

“Smart” Transmitters

TX41 Series
Starts at
\$605



TX41-TC-A
temperature transmitter, \$605.

TX41-RM
programmer/display,
optional, \$150.



CASS-316G-12 Thermocouple probe, \$28

Please see section “A” for a complete selection of thermocouple probes

- ✓ 4 Isolated Open-Collector Outputs
- ✓ Wide Selection of Input Types and Ranges in One Transmitter
- ✓ Optional DIN Rail Mounting
- ✓ Available Analog Output and RS-232 or RS-485 Communications
- ✓ Available Remote Programmer/Display

The TX41 transmitter series offers unmatched versatility for any application, tough or easy. Each transmitter offers a wide range of inputs that can be configured to transmit your input signal in any engineering unit desired with excellent accuracy. Each transmitter allows you to utilize the dual relay, 4-relay or BCD output, the isolated analog output, and either the RS-232 or RS-485 serial communications options. Your choices are limited only by your application!

The transmitter is the ideal stand-alone smart transmitter. With its unmatched versatility, the transmitter will enhance your capability to monitor and control your process. It is the ideal choice for use as remote I/O when used with your data acquisition systems, PLCs or other computer controlled systems.

All transmitters can be mounted on a DIN rail in your own enclosure or can be bulkhead mounted with the optional mounting hardware.

The TX41 transmitter allows you to select the communication output(s) you need for your individual applications such as isolated analog output, RS-232 or RS-485 or BCD. Optional serial communications allows you to monitor your process control/change parameters on line.

Configuration and communications with your transmitter is easily accomplished via the optional remote display/programmer or RS-232 or RS-485 output options.

Each transmitter offers 4 open-collector outputs, and you can easily add either the optional dual relay, 4-relay or the optional BCD output.

TX41-RM Handheld Programmer/Remote Display

The TX41 series of instruments offers a truly unique feature found in no competitive product. The optional hand-held programmer is both a convenient portable programmer and a complete, mountable, remote 6-digit display. You can buy one programmer and program TX41 transmitters all over your facility. Also, one can use the very same option as a remote display. This is especially useful when space constraints prevent you from mounting a conventional full-size meter.

This remote display not only gives you an accurate readout of your process value but also has 4 indicator lights giving you the status of each of the setpoints. The 14-segment LEDs give you easy-to-read alphanumeric characters. This feature, along with real word programming, makes an easy task of setting up your transmitter.

TX41 for Temperature

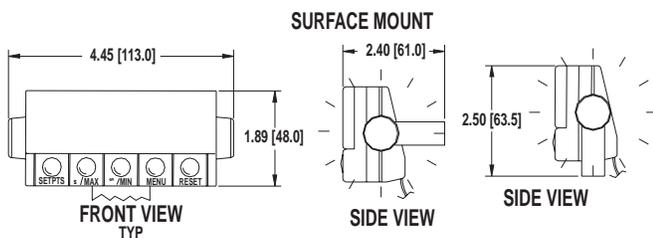
The TX41 for Temperature is easily configured to accept direct connection from a wide range of thermocouple, RTD or linear inputs such as 10 Ω copper RTDs.

Standard features include:

- Thermocouple Types J, K, E, T, B, R, S, B, N and J DIN
- 2-, 3- or 4-wire 100 Ω Platinum RTDs
- Accepts linear inputs from 0.6 to 1000 Ω including 10V copper RTDs
- Wide choice of outputs such as 4 to 20 mA, 1 to 5 V, 0 to 10 V, RS-232, RS-485, BCD or relays
- 4 open-collector outputs
- 0.01 resolution
- Smart filtering that detects the difference between line noise and a process change without compromising update speed
- Up to 13 readings a second
- Programming via handheld programmer or serial communications options

Common Specifications

- Accuracy: $\pm 0.005\%$ rdg
 Span Temperature Coefficient: ± 20 ppm
 Step Response: 1 sec to 99.9%
 Warmup to Rated Accuracy: 50 min
 Operating Ambient: 0 to 50°C, 95%RH, non-condensing
 Power: 115 or 230 Vac, 49-400 Hz; 10 to 32 Vdc
 Power Consumption: 6 W nominal, 10 W max
 Common Mode Voltage: 1500 V peak per HV test
 Resolution: 15-bit
 Conversion: Dual-slope technique
 Reading Rate: 3/sec or 13/sec, 60 Hz; 3/sec or 12/sec, 50 Hz
 Display: Red or green 6-digit, 14-segment, 13.7 mm; 4 alarm indicators
 Dimensions: 48 H x 96 W x 165 mm D (1.9 x 3.8 x 6.5")
 Panel Cutout: 45 H x 92 mm W; $\frac{1}{8}$ DIN (1.8 x 3.6")
 Weight: 574 g (1.27 lb)
 TTL Outputs: 4, isolated open collector; rated 150 mA at 1 V sink, 30 V open
 BCD Output: Isolated, tri-state, TTL/CMOS compatible; external 5 V supply for isolated; internal 5 V supply for non-isolated
 Dual Relays: Form C, 7 A at 30 Vdc or 230 Vac
 Four Relay Option: Dual 7A relays and dual 1 A relays
 Analog Output: 0-5 V/1-5 V/0-10 V/0-20 mA/4-20 mA, user selectable; 354 Vp isolation; 15-bit resolution; 0.1% accuracy, 50 msec step response
 RS-232 Communications: 300/600/1200/2400/4800/9600/19.2k baud; RJ11 4-wire connection; complete program setup and message display capability
 RS-485 Communications: 300/600/1200/2400/4800/9600/19.2k baud; RJ12 6-wire connection; addressable from 0 to 199
 Thermocouple Input Types: J, K, T, E, R, S, B, N, J DIN
 RTD Input: Any 6 to 6k Ω NIST or DIN platinum and any linear RTD
 RTD Connection: 2-, 3- or 4-wire
 Sensor Break Protection: Upscale or downscale
 Overvoltage Protection: 25 V peak



ALL MODELS AVAILABLE FOR FAST DELIVERY!

To Order (Specify Model Number)

Model Number	Price	Description
TX41-TC-A	\$605	Temperature-thermocouple with analog output
TX41-RTD-A	605	Temperature-RTD with analog output

Power Options: 115 Vac power standard; see box below.

Ordering Examples: TX41-TC-A-R4-S2, TX41 transmitter for temperature (thermocouple input, with analog output, optional dual 7 A and dual 1 A relays, and optional RS-232 communications, \$605 + 175 + 110 = \$890. TX41-RM remote display/transmitter with red display, \$150. DP40-25SC2 25-pin RS-232 connector, \$30.

Accessories

Model Number	Price	Description
TX40-HPB	\$50	Rail mount
DP40-9SC2	30	9-pin RS-232 connector
DP40-9SC4	30	9-pin RS-485 connector
DP40-25SC2	30	25-pin RS-232 connector
DP40-25SC4	30	25-pin RS-485 connector

Display/Programming Module

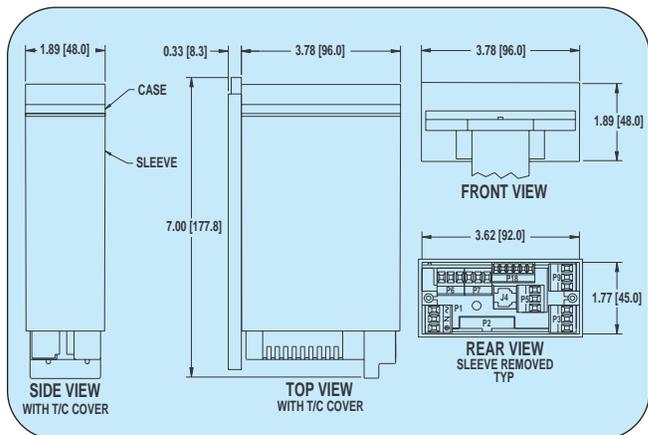
Model Number	Price	Description
TX41-RM	\$150	Programmer/display, red
TX41-RM-GR	150	Programmer/display, green

One programmer can support all of your TX41 transmitters. Supplied with 2 m of cable and all connectors, the display/programmer can be used to set up or reconfigure a TX41 transmitter or be permanently installed as a remote display.

BCD/Control Output

Order Suffix	Add'l Price	Description
-B	\$110	Isolated parallel BCD
-R	75	Dual 7 A relays
-R4	175	Dual 7 A and dual 1 A relays

Note: Options are mutually exclusive, only one can be installed in a unit



Serial Communications (Standard on -S2 and -S4 Models)

Order Suffix	Add'l Price	Description
-S2	\$110	RS-232 communications
-S4	110	RS-485 communications

Options are mutually exclusive, only one can be installed in a unit. RS-232 is standard on S2 models, RS-485 is standard on S4 models.

Power Options

Order Suffix	Add'l Price	Description
-230	N/C	23 Vac Power
-10/32Vdc	110	10 to 32 Vdc Power

omega.co.uk[®]

Your One-Stop Source for Process Measurement and Control!

Freephone 0800 488 488 | International +44(0) 161 777 6622 | Fax +44(0) 161 777 6622 | Sales@omega.co.uk

www.omega.co.uk



UNITED STATES

www.omega.com

1-800-TC-OMEGA
Stamford, CT.

UNITED KINGDOM

www.omega.co.uk

Manchester, England
0800-488-488
+44-(0)161-777-6611

CANADA

www.omega.ca

Laval(Quebec)
1-800-TC-OMEGA

FRANCE

www.omega.fr

0800-466-342

GERMANY

www.omega.de

Deckenfronn, Germany
0800-8266342

BENELUX

www.omega.nl

0800-099-33-44



More than 100,000 Products Available!

• Temperature

Calibrators, Connectors, General Test and Measurement Instruments, Handheld Instruments for Temperature Measurement, Ice Point References, Indicating Labels, Crayons, Cements and Lacquers, Infrared Temperature Measurement Instruments, Recorders, Relative Humidity Measurement Instruments, PT100 Probes, PT100 Elements, Temperature & Process Meters, Timers and Counters, Temperature and Process Controllers and Power Switching Devices, Thermistor Elements, Probes and Assemblies, Thermocouples, Thermowells and Head and Well Assemblies, Transmitters, Thermocouple Wire, RTD Probes

• Flow and Level

Air Velocity Indicators, Doppler Flowmeters, Level Measurement, Magnetic Flowmeters, Mass Flowmeters, Pitot Tubes, Pumps, Rotameters, Turbine and Paddle Wheel Flowmeters, Ultrasonic Flowmeters, Valves, Variable Area Flowmeters, Vortex Shedding Flowmeters

• pH and Conductivity

Conductivity Instrumentation, Dissolved Oxygen Instrumentation, Environmental Instrumentation, pH Electrodes and Instruments, Water and Soil Analysis Instrumentation

• Data Acquisition

Communication Products and Converters, Data Acquisition and Analysis Software, Data Loggers Plug-in Cards, Signal Conditioners, USB, RS232, RS485, Ethernet and Parallel Port Data Acquisition Systems, Wireless Transmitters and Receivers

• Pressure, Strain and Force

Displacement Transducers, Dynamic Measurement Force Sensors, Instrumentation for Pressure and Strain Measurements, Load Cells, Pressure Gauges, Pressure Reference Section, Pressure Switches, Pressure Transducers, Proximity Transducers, Regulators, Pressure Transmitters, Strain Gauges, Torque Transducers, Valves

• Heaters

Band Heaters, Cartridge Heaters, Circulation Heaters, Comfort Heaters, Controllers, Meters and Switching Devices, Flexible Heaters, General Test and Measurement Instruments, Heater Hook-up Wire, Heating Cable Systems, Immersion Heaters, Process Air and Duct, Heaters, Radiant Heaters, Strip Heaters, Tubular Heaters