PIO36

Valve Driver & Ethernet Remote I/O

www.innova.no

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.

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.

PHYSICAL IO CONFIGURATION

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

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

1 x Input for water ingress probe

1 x Input for temperature sensor (Pt100)

16 x PWM or on/off outputs, 24 V
- 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 power outputs for loop powered transmitters (4 to 20 mA), each limited to 25 mA

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

TERMINALS / CONNECTORS

Power input:	Screw terminals
RS232:	Screw terminals
RS485:	Screw terminals

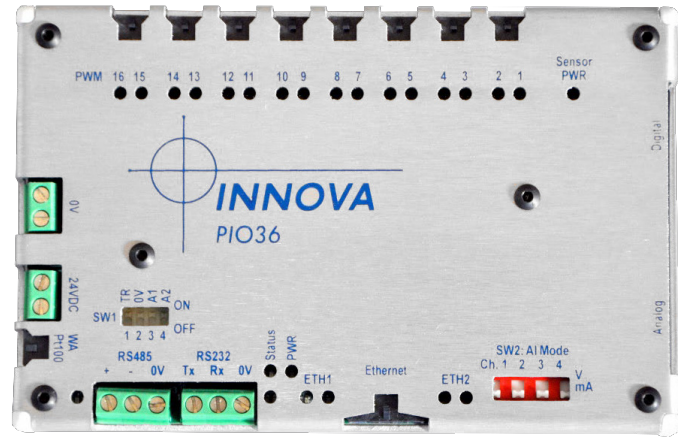|	
Analogue/digital inputs:	Nicomatic 221V50F26CMM connector
Ethernet:	Molex 43025-1000 connector
PWM outputs:	Molex 43025-0400 connector
Water alarm/ temperature:	Molex 43025-0400 connector

SOFTWARE FEATURES

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:	140 x 90 x 18 mm
Mounting:	6 x M3 bolts from the underside
Housing:	Aluminium cover

SUPPLY

Voltage: 24 VDC (10 to 30 V)

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 / 100 Mbps)

1 x RS232

1 x RS485 (Isolated)

Protocol for all interfaces: Modbus (RTU/TCP)

ENVIRONMENTAL

Pressure: 400 bar / 4000 m water depth

Temperature: -20 to 50 °C (Operation)

PART NUMBERS

2210100: PIO Valve Driver

1075808: Connector kit

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Note: We accept no liability for any printing errors or changes in specification.