

GPC™ Temperature Monitor

Datasheet



1/8th DIN Panel Meter for Industrial Applications



The GPC™ temperature monitor provides a compact, easy-to-use interface and display for process instruments. This low-cost 1/8 DIN digital panel meter comes standard with features which are optional on other panel meters in this price range. The GPC monitor accepts inputs from any 0–5V sensor, 4–20mA sensor or thermocouple type J, K, E, N, R, S, T. In addition, the monitor can be used with many Raytek noncontact, infrared temperature sensors.

Along with its large 4-digit LED display, the monitor provides a user-defined 4–20mA or thermocouple output. Two adjustable setpoints/deadbands control 5V alarm outputs or optional 3A mechanical relays (GPCM). The GPC monitor accepts 110–220 VAC power and provides a 24 VDC/50 mA excitation voltage, capable of providing loop power to external sensors.

For signal processing requirements, the monitor provides Peak Hold, Valley Hold, and Averaging features and a user adjustable offset. Best of all, there are no internal jumpers used for setup—all monitor functions are configured via the front panel.

Versatile. Compact. Value-priced. All reasons to standardize on the GPC monitor for your process monitoring requirements.

Highlights:

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

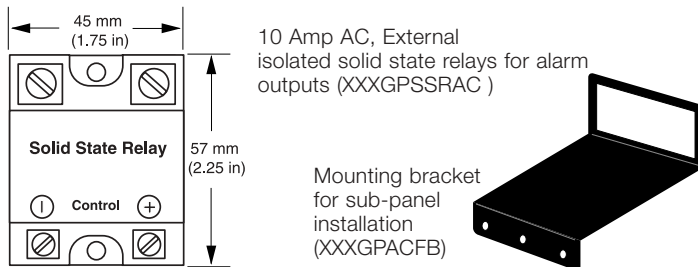
Measurement Specifications

Resolution & Accuracy	0–5 V input resolution 1 mV, accuracy @ ± 2 mV 4–20 mA input resolution 0.01 mA, accuracy @ ± 0.02 mA J, K, E, N, T thermocouple input, $\pm 0.05\%$ or $\pm 2^\circ\text{C}$, whichever is greater R, S thermocouple input, $\pm 0.5\%$ or $\pm 3^\circ\text{C}$, whichever is greater 4–20 mA output resolution 0.014 mA, accuracy @ ± 0.02 mA J, K, E, N, T thermocouple output, $\pm 0.05\%$ or $\pm 2^\circ\text{C}$, whichever is greater R, S thermocouple output, $\pm 0.5\%$ or $\pm 4^\circ\text{C}$, whichever is greater
System Repeatability	$\pm 0.5\%$ of measured value
Response Time (95%)	500 mSec
Warmup Time	5 seconds
Signal Processing	Peak Hold, Valley Hold (up to 998 sec, 999=infinite hold with external reset), Variable averaging filter (up to 60 seconds)

Monitor Specifications

Environmental Rating	GP Front Panel IP54 (IEC 529); NEMA-12
Ambient Temperature Range	0 to 50°C (32 to 120°F)
Storage Temperature	-30 to 65°C (-22 to 150°F)
GP Monitor Dimensions	1/8 DIN x 120 mm (1.75 x 3.63 x 4.75 in)
GP Monitor Weight	320 g (0.7 lbs)

Accessories



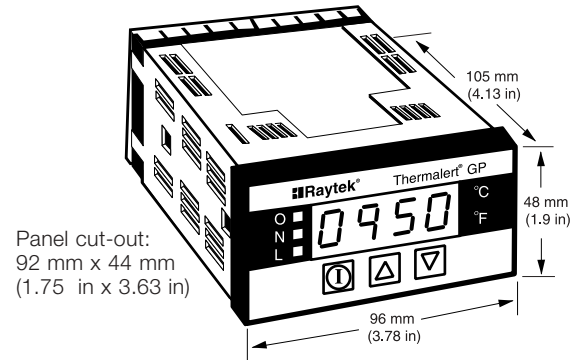
Electrical Specifications

Inputs*	User-configurable inputs for 0–5 V 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, $^\circ\text{C}/^\circ\text{F}$ selectable User-configurable 4–20 mA current or thermocouple output (J, K, E, N, R, S, T) Two adjustable setpoints with deadbands controlling +5 V alarm outputs or optional 3A mechanical relays 24 VDC/50 mA excitation voltage for powering external sensors
Power Supply	110/220 VAC, $\pm 20\%$, 50–60 Hz

*See Compact Series GP Datasheet for information on infrared temperature measurement.

Monitor Dimensions

Note: All monitors include panel mounting hardware



Part Numbers

- RAYGPC**
GPC panel meter w/5VDC alarm outputs, 110/220 VAC
- RAYGPCM**
GPC panel meter w/3A mechanical relays fully isolated I/O, 110/220 VAC

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