

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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 Seals - High Nitrile (NBR)
  - Seats - Nylon 66
  - Coil Insulation - Class H

- **Media**
  - Media (Min/Max -20°C/90°C) - Ambient (Min/Max 0°C/60°C)

- **Thread**
  - 1/4" BSPP

- **Valve Body & Trim Materials**
  - 316 Stainless Steel

- **Seats**
  - Nylon 66

- **Coil Insulation**
  - Class H

- **Weight**
  - 5.5 Kg

## Solenoid Operated Valves

- **CV** = 0.28 USgpm for 1 psi dp
- **KV** = 4.03 l/min for 1 bar dp

## Temperature Ratings

- **Valve Size**
  - 1/4" Poppet Valve

- **Process Connections**
  - 1/4" NPT

- **Conduit Connection**
  - M20 x 1.5 Conduit Thread

- **Media**
  - Liquid & Gases

## Flow Rates

- **Process Connections**
  - 1/2" NPT

- **Conduit Connection**
  - M20 x 1.5 Conduit Thread

## Maximum Inlet Pressure

- **207 Bar (3000 PSI)**

## Option

- **High Temperature Options**
  - High Temperature Spacer (Max Med/Amb 120°C/60°C)

- **Process Connections**
  - Thread - 1/4" BSPP

- **Conduit Connection**
  - 1/2" NPT

- **Extreme Service**
  - Increased Power Consumption

- **Product lead time**
  - Y163AA1J1BS - 1 WEEK (SUBJECT TO QUANTITIES)

## Recommended Spares Kits

- **Soft Spares (O-rings, Springs etc)**
  - Standard & Extreme Service - Y163A010000-SS
  - Low Temperature valves - See Valve Data Sheet

- **Spare Coil Assembly**
  - Standard 24V DC (9.6 WATTS) - Y163A0101B0
  - Other Variations - See Valve Data Sheet

## Other Variations

- **Other Variations**
  - Please call for possible delivery dates

- **Thread**
  - 1/4" BSPP

- **Conduit Connection**
  - M20 x 1.5 Conduit Thread

- **Increased Power Consumption**
  - Y163AA1J1BS - 1 WEEK (SUBJECT TO QUANTITIES)
Technical Specification

Pressures
- Test (Proof) Pressure: 310 bar (4500 PSI)
- Maximum Inlet Pressure: 207 Bar (3000 PSI)

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

Certification
- II 2G
- EExd IIC T6 (Ta = -60°C to + 48°C) or EExd IIC T4 (Ta = -60°C to + 90°C)

IECEx
- IECEx BAS 04.0019
- EExd IIC T6 (Ta = -40°C to + 60°C) or EExd IIC T4 (Ta = -40°C to + 90°C)

GOST ‘K’
- EExd IIC T6 (Ta = -40°C to + 60°C)

GOST ‘R’
- EExd IIC T6 (Ta = -40°C to + 60°C)

Safety Integrity Level
- Suitable for SIL 3 Application in Simplex Mode
- Suitable for SIL 4 Application in Duplex Mode

Ingress Protection
- IP66/X8, NEMA 4X

Voltage Surge Protection
- Surge Suppression Diodes

Coil Insulation
- Class H

Performance
- Pull-In Voltage: 87.5% of Nominal
- Response Times
  - Pull-In: <150ms
  - Drop-Out: <80ms

Electromagnetic Compability (EMC)
- EN50081-2/82-1

Valve Symbol

ENERGISED

INLET - 'A'
EXHAUST - 'C'
INLET - 'A'
EXHAUST - 'C'

DE-ENERGISED

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

ENERGISED

EXHAUST - 'B'
INLET - 'C'
EXHAUST - 'B'
INLET - 'C'

DE-ENERGISED

VALVE SYMBOL FOR ENERGISE TO CLOSE
(DE-ENERGISED TO OPEN)
(NORMALLY OPEN)
### 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>ICO4S</td>
<td>0-207 Barg (3000 psi)</td>
<td>3/2 UNIVERSAL</td>
<td>Automatic</td>
<td>A1 1/4&quot; NPT</td>
<td>J Nylon / High Nitrile</td>
<td>1 M20x1.5</td>
<td>B 24V DC</td>
<td>S 316 SS / 316 SS</td>
</tr>
</tbody>
</table>

### Ordering Example

<table>
<thead>
<tr>
<th>Y1</th>
<th>6</th>
<th>3</th>
<th>A</th>
<th>A1</th>
<th>J</th>
<th>1</th>
<th>B</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICO4S</td>
<td>0-207 Barg (3000 psi)</td>
<td>3/2 UNI</td>
<td>Auto</td>
<td>1/4&quot; NPT</td>
<td>Nylon / Viton®</td>
<td>M20 x 1.5</td>
<td>24V DC</td>
<td>316 SS / 316 SS</td>
</tr>
</tbody>
</table>

### Power Consumption (At Nominal)

<table>
<thead>
<tr>
<th>DC Standard</th>
<th>AC Standard</th>
<th>Extreme Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 / 36V DC</td>
<td>9.6 W 25V AC</td>
<td>13.3 W 24V DC</td>
</tr>
<tr>
<td>24V DC</td>
<td>9.5 W 12V AC</td>
<td>7.6 W 9V AC</td>
</tr>
<tr>
<td>50V DC</td>
<td>10.6 W 240V AC</td>
<td>9.3 W</td>
</tr>
<tr>
<td>110V DC</td>
<td>11.7 W</td>
<td></td>
</tr>
<tr>
<td>125V DC</td>
<td>10.4 W</td>
<td></td>
</tr>
</tbody>
</table>

### 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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