

Raytek Programmable IR Sensors



▲ CM

- -20 to 500°C (-4 to 932°F) Range
- 13:1 Optics at 90% Energy
- 150ms (95%) Response Time
- RS-232 Digital Communications
- Adjustable Signal Processing
- DataTemp® Multidrop Software Compatible
- Sensor status indicator LED

Designed for easy integration, the CM sensor with J-type or K-type thermocouple output can easily replace traditional contact probes. A user scalable 0-5 volt output is available for applications susceptible to noise. This rugged, single piece NEMA4 sensor has silicon optics to provide excellent optical resolution.

SPECIFICATIONS

Accuracy (mV):	± 1.5% of reading or ± 2°C
Accuracy (T/C):	± 1.5% of reading or ± 4°C
Spectral Response:	8 to 14 microns
Resolution:	0.1°C
Emissivity:	0.10 to 1.10 (adjustable)
Transmissivity:	0.10 to 1.00 (adjustable)
Signal Processing:	Peak hold, valley hold, variable averaging
Output:	100Ω Zout (TC types) 50kΩ min load (Voltage type)
Self-diagnostics:	Alarm, out of range, unstable, fault
Power Supply:	12-24 VDC ±20% @ 10mA
Digital Output:	Two-way RS232 digital output
Alarm Output:	Transistor, 24VDC ±20% <20mA
Ambient Temperature:	0-70°C (32-160°F)
Housing:	IP 65 (NEMA-4) stainless steel
Size:	0.75" dia x 3.7" long, 3/4-16 UNF thread
Cable:	1m (3.3 ft) standard, 3m available

ORDERING INFORMATION

RAYCMLTV	CM sensor, 0-5V user-scalable output
RAYCMLTJ	CM sensor, Type J TC output
RAYCMLTK	CM sensor, Type K TC output

Add suffix 3 for 3m (9.8') cable

Kobold Ultrasonic Level Transmitter

- Measuring ranges to 23 feet in liquids, 11.5 feet in solids
- Narrow 5.5° beam angle
- PVDF wetted parts
- Accuracy 0.25% of full scale
- 2-wire and 4-wire versions



▲ 2083

The NUS series Ultrasonic Level Transmitter is ideal for continuous, non-contact level measurement in liquids and coarse grained or pelletized solids. This sensor allows reliable measurement of dirty, viscous, and coating medium. The NUS boasts an extremely narrow beam to minimize problems due to obstructions in tall tanks. In addition to the 4-20mA output, a front panel LED readout is available.

The NUS series offers many advanced features including 11 point linearization, fixed echo suppression, automatic stirrer echo suppression and output dampening. These features allow the NUS series to be used in applications which render most other ultrasonics useless. Calibration and setup is a simple task performed using a push-button driven menu.

SPECIFICATIONS

Maximum Pressure:	40 PSIG
Process Temperature:	-40°F to 176°F
Accuracy:	0.25% of Max. Range
Resolution:	±0.12"
Beam Cone Angle:	5.5°
Maximum Loop Load:	600Ω
Optional Display:	4 digit LED
Case:	Epoxy coated Aluminum
Protection:	NEMA 4X, IP65
Electrical Connection:	1/2" NPT
Measuring Range	
2" NPT Models:	1.3 to 23.0 ft in liquids, 1.3 to 15 ft in solids
1 1/2" NPT Models:	0.8 to 13.1 ft in liquids, 0.8 to 6.6 ft in solids

ORDERING INFORMATION

KO/NUS-1053N	1 1/2" fitting, 12-36VDC, 2-wire Transmitter
KO/NUS-1051N	1 1/2" fitting, 90-127VAC, 4-wire Transmitter
KO/NUS-2053N	1 1/2" fitting, 12-36VDC, 2-wire with Display
KO/NUS-2051N	1 1/2" fitting, 90-127VAC, 4-wire with Display
KO/NUS-1083N	2" fitting, 12-36VDC, 2-wire Transmitter
KO/NUS-1081N	2" fitting, 90-127VAC, 4-wire Transmitter
KO/NUS-2083N	2" fitting, 12-36VDC, 2-wire with Display
KO/NUS-2081N	2" fitting, 90