

Highlights

- Wide temperature range from -40°C to 2250°C
- Optical resolution up to 70:1
- Spot sizes down to 1,1 mm
- Variable focus from 0,2 m to 2,2 m
- Fast response time down to 60 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 and monitoring

Electrical Specifications

Outputs	
mA	0/4-20 mA
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)

General Specifications

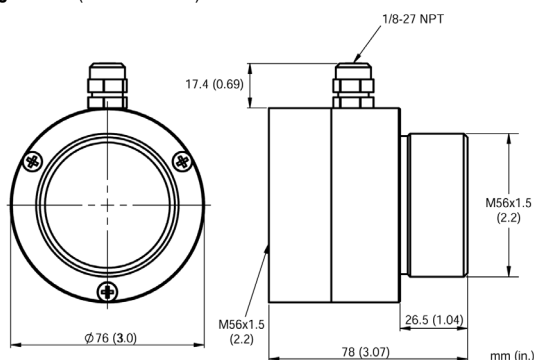
Environmental Rating	IP65 (IEC529)
Ambient Temperature	
without cooling	5 to 65°C (with video: max. 50°C)
with air cooling	up to 120°C
with water cooling	up to 175°C
with ThermoJacket	up to 315°C
Storage Temperature	-20 to 70°C
Relative Humidity	10 to 95%, non-condensing
Shock	IEC 68-2-27
Vibration	IEC 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, G5, MT

Datasheet



Measurement Specifications

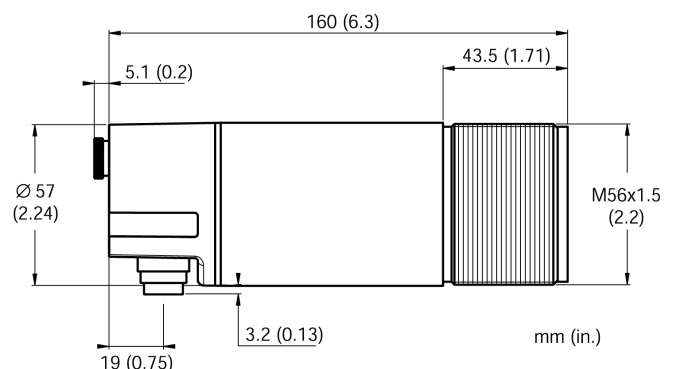
Temperature Range	
LT	-40 to 800°C
G5L	250 to 1650°C
G5H	450 to 2250°C
MT	250 to 1100°C
Spectral Response	
LT	8 to 14 µm
G5	5 µm
MT	3.9 µm
System Accuracy¹	
LT	± 1% of reading or ± 1°C for T _{meas} > 0°C ² ± 2°C for T _{meas} < 0°C
G5L, G5H	± 1% of reading
MT	± 1% of reading for T _{meas} > 350°C ² ± 2°C or ± 2% for T _{meas} < 350°C ²
Repeatability³	± 0.5% of reading or ± 0.5°C ²
Temperature Resolution (mA)	0.1 K
Response Time (95%)	
LT, MT	120 ms
G5	60 ms
Emissivity	0,100 to 1,150 in 0,001 increments
Signal Processing	Peak hold, valley hold, averaging, advanced peak hold, advanced valley hold, ambient background temperature compensation

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

² whichever is greater

³ at 23°C ±5°C

Dimensions



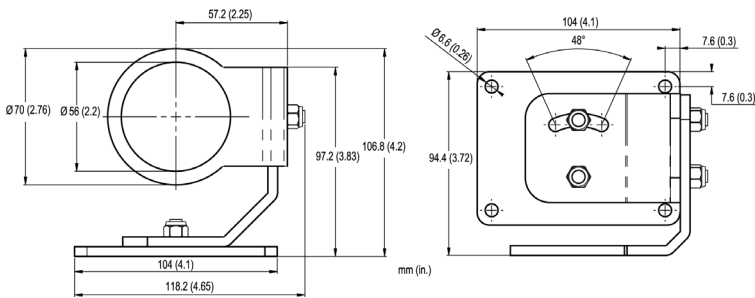
Accessories

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

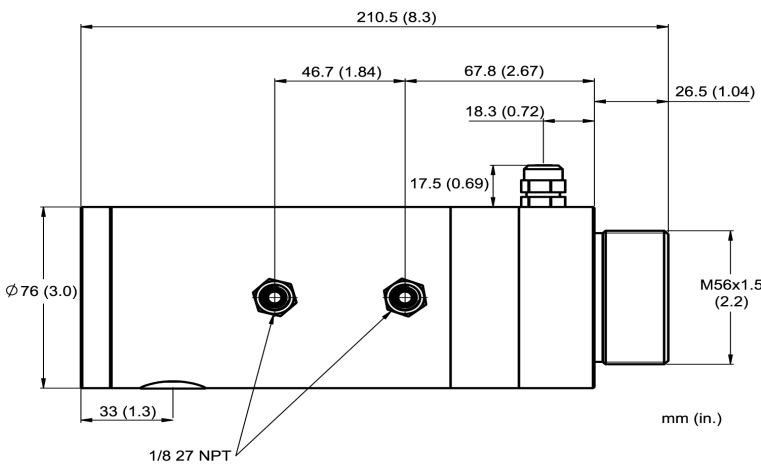
Additional accessories are available:

- 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)
- RS232/485 interface converter with 220 VAC / 9 VDC adapter (XXX485CVT2)
- RS232/USB Converter (XXXUSBCV)
- Industrial Power Supply 110 / 220 VAC to 24 VDC, 1,1 A (XXX2CDCPSS)
- Low Temp Cable (XXX2CLTCB...)
- High Temp Cable (XXX2CCB...)
- Terminal Block (XXXMATB)
- Terminal Block including 24 VDC power supply (110 / 230 VAC input) and IP 65 rated housing (RAYMAPB)
- ThermoJacket enclosure for ambient temperatures to 315°C (RAYTXXTJ4), see also ThermoJacket datasheet

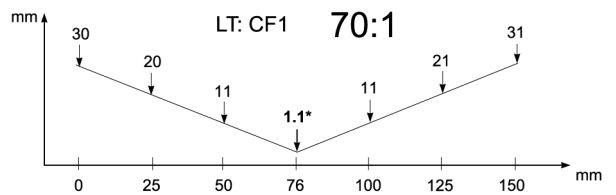
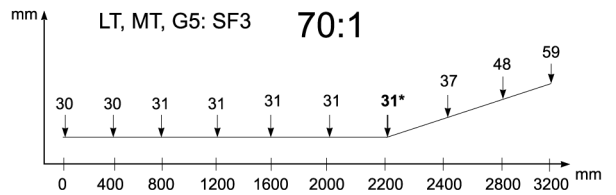
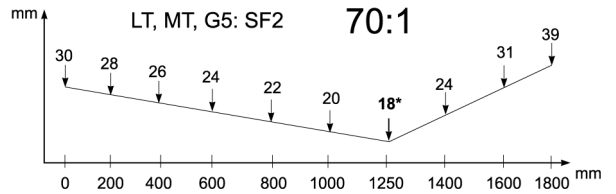
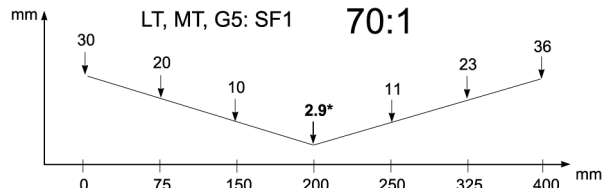
Adjustable Bracket (XXXMMACAB)



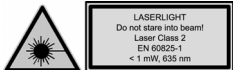
Air/Water-Cooled Housing (...W)



Optical Specifications



* D:S for the focus point
90% energy



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for up-to-the-minute features

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