8080
1/8 DIN Dual Colour Indicator

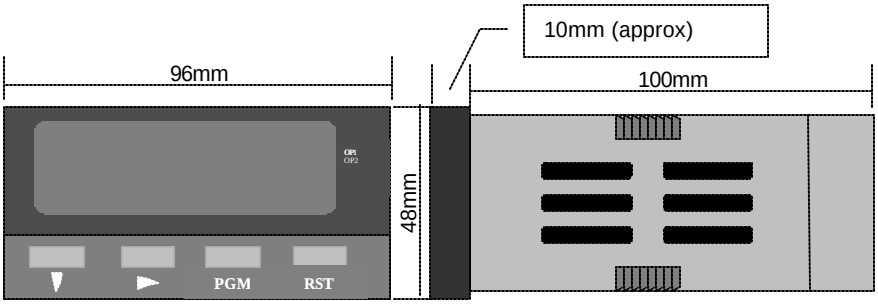
The 8080 offers high accuracy temperature or process inputs. The custom-designed display is larger than other instruments of this size, and can be set to change colour to indicate alarm status.

- **Large Five Digit Display**
- **Colour Change On Alarm**
- **Min/Max Value Hold**
- **2 Process Alarms**
- **Security Lock**
- **Process Transmitter PSU**
- **PV retransmit option**
- **RS485 comms option**

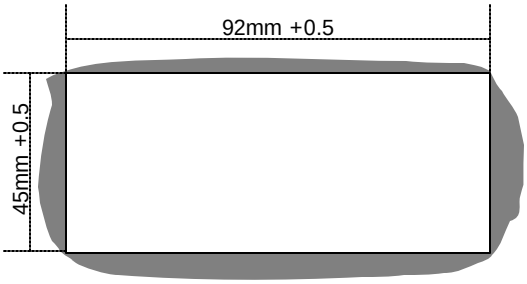
Technical Data

Features	
Output Configuration	Up to 3 total., max 2 for Alarms, max 1 for retransmission of PV
Alarm Types	Process high, process low, direct acting, process high, process low reverse and logical OR
Viewable Values	Process variable, alarm values, maximum value, minimum value and elapsed time since reset
Human Interface	4 button operation, 5 digit 18mm high colour change display, plus set-up and alarm indicators
Temperature Version	
Input	J, K, R, S, T, B, & N Thermocouple, 3 or 4 Wire PT100, 50Ω per lead maximum (balanced)
Impedance	>100MΩ for Thermocouple
Accuracy	+/- 0.1% of input span +/- 1 LSD (T/C CJC better than 0.5°C)
Sampling	4 per second, 14 bit resolution
Sensor Break Detection	<2 secs, all alarms activate
DC Process Version	
Input	0-20/4-20/10-50mA, 0-5/1-5/0-10/2-10V, +/-100mV, +/-1V, +/-10V
Scaling	-19999 to99999, dec point as required. Up to 10 scaling points for non-linear applications
Impedance	>100KΩ for mV range, >950KΩ for V ranges, 10Ω for 20mA ranges and 1Ω for 50mA range
Accuracy	+/- 0.01% of input span typical (+/- 0.05% max) +/- 1 LSD
Sampling	10 per second, 14 bit resolution
Sensor Break Detection	<2 secs (except zero based ranges), all alarms activate
Totalising of PV by Interval	Seconds, minutes or hours
Transmitter Power Supply	20-28V DC (24V nominal), max load 910Ω (22mA at 20V). Fitted as standard
Outputs & Options	
Alarm 1	Open collector NPN transistor (30VDC 100 mA max) and relay (Contacts SPDT 3Amp resistive at 240VAC/5Amp at 110V), latching or non-latching. Fitted as standard.
Alarm 2	Open collector NPN transistor (30VDC 100mA max) fitted as standard. Optional relay (Contacts SPDT 3Amp resistive at 240VAC/5Amp at 110V), non-latching
Retransmit Output	0-20/4-20mA into 500Ω max, 0-10/0-5V into 500Ω min. Accuracy typically +/- 0.25% 250mS update
Digital Input	External security lock (also Tare function on Process Version). Volt free or TTL compatible
Communications	2 wire RS485, 1200 to 9600 baud. ASCII protocol
Operating & Environmental	
Temperature & RH	0 to 55°C (-20 to 80°C storage), 20% to 95%RH non-condensing
Power Supply	100 to 240V 50/60Hz (optional 20 to 50V AC/DC), approx 4 Watts
Front Panel Protection	IEC IP66 (Behind panel protection is IP20)
Approvals and Certification	CE, UL & UlC

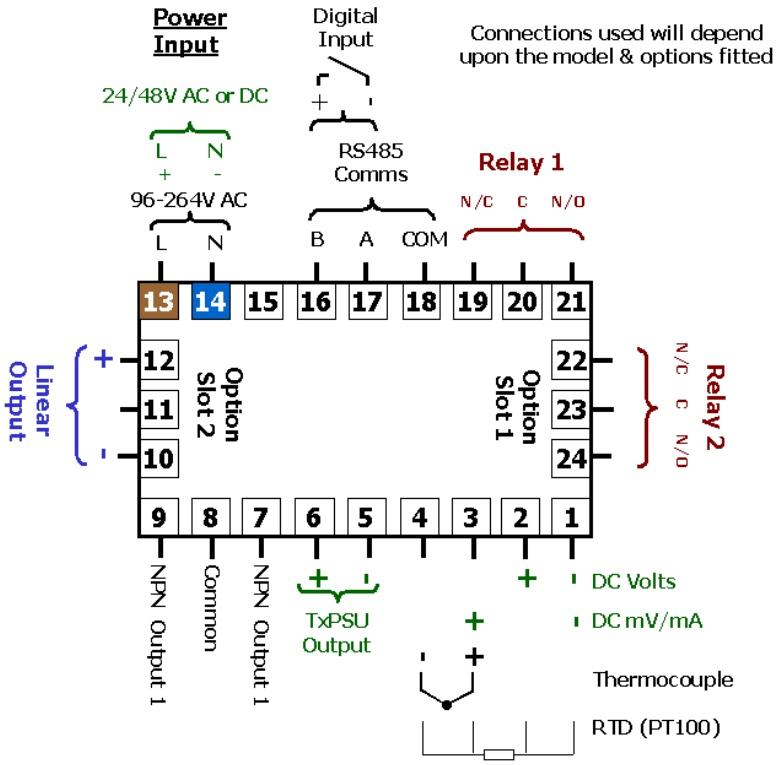
Dimensions



Panel Cut-out



Connection Details



Field Reconfiguration

Input
Temperature Version – Configurable for probe type and range
Process Version – Configurable for signal type and range

Relay 1
Type is fixed as Alarm 1

Option Slot 1
Configurable as Alarm 2 via plug-in relay module

Option Slot 2
Configurable as Analogue DC Re-Transmit of PV using plug-in module

Option Slot 3
Temperature Version – Configurable for RS485 comms or Security Lock, via plug-in modules
Process Version – Configurable for RS485 comms or Tare/Security Lock, via plug-in modules

Order Code

N8080 - x - x - x - x - x

Input type

Temperature (Thermocouple/RTD)	1
DC Process (mV/VmA)	2

Output Slot 1

No option fitted	0
Alarm 2 – Relay Output	1

Output Slot 2

No option fitted	0
Analogue DC Re-Transmit PV	3

Options and Power Supply

0	100-240V AC line supply
2	20-50V AC or DC line supply

Output Slot 3

0	No option fitted
5	RS485 Comms
6	Digital Input

In accordance with our policy of continuous improvement, we reserve the right to change specifications from those shown in this document.