The 577004 loop powered digital indicating transmitter measures RTD resistance changes as a function of temperature, outputs a proportional 4-20mA signal and provides a digital display of the temperature in degrees C or F. The transmitter is housed in an explosion-proof enclosure certified to NEMA-4/7/9 Class 1, Groups B, C, D; CL2, Groups E, F, & G and includes two 1.5" NPT wiring ports. The enclosure is constructed of copper-free aluminum with a blue epoxy finish. The spring-loaded RTD sensor is integrally mounted to the enclosure permitting close-coupled mounting of the transmitter at the point of measurement. A variety of RTDs and thermowell lengths are available.

TECHNICAL SPECIFICATIONS

INPUT RANGE:
-300 to +750°F Standard Maximum
100Ω Platinum Sensor Standard
200, 400Ω Platinum; 10 Ω Copper (Optional)

INPUT SPAN:
50°F Standard Min. (30°F Optional)

ZERO:
 +/- 100% of Span (5: 1 Optional)

OUTPUT:
4 to 20MADC into 600Ω @ 24VDC

ACCURACY:
 +/- 0.25% of Span output linearized

POWER:
12 to 36 Volts D.C., 24VDC Nominal (loop powered)

COMPENSATED TEMPERATURE RANGE:
-20 to +140°F

ZER0 AND SPAN EFFECT:
Less than 0.02%/ °F

DISPLAY
0.5" High, 3 1/2-digit liquid crystal

ANNUNCIATION:
Jumper selectable "F" or "C"
D.P. Programmable X.XXX, XX.XX, XXX.X, XXXX.
Auto Polarity Indication. Open input over range blanking.

UPDATE TIME:
3 readings per second nominal

ZERO AND SPAN ADJUSTMENT:
Transmitter: Span +/- 25% Typical
Zero +/- 50% Typical
Indicator: Span +/- 50% Typical

ENCLOSURE:
NEMA 4/7/9 gasketed housing
Class 1, Groups B, C, D; CL2, Groups E, F, & G, Copper-free aluminum; blue epoxy finish

WIRING CONNECTIONS:
5 Position, box clamp terminal strip for 12-26 AWG wire.

DIGITAL DISPLAY:
Indexable in four 90 Degree increments

ELECTRONICS ASSEMBLY:
Transmitter and digital display consists of two FR-4 fiberglass P.C.B. assemblies conformal dip coated with Dow-Corning conformal coat.

**For process media temperatures that will expose the transmitter electronics to ambients above or below -20 to + 140 F, the housing with electronics should be separated from the sensor.

EMI/RFI IMMUNITY:
Transmitter Less Than 0.8% of Span at 10V/M
Display Less Than 1.25% of Span at 10V/M
Per SAMA: 2 ac: 0.8% 2 ac: 1.25%
Ref: Standard PMC 33.1 -1978

STANDARD MODELS

577004 -"U" = 1.5" -304SS
577004 -"U" = 2.5" -304SS
577004 -"U" = 4.5" -304SS
577004 -"U" = 7.5" -304SS
577004 -"U" = 10.5" -304SS
577004 -"U" = 13.5" -304SS
577004 -"U" = 16.5" -304SS
577004- "U" = 22.5" -304SS

Spring Loaded RTD Sensor
Standard
1/2" Process Connection Standard
Optional:
3/4", 1 " Process Connection
316 Stainless Steel Thermowell

FEATURES

Spring Loaded RTD Sensor
Linearized Output
1/2" Digital Display
Optional 30 F Span
Selectable F or C Display