The 510 Process Display is a 3½ digit LED panel meter which provides a scaleable display of an analogue signal in engineering units. Field-configurable options include input signal type, span and zero (offset), zero offset polarity, decimal point selection and reading polarity.

**Input source**
The input source selection is made via jumper links which select one of six input types (two voltage types and four mA types). A second link selects true or raised zero.

**Input scaling**
Scaling to user specified engineering units is catered for by a series of internal jumper links. ‘Display Bias’ links set the desired display in engineering units when the input signal is at it’s zero value. The zero reading may be set to either all zeros or a raised (+) or below zero (-) quantity. The ‘Span Selector’ jumper link sets the full scale display reading. Multi-turn controls provide fine trimming of span and zero readings. Reverse reading is also possible.

**Decimal points**
Decimal point positions are selectable via an internal switch.

**Reversed reading**
The wide range of available display bias, together with reading polarity and offset polarity settings, enable reversed reading action to be configured. e.g. with 4mA input the display can be set to read ‘1000’ and with 20mA input, to ‘read 0’.

**Display test / Display hold**
One of two functions may be activated via a remote switch or 5V signal. The required function is selected by the ‘T/H’ jumper link and made available at the connector on the rear panel.

**Splash resistant front panel**
A flexible transparent rubber hood offering front of panel protection up to IP65 is available as an option.

**Legends**
Custom made legends, e.g. depicting engineering units or process description, can be supplied at no extra cost or can be made and fitted by user.
SPECIFICATION

INPUTS
User selectable, 4-20mA, 0-10mA, 0-15mA, 0-20mA, 0-1V, 0-5V
Impedance: Current 100 ohms; Voltage >=270 ohms
Overrange protection: Voltage Inputs 250 volts RMS or DC. Current Inputs 100mA dc

DISPLAY
Type: 3½ digit red LED, 14.2 mm high
Accuracy: 0.1% of FSD ± 1 digit (if factory set)
Linearity: ± 1 digit (from best fit straight line)
Sample rate: Approx 3 per second
Decimal point selection: none, 0.0, 0.00, 0.000
Custom engineering units:
Zero ±1999
Span ±0-150 to ±0 to 1999
Polarity: Automatic with negative sign displayed

TEMPERATURE COEFFICIENTS
±100ppm /°C typical

TEMPERATURE RANGE
Operating: -10°C to +55°C
Storage: -30°C to +60°C

SUPPLY VOLTAGE REJECTION
Span change: <0.1% span / % supply change

SERIES MODE REJECTION
<0.2% error for 50Hz signal equal to 50% span

POWER SUPPLY
AC 110/220/240 Vac, ±10% 50/60Hz 5VA (standard)
DC 12V or 24V ± 10% 3.5W (option)

WEIGHT
Approx. 420 grams

DIMENSIONS
164mm deep (including connector) x 96mm wide x 48mm high

SAFETY & EMC
Safety: EN61010-1
Immunity: EN50082-1
Emissions: EN50081-1
CE certified

ELECTRICAL CONNECTIONS

WARNING: these details are provided for pre-sales information only. Installation must be carried out in accordance with the User Guide.

Supply
1 — Line
2 — Neutral
3 — Earth

Positive (+) DC
Negative (-) Supply Earth

Option

Signal
4 — +5 V
5 — Test or Hold
6 — Current input (+)
7 — Voltage input (+)
8 — Input signal (0v)

INFORMATION REQUIRED WHEN ORDERING

Pre-configured Units
Order Code: 510 /9
Followed by:
Input signal
Display at full scale
Display at zero input signal
Supply voltage and frequency
Front panel legend

Splash resistant front panel option
Order Code: 500-COV

THIS UNIT CAN BE MAINS POWERED, AND ALL INPUTS TO IT MUST BE ISOLATED FROM DANGEROUS VOLTAGES BEFORE MAKING CONNECTIONS TO THE UNIT OR REMOVING IT FROM ITS CASE. LIVE TERMINALS WILL BE EXPOSED.

Continuous development may necessitate changes in these details without notice

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