**Sentronic**<sup>HD</sup>

Sentronic<sup>HD</sup> is a highly accurate three-way proportional valve with digital control and a broad range of diagnostic functions. It is supplied with DaS HD software which can be used with a PC for optimal calibration of the valve.

- Control which is stable under pressure
- Comprehensive diagnostic functions
- Industry 4.0 ready
- Minimal power consumption (< 5 Watt)
- Control deviation < 0.25%
- Minimal heating of device
- Integrated web server

**M12 Connection:**
- Power Supply
- Target/Actual Value/Input/Output
- Frequency Input

**Exhaust:**
- G1/4 Connection

**Output:**
- G1/4 Connection

**Adjustment Buttons**

**Digital Display**

**Ethernet TCP/IP:**
- Programming Interface

*Sentronic**<sup>HD</sup> is a highly accurate three-way proportional valve with digital control and a broad range of diagnostic functions. It is supplied with DaS HD software which can be used with a PC for optimal calibration of the valve.*
Sentronic™ HD Electronic Pressure Regulator

Sentronic™ HD is a 3-way proportional valve with digital control. The Data Acquisition Software (DaS) that comes with Sentronic™ HD can be used to adjust the valve’s control parameters to a specific application. Command signal, feedback signal and control parameters can be viewed in real time and adjusted as required for an application. Sentronic™ HD can be configured for dual loop control of process variables such as flow, force, speed, RPM, and temperature.

<table>
<thead>
<tr>
<th>Fluids</th>
<th>Ambient Temperature</th>
<th>Body</th>
<th>Internal Parts</th>
<th>Seals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air or neutral gas, condensate-free, lubricated or unlubricated, Class 5 to ISO 8573-1</td>
<td>0 °C to 50 °C (32 °F to 122 °F)</td>
<td>Aluminum</td>
<td>Stainless steel, brass, aluminum &amp; POM</td>
<td>FPM (fluoroelastomer)</td>
</tr>
</tbody>
</table>

**General Valve Information**

- Maximum allowable pressure (MAP): 174 psi (12 bar)
- Fluid Temperature: 0 °C to 50 °C (32 °F to 122 °F)
- Ports: G 1/4
- Construction: Pilot-operated Valve
- Hysteresis: ± 0.25% of span
- Linearity: ± 0.25% of span
- Repeatability: ± 0.25% of span

**Electrical Characteristics**

<table>
<thead>
<tr>
<th>Nominal Diameter DN (mm)</th>
<th>Voltage *</th>
<th>Max. Power (W)</th>
<th>Max. Current (mA)</th>
<th>Insulation Class</th>
<th>Degree of Protection</th>
<th>Electrical Connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>24 VDC ± 10%</td>
<td>5</td>
<td>240</td>
<td>F</td>
<td>IP65</td>
<td>8-pin M12 connector, A coded (not supplied)</td>
</tr>
</tbody>
</table>

* Max. ripple: 10%

**Specifications**

<table>
<thead>
<tr>
<th>Ø Ports</th>
<th>Ø Orifice DN (mm)</th>
<th>Flow</th>
</tr>
</thead>
<tbody>
<tr>
<td>G 1/4</td>
<td>6</td>
<td>1.30 (1.12) at 6 Bar (l/min - ANR)</td>
</tr>
</tbody>
</table>
How to Order

Thread Connection
G = ISO 228

Product Series
616

Revision
A = Initial Release

Pressure Range
03 = 0 – 3 bar
06 = 0 – 6 bar
10 = 0 – 10 bar

Options
A00 = Standard

Input 2/Display w/ Buttons
0 = Standard NC + Display
2 = Analog IN 2 + Display
4 = Digital IN 2 + Display
6 = Frequency IN + Display*

Output 2
0 = NC
1 = Digital OUT
2 = Analog OUT 2

Setpoint
0 = 0 - 10 V
1 = 0 - 20 mA
2 = 4 - 20 mA
3 = PWM - Frequency*

Size
4 = G1/4 + pressure hold
5 = G1/4 + pressure release

Feedback
0 = 0 – 10 V
1 = 0 – 20 mA
2 = 4 – 20 mA

* If Setpoint PMW-Frequency is selected, frequency input is not available at IN 2

Dimensions: mm (inches)

Weight: 1.6kg (3.53lbs)
Connector Pinning/Cable Wiring

Ethernet IP programming interface

M12 male connector, 8-pin, A coded

View on valve

<table>
<thead>
<tr>
<th>Pin</th>
<th>Description</th>
<th>8-wire cable (5m, 10m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Digital Input</td>
<td>white</td>
</tr>
<tr>
<td>2</td>
<td>24 VDC voltage supply</td>
<td>brown</td>
</tr>
<tr>
<td>3</td>
<td>Setpoint ground SET-</td>
<td>green</td>
</tr>
<tr>
<td>4</td>
<td>Setpoint SET+ (PWM)</td>
<td>yellow</td>
</tr>
<tr>
<td>5</td>
<td>Analog input 2/Digital input 2/Frequency input</td>
<td>gray</td>
</tr>
<tr>
<td>6</td>
<td>Analog output</td>
<td>pink</td>
</tr>
<tr>
<td>7</td>
<td>Ground 24 VDC</td>
<td>blue</td>
</tr>
<tr>
<td>8</td>
<td>Digital output/Analog output 2</td>
<td>red</td>
</tr>
</tbody>
</table>

Body | EMC screen | shield |

Accessories

<table>
<thead>
<tr>
<th>Description</th>
<th>Catalog Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply cable 5m; 8 x 0.50mm²; straight connector</td>
<td>TC0805MQX0000000</td>
</tr>
<tr>
<td>Supply cable 10m; 8 x 0.50mm²; straight connector</td>
<td>TC0810MQX0000000</td>
</tr>
<tr>
<td>Supply cable 10m; 8 x 0.50mm²; right-angle connector</td>
<td>TD0810MQX0200000</td>
</tr>
<tr>
<td>Programming cable 5m; M12 Straight 4 Pin Male D-Coded to Male RJ45</td>
<td>QA0406MKOVA04000</td>
</tr>
</tbody>
</table>