

# MICROCOM

Simply More



# ***HERMES M121***

4 PT100 probe expansion module

[User manual](#)

*“Simplicity is the ultimate form of sophistication.”  
– Leonardo da Vinci*

#### Warning

1. This system has been developed to be installed by qualified personnel, not final users. If you have any queries regarding technical aspects, please contact our experts.
2. Our efforts to innovate in the development of software and hardware are continuous. Despite paying close attention to documenting our products properly, discrepancies may occur between a product and some of its specifications. If you have any queries or comments in this regard, please contact us by email at [microcom@microcom.es](mailto:microcom@microcom.es).
3. GSM network based communications are extraordinarily reliable. We do, however, advise against using our devices in critical systems that have no form of redundancy in relation to their communication networks, since, under exceptional circumstances, the service may become unavailable.
4. Life-support systems: This unit is not designed to be used in systems on which human life depends. That is, in devices whose malfunction could endanger human life.
5. Our liability in connection with the device shall be limited to its repair or replacement in accordance with the terms of the warranty.

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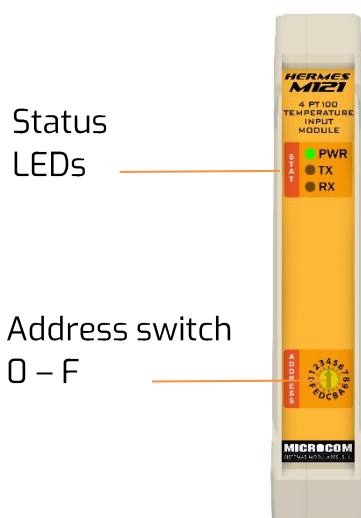
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## 1 Introducción

The **HERMES M121** is a 4-input module for PT100 temperature probes, part of the Hermes M100 series. This module consists of a 24-bit ADC and two high-precision constant current sources that provide the necessary excitation current for reading PT100 temperature probes in a three-wire configuration. Digital filtering provides a rejection ratio of -81 dB at 50 Hz.

## 2 Presentación del producto



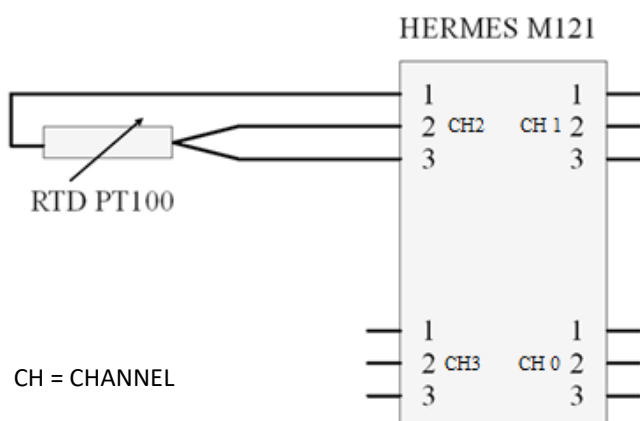
### Interpretation of status LEDs

LED	Significado
<b>PWR</b>	Indicates that the equipment is powered on
<b>TX</b>	Transmission via the internal bus to the master module
<b>RX</b>	Reception via the internal bus from the master module

### Address selection

Using the address selection switch, you can select one of 16 addresses, from address 0 to F. This address must match the one selected in the configuration software for this module.

## 3 PT100 sensor connection



### Notes

Probe wires should not be installed near power wires to avoid magnetic interference that can affect measurement accuracy. The use of shielded cable is recommended.

The probes are connected in the same way on all four available channels.

## 4 Technical Specifications

### GENERAL

<b>Consumption</b>	200 mW
<b>Chip</b>	RISC 8 bits @ 11.0592 MHz
<b>Size</b>	Caja DIN de una unidad 105 x 90 x 58
<b>Weight</b>	250 gr
<b>Operating temperature</b>	-10 °C a + 75 °C

### PT100 INPUTS

<b>Number</b>	4
<b>Type</b>	3 wire PT100 DIN 43760
<b>Excitation current</b>	<1 mA on average
<b>Range</b>	-200°C to +800 °C
<b>Accuracy</b>	0.1 °C
<b>Resolution</b>	24 bits
<b>50 Hz rejection</b>	-81 dB


## 5 Warranty

1- MICROCOM guarantees this product as free from defects in the materials and manufacturing for five (5) years. However, the only obligation of MICROCOM under this guarantee will be the repair or replacement free of charge of any piece of the equipment whose materials or manufacturing MICROCOM deems defective after examining such piece, and only under the conditions below:

- a) That the defects have been notified to MICROCOM, in writing and within five (5) years after the date of purchase of the equipment.
- b) That the equipment has not been maintained, repaired, or modified by any person who has not been previously authorised or approved by MICROCOM.
- c) That the equipment has been used in the proper and normal way, and it has not been modified or used improperly, or been involved in any accident or damaged by a fortuitous act or any other similar catastrophic incidence.
- d) The buyer, whether it be the DISTRIBUTOR or the DISTRIBUTOR's customer, shall pack and send or deliver the equipment to MICROCOM factory in Irún, Spain, within a maximum period of 30 days after MICROCOM has received the notification in writing of the defect. Transport to MICROCOM shall be at the expense of MICROCOM inside the Spanish national territory.
- e) MICROCOMs liability is limited to repair or replacement of any piece of the equipment free of charge, if MICROCOMs examination reveals that such piece is defective due to fault in the material or in the manufacturing process.

1.1.- The DISTRIBUTOR or the DISTRIBUTOR'S customers shall deliver the equipment directly to MICROCOM if they are not able to repair the equipment themselves, even if the DISTRIBUTOR has been authorised to perform such repairs and has agreed with the customer to perform them as set out in this limited guarantee.

1.2.- If the products have to be returned to MICROCOM for repair covered by the guarantee, the DISTRIBUTOR shall contact MICROCOM before the shipment in order to receive a Return Materials Authorization (RMA) number.

	<p>Disposal of electric and electronic waste (applicable in the European Union and in the other countries with selective collection). This symbol on the product or package means that the product may not be treated as household waste. Instead, it shall be delivered to the collection centre authorised for recycling electric and electronic waste, making sure that the product shall be disposed of properly, avoiding a potential negative impact to the environment and to the human health, which could be caused by improper management of the product disposal. Material recycling will contribute to the conservation of natural resources. For further information, please contact the specific office in your city providing a waste disposal service or with the supplier to whom you bought the product from.</p>
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