DIN Rail Mount Transmitters
With RFID Communications

NEW

TXDIN400 Series

2 YEAR WARRANTY CE RoHS

✔ **TXDIN401 Temperature Transmitter Accepts Pt100 or Ni100 RTD Inputs and Types J/K/T/E/R/S/B/N Thermocouples**
✔ **TXDIN402 Accepts Process Voltage, Current or Resistance Input**
✔ **User Configurable via TX400-RFID (NFC) Programmer and Configuration Software**
✔ **High Accuracy**
✔ **16-Bit Conversion**
✔ **Isolated**
✔ **Linearized**
✔ **Transmitters Have 2624 Word Non-Volatile Memory (Circular Buffer) for Data-Logging with User-Selectable Sampling Time**
✔ **FREE Downloadable RF Programmer Configuration Software from OMEGA**

TXDIN402 shown smaller than actual size.

The TXDIN401 and TXDIN402 DIN rail mount transmitters transform a temperature or process signal into a linearized 2-wire loop-powered 4 to 20 mA output. Model TXDIN401 is a temperature transmitter that accepts Pt100 or Ni100 RTD and Types J/K/T/E/R/S/B/N thermocouples. Model TXDIN402 is a process input transmitter that accepts voltage, current or resistance input. The characteristics of these converters ensure high precision on the reading scale with 16-bit conversion. The 4 to 20 mA output can be scaled based on the desired input range.

TX400-RFID programmer shown connected to PC.

The programming procedure uses an RFID (NFC) mode with the dedicated TX400-RFID programmer that allows the user to make all calibrations and settings quickly and without the need to power and connect up the transmitter. Simply connect the TX400-RFID programmer to the USB port of your PC, start the RF Programmer configuration software and place the transmitter on top of the TX400-RFID programmer to establish communications. These transmitters are also provided with a data logging function for the input signal. Transmitters have a non-volatile memory (circular buffer) for data-logging with user-selectable sampling time. The user selects the sampling time (1 to 3600 seconds) and then each time the 4 to 20 mA loop powers the device, the input value is stored to non-volatile memory.

Using the TX400-RFID programmer along with the RF Programmer configuration software (software is a free download from OMEGA) the user can:

- Completely configure the transmitter including scaling the 4 to 20 mA output to desired input range
- Implement field calibration to compensate for gain and offset errors
- Download logged data to PC for visualization and printing

Specifications

RTD Input Types and Ranges (TXDIN401 Only)

Pt100 (α = 0.00385): 2, 3, or 4-wire connection, -200 to 600°C (-328 to 1112°F)

Ni100 (α = 0.00618): 2, 3, or 4-wire connection, -60 to 180°C (-76 to 356°F)

Thermocouple Inputs (TXDIN401 Only)	
Types	**Ranges**
J	-200 to 1200°C (-328 to 2192°F)
K	-260 to 1360°C (-436 to 2480°F)
T	-260 to 400°C (-436 to 752°F)
E	-260 to 940°C (-436 to 1724°F)
R	-40 to 1760°C (-40 to 3200°F)
S	-40 to 1760°C (-40 to 3200°F)
B	40 to 1820°C (104 to 3308°F)
N	-260 to 1280°C (-436 to 2336°F)
mV	-10 to 70 mV

Process Inputs (TXDIN402 Only)	
Voltage	0 to 10V
Current	0 to 20 mA (4 to 20 mA default)
Resistance	0 to 4000 Ω

Output Resolution: 2 µA

Over-Range Output: FS + 5°C

Under-Range Output: FS - 5°C

Output Error (Failure): Selectable between 21 mA or 3.8 mA

Current Output Protection: 30 mA approx

Rejection: 50 to 60 Hz

Maximum Transmission Error: 0.1% FS or 0.2 °C whichever is greater

Sampling Time: 300 msec

Response Time (10 to 90%): 600 msec

Non-Volatile Memory (Circular Buffer) for Data Logging: 2624 word

Cable Resistance: 20 Ω max

Temperature Coefficient: < 100 ppm

Power: 2-wire loop powered; operating range 6 to 32 Vdc

Isolation: Galvanic, 1 KVac input/output

Operating Environment: -40 to 85°C (-40 to 185°F), 30 to 90% RH (non condensing)

Storage Temperature: -40 to 85°C (-40 to 185°F)

Mounting: 3 mm DIN rail

Material: Enclosure, polycarbonate; front panel, silicone

Enclosure Rating: NEMA 1 (IP20) according to CE, EN 61000-6-4, EN 61000-6-2
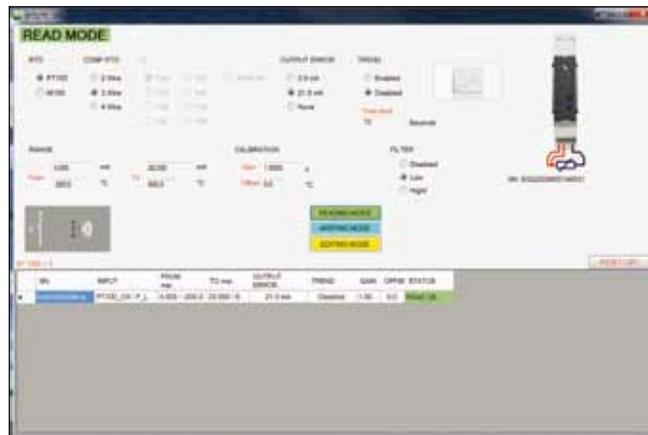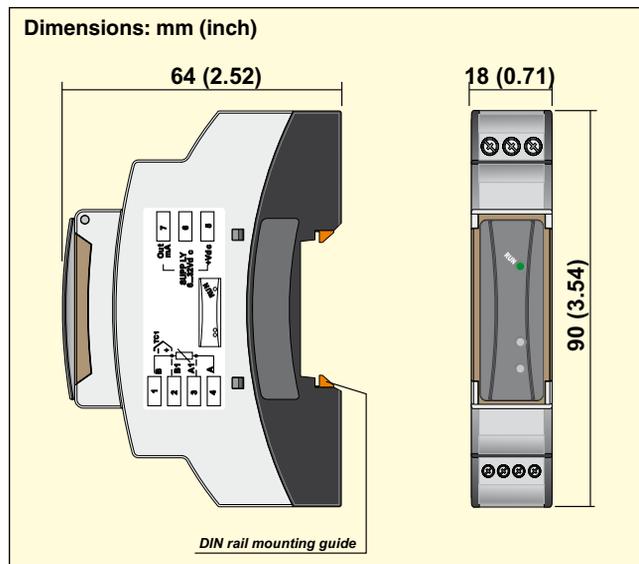
Programming: Wireless with RFID technology (NFC)

Software: Windows® XP/7/8 (32-bit and 64-bit), Windows 10 (64-bit)

Connection: Screw terminals

Weight: 30 g (1.05 oz) approx

Dimensions: 90 H x 18 W x 64 mm D (3.54 x 0.71 x 2.52")

Dimensions: mm (inch)

DIN rail mounting guide

RF programmer PC configuration software available via free download from OMEGA.

To Order	
Model No.	**Description**
TXDIN401	DIN rail mount RFID temperature transmitter
TXDIN402	DIN rail mount RFID voltage, current and resistance input transmitter
TX400-RFID	RFID programmer
RAIL-35-1	35 mm (1.4") DIN rail, 1 m (3.3') length
RAIL-35-2	35 mm (1.4") DIN rail, 2 m (6.6') length

TX400-RFID programmer is supplied with complete User Guide and USB interface cable. TXDIN401 and TXDIN402 transmitters are supplied with complete User Guide. The RF programmer PC configuration software is a free download from OMEGA.

Ordering Example: TXDIN401, *DIN rail mount RFID temperature transmitter and* ***TX400-RFID*** *programmer.*