

## Highlights

- Multiple sensor design (up to 8 heads for 1 box)
- Plug & Play (automatic head detection from the box)
- Broad measurement range covered by one single model
- Short wavelength heads for high temperatures
- Dedicated 5  $\mu\text{m}$  head for measuring of glass
- Extended temperature range for LT head up to 1000°C
- 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

<b>Temperature Range</b>	
LT02, LT10	-40 to 600°C
LT20, LTF	0 to 1000°C
G5	250 to 1650°C
1M	500 to 1800°C
2M	250 to 1400°C
<b>Spectral Response</b>	
LT	8 – 14 $\mu\text{m}$
G5	5 $\mu\text{m}$
1M	1 $\mu\text{m}$
2M	1.6 $\mu\text{m}$
<b>Optical Resolution<sup>1</sup></b>	
LTS (standard)	2:1, 10:1, 22:1 typ., 21:1 guaranteed
LTF (fast)	10:1
G5	22:1 typ., 21:1 guaranteed
1M, 2M	100:1
SF1 Optics	2 mm spot @ 200 mm distance
SF3 Optics	22 mm spot @ 2200 mm distance
<b>Accuracy<sup>2</sup></b>	
LT, G5	$\pm(1\% \text{ of reading or } 1^\circ\text{C})^{3,4}$
1M, 2M	$\pm(0.5\% + 2^\circ\text{C})$
<b>Repeatability</b>	
LT, G5	$\pm 0.5\% \text{ of reading or } \pm 0.5^\circ\text{C}^3$
1M, 2M	$\pm(0.25\% + 1^\circ\text{C})$
<b>Temperature Coefficient</b>	
LT, G5	$\pm 0.05\text{K} / \text{K}$ or $\pm 0.05\% / \text{K}$ of reading <sup>3</sup>
1M, 2M	$\pm 0.01\% / \text{K}$ of reading
<b>Response Time<sup>5</sup></b>	
LTS (standard)	130 ms
LTF (fast)	20 ms
G5	55 ms
1M, 2M	10 ms

<sup>1</sup> 90% energy

<sup>2</sup> at ambient temperature 23°C  $\pm$  5°C,  $\epsilon = 1.0$ , and calibration geometry

<sup>3</sup> whichever is greater

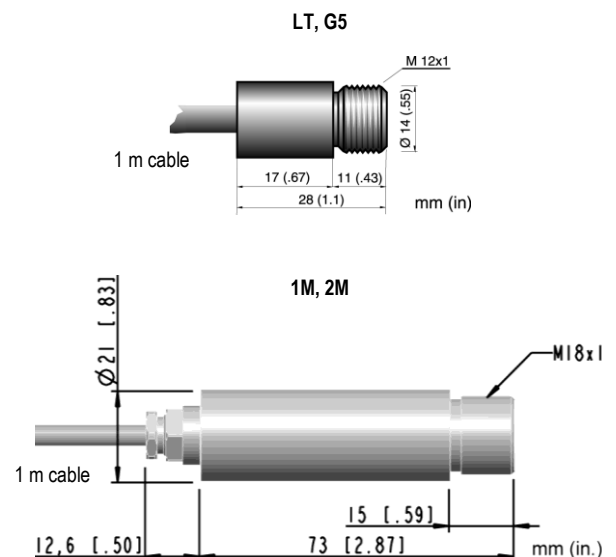
<sup>4</sup>  $\pm 2^\circ\text{C}$  for target temperatures < 20°C

<sup>5</sup> 90% value

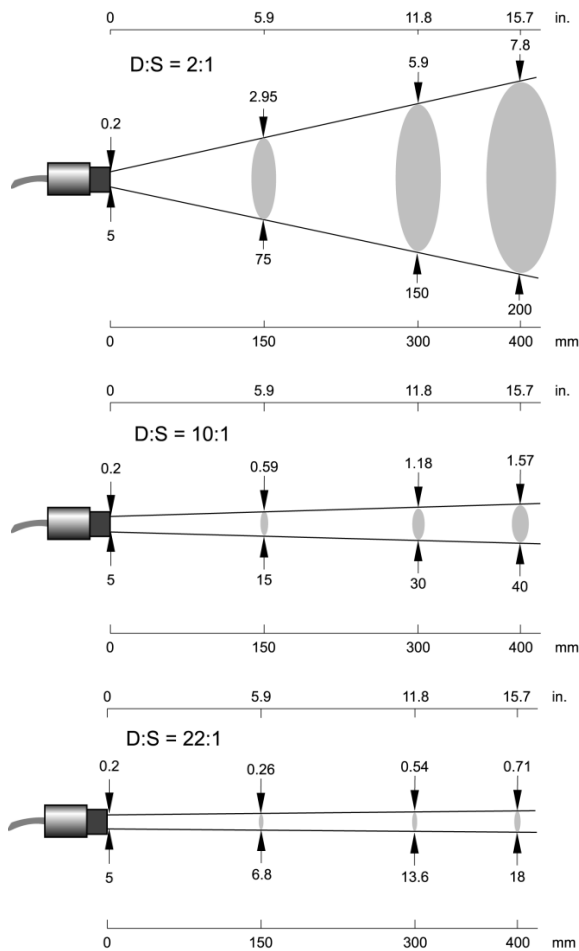
#### General Specifications

<b>Ambient Temperature</b>	-10 to 120°C
	with air cooling (LT, G5)
	200°C
Laser (1M, 2M)	
automatic switch off at 65°C	
<b>Storage Temperature</b>	-20 to 120°C
<b>Environmental Rating</b>	IP65
<b>EMC</b>	EN 61326-1:2006

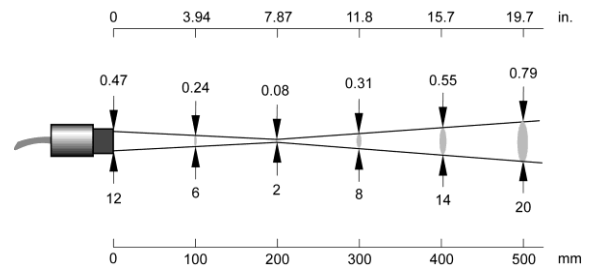
#### Dimensions



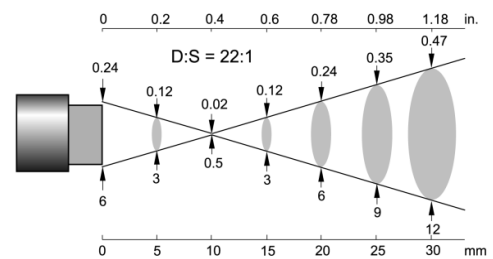
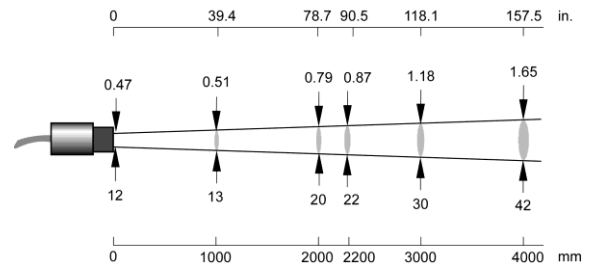
## Optical Specifications (90% energy)



SF1 D:S = 100:1



SF3 D:S = 100:1



22:1 Sensing Head with Close Focus Lens (XXXMI3ACCFL)

## Options

Options must be specified at time of order.

- Longer head cable lengths: 3 m, 8 m, 15 m, 30 m
- Networkable OEM sensing head without the need for a box

## Accessories

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

- Close Focus Lens (XXXMI3ACCFL) for spot sizes down to 0.5 mm (LT, G5 only)
- Air Cooling Jacket (XXXMIACCJ: 0.8 m, XXXMIACCJ1: 2.8 m) for ambient temperatures up to 200°C (LT, G5 only)

### Adjustable Mounting Bracket



for LT, G5 heads  
(XXXMIACAB)



for 1M, 2M heads  
(XXXMI3100ADJB)

### Air Purge Jacket



for LT, G5 heads  
(XXXMIACAJ)



for 1M, 2M heads  
(XXXMI3100AP)



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