

“Smart” Temperature Transmitters

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

TX66A Series

2 YEAR WARRANTY

OMEGACARESM
Extended Warranty Program

TX60-2A, 2-line plug-in display.

Both models shown smaller than actual size.

TX66A transmitter.

- **Small, Economical**
- **2-Wire, 4 to 20 mA Output**
- **Thermocouple, RTD, and mV Inputs**
- **Automatic Cold-Junction Compensation**
- **Automatic Self-Calibration**

The TX66 “smart” transmitters offer isolation, linearization, automatic temperature compensation, automatic self-calibration, and easy-to-use menus. These compact units accept a large number of inputs. The optional 1-line display will fit within the same footprint as the transmitter. The 2-line, plug-in display is

slightly larger, with 2 pushbuttons and LCD glass. Both displays are field mountable. At least 1 display is required to set up and scale the transmitter.

TX66A transmitter shown with explosion-resistant housing (included with some models, see table).

Specifications

Linearization: ±0.05°C

Output:

Analog: 2-wire

Digital: 4 to 20 mA

Minimum Output Range: None

Output Resolution:

Analog: 3.5 µA

Digital: 4 significant digits

Accuracy:

Digital: ±0.03% of the mV or equivalent reading or the accuracy from the table below, whichever is greater

Analog: Digital accuracy plus ±4 µA, typical, ±8 µA max

Repeatability: One half of accuracy

Failsafe: User-programmable for high, low, or off

Operating Temp Range:

Transmitter: -40 to 85°C (-40 to 185°F)

Display: -20 to 70°C (-4 to 158°F)

0 to 100% RH (non-condensing)

Isolation: 500 Vdc or Vac p-p;

operating input-output voltage:

250 Vac p-p or ±250 Vdc

Power and Load: 12 to 48 Vdc; V_{SUPPLY} (MIN) = 12 + (R_{LOAD} in kΩ) x 23 mA

Common-Mode Rejection: 120 dB

Reverse Polarity Protection:

42 Vdc applied with either polarity

Dimensions: 41 mm H x 61 Dia. (1.6 x 2.4")

Weight: 227 g (8 oz)

Input Type	Range		Accuracy	
	°C	°F	°C	°F
B	100 to 1800	212 to 3272	±0.6	±1.08
C	0 to 2320	32 to 4208	±0.5	±0.9
E	-50 to 1000	-58 to 1832	±0.2	±0.36
J	-180 to 750	-292 to 1382	±0.2	±0.36
K	-180 to 1250	-292 to 2282	±0.2	±0.36
L	-200 to 900	-328 to 1652	±0.4	±0.72
N	0 to 1200	32 to 2192	±0.2	±0.36
R	0 to 1600	32 to 2912	±0.5	±0.9
S	0 to 1550	32 to 2822	±0.5	±0.9
T	-150 to 400	-238 to 752	±0.3	±0.54
U	-100 to 600	-148 to 1112	±0.4	±0.72
100 Ω Pt RTD ¹	-200 to 850	-328 to 1562	±0.08	±0.14
100 Ω Pt RTD ²	-200 to 645	-328 to 1193	±0.08	±0.14
Millivolt		-15 to 115 mV		±0.006 mV
Ω		0 to 500 Ω		±0.002 Ω

¹European curve (α = 0.00385).

²American curve (α = 0.003923). Call factory for special units with 100 Ω Ni, 120 Ω Ni and 10 Ω Cu.

To Order

Model No.	Description
TX66A	Basic transmitter
TX67A^{††}	Intrinsically safe transmitter

Comes complete with operator's manual.
Note: TX60-2A required for scaling input in the field.

^{††}Intrinsic safety barrier required.

FM/CSA Entity Parameters

$V_{max} = 30$ Vdc $I_{max} = 125$ mA

$C_1 = 1.2$ nF $L_1 = 80$ µH $P_{max} = 90$ mW

Class 1, Div 1, Groups A, B, C, D

Ordering Example: TX67A, intrinsically safe transmitter, TX60-2A, 2-line digital display.

Additional Models

Model Number	Description
TX60-2A	2-line, plug-in display
NEP-TX-66A-(*)	TX66A in explosion-resistant housing with SS 1/4" OD, 12" long unearthed thermocouple
NEP-TX-66A-RTD	TX66A in explosion-resistant housing with 1/4" OD, 12" long, 100 Ω Platinum RTD
NEP-TX-67A-(*)	TX67A in explosion-resistant housing with SS 1/4" OD, 12" long unearthed thermocouple
NEP-TX-67A-RTD	TX67A in explosion-resistant housing with 1/4" OD 12" long, 100 Ω Platinum RTD

* Add thermocouple Type (J, K, T or E).

Ordering Example: NEP-TX-66A-K, TX66A transmitter in an explosion-resistant housing, 12" unearthed thermocouple, 1/4" OD, Type K probe with 1/2 NPT.

OCW-3, OMEGACARESM extends standard 2-year warranty to a total of 5 years.