

Intelligent 4 Input Monitor Model TP4-WT4

Measures weight, force, pressure, level etc.



Unique Features

- Individually adds load cells to provide accurate summation of applied load
- Alternatively may be used to view up to 4 individual load cells by automatically cycling or manual selection

Inputs

- Up to 4 individual load cells (4 wire)
- 3 remote switch contact control inputs for remote tare, zero, batch etc.

Outputs (standard)

- 4 setpoint/alarm relays
- 4-20mA isolated retransmission
- RS232 communications

Options

- RS485 isolated communications. Inbuilt 32K or 128K data logger

Description

Model TP4-WT4 monitor accepts up to four separate load cell inputs. These inputs may be scaled and viewed individually or may be combined to display the sum. The instrument can function as an intelligent summing display/transmitter, a multichannel manual or automatic cycling display.

All calibration and set up is achieved, by the user, via pushbuttons using easy to follow "on display" messages. Programming functions include, digital filter, relay setpoint parameters, calibration and scaling. Inputs may be calibrated to display directly in engineering units e.g. kilograms. The instrument retains all calibration values in non volatile memory.

A programmable digital filter improves stability by smoothing out short term interference.

Four setpoint relays are provided, rated 5A, 240VAC (resistive load). These may be individually configured for setpoint level, hysteresis, high and/or low alarm, relay trip delay, normally open or normally closed operation. Relays 2, 3 & 4 can alternatively be configured for trailing operation.

Isolated 4-20mA retransmission and non-isolated RS232 communications are provided as standard.

External voltage free contact inputs are configurable to perform various functions e.g. tare, zero, peak hold, peak or valley memory batch, setpoint only access or security lock out.

The TP4 may be installed on a convenient flat wall or may be panel mounted using the optional panel mount kit.

Features

- Inputs for up to four separate load cells
- Readout for individual or combination of cells
- Ideal for batching, level control, summing etc.
- Pushbutton calibration and setup
- Four setpoint relays with 5 Amp contacts
- Isolated 4-20mA analog retransmission
- RS232 communications (non-isolated) - choice of ASCII or Modbus RTU protocols (factory configured)
- Optional isolated RS485 retransmission
- Optional inbuilt data logger, 32k or 128k memory
- Displays directly in engineering units
- Microprocessor based
- Digital filter (improves stability)
- Security lockout of keypad programming functions
- Electrical isolation between input signals/output/power supply
- 240VAC, 110VAC or DC operation (factory configured)
- High brightness 20mm LED display
- Display readable from 10 metres away
- Remote switch inputs perform special functions e.g. tare, zero, peak hold, max/min, display hold, batch, setpoint only access or security lockout
- Six digit 20mm LED display
- Programmable decimal point
- Wallmount/Weatherproof construction
- Rugged IP65 enclosure
- Two year guarantee

TP4WT4-2.2-0

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SPECIFICATIONS

Specifications are subject to change without notice

TECHNICAL SPECIFICATIONS

Input Type: Up to four ratiometric 4 arm strain bridge/pressure transducers
Sensitivity: 0.5mV/V to 250mV/V selectable
Excitation Voltage: 5V or 10V link selectable
Accuracy: 0.005% of full scale (alarms & display) when calibrated
 On power up there may be a $\pm 20\mu\text{V}$ zero offset on each channel
Bridge Resistance: 80 Ω to >2000 Ω
 Use 5V excitation if <160 Ω
Sample Rate: Each channel sampled at 5 to 50 samples per second in user selectable ranges
A/D Conversion: Sigma Delta up to 22 bits resolution
Microprocessor: MC68HC11 CMOS
Ambient Temp: -10 to 60 $^{\circ}\text{C}$
Humidity: 5 to 95% non condensing
Display: 6 digit red LED, 20mm digit height
Power Supply: AC 240V or 110V 45/65Hz or isolated DC 12-48V (supply type factory configured)
Power Usage: AC supply 15VA max, DC supply 10VA max

Output (standard): 4 x relay, Form, C rated 5A resistive
 Isolated 4-20mA retransmission
 Non-isolated RS232 communications - choice of ASCII or Modbus RTU protocols (factory configured)
Relay Action: Programmable N.O. or N.C.

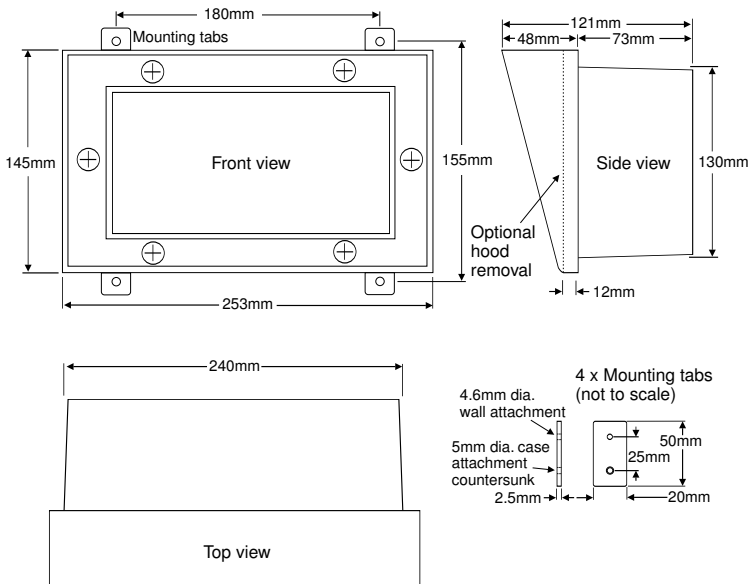
OPTIONAL OUTPUTS

Communications: Isolated RS485 serial
 Data logger 32k or 128k memory (data logger download is via serial port)

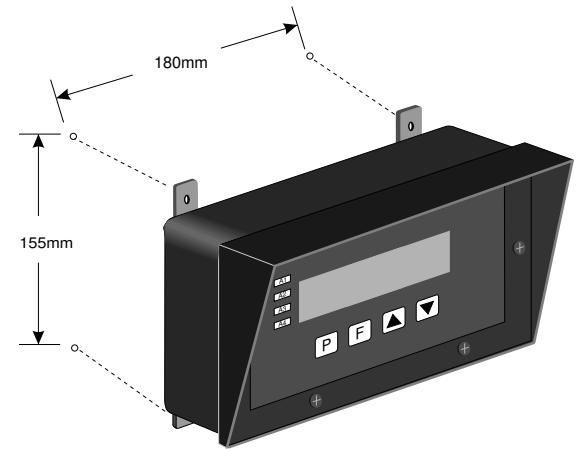
PHYSICAL CHARACTERISTICS

Case Size: 253 x 145 x 121mm (max)
Connections: Plug in screw terminals (max 12g)
Weight: 1.3 kgs
Panel Cut Out: 240 x 130mm (-0.00/+0.5mm).
 If panel mounting is required an optional panel mount kit is available and instrument may be ordered with or without the front hood.
 The hood is not user removable

Case Dimensions

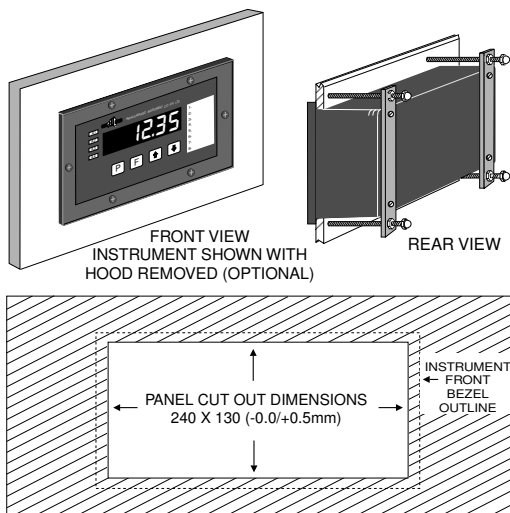


Mechanical Installation



Drill 4 x mounting holes in position shown 180mm(w) x 155mm(h)

Optional Panel Mount Kit



ORDER CODE

TP4 - WT4 - - 6 E -

POWER SUPPLY

TP4 - WT4 - - 6 E -
 240 VAC 2 4 0
 110 VAC 1 1 0
 12-48 VDC, isolated D C

OPTIONS

TP4 - WT4 - - 6 E -
 RS485 Serial Output 4
 Data Logger RS232 Version 32k Memory D L 3 2 K
 Data Logger RS232 Version 128k Memory D L 1 2 8 K
 Data Logger RS485 Version 32k Memory D L 3 2 K 4
 Data Logger RS485 Version 128k Memory D L 1 2 8 K 4

EXTRA OPTIONS

Panel mount kit - order code LD-MTG-PM-KIT
 Hood removal - order code LD-HOOD-REMOVAL