

# PyroCV

## Infrared Temperature Sensor for Construction Vehicles



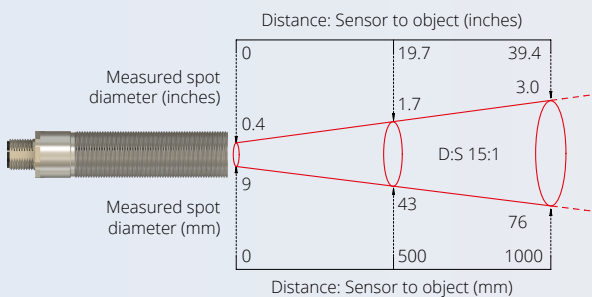
- Conforms to EMC standards for Construction Machinery
- Measures the temperature of asphalt and non-reflective construction materials without contact
- Temperature ranges from -20°C to 500°C
- Durable, robust stainless steel 316 housing, sealed to IP67 / IP65 (when mated)
- Quick and easy installation
- CAN communications or linear 0-5 V DC output
- Fast response with high stability
- Also measures non-reflective non-metals such as concrete and bulk materials, as well as painted surfaces (including painted or coated metals).

The PyroCV is a simple, robust infrared temperature sensor with CAN communications or a voltage output, tested to EMC standards for construction machinery.

No complicated setup is required - just connect a temperature indicator and power supply, and instantly start taking measurements.

It is suitable for non-contact temperature measurement on most non-reflective non-metal surfaces, such as asphalt, concrete, bulk materials, painted surfaces, thick plastics, rubber and organic materials, among many others.

### OPTICS



Sensor can measure at longer distances than shown, with a larger measured spot size.

Diagram shows the diameter of the measured target spot versus the distance from the sensing head (90% energy).

### SPECIFICATIONS

General	
<b>Output</b>	Raw CAN, and 0 to 5 V DC, linear with measured temperature
<b>Temperature Range</b>	LT = -20 to +100 °C MT = 0 to 250 °C HT = 0 to 500 °C Special temperature ranges available as required
<b>Accuracy</b>	±1% of reading or ±1°C, whichever is greater
<b>Repeatability</b>	± 0.5% of reading or ± 0.5°C, whichever is greater
<b>Emissivity Setting</b>	Voltage: Fixed 0.95 CAN: 0.2 to 1.0 (configurable)
<b>Startup Time</b>	250 ms
<b>Response Time</b>	125 ms (90% response)
<b>Spectral Range</b>	8 to 14 μm
<b>Supply Voltage (at Sensor)</b>	10 V DC to 28.8 V DC
<b>Max. Current Draw</b>	20 mA
<b>Minimum Load Resistance (Voltage only)</b>	50 kΩ
<b>Wiring Protection</b>	Reverse polarity; shorts to other pins

Mechanical	
<b>Construction</b>	Stainless Steel
<b>Dimensions</b>	Sensor body length 86.5 mm
<b>Thread Mounting</b>	M18 x 1 mm pitch, length 60 mm
<b>Weight</b>	90 g

Environmental	
<b>Environmental (IP) Rating</b>	IP67 / IP65. (when mated)
<b>Ambient (Operating) Temperature &amp; Humidity</b>	-40°C to +85°C, no condensation
<b>Storage Temperature</b>	-40°C to +85°C

Conformity	
<b>Electromagnetic Compatibility (EMC)*</b>	ISO 13766-1

\*The PyroCV has been tested for load dump conditions in accordance with ISO16750-2 (clamped load dump). Compliance with ISO 13766-1 assumes installation in electrical systems providing equivalent load dump suppression. Protection against unclamped load dump must be ensured at system level.

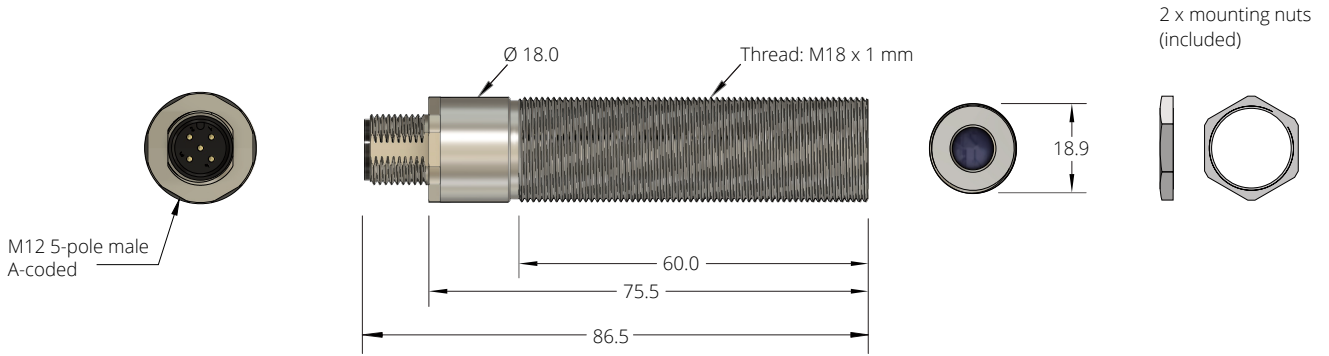
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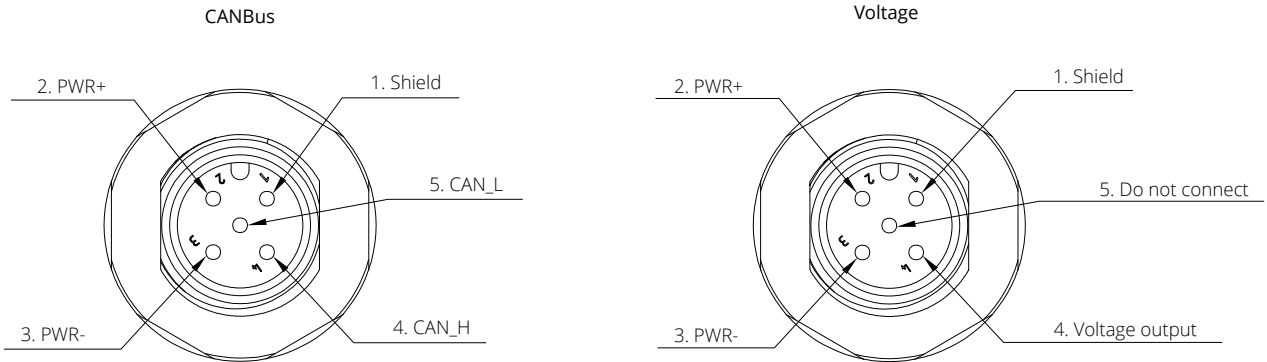
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## DIMENSIONS (mm)



## CONNECTIONS



## MODEL NUMBERS

PCV 151 MT - CAN

Example Model Numbers: PCV-151-CAN, PCV-151-ST-V

### Output type

**CAN** Raw CANbus communications  
**V** 0-5 V DC output

### Temperature range (Voltage Output Only)

**LT** -20°C to +100 °C  
**MT** 0°C to 250 °C  
**HT** 0°C to 500 °C  
**ST** Customer's choice of temperature range within the limits -20°C to 500°C; minimum span 100°C

### Field of view

**151** 15:1 divergent optics

### Series

**PCV** PyroCV

Simple infrared temperature sensor conforming to EMC requirements for construction machinery.

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Specifications subject to change without notice

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