

Infrared Temperature Sensors



Features:

- High resolution optics up to 300:1
- Real time ambient background temperature compensation
- Two different spectral responses to meet every demanding application
- Laser sighting in addition to through the lens optical sighting
- Optional colour video sighting
- Captures transient events as fast as 900µs
- Simultaneous analog and digital outputs
- Programmable realy output dual-temperature setpoints or "fail-safe"
- Bi-directional RS485 communications
- Supports up to 32 sensors on a multipoint network
- Windows® DataTemp Multidrop software
- Field calibration software
- Rugged stainless seel housing
- Sealed NEMA 4 enclosure

The **Marathon™ MM** infrared sensors are designed for continuous temperature monitoring in a broad range of demanding industrial process applications. The **MM** features an advanced electro-optical design, digital electronics and an intuitive, easy-to-use push button interface - all combined in a rugged, compact stainless steel housing. The sensor can be easily set up for stand alone l610l61operation or configured for a multi sensor network. All **Marathon MM** sensors feature both through-the-lens optical sighting and laser sighting for optimum sensor alignment and set-up. The **MM** is also available with optional video sighting. All **Marathon Series** sensors include bi-directional, RS-485 serial communicatuions between the sensor on the factory floor and a personal computer in the control room. This enables remote setup, monitoring, calibration and maintenance, especially valueable for installation in hard-to-reach locations.

Specifications:

MEASUREMENT

Model	Temperature Range	Spectral Response	Response Time
2ML	300/1100°C (572/2012°F)	1.6 µm	2ms
2MH	300/2250°C (572/4082°F)	1.6 µm	2ms
1ML	450/1740°C (842/2732°F)	1 µm	2ms
1MH	650/3000°C (482/5432°F)	1 µm	2ms

Specifications:

Accuracy:	±(0.3% of reading +1°C)
Repeatability:	±(0.1% of reading +1°C)
Resolution:	0.1°K on 4-20mA output
Optics:	160:1, 300:1
Emissivity:	0.100 to 1.150 in 0.001 increments
Signal Processing:	Peak hold, Valley hold, Averaging, Ambient background temperature compensation

ELECTRICAL

Power Supply:	24 VDC ±20%, 500mA
Outputs:	Analog: 0-20mA, 4-20mA, 14 bit resolution, max. current loop impedance: 500Ω Digital RS-485: Networkable to 32 sensors, Baud rate: 300, 1200, 2400, 9600, 19200, 38400, 57600, 115200. Data format: 8 bit, no parity, 1 stop bit, 4-wire mode (full duplex) or 2-wire mode (half duplex), selectable via control panel or software Relay: Contacts max. 48V, 300mA, response time < 2ms Display: 5-digit backlit LCD
Input Voltage:	0 to 5VDC functions: trigger, ambient background temperature compensation, or emissivity setting

GENERAL

Environmental Rating:	NEMA 4 (1P65)
Relative Humidity:	10 to 95% non-condensing
Ambient Temp.:	0 to 65°C without cooling
Weight:	0.7 kg (8.7 oz)

Model	Description	Price
RAYMM1MLSF1L	Low Range Sensor, Std. Focus 1	\$3783
RAYMM1MHSF1L	High Range Sensor, Std. Focus 1	\$3783
RAYMM2MLSF1L	Low Sensor, Std. Focus 1	\$3986
RAYMM2MHSF1L	High Surface Sensor, Std. Focus 1	\$3986
RAYMM1MLCF1L	Low Range Sensor, Close Focus	\$4146
RAYMM1MHCF1L	High Range Sensor, Close Focus	\$4146
RAYMM2MLCF1L	Low Sensor, Close Focus	\$4349
RAYMM2MHCF1L	High Sensor, Close Focus	\$4349