

ZNC-IRS Infrared Temperature Sensor

4-20mA / 0-5V / RS485 Output

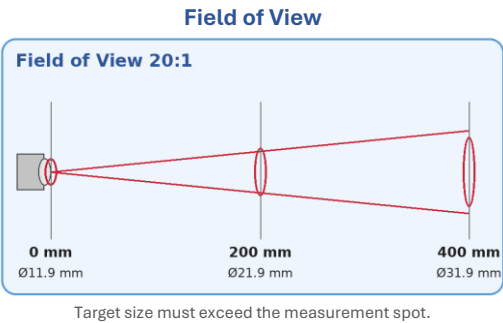


- Temperature Range:** -20°C to 500°C; optional range up to 800°C
- Emissivity:** Fixed at 0.95
- Output Signal:** 4-20mA, 0-5V or RS485
- Housing Material:** 304 stainless steel
- Cable Length:** 2 m standard; customizable
- Wiring:** 2-wire, 3-wire or 4-wire
- Measurement:** Non-contact surface temperature
- Optional Function:** Anti-microwave interference

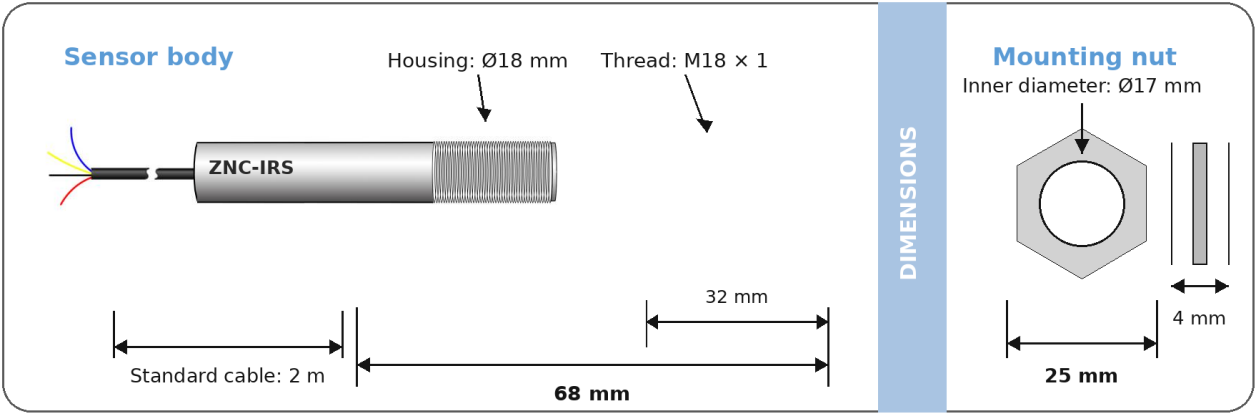
Overview

The ZNC-IRS is a compact infrared temperature sensor for continuous, non-contact surface temperature measurement. It converts the detected infrared energy into a standard analog or digital signal for connection to PLCs, displays, recorders and industrial control systems. The sensor is suitable for non-metallic materials, painted surfaces and coated metals, and can be used in metallurgy, heat treatment, chemical processing, electric power, photovoltaic, cement, glass, refractory and crystal-material production.

Technical Specifications		Mechanical Details	
Temperature range	-20°C to 100°C	Material	304 stainless steel
	0°C to 300°C	Dimensions	Ø18 × 68 mm
	0°C to 500°C	Mounting thread	M18 × 1
	0°C to 800°C		
Output signal	4-20mA	Cable length	2 m; customizable
	0-5V	Weight	Approx. 150 g
	RS485		
Accuracy	±1% or ±1°C, whichever is greater		
Repeatability	±1°C		
		Operating Environment	
Emissivity	0.95 (fixed)	Protection rating	IP65
Response time	300 ms (95% response)	Ambient temperature	0°C to 50°C
Spectral range	8-14 μm	Humidity	95% RH, non-condensing
Power supply	24V DC	Field of View Field of View 20:1	
Distance-to-spot ratio	20:1		
Maximum current	25mA		



Dimensions



Wiring

System	Connection	Cable Color	Function
2-wire	Red: 24V+ Blue: mA/V+	Red	24V DC (+)
		Black	24V DC (-)
3-wire	Red: 24V+ Blue: mA/V+ Black + Orange: mA/V-	Blue	4-20mA / 0-5V +
		Orange	4-20mA / 0-5V -
4-wire	Red: 24V+ Black: 24V- Blue: mA/V+ Orange: mA/V-	Transparent	Shield

Note: The final wiring configuration depends on the ordered output version. Follow the wiring diagram supplied with the product.

Common Accessories



Dust Cover

Helps protect the optical window from particles and surface contamination.



Air-Purge Adapter

Uses clean air to reduce dust, smoke or vapor accumulation on the optical window.

Selection Notes

- The standard emissivity is fixed at 0.95 and is suitable for most non-metallic materials, painted surfaces and coated metals.
- Bare, polished or highly reflective metals should be evaluated before selection because low emissivity may affect accuracy.
- For dusty, smoky or steamy environments, use an air-purge adapter and keep the optical path clear.
- Confirm the temperature range, output signal, target material, measuring distance and cable length before ordering.

Specifications are subject to change without prior notice. Please confirm the selected configuration before ordering.