

HAZARDOUS LOCATIONS

MINCO EXPLOSION PROOF PLATINUM RTD TRANSMITTER TT881



MINCO



DESCRIPTION

The **Minco Model TT881 explosion proof platinum RTD transmitter** is designed for temperature measurement in applications calling for a rugged industrial housing. This RTD transmitter may be ordered for 100 ohm and 1000 ohm 385 platinum RTD or 1000 ohm 375 platinum RTD.

FEATURES

- **Class I, Division 1, Groups B, C, D**
- **Class II, Division 1, Groups E, F, G**
- **NEMA 4X, 7BCD, 9EFG**
- **Available in 100Ω or 1000Ω RTDs**
- **High RFI/EMI immunity**
- **NIST certificate available**
- **4-20 mA loop powered**
- **Substitute replacement for discontinued HCT-881 Hy-Cal transmitters**



TT881-A with Probe

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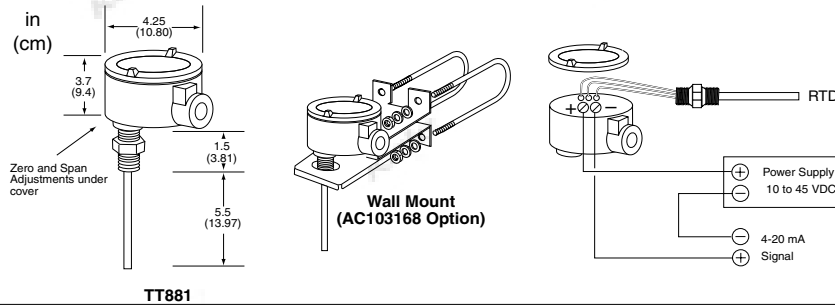
SPECIFICATIONS	
Supply Voltage	10-35 VDC (reverse polarity protector)
TT881 Accuracy	±0.1% of span
Rangeability	
Zero	-58° to 122°F (-50° to 50°C)
Span	45° to 1080°F (25° to 600°C)
Zero Span Adjust	Noninteractive
Output	4-20 mA, two-wire standard
Input Voltage Effect	0.001% of span/volt max (negligible) for 10-45 VDC
Linearity	±0.2% of span for any range from -58° to 1022°F (-50° to 550°C)
Temperature Coefficient	±0.002% of span/°C
Enclosure Rating	NEMA 4X, explosion-proof Class I, Div 1, Groups B, C, D; Class II, Div 1, Groups E, F, G
AS7220 Sub-Assembly Terminations	FM approved Terminal Screws
Mounting	
Immersion	Includes an integral sensor mounted via 1/2" NPT threads with 1/4" probe
Wall/Pipe	Mounting hardware available for surface installations with accessory AC103168
Maximum Load	(Supply voltage - 10 VDC) / 0.02A, i.e., (24-10 VDC) / 0.02 = 700Ω
SENSOR	
Temperature Range	-58° to 500°F (-50° to 260°C)
Sensing Element	
PD	100Ω, 385 platinum, three-wire sensor 0.00385 Ω/Ω/°C
PF	1000Ω, 385 platinum, two-wire sensor 0.00385 Ω Ω/Ω/°C
PW	1000Ω, 375 platinum, two-wire sensor 0.00375 Ω Ω/Ω/°C
Ice Point Resistance [Ro]	
	100Ω ±0.1Ω, ±0.12%
	1000Ω ±1Ω Ω, ±0.12%
Stability	Better than 0.25°C per year
Insulation Resistance	Sheath: 500°F (260°C), 100 mΩ Ω @ 50 VDC min
Probe Material	Stainless steel body
Area	
AS7220 Sub-Assembly Only	Explosion proof Class I, Div 1, Groups B, C, D; Class II, Div 1, Groups E, F, G; NEMA 4X with thermowell; Without thermowell, explosion proof indoor only Factory Mutual, File #3012833
Pressure	2750 psig (18,961 kPa) max @ 500°F
Operating Temperature	-40° to 185°F (-40° to 85°C) noncondensing
Standard Length	5.5"L (13.97 cm), 0.25" (0.64 cm) probe, 1/2" NPT mounting
Weight (5.5" length)	5.6 lb (2.54 Kg)
Approvals	
AS7220 Sub-Assembly	FM
Warranty	3 years



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DIMENSIONS



CAUTION: Conduit seal **MUST** be installed within code-required distance from junction box to maintain explosion proof rating. For Group B and C atmospheres, conduit seals must be installed within 2" (5.08 cm) of the enclosure regardless of less stringent code requirements.

WARNING: All circuits **MUST** be de-energized before opening the cover of this device for any purpose, including resetting a manual reset controller or adjusting a set point. If work must be performed with an energized circuit, the atmosphere inside and outside the enclosure must be proven safe with a listed intrinsically safe combustible gas detector.

ORDERING INFORMATION

DEL	DESC	PT	N
* TT881	Assembly probe for two-wire RTDs		
	* PD	1000Ω 0.00385 Ω/Ω/°C platinum curve, 6" leads	
	PF	1000Ω 0.00385 Ω/Ω/°C platinum curve, 6" leads	
	* PW	1000Ω 0.00375 Ω/Ω/°C platinum curve, 6" leads	
	LLL	Length LLL in .1" increments 055 = 5.5", 120 = 12.0"	
	E	Duct mount, NEMA 4X box, LLL typically 8.0"	
	* P	Immersion, NEMA 4X box, LLL typically 5.5" for 6" well insertion	
	W	Wall mount, NEMA 4X box, LLL typically 2.0" (includes AC103168 bracket)	
	1	4-20 mA DC output	
	EN	Range codes per Minco letter ranges (-20°/140°F) or (-29°/60°C)	
	* S	Range codes per Minco letter ranges (0°/100°F) or (-18°/38°C)	
	N	Range codes per Minco letter ranges (32°/122°F) or (0°/50°C)	
	H	Range codes per Minco letter ranges (40°/90°F) or (4°/32°C)	
	C	Range codes per Minco letter ranges (0°/100°C)	
	--	Range codes per Minco letter ranges in the catalog	
	SX	Special range on next item line, -xxx/-yyyE, i.e., -40°/-10°F	
	1	No calibration data, sensor or transmitter	
	* 2	Sensor/Transmitter matched at 0°C with NIST	
	3	Sensor/Transmitter matched at 0°, 100°, and 260°C with NIST	

TT881 PW 055 P 1 S 2 Example: TT881PW055P1S2 Transmitter with 5.5" immersion probe, 1000Ω 375 curve platinum RTD, ranged for 0°/100°F, with NIST matched @ 0°C

*Normally stocked item

RELATED PRODUCTS

AC103168
DCP-1.5-W
DCPA-1.2
EYM-50
GFF-50
WB-6
WS-6

Separate pipe/wall mounting hardware kit
Power supply, 24 VAC IN to 24 VDC OUT
Power supply, 120 VAC IN to 24 VAC/24 VDC OUT
1/2" size, 1.06" turning radius, 1 oz Kwik cement required, Malleable Iron construction
1/2" galvanized mounting flange
Brass well
Stainless steel well