

Highlights

- Multiple sensor design (up to 8 heads for 1 box)
- Plug & Play (automatic head detection from the box)
- High temperature resistance for the head up to 180°C without cooling
- Multiple spectral ranges covered by one sensor model
- Extended temperature range for LT head up to 1000°C
- Dedicated 5 µm head for measuring of glass
- Laser sighting for 1M/2M sensing heads
- Spot sizes down to 0,5 mm (with Close Focus Lens)
- Fast 10 ms response time
- Industrial rugged head cable (PUR): Silicone and Halogen free, resistant against oil, bases, and acids
- Networkable OEM head model (without a box)

MI3 Heads

Datasheet



Measurement Specifications

Temperature Range	
LTS02, LTS10, LTH10	-40 to 600°C
LTS20, LTF, LTH20	0 to 1000°C
G5	250 to 1650°C
2M	250 to 1400°C
1M	500 to 1800°C
Spectral Response	
LT	8 – 14 µm
G5	5 µm
2M	1.6 µm
1M	1 µm
Optical Resolution¹	
LTS (standard)	2:1, 10:1, 22:1 typ. (21:1 guaranteed)
LTH	10:1, 22:1 typ. (21:1 guaranteed)
LTF (fast)	10:1
G5	10:1
1M, 2M	100:1
SF1 Optics	2 mm spot @ 200 mm distance
SF3 Optics	22 mm spot @ 2200 mm distance
Accuracy²	
LT, G5	±(1% of reading or 1°C) ^{3,4}
1M, 2M	±(0.5% of reading + 2°C)
Repeatability	
LT, G5	±0,5% of reading or ±0,5°C ³
1M, 2M	±(0.25% of reading + 1°C)
Temperature Coefficient	
LT, G5	±0,05K / K or ±0,05% / K of reading ³
1M, 2M	±0,01% / K of reading
Response Time⁵	
LTS (standard), LTH	130 ms
LTF (fast)	20 ms
G5	130 ms
1M, 2M	10 ms
Emissivity ε	
	0,100 to 1,100
Transmission	
	0,100 to 1,000
Signal Processing	
	Peak hold, valley hold, adjustable up to 998 s variable averaging filter

¹ 90% energy

² at ambient temperature 23°C ± 5°C, ε = 1.0, and calibration geometry

³ whichever is greater

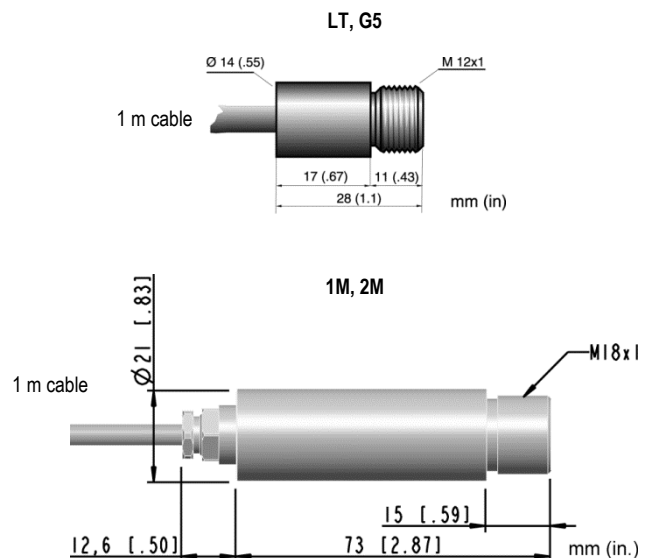
⁴ ± 2°C for target temperatures < 20°C

⁵ 90% value

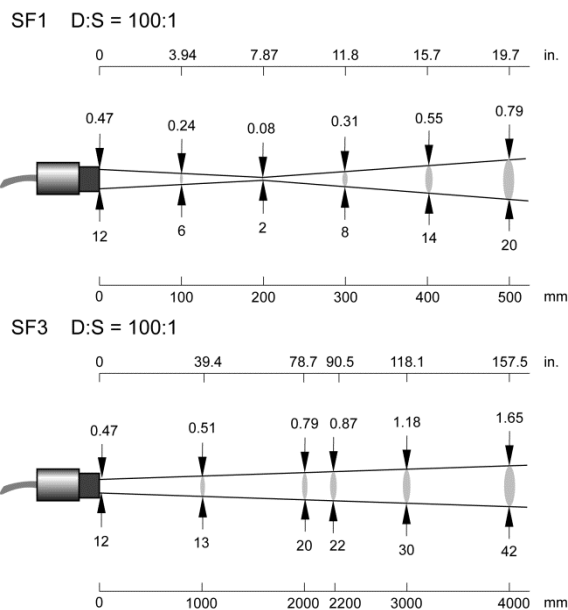
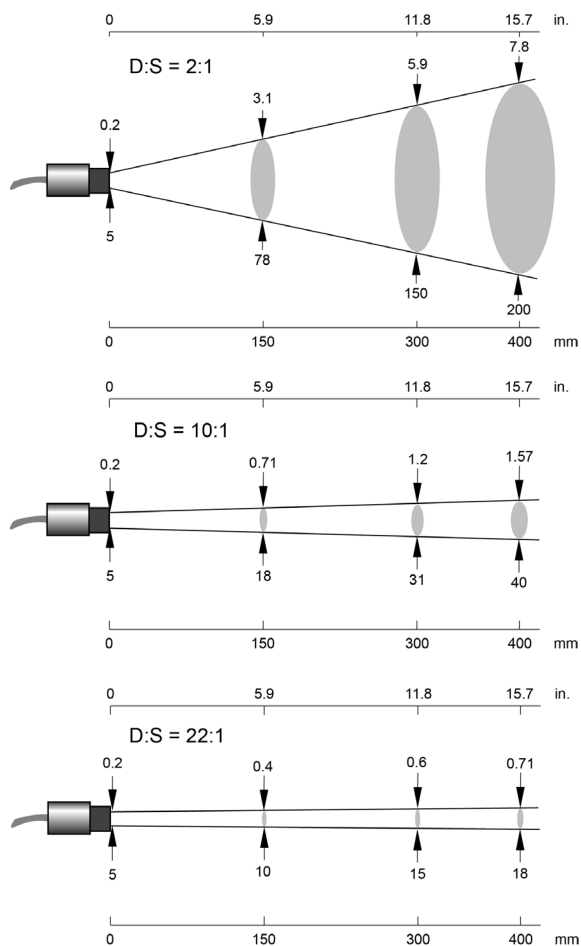
General Specifications

Ambient Temperature	
LT, G5	-10 to 120°C
LTH	-10 to 180°C
1M, 2M	0 to 120°C
Laser (1M, 2M)	automatic switch off at 65°C
Storage Temperature	
LTH	-20 to 180°C
all other models	-20 to 120°C
Environmental Rating	
	IP65
EMC	
	EN 61326-1:2006

Dimensions



Optical Specifications (90% energy)



Options

Options must be specified at time of order.

- Longer head cable lengths: 3 m, 8 m, 15 m, 30 m
- Water cooled housing (1M, 2M heads)
- Networkable OEM sensing head without the need for a box

Water Cooled Housing (1M, 2M)



Accessories

Accessories include items that may be ordered at any time and added on-site:

- Adjustable Mounting Bracket
XXXMIACAB for LT, G5 / XXXMI3100ADJB for 1M, 2M
- Air Cooling Jacket (XXXMIACCJ: 0.8 m, XXXMIACCJ1: 2.8 m) for ambient temperatures up to 200°C (LT, G5 only)

Air Purge Jacket



for LT, G5 heads
(XXXMIACAJ)



for 1M, 2M heads
(XXXMI3100AP)

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