

# DIN Rail Universal Smart Transmitter

TXDIN101



**High Accuracy**  
**Integral LED display**  
**Universal Input: T/C, RTD,  $\Omega$  and mV**  
**Galvanic Isolation**  
**Configuration via PC Software**

The TXDIN101 is a computerized, PC programmable, galvanically isolated two-wire smart transmitter. The unit converts 13 types of thermocouple sensors; 12 types of RTD sensors, configured as 2-, 3- and 4-wires; potentiometer, resistor and millivolt inputs, single or differential—into process current loop. Integral 3% digits LED display forms a transmitter—monitor unit which is visible in dark installations. 24-bit A/D converter and two microprocessors are the heart of the outstanding performance. The light intensity varies as a function of the current loop, which serves as the light energy source. The transmitter can be set and wired to perform differential measurement conversions of temperature sensors as well as mV sources. The output current is temperature linearized and can be set to be 4 to 20/20 to 4 mA—or any range within these limits. The current is limited to 3.9 and 22 mA. The TXDIN101 samples and updates the output current in a rate of 2 to 4 samples per second depends on the sensor type. The transmitter is fully configurable in dry-configuration mode by which the connection to PC is performed with no external power source. The configuration parameters are stored in a non-volatile memory. Exceptional digital accuracy of typically  $\pm 0.1^\circ\text{C}$  is provided for most sensors regardless of the calibrated span. Internal Pt-100 temperature sensor provides precise cold junction

TXDIN101 shown actual size.



compensation throughout the entire ambient range. Detection of sensor breakage or disconnection of input leads, forces the output to a pre-defined up/down scale value. The unit continuously monitors the sensor and automatically returns to normal operation mode when the sensor is recovered. The TXDIN101 is housed in a plastic enclosure mounted on a standard DIN rail. Special red filter is provided for optimal view.

## Specifications

For input, thermocouple, millivolts, resistance temperature detector (RTD), output, supply and environmental influence please use the tables of model TX69 (see omega.com)

## Housing

**Material:** Plastic polycarbonate  
**Screw Connection:** 6 terminals  
**Mounting:** Standard DIN rail  
**Operating Position:** Any  
**Protection Level:** IP20; UL-94-V0 flame retardant

**Dimensions:** 36 W x 91 L x 58 mm D (1.4 x 3.6 x 2.3")

**Weight:** 85 g (0.18 lb)

## Programming

**Software Package:** CONCAL for COM and USB ports

## Modem Cord CONUSB:

**Length:** 1.5 m (4.9') with USB connector for USB connection

## Configured Parameters:

Tag information, sensor type, Input range, selection of connection type, output offset, output curve correction, damping factor, burnout type, output current mode, sensor calibration



OMEGACARE<sup>SM</sup> extended warranty program is available for models shown on this page. Ask your sales representative for full details when placing an order. OMEGACARE<sup>SM</sup> covers parts, labor and equivalent loaners.

To Order	
Model No.	Description
TXDIN101	DIN rail smart transmitter
TX69-CABLE	Communication cable
PSR-24-L	Regulated power supply, 24 Vdc, 400 mA, stripped leads, UL

Comes complete with software and operator's manual.

**Ordering Example:** TXDIN101, DIN rail smart transmitter.

OCW-2, OMEGACARE<sup>SM</sup> extends standard 3-year warranty to a total of 5 years.