

CM

Datasheet



Highlights

- Wide temperature range from -20°C to 500°C
- 13:1 optics at 90% energy
- 150 ms response time
- Scaleable 0 – 5 V output or t/c type J or K output
- Alarm output
- Sensor status/self diagnostic indicator LED
- RS232 digital communications for sensor set-up and monitoring
- Adjustable signal processing
- Rugged IP 65 stainless steel housing
- DataTemp® Multidrop software compatible
- Accessories for air purging and lens protection

General Specifications

Environmental Rating	IP65
Ambient Temperature	0 to 70°C
Cable Temperature	-30 to 105°C
Storage Temperature	-20 to 85°C
Relative Humidity	10 to 95%, non-condensing
Shock	IEC 68-2-27, 50 g's, 11 ms, any axis
Vibration	IEC 68-2-27, 3 g's, any axis, 11–200 Hz
Weight	145 g (incl. 1 m cable)

Electrical Specifications

Analog Output	model specific type J or K or scaleable 0 to 5 V voltage output
Digital Output ¹	RS232 (two-way)
Alarm Output ¹	24 VDC, ±20%, < 20 mA (transistor)
Cable Length	1 m standard 3 m optional
Output Impedance (t/c)	100 Ω
Min. Load Impedance (mV)	50 kΩ
Power Supply	12 – 24 VDC, ±20%, 10 mA

¹ digital and alarm output share a common wire. User selects either alarm output or RS232 communication via Datatemp Multidrop software.

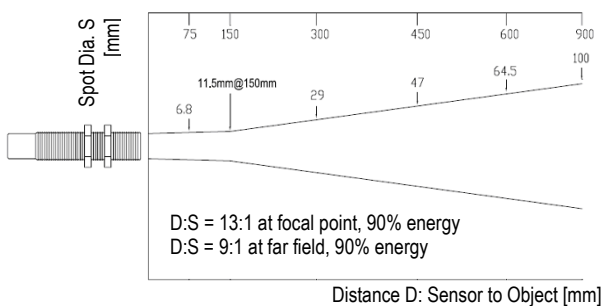
Measurement Specifications

Temperature Range	-20 to 500°C
Spectral Response	8 to 14 μm
Accuracy ¹	
mV	±1,5% of reading or ±2°C, whichever is greater ± 3,5°C for T _{meas} < 0°C
t/c ²	±1,5% of reading or ±4°C, whichever is greater ± 3,5°C for T _{meas} < 0°C
Repeatability	± 0,5% of reading or ± 2°C, whichever is greater
Temperature Resolution	0,1°C
Response Time	150 ms (95%)
Emissivity	0,10 to 1,10 (adjustable)
Transmissivity	0,10 to 1,00 (adjustable)
Signal Processing	peak hold, valley hold, variable averaging
Self diagnostics	normal operation, alarm, out of range, unstable, sensor fault
Bore-Sight tolerance	typ. 3° at focal point

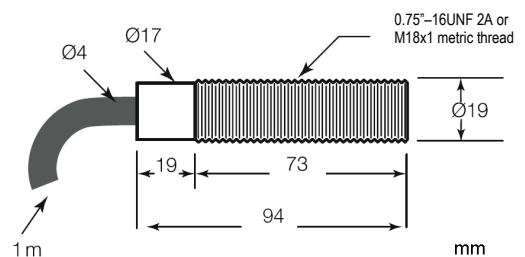
¹ at 23°C ±5°C, emissivity = 1.0

² Accuracy measured on the 0-5 VDC output or RS232 for t/c models is ± 1.5% of reading or ± 2°C

Optical Specifications



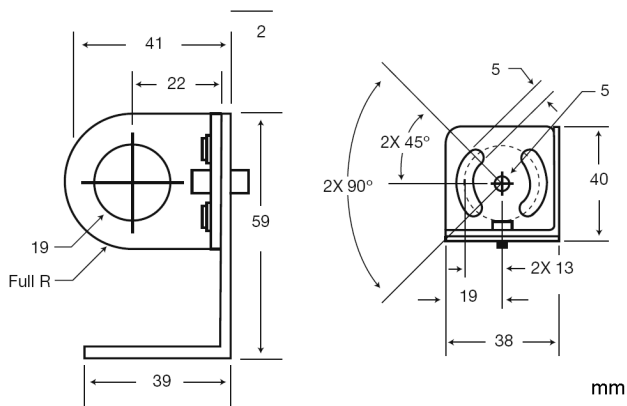
Dimensions



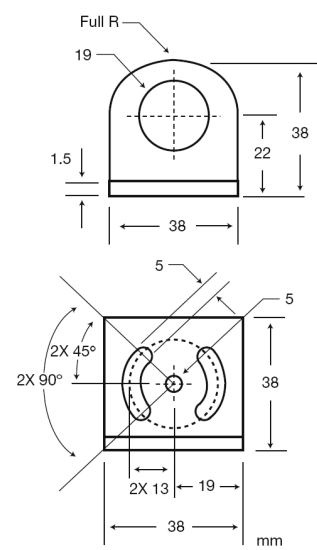
Accessories

Each sensor includes two mounting nuts, 1 m of cable, and a quick start guide.

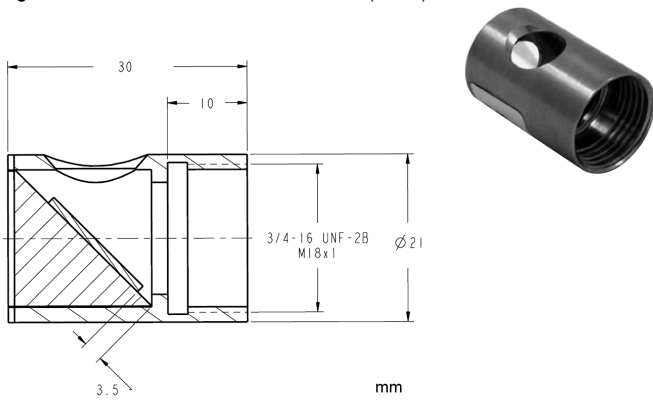
Adjustable Bracket (XXXCIADJB)



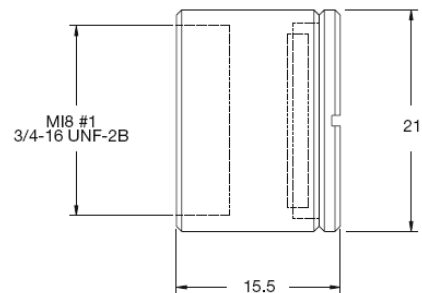
Fixed Bracket (XXXCIACFB)



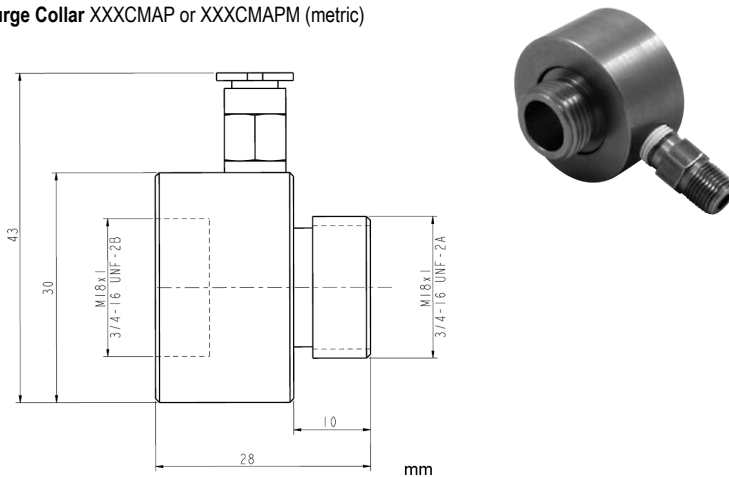
Right Angle Mirror XXXCMACRA or XXXCMACRAM (metric)



Protective Window XXXCMACPW or XXXCMACPWM (metric)



Air Purge Collar XXXCMAP or XXXCMAPM (metric)



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