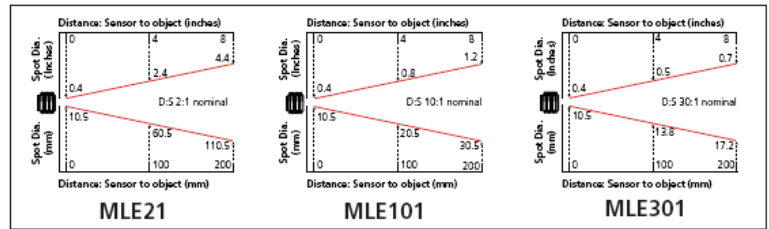


Convir MLE Series Two-Piece Non-Contact Temperature Sensor

The new MLE Series is a range of miniature infrared temperature sensors with separate electronics. MLE sensors are capable of measuring temperatures in the range -20°C to 500°C and are available with either a current, voltage or thermocouple output. The miniature sensing head measures just 18 mm diameter x 45 mm. It is made of stainless steel, sealed to IP65, and will operate in ambient temperatures up to +70°C without additional cooling. This makes the MLE Series ideal for applications where there is only a small amount of room available to mount the sensor or the ambient temperature around the sensing head is higher than normal. The electronics module measures 98 mm x 64 mm x 34 mm. It is made of die-cast aluminium, sealed to IP65, and will operate in ambient temperatures up to +50°C. It is powered from a 24 VDC (28 VDC max) power source. The emissivity setting is fixed at 0.95, making the MLE Series suitable for the majority of applications where the target is made of a non-reflective material such as paper, plastic, rubber, cloth, food etc. or it can be used to measure metals that are painted, anodised or oxidised.

DIAMETER OF TARGET SPOT MEASURED VERSUS DISTANCE FROM SENSING HEAD



GENERAL SPECIFICATIONS

Output	See table
Accuracy	±1% of reading or ±1°C whichever is greater
Repeatability	±0.5% of reading or ±0.5°C whichever is greater
Emissivity	Fixed at 0.95
Response Time, t90	200 ms (90% response)
Spectral Range	8 to 14 µm
Power	24 V DC (28 V DC max)
Min. Sensor Voltage	9 V DC
Max. Loop Impedance	750 ½ (4-20 mA output)
Output Impedance	50 ½ (voltage/thermocouple output)

Output	Model-X
4-20 mA	-0
0-50 mV	-1
0-100 mV	-2
J thermocouple	-3
K thermocouple	-4
1 mV/°C	-5
10 mV/°C	-6
0-5 V	-7

MECHANICAL

Construction	stainless Steel
Dimensions	18 mm diameter x 45 mm long
Thread Mounting	16 mm diameter x 1 mm pitch
Cable Length	1 metre
Weight with Cable	294 g

SENSING HEAD

Construction	stainless Steel
Dimensions	18 mm diameter x 45 mm long
Thread Mounting	16 mm diameter x 1 mm pitch
Cable Length	1 metre
Weight with Cable	294 g

ELECTRONICS MODULE

Construction	Die-cast Aluminium
Dimensions	98 mm x 64 mm x 34 mm

ENVIRONMENTAL

Environmental Rating	IP65
Ambient Temperature Range	0°C to 70°C (sensing head), 0°C to 50°C (electronics module)
Relative Humidity	95% max. non-condensing

OPTIONS

- Longer sensor cable (5 metre max.)
- Certificate of calibration
- Combined thermocouple extension/power cable

ACCESSORIES

- Fixed mounting bracket
- Adjustable mounting bracket
- Air purge collar
- Laser sighting tool
- Portable calibration checker

		Temperature Range (other ranges to order)		
		-20°C to 100°C	0°C to 250°C	0°C to 500°C
Field-of-View	30:1	MLE21LT-X	MLE21MT-X	-
	10:1	MLE101LT-X	MLE101MT-X	MLE101HT-X
	2:1	MLE301LT-X	MLE301MT-X	MLE301HT-X



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