Compact Series

GP

Datasheet

Highlights

- Laser sighting available (GPS head)
- Optical resolution up to 50 : 1
- Temperature range from -18 to 538°C
- Compact 1/8 DIN digital monitor with large 4-digit display
- Signal processing capabilities typically found on much larger systems
- Adjustable emissivity and T-ambient compensation
- User-defined 4–20 mA or thermocouple output
- Adjustable dual setpoints and deadband for 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

Measurement Specifications

Monitor with Sensing Head	
Temperature Range all heads	 -18 to 538°C
Spectral Range all heads	 8 to 14 µm
System Accuracy[1] mA Output	 ±1% or ±1°C [2]
Repeatability	±0,5% or ±1°C [2]
System Response Time (95%)	300 ms
Emissivity	0,1 to 1,09 digitally adjustable, 0,01 increments
Signal Processing	Peak and valley hold (up to 998 s, 999=infinite hold with external reset) Variable averaging filter (up to 60 s) T-ambient: fixed background ambient temperature compensation

[1] at ambient temperature 23°C ± 5°C
[2] whichever is greater

Sensor Specifications

Environmental Rating GP Monitor front panel GPR/GPS Sensor[1]	 IP54 (IEC529) IP65 (IEC529)
Ambient Temperature GP Monitor GPR/GPS Sensor[2] with air cooling with water cooling	 0 to 50°C 0 to 65°C up to 120°C up to 177°C
Storage Temperature	-30 to 65°C
Relative Humidity	10 to 95%, non-condensing
GP Monitor Dimension	1/8 DIN x 120 mm
GP Monitor Weight	320 g

[1] GPR/GPS rated with adapter and compression fitting.
[2] GPS laser shuts off automatically at 50°C

Electrical Specifications

Inputs	User configurable inputs for GPR/GPS, 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
Outputs	4-digit, 7-segment LED display, °C/°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	110/230 VAC, ±20%, 50 – 60 Hz

Dimensions

GPR – Regular Sensor

GPS – Laser Sighting Sensor

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Options

Options must be specified at time of order.

GP Monitor

- Internal 3 A mechanical relays (RAYGPCM)

GPR/GPS Sensors

- Water cooled housing, includes air purge collar (...W)
- ISO Calibration Certificate with NIST/DKD traceability (XXXGPCERT)

Accessories GP Monitor

- External solid state relays: 10 Amp AC (XXXGPSSRAC)

Accessories GPR/GPS Sensors

- Conduit adapter, adapts sensor threads to ½" NPT (XXXTXXACCA)
- Pipe adapter, adapts sensor threads to 1½" NPT (XXXTXXACPA)

Air Purge Collar (XXXTXXACAP)

Right Angle Mirror for measuring targets at right angles to sensor axis (XXXTXXACRA)

Optical Specifications

GPR – Regular Sensor

GPS – Laser Sighting Sensor

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