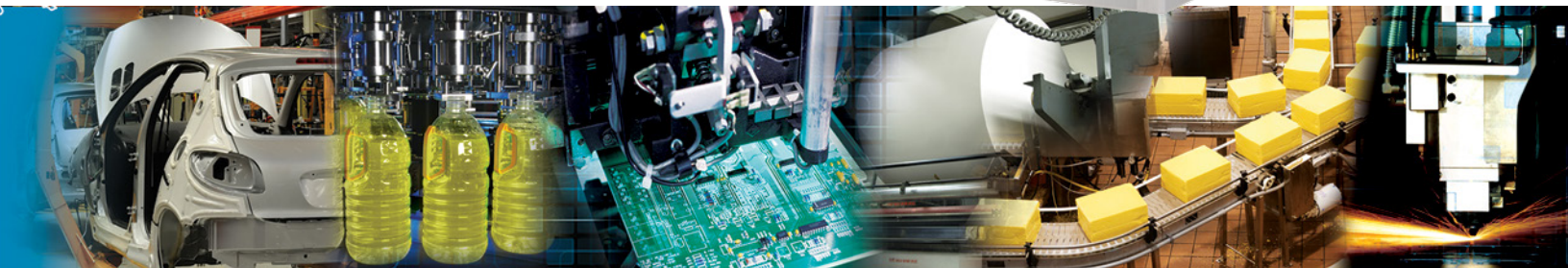




Sentronic<sup>HD</sup> | 616 Series  
Proportional Technology



**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

**Proportional  
Pilot Valve**

**Digital Display**

ASCO numatics  
**0.002**  
SENTRONIC<sup>HD</sup>

**Adjustment Buttons**

MANUAL  
[Down Arrow] [Up Arrow]  
SET

**Exhaust:  
G1/4 Connection**

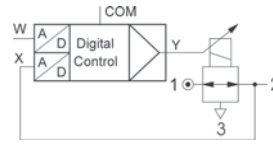
**Ethernet TCP/IP:  
Programming Interface**

**Output:  
G1/4 Connection**



## Sentronic<sup>HD</sup> Electronic Pressure Regulator

Sentronic<sup>HD</sup> is a 3-way proportional valve with digital control. The Data Acquisition Software (DaS) that comes with Sentronic<sup>HD</sup> 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<sup>HD</sup> can be configured for dual loop control of process variables such as flow, force, speed, RPM, and temperature.



Fluids	Ambient Temperature	Body	Internal Parts	Seals
Air or neutral gas, condensate-free, lubricated or unlubricated, Class 5 to ISO 8573-1	0 °C to 50 °C (32 °F to 122 °F)	Aluminum	Stainless steel, brass, aluminum & POM	FPM (fluoroelastomer)

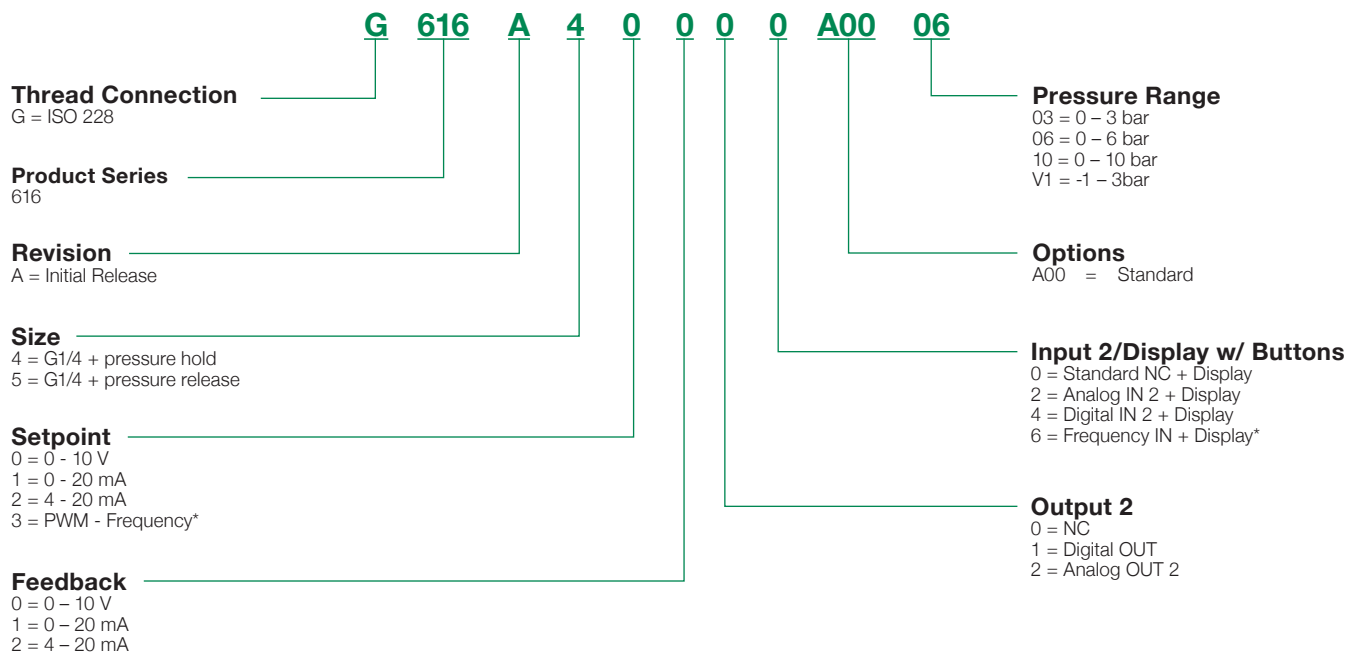
General Valve Information	
Maximum allowable pressure (MAP)	174 psi (12 bar)
Fluid Temperature	0 °C to 50 °C (32 °F to 122 °F)
Ports	G1/4
Construction	Pilot-operated Valve
Hysteresis	± 0.25% of span
Linearity	± 0.25% of span
Repeatability	± 0.25% of span

Electrical Characteristics						
Nominal Diameter DN (mm)	Voltage *	Max. Power (W)	Max. Current (mA)	Insulation Class	Degree of Protection	Electrical Connection
6	24 VDC = ± 10%	5	240	F	IP65	8-pin M12 connector, A coded (not supplied)

\* Max. ripple: 10%

Specifications			
Ø Ports	Ø Orifice DN (mm)	Flow	
		C <sub>v</sub> Flow Factor (K <sub>v</sub> , Nm <sup>3</sup> /h)	at 6 Bar (l/min - ANR)
G 1/4	6	1.30 (1.12)	1200

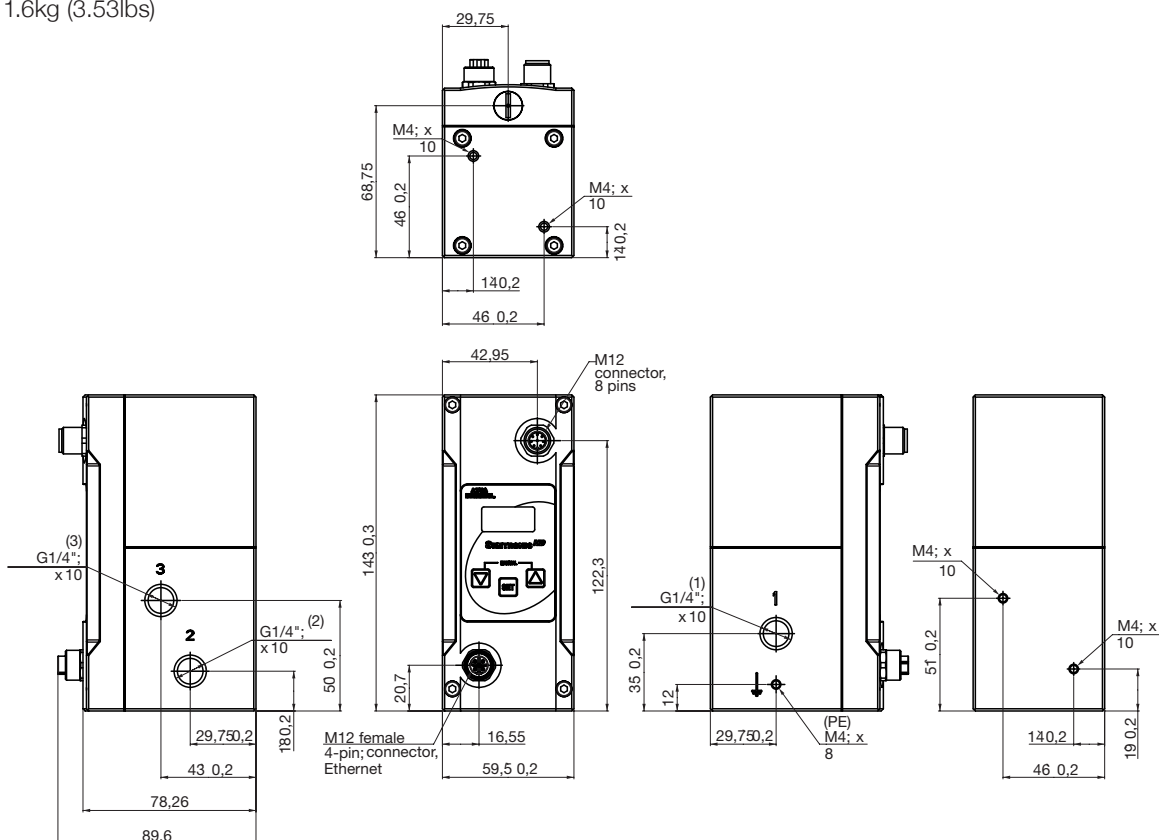
## How to Order



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

## Dimensions: mm (inches)

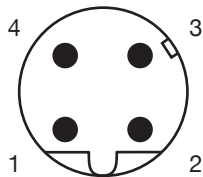
Weight: 1.6kg (3.53lbs)



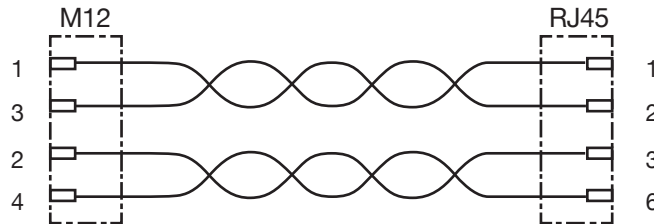
## Connector Pinning/Cable Wiring

### Ethernet IP programming interface

M12 male connector,  
4-pin, D coded

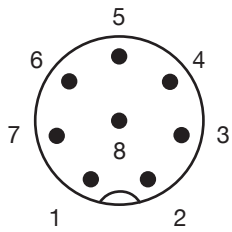


View on male connector (the device is equipped with a female connector)



The use of a shielded cable is recommended.

M12 male connector,  
8-pin, A coded



View on valve

Pin	Description	8-wire cable (5m, 10m)
1	Digital Input	white
2	24 VDC voltage supply	brown
3	Setpoint ground SET-	green
4	Setpoint SET+ (PWM)	yellow
5	Analog input 2/Digital input 2/Frequency input	gray
6	Analog output	pink
7	Ground 24 VDC	blue
8	Digital output/Analog output 2	red
Body	EMC screen	shield

## Accessories

Description	Catalog Number
Supply cable 5m; 8 x 0.50mm <sup>2</sup> ; straight connector	TC0805MQX0000000
Supply cable 10m; 8 x 0.50mm <sup>2</sup> ; straight connector	TC0810MQX0000000
Supply cable 10m; 8 x 0.50mm <sup>2</sup> ; right-angle connector	TD0810MQX0000000
Programming cable 5m; M12 Straight 4 Pin Male D-Coded to Male RJ45	QA0405MK0VA04000