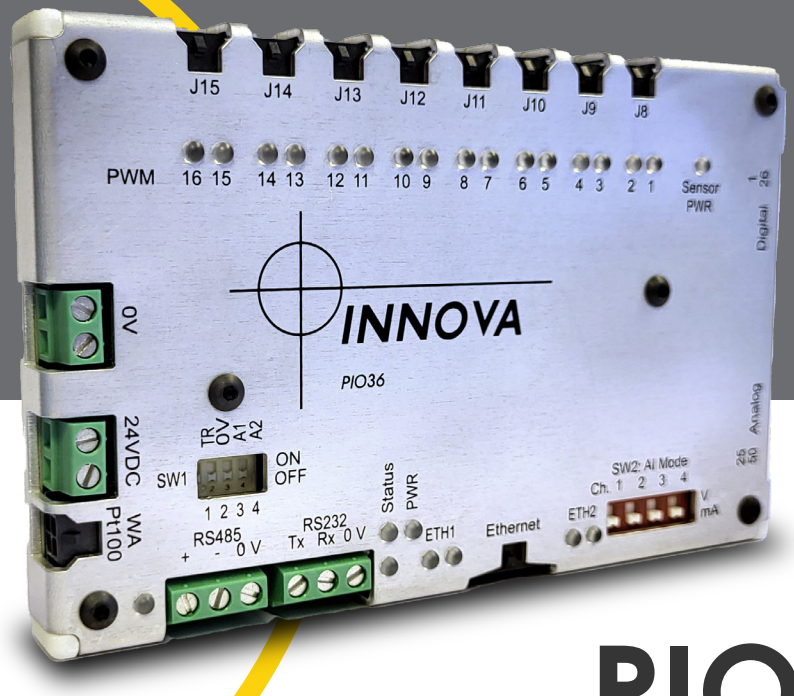

PIO36

Valve Driver & Ethernet Remote I/O

innova.no

Part number:
2210100 PIO Valve Driver
2210106 PIO Valve Driver wo/open load
2210190 Connector KIT

The Innova PIO36 valve driver and remote I/O module is a compact valve controller with capability for up to 16 proportional valve functions, with multiple sensor connections and remote I/O module capability. Designed for pressurized mounting to 4000 msw.

The PIO36 is ideal as the core controller in "intelligent valve packs", and for upgrading existing units with more functions and intelligence. It can be a standalone controller or be integrated into a larger system. With the numerous inputs and outputs it can function as a Remote I/O module, and can be daisy-chained for distributed systems. Communication is provided via Ethernet or serial links with MODBUS RTU or TCP.

PIO36 controls up to 16 individual 24 VDC loads, valves or other functions. The design allows the unit to be installed in a pressurized environment in oil-filled enclosures.

Key features

- Dual Ethernet - MODBUS, RS232 & RS485
- 16 x Analogue inputs 0 to 20 mA, 16-bit resolution, 4 x isolated digital inputs
- 16 x 24 V PWM or on/off outputs, 2 A, 16-bit resolution

Typical applications are operation of solenoid or proportional hydraulic valves, with 16 channels of pulse width modulated output. Sensor inputs are 16-bit for optimal control. Four isolated digital inputs can be used to monitor end switches or for flowmeter pulse counting.

Remote control via Ethernet, RS232 or isolated RS485. Two Ethernet ports with switch for daisy-chaining.

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PHYSICAL IO CONFIGURATION

16 x PWM or on/off outputs, 24 VDC
- Capacity: 2 A (overcurrent protected)
- Resolution: 16-bit
- Open/short circuit detection
- PWM Frequency range: 1 to 500 Hz
- Dither: 0 to 200 Hz, sineform

16 x Analogue inputs
- Signal: 0 to 20 mA
- 4 x channels can be switched -10 to 10 VDC
- 16-bit resolution

4 x Digital inputs, 24 V
- Isolated input
- Bandwidth: 0 to 4 kHz
- Signal decoding
  - Level (High/Low)
  - Frequency
  - Counter (32-bit)
  - Grey-2 Encoder (100 kHz)

1 x general power output for sensors/transmitters
- On/Off control
- 3 A (Overcurrent protected)
- Open/short circuit detection

16 x power outputs for loop powered transmitters (4 to 20 mA), each limited to 25 mA.

1 x Input for water ingress probe

1 x Input for temperature sensor (Pt100)

SOFTWARE FEATURE

- Save default power-up values
- Save default lost COMs values
- Onboard conversion from analogue and digital signals to engineering values, e.g. from mA to Bar, frequency to flow.

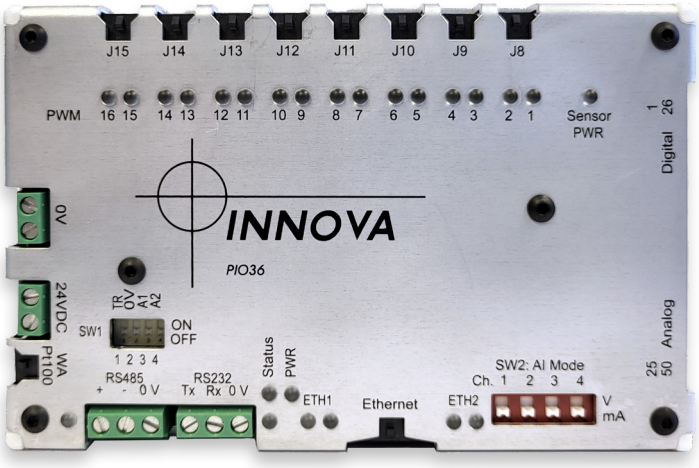
SIZE AND MOUNTING INTERFACE

- Size (L x W x H): 140 mm x 90 mm x 18 mm
- Mounting: 6 x M3 bolts, from the underside
- Housing: Aluminium cover

ENVIRONMENTAL

- Pressure: 400 bar / 4000 m water depth
- Temperature: -20 to 50 °C (Operation)

Qualified to API 17F for Temperature, Vibration & Shock



TERMINALS / CONNECTORS

- Power input: Screw terminals
- RS232: Screw terminals
- RS485: Screw terminals
- Ethernet: Molex 43025-1000 connector
- PWM outputs: Molex 43025-0400 connector
- Analogue/digital inputs: Nicomatic 221V50F26CMM connector
- Water alarm/temp.: Molex 43025-0400 connector

SUPPLY

- Voltage: 24 VDC (10 to 30 VDC)
- Idle current: 60 mA
- PWM load current: 2 A each, 10 A total
- Supply monitoring:
  - Measurement of total load current
  - Input voltage

COMMUNICATION

- 2 x Ethernet with switch (10/100Mbps)
- 1 x RS232
- 1 x RS485 (Isolated)
- Protocol for all interfaces: Modbus (RTU/TCP)

CUSTOM BUILDS AVAILABLE ON REQUEST

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