



# Busbar Temperature Monitor



PMC-2608-3 is CET's 3<sup>rd</sup> generation offer for the Temperature and Humidity monitoring for the Commercial and Industrial markets. Housed in a compact form factor measuring only 72.6x114.6x29.7mm (Built-In Infrared Temperature Sensors option) or 72.6x114.6x28.2mm (External NTC Inputs option), the PMC-2608-3 is perfectly suited for installation in space restricting environment. The PMC-2608-3 simultaneously receives its power supply and the Modbus signals over the STP (Shielded Twisted Pair) cables through its PowerBus port. Compatible with the standard Modbus RTU protocol, the PMC-2608-3 offers real-time monitoring and alarming for Temperature and Humidity measurements. With a built-in Alarm Buzzer and four LED Indicators, the PMC-2608-3 becomes a vital component of an Intelligent Condition Monitoring System.

## Typical Applications

- Distributed busbar temperature monitoring
- Electrical fire monitoring system for industrial and commercial facilities
- Condition monitoring system for AC low voltage distribution network

## Features Summary

### Ease of use

- LED indicators for Run, Alarm and Communications (Tx & Rx)
- PowerBus interface for simultaneous power supply and communications
- Built-in Alarm Buzzer
- Panel Mount installation for Built-in Infrared Temperature Sensors option
- 3M adhesive installation for external NTC Inputs option
- LED for Self-diagnostic and temperature probes' status monitoring

### Temperature Monitoring

- 1 (optional) or 4 Built-in Single-Point Infrared Temperature Sensors
- Optional 6 External NTC Inputs
- User-defined setpoints for Warning and Alarm levels

### Humidity Monitoring

- 1 Built-in Humidity Sensor
- User-defined Setpoint for Warning and Alarm levels

### Statistics

- Real-time Temperature and Humidity measurements
- Duration recording for warning and alarm setpoints

### Communications

- PowerBus with standard Modbus RTU protocol
- Baudrate @ 9600 bps, 8E1

### PowerBus Protocol

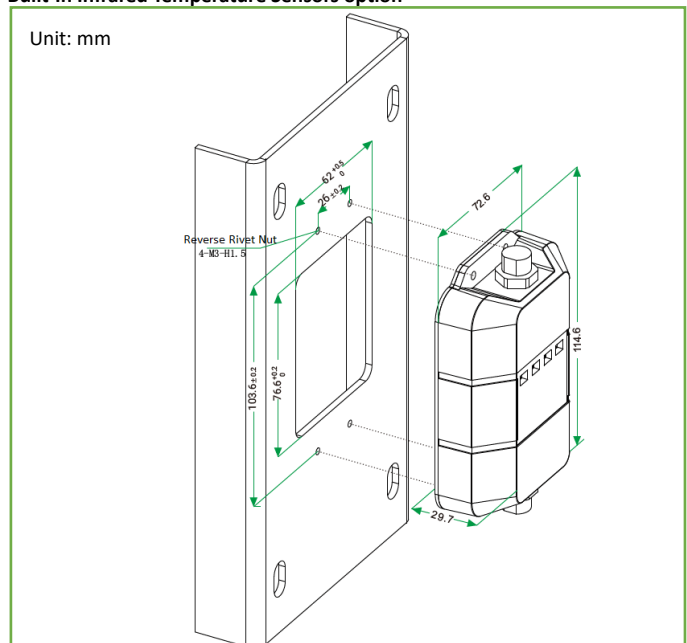
- Provide both power supply and communication signals via the STP cables
- Simplify the overall network design and save installation cost

## Technical Specifications

Power Supply (from PowerBus)	
Voltage	12-36VDC
Burden	<0.16W
Built-In Infrared Temperature Sensors	
Measurement Range	-20 °C to 200 °C
Alarm Limit Range	0 °C to 150 °C
Accuracy	-20 to 0(°C): ±4°C 0 to 100(°C): ±2°C 100 to 200 (°C): ±2%
Resolution	Comm.: 0.01°C; Display: 1°C
Optional External NTC Inputs (T1, T2, T3, T4, T5, T6)	
Measurement Range	-20 °C to 200 °C
Alarm Limit Range	0 °C to 150 °C
Accuracy	-20 to 100 (°C): ±1°C 100 to 200 (°C): ±2°C
Resolution	Comm.: 0.01°C; Display: 1°C
Terminals Max. Torque	0.5N-m
Built-In Humidity Input	
Measurement Range (RH)	0% to 99%
Alarm Limit Range (RH)	0% to 99%
Accuracy	±5%
Resolution	1%
Buzzer	
Decibel	85 dB (measured @ 10cm range)
Communications (IN, OUT)	
Interface Type	PowerBus UART
Protocol	Modbus RTU
Baudrate	9600bps
Communication Format	8E1 (8 Data Bits, Even Parity, 1 Stop Bit)
Environmental Condition	
Operating Temperature	-25 °C to 70 °C
Storage Temperature	-40 °C to 85 °C
Humidity	5% to 95% non-condensing
Atmospheric Pressure	70 kPa to 106 kPa
Pollution Level	2
Mechanical Characteristics	
Unit Dimensions	
Infrared Temp. Sensors	72.6x114.6x29.7mm
External NTC Inputs	72.6x114.6x28.2mm
IP Rating	
Watertight Type	IP65
Non-Watertight Type	IP30

## Dimensions and Installation

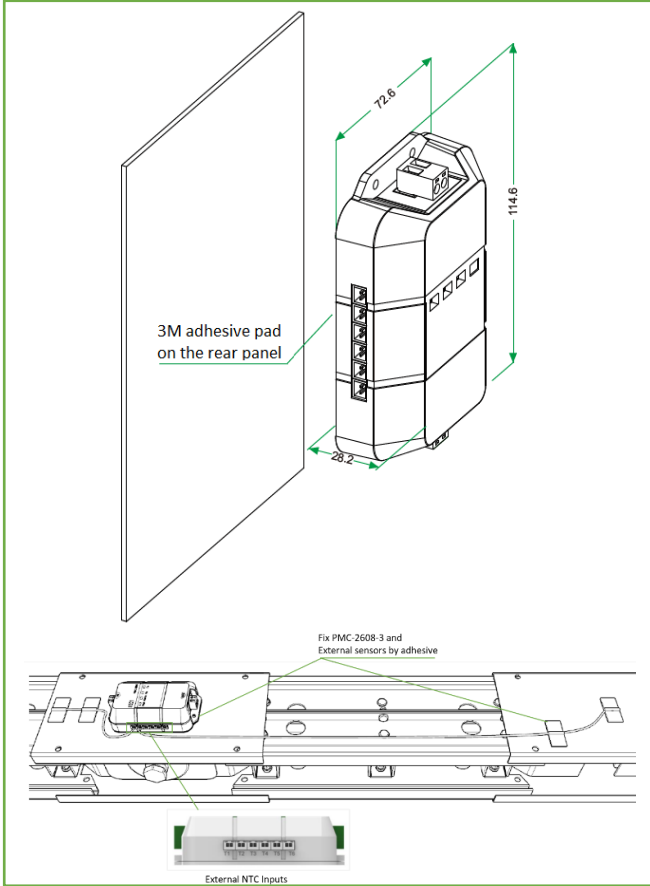
### Built-In Infrared Temperature Sensors option





Dimensions and Installation

External NTC Inputs option



Standards of Compliance

Safety Requirements	
CE LVD 2014 / 35 / EU	EN 61010-1: 2010 + A1: 2019 EN IEC 61010-2-030: 2021 + A11: 2021
Electrical Safety in Low Voltage Distribution Systems up to 1000Vac and 1500 Vdc	IEC 61557-12: 2021 (PMD)
Insulation AC Voltage: 2kV @ 1 minute Insulation Resistance: >100MΩ Impulse Voltage: 6kV, 1.2/50μs	EN 61010-1: 2010 + A1: 2019
Electromagnetic Compatibility CE EMC Directive 2014 / 30 / EU (EN IEC 61326: 2021)	
Immunity Tests	
Electrostatic Discharge	EN 61000-4-2: 2009
Radiated Fields	EN IEC 61000-4-3: 2020
Fast Transients	EN 61000-4-4: 2012
Surges	EN 61000-4-5: 2014 + A1: 2017
Conducted Disturbances	EN 61000-4-6: 2023
Magnetic Fields	EN 61000-4-8: 2010
Voltage Dips and Interruptions	EN 61000-4-11: 2004 + A1: 2017
Ring Waves	EN 61000-4-12: 2017
Electromagnetic Compatibility Immunity in Industrial Environments	EN IEC 61000-6-2: 2019
Emission Tests	
Limits and Methods of Measurement of Electromagnetic Disturbance Characteristics of Industrial, Scientific and Medical (ISM) Radio-Frequency Equipment	EN 55011: 2016
Electromagnetic Compatibility of Multimedia Equipment - Emission Requirements	EN 55032: 2015
Limits for Harmonic Current Emissions for Equipment with Rated Current ≤16 A	EN 61000-3-2: 2014
Limitation of Voltage Fluctuations and Flicker in Low-Voltage Supply Systems for Equipment with Rated Current ≤16 A	EN 61000-3-3: 2013
Emission Standard for Industrial Environments	EN 61000-6-4: 2007+A1: 2011
Mechanical Tests	
Free Fall	IEC 60068-2-31: 2008
Vibration	IEC 60068-2-6: 2007
Shock	IEC 60068-2-27: 2008

Ordering Information

Product Code	Description
PMC-2608 Busbar Temperature Monitor	
<b>Version</b>	
3	3rd Generation
<b>Basic Function</b>	
IR	Infrared Temperature Monitoring, PowerBus for Power Supply & Communications
C	External NTC Input, PowerBus for Power Supply & Communications
<b>Temperature Sensor</b>	
1	1xBuilt-in Single-Point Infrared Temperature Sensor (For PMC-2608-3IR only)
4	4xBuilt-in Single-Point Infrared Temperature Sensor (For PMC-2608-3IR only)
6*	6xExternal NTC Input (For PMC-2608-3C only)
<b>PowerBus Connector</b>	
A^	Watertight
N	Non-Watertight (Preferred option for PMC-2608-3C model)
<b>Humidity Sensor</b>	
H	1xBuilt-in Humidity Sensor
<b>Language</b>	
E	English
PMC-2608 - 3 IR 4 A H E	PMC-2608-3IR4AHE (Standard Model)

Notes:  
 \* Please order the external NTC sensor as per Accessories sheet.  
 ^ Please order the watertight components separately according to the Accessories sheet.

PMC-2608 Accessories	
Model #	Specification/Description
NTC-100, 0.4*	1xNTC Sensor with PC-ABS enclosure, thermally conductive silicone pad and 0.4m cable
NTC-104, 0.3**	1xNTC Sensor with insulated metal protective sleeve and 0.3m cable
NTC-1043, 2	3xNTC-104 Sensor as one set, each with insulated metal protective sleeve (yellow, green and red) and 2m cable
NTC-1044, 2	4xNTC-104 Sensor as one set, each with insulated metal protective sleeve (yellow, green, red and black) and 2m cable
NTC-104M4, 2	1xNTC Sensor with Ø4mm ring connector and 2m cable
NTC-104M10, 1*	1xNTC Sensor with Ø10mm ring connector and 1m cable

Notes:  
 \* We also offer NTC Sensor option with PC-ABS enclosure, thermally conductive silicone pad and 0.6m or 1.0m cable. Please contact us for any specific requirements.  
 \*\* We also offer NTC Sensor option with an insulated metal protective sleeve and a choice of 1.5m, 3.0m, 6.0m and 9.0m cable. Please contact us for any specific requirements.  
 \* We also offer an NTC Sensor option with Ø10mm ring connector and 2m cable. Please contact us for any specific requirements.

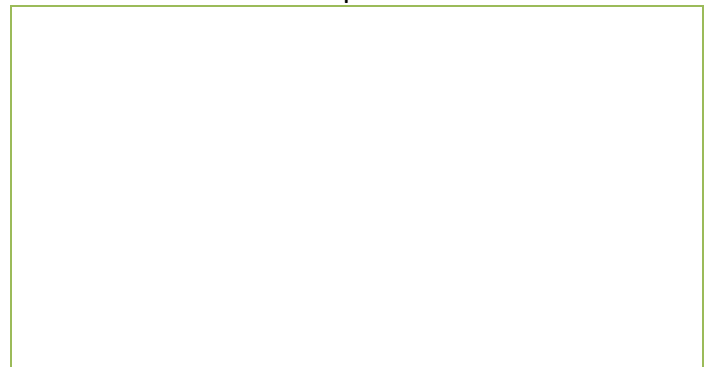
Watertight PowerBus Connectors				
Model #	Specification/Description	Length (m)	Quantity	Appearance
PMC-PBC-3B	Dual-Core Cable with M12 Watertight Female Connectors on both ends	3	1	
PMC-PBC-1.5B	Dual-Core Cable with M12 Watertight Female Connectors on both ends	1.5	1	
PMC-PBC-0.45	Dual-Core Cable with M12 Watertight Female Connector on one end	0.4	1	
	L20 2-pin Watertight Connector	N/A	1	

Dust-tight Cap				
Model #	Specification/Description	Length (m)	Quantity	Appearance
PMC-PBC Cap	Dust-tight Cap for PowerBus M12 Male Connector	N/A	1	

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Your Local Representative



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