



CORDIS SERIES

High Pressure Proportional
Regulators

Operating Instructions



The Cordis is a closed-loop pressure control valve system designed to maintain a steady and repeatable downstream pressure under static conditions. Cordis comes in a IP65 rated enclosure for manufacturing and industrial environments. The unit is standard with two Clippard EV electronic valves designed for high pressure control.

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5	Electrical Connection - 0 to 10 VDC	clippard.com/link/cordis	

Technical Data

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ELECTRICAL	
Voltage	15 to 24 VDC
Current Draw	< 250 mA max.
Signal/Command	<i>Electrical:</i> 0 to 5 VDC, 0 to 10 VDC or 4 to 20 mA <i>Serial:</i> 3.3 VDC
PERFORMANCE	
Accuracy	± 0.5% of full scale
Resolution	≤ 50 mV
Linearity	≤ 0.2%
Max. Hysteresis	≤ 0.25%
Typical Flow	See Page 4
Response Time	< 20 ms typical (<i>application dependent</i>)
OPERATING CONDITIONS	
Operating Temp.	32 to 180°F (<i>0 to 82°C</i>)
Medium	Clean, dry, non-corrosive gases
Mounting Attitude	Any
Process Connections	1/8" NPT or G1/8

WETTED MATERIALS	
Elastomers	Flourocarbon
Manifold	Anodized aluminum
Valves	Nickel plated brass
Pressure Sensor Wetted Materials	17-4 PH Stainless Steel
IP65 Housing	Polycarbonate
MORE DETAILS	
Website	clippard.com/link/cordis

Operational Description

The Cordis is designed to accept a pressure on the inlet port, reduce it and control to a user-specific set pressure on the work port. The CHP-H model contains a microcontroller, integrated stainless steel pressure sensor, and two Clippard digital valves. This unit includes an IP65 enclosure for industrial environments.

For Cordis to control pressure in your process, a regulated supply pressure should be connected to the inlet port (I). The outlet port (O) should be connected to the downstream process and the exhaust port (E) should be open to atmosphere. As the command signal increases the inlet valve opens to allow pressure downstream. This pressure passes over the internal sensor element which is constantly providing active feedback to the microcontroller. As soon as this feedback matches the user-specified command, the inlet valve closes and holds the commanded pressure downstream. If at any point the sensor measures a higher value (backpressure) than the setpoint or if the user-specified command is lowered, the exhaust valve will modulate open and vent off the excess pressure to maintain stable and accurate pressure control in the process. Likewise, if any consumption occurs downstream, the inlet valve will open to maintain the desired downstream setpoint.