



LARGE DIGIT PROCESS DISPLAYS

580-Series

- 2.3" (58mm) or 4" (101mm) high digit displays
- Universal input - mA, voltage, millivolt, thermocouple, PRT
- Maths functions: User linearisation, Max / Min (Peak / Valley) memory, Square root, S.G. correction, Zero, Tare
- Two-wire transmitter / strain gauge transducer power supplies
- Scaling to engineering units °C, °F or Kelvin for temperature sensors
- USB powered configuration at the remote measurement module
- Wall, ceiling, base mounting on tilt brackets or flush panel mounting
- Legends e.g. °C, m³, kg at no extra cost
- Stainless steel versions available
- Optional extras include: isolated analogue re-transmission output option and alarm relays



Measurement module with alarm relay expansion

A series of high visibility large digit process displays with universal inputs with digit heights of 2.3" (58mm) or 4" (102mm). The sensor input, transducer supplies, optional alarm relays, optional analogue output and display configuration are handled by a remotely mounted measurement module. Connections to the display require only a power supply and a two-wire communication cable connection.



flush panel mounting version



stainless steel version

The remote measurement module allows mounting local to the point of measurement and up to 1.2km from the display. This provides easier installation, configuration and shorter sensor cable lengths. The measurement module is easily configured, using a PC and USB connection.

Indoor versions (IP54) are available in tilt bracket or panel mounting types. The panel mounting version is ideal for incorporating into large control room cubicles.

Stainless steel displays, splash resistant for sheltered outdoor use (up to IP65), are available in a tilt bracket mounting version. The stainless steel enclosure is also suitable for indoor use and is popular with food industries.

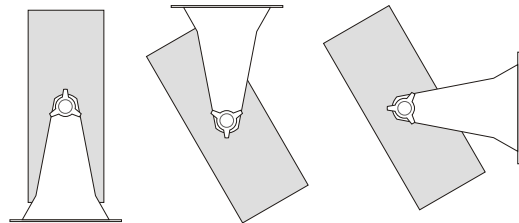
Legends e.g. for depicting measured value symbols, catered for with a wider case, are available at no extra cost.

Optional extras

1. **Analogue output** 0-20mA, 4-20mA or 0-10V with user scaling
2. **Alarm relay outputs** 4 x volt-free changeover contacts

Mounting

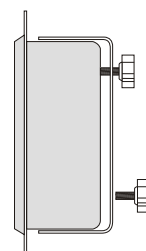
Tilt bracket - rotates 360° in 30° steps



Base

Ceiling

Wall



Panel mount

Display module specification

Display:

Five digits, high intensity Red LED.
2.3" (58mm) or 4" (102mm) high.
Wall, base, ceiling or panel mounting, steel enclosure.
IP54 Protection (IP65 stainless steel options).

Input

RS485 2 wire serial from remote measurement module

Power supply

Universal AC supply 100VAC to 260 VAC, 50/60Hz
6W (2.3") - 9W (4")
Low voltage: 24VDC

Environmental

Temperature range:
operating 0 to +50 deg C
storage 0 to +60 deg C
Humidity: 5-95% RH non-condensing

Mechanical

Connections:

Signal: flying lead, 2-core screened (2.5m)
Power: flying lead 3-core (2.5m)
Both leads exit enclosure via waterproof cable glands

Enclosures:

Indoor types: powder coated aluminium to IP54
Outdoor: stainless steel, splash resistant to IP65
Dimensions (mm): *NB figures in brackets are the width dimensions if a legend is required.*

Tilt bracket mounting (*wall, base & ceiling*):
(2.3"/58mm indoor) H100 x W294 [347] x D61
(4"/102mm indoor) H155 x W492 [584] x D61
(2.3"/58mm outdoor) H130 x W319 [372] x D80
(4"/102mm outdoor) H182 x W520 [610] x D80

Panel mounting:
(2.3"/58mm bezel dims) H110 x W304 [357] x D61
(panel cut-out -0,+1) H103 x W297[360]
(4"/102mm (bezel dims) H165 x W502 [594] x D61
(panel cut-out -0,+1) H158 x W495 [587]

Safety & EMC

Safety: EN61010-1
Immunity: EN61326-1: 2006
Emissions: EN61326-1: 2006
CE certified

Measurement module specification

User configuration

Via mini B USB. USB powers the measurement module - connection to power supply unnecessary.

Maths functions

18 point user linearisation, Max / Min (Peak / Valley) memory, Square root, S.G. correction, Zero, Tare

A/D Converter

Type: Sigma Delta, Resolution: 20 Bit plus sign.
Drift with temperature: <100ppm/°C.
Update rate: 7.5/sec.
Common/series mode rejection: >150dB/<70dB (50 & 60Hz).

Thermocouple/RTD Measurement

Linearised Thermocouple Ranges: Type J, K, T, N, B, S, R, E, U, L, M(Ni/NiMo), G(W), D(W3) & C(W5)
Linearised 3-Wire RTD Ranges: Pt100 (a=385), Pt100 (a=392), Pt130 & Ni100
Typical accuracy: Base Metal ±0.5°C, Rare Metal ±1.2 °C, RTD 0.3°C. Engineering units: °C, °F or Kelvin
RTD Excitation current 0.25mA (Nom) Thermocouple ageing feature and open circuit alarms

DC Voltage, Current & Resistance Inputs

Ranges (Impedance): ±100mV(1000M), ±10VDC(1M) and ±20mA(<5) Accuracy: 0.02% Accuracy: 0.02% typical, user scaling to any engineering units.
18 Point user linearisation, square root, S.G. correction.

Sensor excitation supply

24VDC (nom) two wire transmitter supply (35mA).
10VDC regulated bridge supply (35mA).

Environmental

Temperature: 0–50°C operating, -10 to +70°C storage.
Humidity: 10–95% RH non-condensing..

Mechanical

DIN rail mounting: H99.5 x W22.5 x D116, un-plugable screw terminals

Safety & EMC

Safety: EN61010-1
Immunity: EN61326-1: 2006
Emissions: EN61326-1: 2006
CE Certified

Optional outputs

Analogue output: 0–20, 4–20mA or 0–10V, (scalable including 20-4mA)
Maximum load (mA): 1000 Ohms, isolation to 500VDC / peak AC. Resolution: 15 bit (1 part in 32768)
Alarm relay outputs: 4× volt-free change over contacts. (TTL options) Rating: 1A @ 250VAC, 5A @ 30VDC.
Alarm functions: high, low, deviation (band), on delay time, off delay time, hysteresis, output selection (one alarm can switch more than one output).
Outputs energised or de-energised in the alarm state.

Ordering Code



Type number Enclosure Power Alarm relays Analogue output

Digit height (H): 2 = 2.3" (58mm), 4 = 4" (102mm)
Enclosure: I = Indoor (aluminium), P = panel mount (aluminium), S = Stainless steel (IP65)
Power: 1 = 100-260VAC, 2 = 24VDC
Alarm relays: N = not fitted, R = fitted
Analogue output: N = Not fitted, A = fitted
Vinyl legend: / + "required symbol"

Example: 582 - P - 1 - R - A /°C
2.3" digits, Panel mounting, 100-260VAC, 4 alarm relays, analogue output, legend = °C



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