



CONDUCTIVITY TRANSMITTER (v4) BCDT228

DESCRIPTION

The BCDT228 is a loop powered conductivity transmitter that combines signal isolation and conversion in one compact package designed to accommodate a wide range of conductivity measurement applications using suitable probes. Temperature compensation is also available as an option using probes with a built-in NTC thermistor or any other suitable compensation element. Excitation to the probe is via a low level AC voltage with short circuit protection to maximise the life of the probe. Final calibration is trimmed using the front accessible zero and span 15-turn trim adjustments. The BCDT228 is ideal for field enclosures or in larger control cabinets. Reverse or direct action mode is changed by solder pads on the base board. Standard output is 4-20mA. Other factory set output configurations are 10-50mA loop powered and a range of negative reference 3-wire connections. Double surge protection is standard with all Series 200 loop powered transmitters to prevent failure due to spikes induced by DC switched inductive loads. A front mounted L.E.D. and a test socket verify module function and assist in calibration checks without disconnection of output wires.



GENERAL SPECIFICATIONS

Size: 23.5W x 71.5H x 109D (mm).
 Mounting: Clip for 35mm DIN-Rail.
 Housing material: ABS
 Connection: Screw terminals.
 Weight: 120 g.
 Protection class: IP40.
 Accuracy error: <0.2%.
 Linearity error: <0.1%.
 Long term drift: <0.1%.
 Ambient operating temperature range: -10...+60°C.
 Temperature drift error: 0.01% per °C.
 Supply voltage: 8 - 40V continuous (50V 30 seconds).

Load for 4 - 20mA output:
 RL max
 = $\frac{\text{supply voltage} - 8V}{0.02 A} [\Omega]$

Load change effect: 0.1% up to RL max.
 Response time: Programmable - see table 2 overleaf.
 Input/output isolation: >2kV r.m.s.
 Input range: 1µS/cm up to 1000mS/cm.
 (100µS/cm to 20mS/cm with K=1 probe, the range can be extended with K factor other than 1).
 Probe excitation: 200Hz bipolar square wave.
 Electromagnetic compatibility: Complies with EN 50081-1, EN 50082-2

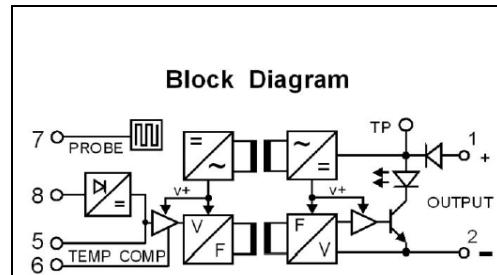


Suitable conductivity probes with temperature compensation.

BASI: PR128-1, k=1.35, temperature compensation = 10k NTC.
 BASI: P-K1TBTH

Any other probes can be used provided the thermistor characteristic is available. If temperature compensation is not required use standard probes.

For input/output combinations refer to TYPE NO. DESIGNATION overleaf.



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