Highlights

- Wide temperature range from -40°C to 2250°C
- Optical resolution up to 100:1
- Spot sizes down to 1,1 mm
- Variable focus from 0,2 m to 2,2 m
- Fast response time down to 20 ms
- Real time video monitoring and recording capability
- Through-the-lens sighting with video or laser aiming
- Digital RS485 communications (networkable)
- Real time ambient background radiation compensation
- Simultaneous analogue and digital outputs
- Programmable relay output
- Ambient temperatures to 315°C with ThermoJacket™
- Compact, rugged design, IP65 rated
- DataTemp® Multidrop software for remote configuration

Electrical Specifications Outputs 0/4-20 mA mΑ Relay 48 V, 300 mA, response time < 2 ms RS485 2-wire or 4-wire, networkable to 32 sensors Video analog, NTSC, 510x492 pixel, FOV 8° Inputs Emissivity setting, background radiation compensation, trigger, laser on/off (software enabled) **Power Supply** 24 VDC ±20%, 500 mA

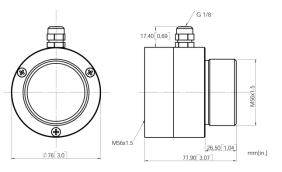
General Specifications	
Environmental Rating	IP65 (IEC529)
Ambient Temperature without cooling with air cooling with water cooling with ThermoJacket	5 to 65°C (with video: max. 50°C) up to 120°C up to 175°C up to 315°C
Storage Temperature	-20 to 70°C
Relative Humidity	10 to 95%, non-condensing
Shock	IEC 68-2-27
Vibration	IEC 68-2-6
Weight	700 g

Options

Options must be specified at time of order.

- Laser sighting (...L) or Video sighting (...V)
- Variable focus (...VF1)
- Water-Cooled Housing, incl. Air Purge Collar (...W)
- ISO Calibration Certificate, based on DKD certified probes (XXXMMCERT)

Air Purge Collar (XXXMMACAP)



Raytek Marathon Series

MM LT, G7, G5, MT, 3M

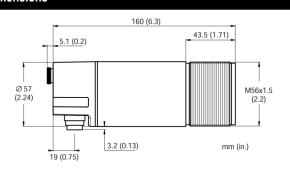
Datasheet



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Measurement Specifications		
Temperature Range		
LT	-40 to 800°C	
G7	300 to 900°C	
G5L	250 to 1650°C	
G5H	450 to 2250°C	
MT	250 to 1100°C	
3M	100 to 600°C	
Spectral Response		
LT	8 to 14 µm	
G7	7,9 µm	
G5	5 μm	
MT	3.9 µm	
3M	2,1 – 2,5 μm	
System Accuracy ¹		
ĹT	± 1% of reading or ± 1°C for T _{meas} > 0°C ²	
	± 2°C for T _{meas} < 0°C	
G5L, G5H, G7	± 1% of reading	
MT	± 1% of reading for T _{meas} > 350°C	
	± 2°C or ± 2% for T _{meas} < 350°C ²	
3M	± 1% of reading for T _{meas} > 150°C	
	± 5°C of reading for T _{meas} < 150°C	
Repeatability ³	± 0.5% of reading or ± 0.5°C ²	
Temperature Resolution (mA)	0.1 K	
Response Time (95%)		
LT, MT, G7	120 ms	
G5	60 ms	
3M	20 ms	
Emissivity	0,100 to 1,150 in 0,001 increments	
Signal Processing	Peak hold, valley hold, averaging, ambient	
	background temperature compensation	

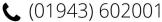
¹ at 23°C ±5°C, emissivity = 1.0, and time response 1.0 s

Dimensions











² whichever is greater

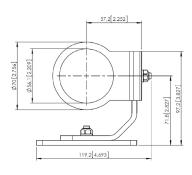
³ at 23°C ±5°C

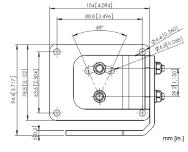
Accessories

The models include through-the-lens sighting, mounting nut (stainless steel), fixed bracket (stainless steel), an operator's manual and DataTemp Multidrop Software. Additional accessories are available:

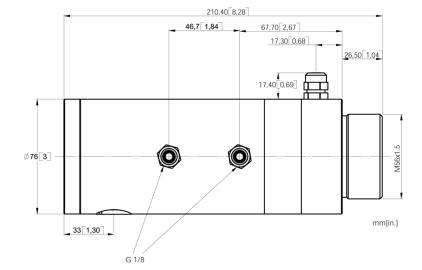
- Sight Tube made from stainless steel up to 800°C (XXXTST12)
- Sight Tube made from ceramic up to 1500°C (XXXTSTC12)
- Pipe Thread Adapter made from stainless steel (XXXMMACPA)
- Protective Window for LT, MT, G5 (XXXMMACTWL)
- USB/RS485 Converter (XXXUSB485)
- Industrial Power Supply 100 / 240 VAC to 24 VDC, 1,25 A (XXXSYSPS)
- Low Temp Cable (XXX2CLTCB...)
- High Temp Cable (XXX2CCB...)
- Terminal Block (XXXMATB)
- Terminal Block including 24 VDC power supply (110 / 230 VAC input) and IP65 rated housing (RAYMAPB)
- ThermoJacket enclosure for ambient temperatures to 315°C (RAYTXXTJ4), see also ThermoJacket datasheet

Adjustable Bracket (XXXMMACAB)





Air/Water-Cooled Housing (...W)



Optical Specifications

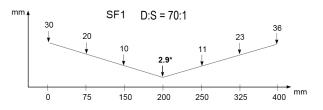
Optical Resolution

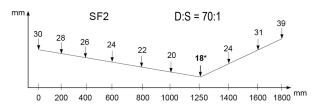
LT, MT, G5, 3M 70:1 100:1 G7

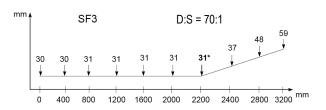
Optics

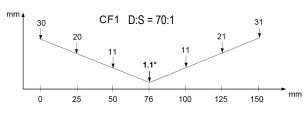
SF1, SF2, SF3 LT, MT, G5, 3M, G7 CF1

LT, 3M









* D:S for the focus point 90% energy





