Raytek GP Noncontact Infrared Temperature Sensor



Product Desciption

The GP Series is a versatile, two-piece temperature monitoring system which combines a compact, value-priced monitor with an infrared sensing head. The heart of the system is the 1/8 DIN GP monitor which provides advanced infrared processing capabilities including peak and valley hold, averaging, and a user-adjustable offset. The rugged GPR sensor is available with standard- or close-focus optics and provides target temperature readings with 1% accuracy.

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. The GP monitor accepts universal 110-220 VAC power, and provides a 24 VDC/50 mA excitation voltage for loop power to external sensors. All monitor functions are configured via the front panel, including °C/°F switching.

The GP monitor provides adjustable emissivity when used with the GPR and GPM infrared sensors. This high performance, 8 to 14 micron infrared sensor with detachable cable combines current loop driven signals with 35:1 optics.

The GPM sensor is a miniature stainless steel sensing head with 2:1 or 10:1 optics. The GP monitor also works with other Raytek infrared sensors, including the CI and MID.

Highlights:

- Temperature range from -18 to 538°C (0 to 1000°F)
- Compact 1/8 DIN digital monitor with large 4-digit display
- · Monitor and sensor functions configured on front panel
- Signal processing capabilities typically found on much larger systems
- · Adjustable emissivity
- Universal 110-220 VAC power
- User-defined 4-20 mA or thermocouple output (J,K,E,N,R,S,T)
- · Adjustable dual setpoints and deadband alarm outputs
- Choice of sensing head to match application requirements
- Standard- and close-focus optics available
- Accessories for cooling and air purging
- Field interchangeable sensing heads



Raytek GP Series

Measurement Specific	ations (Monitor w/ Sensing Head)	Sensing Head—Optical Specifications
Spectral Response & Temperature Range:		(NOTE: nominal spot size based on 90% energy) GPM Sensing HeadDISTANCE: SENSOR TO OBJECT (In)
Sensing Head Model: GPR	Spectral Response: Temperature Range: 8 to 14 microns -18 to 538°C (0 to 1000°F)	Optical Chart $\widehat{\underline{\varepsilon}}^{0'}$ 5^{-1} 10^{-15} 20^{-10}
GPM	7.6 to 18 microns -18 to 538°C (0 to 1000°F)	
System Accuracy (mA output)	±1% of measured value or ±1°C (2°F), whichever is greater, @ 23°C ±5°C (73°F ±9°F)	
System Repeatability	$\pm 0.5\%$ of measured value or $\pm 1^{\circ}$ C (2°F) whichever is	E 15 26.5 55 55
o jotom nopodražinity	greater	
Response Time (95%): GPR	700 mSec	5 * FAR FIELD 255
GPM	1 Sec	⁶ ⁰ ¹³⁰ ²⁶⁰ ³⁹⁰ ⁵⁰⁰ ¹ ¹³⁰ ¹³⁰ ¹³⁰ ¹³⁰ ¹⁰ ¹³⁰ ¹⁰
Emissivity:	0.1 to 1.09 digitally adjustable increments of .01	GPR Sensing Head Optical Charts
Signal Processing:	Peak/Valley Hold (up to 998 sec, 999=infinite hold	DISTANCE: SENSOR TO OBJECT (in) DISTANCE: SENSOR TO OBJECT (in)
	with external reset) Variable averaging filter (up to 60 seconds)	
	T-ambient: fixed background ambient temperature	$\begin{bmatrix} \mathbf{\hat{g}} & 0^{-1} & 12^{-1} & 30^{-1} & 60^{-1} & 90^{-1} & 120^{-1} & \mathbf{\hat{g}} \\ \mathbf{\hat{g}} & \mathbf{\hat{g}} \end{bmatrix} \begin{bmatrix} 0, 0^{-1} & 3^{-2} & 24^{-2} & 60^{-1} & -1 \\ \mathbf{\hat{g}} & \mathbf{\hat{g}} \\ \mathbf{\hat{g}} & \mathbf{\hat{g}} \end{bmatrix} \begin{bmatrix} 0, 0^{-1} & 3^{-2} & 24^{-2} & 60^{-1} & -1 \\ \mathbf{\hat{g}} & \mathbf{\hat{g}} \\ \mathbf{\hat{g}} \end{bmatrix} \begin{bmatrix} 0, 0^{-1} & 3^{-2} & 24^{-2} & 60^{-1} & -1 \\ \mathbf{\hat{g}} & \mathbf{\hat{g}} \end{bmatrix} \begin{bmatrix} 0, 0^{-1} & 3^{-2} & 24^{-2} & -60^{-1} & -1 \\ \mathbf{\hat{g}} & \mathbf{\hat{g}} \end{bmatrix} \begin{bmatrix} 0, 0^{-1} & 3^{-2} & 4^{-2} & -60^{-1} & -1 \\ \mathbf{\hat{g}} & \mathbf{\hat{g}} \end{bmatrix} \begin{bmatrix} 0, 0^{-1} & 3^{-2} & 4^{-2} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1} & -60^{-1$
	compensation	
Electrical Specifications		STANDARD FOCUS CLOSE FOCUS
Outputs	4-digit, 7 segment LED display, °C/°F selectable	Image: Second state Second
oupuis	User configurable 4-20 mA current or thermocouple	Sec
	output (J,K,E,N,R,S,T)	DISTANCE: SENSOR TO OBJECT (mm)
	Two adjustable setpoints with deadbands controlling	Dimensions
	+5 V alarm outputs or optional 3A mechanical relays	M 12x1
Power Supply	110/220 VAC, ±20%, 50-60 Hz	GPM Sensing Head
	User configurable inputs for GPR, GPM, any 0-5 V or 4-20 mA sensor, or thermocouple (J,K,E,N,R,S,T)	
	External Reset input to reset Peak/Valley hold	preinstalled cable 17 (.67) 11 (.43) standard cable length 1 m (.3 ft.) 29 (.4.4)
	24 VDC/50 mA excitation voltage	Stellbard Cable englin Tri (3 fc) 28 (1.1) 05 (0.2) mm (in)
	5	GDR Sensing Head 8 11 125
General Specifications	5	$(0.23)^{-1}$ $(4.92)^{-1}$
Environmental Rating:		(1.18)
GP Monitor Front Panel	IP 54 (IEC 529); NEMA-12	
GPR Sensing Head	IP 65 (IEC 529); NEMA-4*	(1.5) (1.65)
GPM Sensing Head * GPR rated with adapter and c	IP 65 (IEC 529); NEMA-4 compression fitting	
Ambient Temperature Range:	,·	
GP Monitor	0 to 50°C (32 to 120°F)	1.5 inch 20 UN-2A mm (inches)
GPR Sensing Head:	0 to 65°C (32 to 150°F)	
With optional water cooling GPM Sensing Head:	0 to 177°C (32 to 350°F) 0 to 85°C (32 to 185°F)	Accessories / Options
With optional air cooling	0 to 200°C (32 to 392°F)	Cooling housings for high ambient conditions
Storage Temperature	-30 to 65°C (-22 to 150°F)	Air purge fittings for sensing heads
Relative Humidity	10 to 95%, non-condensing	Adjustable mounting brackets and adapters
GP Monitor Dimensions	1/8 DIN x 120 mm (1.75 x 3.63 x 4.75 in)	 External isolated solid state relays for alarm outputs (10 Amp AC)
GP Monitor Weight	320 g (0.7 lbs)	 3A mechanical output relays
	7	
or Sales and Orderi	ng Contact: Your Authorized Wa	atlow Distributor Is: For Service and W arranty Contact:
		-
		Worldwide Headquarters
		Raytek Corporation Santa Cruz, CA USA
🔂 WATL	OW	Tel: 1 831 458 1110
5710 Kenosha Street		800 227 8074 (U.S. and Canada only) C Fax: 1 831 458 1239
Richmond, Illinois		www.raytek.com
Phone: +1 (815) (070-2211	

5710 Kenosha Street Richmond, Illinois 60071 USA Phone: +1 (815) 678-2211 FAX: +1 (815) 678-3961 Internet: www.watlow.com e-mail: info@watlow.com

Raytek, the Raytek logo, and Thermalert are registered trademarks of Raytek Corporation. © 2001 Raytek Corporation, Printed in USA, 3/01 Rev. A Specifications subject to change without notice. 3-1003

RIC-GP-0401

Free Manuals Download Website <u>http://myh66.com</u> <u>http://usermanuals.us</u> <u>http://www.somanuals.com</u> <u>http://www.4manuals.cc</u> <u>http://www.4manuals.cc</u> <u>http://www.4manuals.cc</u> <u>http://www.4manuals.com</u> <u>http://www.404manual.com</u> <u>http://www.luxmanual.com</u> <u>http://aubethermostatmanual.com</u> Golf course search by state

http://golfingnear.com Email search by domain

http://emailbydomain.com Auto manuals search

http://auto.somanuals.com TV manuals search

http://tv.somanuals.com