

MINIFLOW2-MCU™ Flowmeter Driver

The Tempatron MINIFLOW2-MCU™ flowmeter drivers are multifunction turbine flowmeter interface units providing monitoring, scaling, alarm and dispensing control connection to OEM electronic controllers, computers, PLCs or directly to liquid control valves. They combine analogue potentiometer setting simplicity with microprocessor based, digital timing software. Flow ranges between 0 and 1999 pulses per second can be programmed using the MYTIME™ programming feature. The DIN rail mounting model is ideal for one off control panel applications whilst the chassis mounting pcb model is ideal for medium volume OEM applications, measuring only 70mm x 45mm. Both models are 12-24Vdc powered and have a 16 Amp changeover relay output which is isolated from the supply voltage, an optocoupler output and an LED to indicate current flow or alarm status.

Models Available

MINIFLOW2-MCU-D

NPN/PNP Input Flowmeter Driver (DIN Rail)

MINIFLOW2-MCU-D-M

Magnetic Input Flowmeter Driver (DIN Rail)

MINIFLOW2-MCU-P

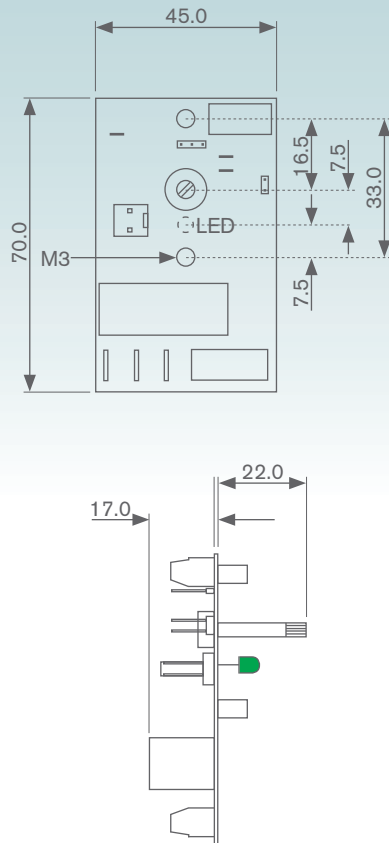
NPN/PNP Input Flowmeter Driver (PCB)

Product Features

- DIN rail mounting
- PCB model ideal for OEM applications
- Flow range 0 to 1999 pulses per sec.
- Scaling/dispensing 0 to 99999 pulses
- 16 Amp changeover relay output
- 12 to 24Vdc powered
- LOCKPOT™ operation feature
- LED to indicate flow or alarm status
- Automatic dispensing control feature
- Dual optocoupler output upon request

For monitoring, scaling, alarm and dispensing control on a turbine flowmeter

Dimensions - PCB version

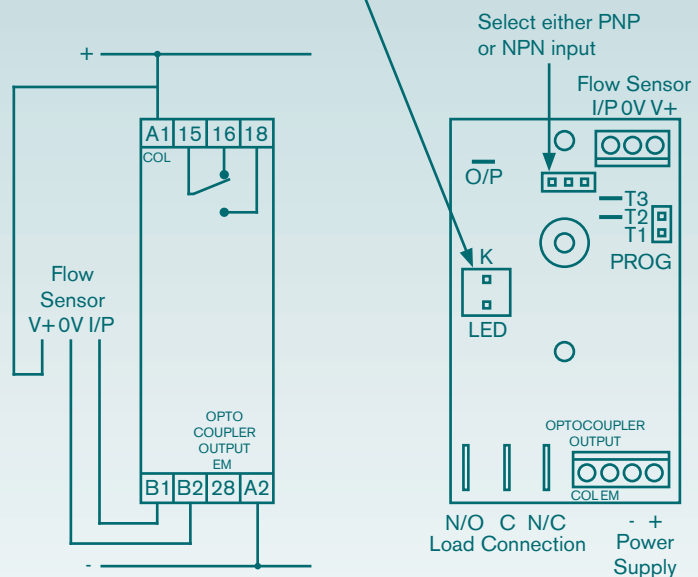


All dimensions in mm

Connections

The unit is set for onboard LED indication.

To select **remote LED** indication, 'spin cut' the copper pad adjacent to the LED to disconnect the onboard LED. Connect the remote LED to the 2-pin **LED** Molex header (ensuring LED cathode is connected to pin **K**).



Links T2 & T3

Link T2 and T3 for status LED to display flow status (factory set)

Link T3 only for status LED to display alarm status

Link T2 only for status LED to display scaling status

Remove both T2 and T3 links for status LED to display SMARTSERVE™ control status

Ordering information

Model	Code	Description
MINIFLOW2-MCU-D		NPN or PNP Sensor Flowmeter Driver DIN Rail Mounting
MINIFLOW2-MCU-D-M		Magnetic Pickup Sensor Flowmeter Driver DIN Rail Mounting
MINIFLOW2-MCU-P		NPN or PNP Sensor Flowmeter Driver PCB

Example MINIFLOW2-MCU-P**Output Options**

Relay as alarm and optocoupler as scaling/dispensing outputs (factory set) or
Optocoupler as alarm and relay as scaling/dispensing outputs

Flow Alarm Modes

Low Alarm Output active when flow less than set flow (factory set)

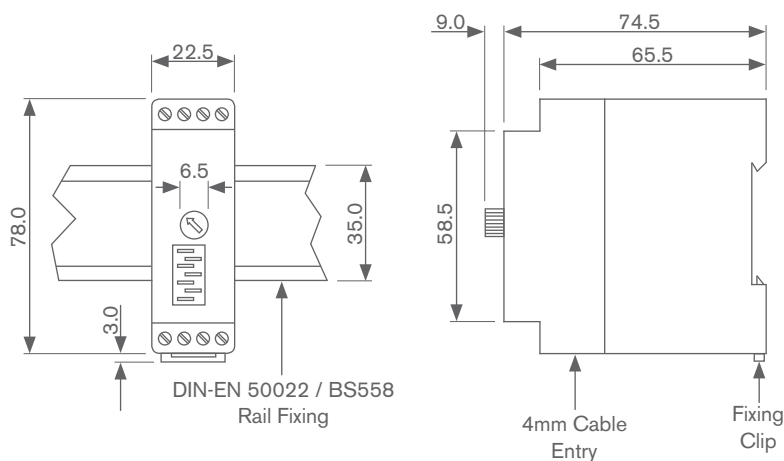
Inband Alarm Output active when flow within set flow band (programmable)

Outband Alarm Output active when flow not within set flow band (programmable)

High Alarm Output active when flow greater than set flow (programmable)

SMARTSERVE™ Automatic Dispensing Control Feature

The inbuilt SMARTSERVE feature controls both the liquid dispense valve and container transport mechanism to provide fully automatic single shot or continuous cycle dispensing.

Dimensions - DIN rail mounting version

All dimensions in mm

Specification**Power Supply Voltage:**

- 12 to 24Vdc

Burden:

- 7.5mA nominal (outputs off)
- 45mA nominal (outputs active)

NPN/PNP Flow Sensor Input:

- NPN or PNP open collector

Magnetic Pickup Input:

- Differential, 2kohm input impedance
- 0-15kHz sinusoidal

Magnetic Pickup Input Sensitivity:

- Frequency compensated
- 25mV peak to peak @ 100Hz
- 40mV peak to peak @ 1000Hz
- 300mV peak to peak @ 10,000Hz

Flow Range:

- 0 - 1999 pulses per sec (programmable)
(factory setting 1000)

Scaling/Dispensing Range:

- 0 - 99999 pulses (programmable)
(factory setting 2000)

Scaling Pulse Output:

- 0.1 to 6 seconds (programmable)
(factory setting 1 second)

Relay Output:

- Single pole changeover relay contact
- 16A at 240Vac/30Vdc (resistive)

Optocoupler Output:

- 50V, 10mA

Status LED Indication:

- Display flow status: (under/overrange, 20, 40, 60, 80, 100%) - link T2 & T3
- Display alarm status - link T3
- Display scaling status - link T2
- Display SMARTSERVE™ control status - no links

Electrical Connections on PCB version:

- Three 6.3mm blades for relay output (N/C, C, N/O)
- 4 way screw terminals for DC supply and optocoupler output
- 3 way screw terminals for flowmeter I/P
- 2-pin molex connector for remote LED
- 2-pin header for programming plug

Mounting:

- Two M3 fixing pillars spaced 33mm

Operating Temperature:

- -20°C to 65°C

Enclosure Code:

- DIN Rail: case IP50, terminals IP10
- PCB: IP00

Weight:

- 35g

Specification subject to change without notice.

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TEMPATRON

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