> 3/2 Smart solenoid poppet valves; 1/4 NPT ... 3/4 NPT, G1/4 ... G3/4
> Partial Stroke Testing integrated into the ICO4 valve
> Dramatically reduces engineering requirements

> Up to 4.5 Cv removes need for additional QEV's and Pilot valves
> Offers SIL 3 performance as 1oo1
> Always gives maximum possible Diagnostic Coverage, thus facilitating maximum possible proof test intervals

### Technical features

**Medium:**
Pneumatic – customer to specify and confirm compatibility

**Operation:**
Direct solenoid operated poppet valves with integral pressure transmitter

**Operating pressure:**
0 ... 10 bar (0 ... 145 psi)

**Flow:**
0,8 Cv (0,7 Kv) ... 4,5 Cv (3,9 Kv)

**Port size:**
1/4 NPT, 1/2 NPT, 3/4 NPT, G1/4, G1/2, G3/4

**Mounting position:**
Solenoid vertical

**Ambient/media temperature:**
1/4 ... 1/2 NPT resp. G1/4 ... 1/2
-40 ... +60°C (-40 ... +140°F)

3/4 NPT resp. G3/4
-40 ... +50°C (-40 ... +122°F)

Air supply must be dry enough to avoid ice formation at temperatures below +2°C (+35°F).

### Materials:
Valve body, trim, coil housing and top cover: stainless steel 1.4404 (316 L)
O-rings seats & seals: NBR/FPM
Other seal materials available on request

### Technical data - standard models

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Port size</th>
<th>Cv</th>
<th>Conduit connection</th>
<th>Seal Material</th>
<th>Weight (kg)</th>
<th>Weight (lbs)</th>
<th>Drawing No.</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y413</td>
<td>1/4 NPT</td>
<td>0,8</td>
<td>1/2 NPT</td>
<td>NBR</td>
<td>6,7</td>
<td>14,7</td>
<td>1</td>
<td>Y413A1H2BS</td>
</tr>
<tr>
<td></td>
<td>G1/4</td>
<td>0,8</td>
<td>M20 x 1,5</td>
<td>NBR</td>
<td>6,7</td>
<td>14,7</td>
<td>1</td>
<td>Y413A1H1BS</td>
</tr>
<tr>
<td></td>
<td>1/2 NPT</td>
<td>2,1</td>
<td>1/2 NPT</td>
<td>NBR</td>
<td>6,9</td>
<td>15,2</td>
<td>2</td>
<td>Y413A2H2BS</td>
</tr>
<tr>
<td></td>
<td>G1/2</td>
<td>2,1</td>
<td>M20 x 1,5</td>
<td>NBR</td>
<td>6,9</td>
<td>15,2</td>
<td>2</td>
<td>Y413A2H1BS</td>
</tr>
<tr>
<td></td>
<td>3/4 NPT</td>
<td>4,5</td>
<td>1/2 NPT</td>
<td>NBR</td>
<td>8,8</td>
<td>19,4</td>
<td>3</td>
<td>Y413A5H2BS</td>
</tr>
<tr>
<td></td>
<td>G3/4</td>
<td>4,5</td>
<td>M20 x 1,5</td>
<td>NBR</td>
<td>8,8</td>
<td>19,4</td>
<td>3</td>
<td>Y413A5H1BS</td>
</tr>
</tbody>
</table>

Other product and body material available for more information contact Maxseal technical service

### Electrical details

**Voltage:** 24 V d.c.

**Rating:**

**Voltage tolerance:** +10%/-8% of Nominal

**Power consumption:**
Charging (~4 Mins): 6,7 W (1/4"); 11,9 W (1/2"), 17,3 W (3/4")
Steady-State: 5,7 W (1/4"); 10,8 W (1/2"), 16,4 W (3/4")

**Insulation class:** Class H

**Conduit connection:** 1/2 NPT or M20 x 1,5

**IP-Protection class:** IP66

EN 60529

#### ATEX details

**Certification:**
Ex d IIC T4/T6

**Ambient temperature:**

**T4:**
1/4 ... 1/2 NPT resp. G1/4 ... 1/2
-40 ... +60°C (-40 ... +140°F)

3/4 NPT resp. G3/4
-40 ... +50°C (-40 ... +122°F)

**T6:**
-40 ... +43°C (-40 ... +110°F)

### Option selector

**Operation/Substitute**
Automatic/A
Push button, Manual reset/P

**Port size/Substitute**
1/4 NPT/A1
G1/4/E1
1/2 NPT/A3
G1/2/E3
3/4 NPT/A5
G3/4/E5

**ATEX model:**
Y413A***H***BS

**Conduit connection/Substitute**
M20 x 1,5 mm/1
1/2 NPT/2
M20x1,5 with Exia HART Interface Junction box/3
1/2 NPT with Exia HART Interface Junction box/4

**Seat/seal material/Substitute**
NBR/H
FPM/V
Wiring diagram

Potentiometer input

Smart

Solenoid

Hart interface

Control voltage

Potentiometer connection (2.5 mm² cable maximum)

0 V

Hart interface connection (2.5 mm² cable maximum)

0 V

Control valve connection (2.5 mm² cable maximum)

0 V

24 V

Dimensions

Dimensions shown in mm
Projection/First angle

Conduit connection M20 x 1.5 or 1/2 NPT
External earth
Pressure sensor port 1/4 NPT
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Warning

These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures can exceed those listed under «Technical features/data». Before using these products with fluids other than those specified, for non-industrial applications, life-support systems or other applications not within published specifications, consult IMI Precision Engineering, Thompson Valves Ltd.

Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes. The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure. System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided. System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products. For further information please see Functional Safety Manual MI0560.