

MI-N500-N



MI-N500



Digital infrared pyrometers with miniature sensor head for non-contact temperature measurement between -40°F to 1292°F (-40°C to 700°C)

MI-N500-N and MI-N500 are digital pyrometers for non-contact temperature measurement of non-metallic or coated metallic objects.

The pyrometers can be equipped alternatively with two different sensor heads (field of view 10:1 or 2:1).

The parameters of the MI-N500-N can be remotely adjusted by PC, MI-DA6000-N remote digital display, or by MI-HT6000 which is a portable hand held setup device.

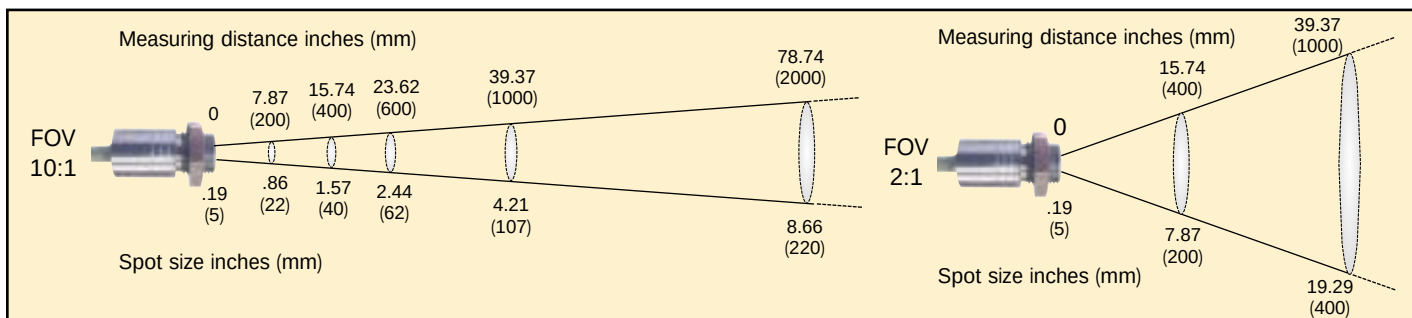
Additionally the MI-N500 is equipped with an illuminated display and three push buttons for adjustment of all sensor parameters without external instruments.

Features include:

- Interchangeable stainless steel sensor head
- Rugged aluminum die-cast NEMA 4x housing
- Isolated relay contact
- Sensor head operating ambient temperature up to 185°F (85°C) without cooling, 392°F (200°C) with air cooling
- Digital interface RS232 or RS485
- Switchable analog output (current, voltage or thermocouple)
- Integrated max/min storage
- Presetting of sensor parameters via switchboard or external PC, MI-DA6000-N remote digital display, or MI-HT6000 portable setup device
- Bright illuminated digital temperature display (MI-N500 only)

Visit www.mikroninfrared.com

Model MI-N500 Series Digital Pyrometers



Specifications

Temperature range: 32°F to 932°F (0°C-500°C), optional -40°F to 1292°F (-40°C to 700°C)

Sub range: Adjustable; min. range 123°F (51°C)

Spectral range: 8-14 μ m

FOV Optics: 10:1 or 2:1

Power supply: 10-30VDC, ripple < 0.5V, power consumption max. 60 mA

Analog output: Linear current (4-20mA), voltage (0-5V) or thermocouple (type "J" or "K")

Additional output: 10 mV/°C or 10 mV/°F for ambient temperature of sensor head

Load: Max. 700 Ω at 24V power supply (for current output) (500 Ω /20V)

Output impedance: 100 Ω (for thermocouple or voltage output)

Relay contact: Isolated relay contact; 50VDC; 0.2A; temperature setpoint and hysteresis adjustable

Digital interface: RS232 or addressable RS485

Emissivity: 0.10 to 1.00 adjustable in steps of 0.001 (.10 - 1.00=e, 1.01 - 1.20=ae)

Max. Min. value storage: Clear time: OFF; 0.1, 0.25, 0.5, 1, 5, 25 sec. external, automatic

Response time t_{90} : 180 ms; switchable: 0.5, 1, 2, 5, 10 or 30 sec.

Resolution: 1/10°C (1/10°F from -40° to 999.9°F, 1°F from 1000° to 1292°F)

Temperature display (MI-N500): LCD, 4 digit, 3 values per second, display illumination permanent

Uncertainty ($e=1$, $t_{90}=1$ s; $T_{amb}=15...30^{\circ}\text{C}$): 0° to 700°C: 1% of measured value in °C or 1°C* -40°C to 0°C: 2°C With thermocouple output: min. 2.5°C

Repeatability: 0.5% of measured value in °C or 0.5°C *

Max. Ambient temp. electronics: 32°F to 149°F (0°C to 65 °C) storage temperature: -4°F to 158°F (-20°C to 70°C)

Max. Ambient temp. sensor head: 32°F to 185°F (0°C to 85°C), 32°F to 392°F (0°C to 200°C with air cooling and purging accessories) storage temperature: -4°F to 185°F (-20°C to 85°C)

Relative humidity: 10-95%, non condensing

Protection class: IP65 (electronics, sensor head 10:1), IP20 (sensor head 2:1)

Weight: 11.3 oz. (320g)

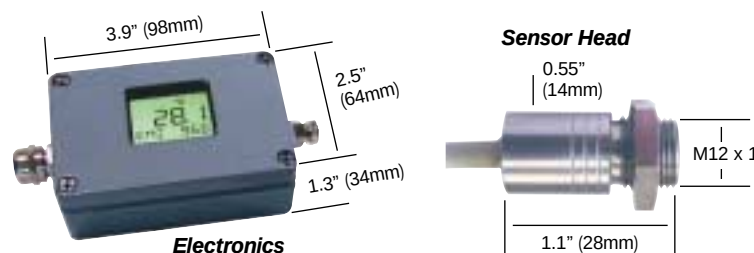
Dimensions:

Electronics: 3.9" x 2.5" x 1.3" (98mm x 64mm x 34mm)

Sensor head: 1.1" x 0.55" x (28mm x 14mm), thread M12 x 1

Housing: Aluminum (electronics), stainless steel (sensor head)

* The larger value is valid. The sensor head must be in constant ambient temperature for at least 15 min.



P/N #'s

Basic Model Number

5874100	MI-N500-N	(No display) Sensor head 2:1, sensor cable 1m, RS232
5874200	MI-N500-N	(No display) Sensor Head 10:1, sensor cable 1m, RS232
5874300	MI-N500	Sensor head 2:1, sensor cable 1m, RS232
5874400	MI-N500	Sensor head 10:1, sensor cable 1m, RS232

Add options to PN

+10	RS 485 instead of RS232
+20	3m sensor cable instead of 1m
+40	15m sensor cable instead of 1m

*Sensor Options

Example: PN# for Model MI-N500 with 10:1, RS485 & 3m Sensor Cable:
5874400+10+20 = 5874430

Electrical Accessories

3821010	Connecting cable MI-N500, 2m with digital connection (1m) and Software InfraWin
3821020	Connecting cable MI-N500, 2m for power supply and thermocouple output
3890600	Power Supply 24VDC (200mA), for C/Z-carrier rail mounting
3852430	Digital converter RS232 to RS485 (half duplex)
3890560	MI-DA6000-N: LED-digital display for remote pyrometer parameter setting RS232
3890570	MI-DA6000-N: LED-digital display for remote pyrometer parameter setting RS485
3826500	MI-HT6000: portable setup controller

Mechanical Accessories

3834370	Fixed Mounting bracket for sensor
3834380	Adjustable mounting bracket
3835330	Air purge (only sensor head 10:1)
3835340	Air purge with 90° mirror (only sensor head 10:1)
3835350	Air cooling and purge, length 0.75m (only sensor head 10:1)
3835360	Air cooling and purge, length 2.5m (only sensor head 10:1)

Mikron reserves the right to change specifications to reflect the latest changes in technology and improvements at any time without notice. These changes will be reflected in subsequent editions of our literature when warranted.



Mikron Infrared, Inc., Headquarters
16 Thornton Road
Oakland, NJ 07436 USA
Tel: 201-405-0900
Tel: (USA only) 800-631-0176
Fax: 201-405-0090
E-mail: sales@mikroninfrared.com

Visit our websites: www.mikroninfrared.com
www.IRimaging.com

West Coast Office:
Mikron
4475 Dupont Court #9
Ventura, CA 93003
Tel: 805-644-9544
Fax: 805-644-9584
E-mail: sales@e2t.com