RAYTEK® THERMALERT® GP™ MONITORING SYSTEM

COMPACT AND EASY TO INSTALL: INFRARED TEMPERATURE MONITORING SYSTEM

Raytek's compact temperature monitoring systems are easy to both install and to integrate into an existing process control system. The centerpiece of this system is the 1/8 DIN Thermalert GP Monitor which provides a standard interface for Raytek sensing heads including the Thermalert GPR or GPM. If a separate monitor is not required, the two-piece Thermalert MID sensor, or the integrated Thermalert CI sensor, provides compact solutions to infrared temperature monitoring.

When panel space is tight, the GP 1/8 DIN monitor gives you the benefits of non-contact infrared temperature measurement with no reduction in accuracy. Combined with the GPR or GPM sensing heads, the GP monitor system provides on-going temperature readings with a superior 1% accuracy. Adjustable offset and two adjustable setpoints with alarm outputs for tight process control are features used in the GP system along with being able to configure all monitor and sensor functions from the front panel. The large, 4-digit, easy-to-read display assists in taking readings at a glance.

This versatile GP system allows for the configuration of an infrared temperature monitoring system that best matches the application. If the sensor head is located near the measurement target, or the target is large, the GPM or CI is appropriate. If the measurement spot is small, or the sensor must be located further from the target, the GPR with 35:1 optics is required. The GP sensing heads range from the small to the miniature allowing you to place sensors anywhere. With the prices as low as they are, enhanced monitoring coverage can be accomplished by installing these sensors at multiple points throughout the process.

As a low maintenance solution for thermocouples, the Thermalert MID or CI may fit the bill. The two-piece MID system with miniature sensing head and separate electronics, features adjustable Emissivity and selectable Peak Hold, Valley Hold and Averaging. The CI is a compact, integrated unit with the same output impedance as a thermocouple. It functions without error when used in tandem with the thermocouple break-protection circuitry in most controllers, displays and transmitters. Both the MID and the CI are encased in rugged housings which ensure continuous, long-term performance in environments with high ambient temperatures.



- **Accepts several inputs**
  Any 0-5V or 4-20 mA sensor input and
  type J, K, E, N, R, S and T thermocouple inputs
- **User-defined output**
  4-20 mA or type J, K, E, N, R, S and T thermocouple
- **Compact 1/8 DIN monitor**
- **Large 4-digit LED display**
- **Universal 110/220 VAC power**
- **Provides 24 VDC/50 mA excitation voltage**
- **Adjustable dual setpoints and deadband controlling alarm outputs**
- **Signal processing**
  Peak Hold, Valley Hold, Averaging
- **User-adjustable offset**
- **External reset input**

SPECIFICATIONS

ENVIRONMENTAL RATING	GP Front Panel IP54 (IEC529), NEMA-12	
AMBIENT TEMPERATURE RANGE	-22 to 150°F (-30 to65°C)	
STORAGE TEMPERATURE	32 to 122°F (0 to 50°C)	
GP MONITOR DIMENSIONS	1.75 x 3.63 x 4.75 in (1/8 DIN x 120 mm)	
GP MONITOR WEIGHT	0.7 lbs. (320g)	
INPUT	RESOLUTION	ACCURACY
0-5V	1 mV	±2 mV
4-20 MA	0.01 mA	±0.02 mA
J, K, E, N, T THERMOCOUPLE		±0.05% or ±4°F (±2°C), whichever is greater
R, S THERMOCOUPLE		±0.5% or ±6°F (±3°C), whichever is greater
OUTPUT	RESOLUTION	ACCURACY
4-20 MA	0.014 mA	±0.02 mA
J, K, E, N, T THERMOCOUPLE		±0.05% or ±4°F (±2°C), whichever is greater
R, S THERMOCOUPLE		±0.5% or ±7°F (±4°C), whichever is greater
SYSTEM REPEATABILITY	±0.5% of measured value	
RESPONSE TIME	(95%) 500 mSec	
WARMUP TIME	5 Seconds	
SIGNAL PROCESSING		
PEAK HOLD AND VALLEY HOLD	Up to 998 sec (999 = infinite hold with external reset)	
VARIABLE AVERAGING FILTER	up to 60 seconds	
INPUTS	User-configurable inputs for 0-5V or 4-20 mA or J, K, E, N,R,S, T Thermocouple External reset input to reset Peak/Valley Hold circuit	
OUTPUTS	4-digit, 7-segment LED display, °F/°C selectable User-configurable 4-20 mA current or thermocouple output (J, K, E, N,R,S, T) Two adjustable setpoints with deadbands controlling 5V alarm outputs or optional 3A mechanical relays 24 VDC/50 mA excitation voltage for powering external sensors	
POWER SUPPLY	110/220 VAC, ±20%, 50-60 Hz	
SOLID STATE RELAY (ACCESSORY)	External isolated solid state relays for alarm outputs (10 amp AC, 8 amp DC)	

ISO 9001 Certified

CE