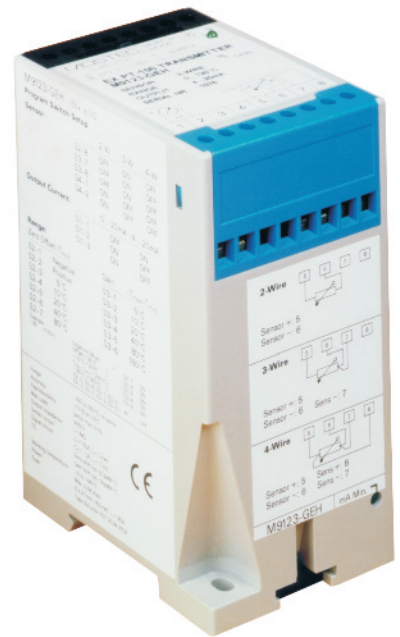




## Temperature transmitter for hazardous areas Type M9123



### Technical description

The M9123 temperature transmitter is available in two different variants:

- For Eurocard 19" rack mounting, hazardous / non hazardous area
- For DIN Rail enclosure, hazardous / non hazardous area

The standard transmitter uses Pt-100 platinum sensors and has a programmable measuring range from -100 to +250°C. Other sensors, for example Pt-500 or Pt-1000, are also available on request. Temperature ranges exceeding the standard range can be ordered as an option. The basic accuracy of the instrument is  $\pm 0.1\%$ . It is powered by a 24VAC/DC universal power supply.

Ranges and the sensor wiring is programmed with DIL switches.

The sensor signal is linearized and converted into a current signal of either 0...20mA or 4...20mA.

Sensor circuit, output current source and supply power are galvanically separated from each other.

With the hazardous version, sensor and signal current output can be fed into the hazardous area. The instrument itself has to be mounted outside the hazardous area!

If any one of the three or four sensor connections is broken, the instrument's output current will be between 24...27mA.

## Technical Data:

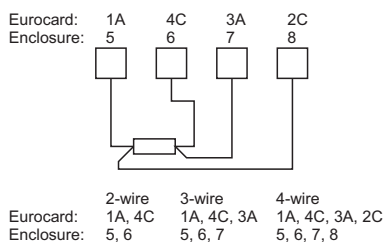
Normal version:	- Eurocard for 19" rack mounting 100x160mm, 4TE: M9123-EKN - 35mm mounting rail, EN50022-35: M9123-GEHN																											
Version hazardous area:	- Eurocard 19" rack mounting 100x160mm, 4TE: M9123-EK - 35mm mounting rail, EN50022-35: M9123-GEH																											
Certifications:	Ⓔ II (1)G [Ex ia] IIC, SNCH 03 ATEX 3466 X for sensor and signal current circuit																											
Sensor:	Pt-100 (optionally Pt-500/Pt-1000)																											
Sensor wiring:	2-, 3-, 4-wires, programmable																											
Measuring range:	within -100...+250°C programmable with DIL switches. Optionally other ranges																											
Accuracy:	+/- 0.1% (ambient temperature 23°C)																											
Reproducibility:	Better than 0.1%																											
Temperature coefficient:	Zero drift typ. 20ppM/°C. Gain drift typ. 18ppM/°C																											
Long-term stability:	0.2% after 3 months																											
Working temperature range:	-5 to 45°C																											
Max. humidity:	95%, non condensing																											
Max. lead length sensor wires:	2-wires: depending on the max. measuring error 3-wires: up to 20 wire resistance symmetrical 4-wires: up to 20 wire resistance asymmetrical																											
Signal bandwidth:	0,4Hz at -3dB																											
Max. load:	500W																											
Max. length signal current wires:	400m (hazardous area = limited capacitance)																											
Signal current output impedance:	Better than 1MΩ																											
Limits of sensor circuit:	Co<10uF, Lo<2mH																											
Limits of signal current output:	Co<1uF, Lo<1mH																											
Power supply:	Universal power supply 24VAC/DC																											
Power consumption:	2,6W independent of supply voltage																											
Fuse:	5x20mm, 160mA, max. current during short circuit 35A IEC-Nr. 127																											
Fine adjustment:	Two 19-turn potentiometers																											
Terminals:	<table border="0"> <thead> <tr> <th>Sig. name</th> <th>Eurocard:</th> <th>Enclosure:</th> </tr> </thead> <tbody> <tr> <td>Supply</td> <td>32a</td> <td>9</td> </tr> <tr> <td>Supply</td> <td>32c</td> <td>10</td> </tr> <tr> <td>Sensor +</td> <td>1a</td> <td>5</td> </tr> <tr> <td>Sensor + Sens</td> <td>2c</td> <td>8</td> </tr> <tr> <td>Sensor -</td> <td>4c</td> <td>6</td> </tr> <tr> <td>Sensor - Sens</td> <td>3a</td> <td>7</td> </tr> <tr> <td>mA-Output +</td> <td>8a</td> <td>1</td> </tr> <tr> <td>mA-Output -</td> <td>9c</td> <td>2</td> </tr> </tbody> </table>	Sig. name	Eurocard:	Enclosure:	Supply	32a	9	Supply	32c	10	Sensor +	1a	5	Sensor + Sens	2c	8	Sensor -	4c	6	Sensor - Sens	3a	7	mA-Output +	8a	1	mA-Output -	9c	2
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CE Conformity:	fulfilled																											
Delivery time:	From stock																											
Warranty:	2 Years																											

Options:

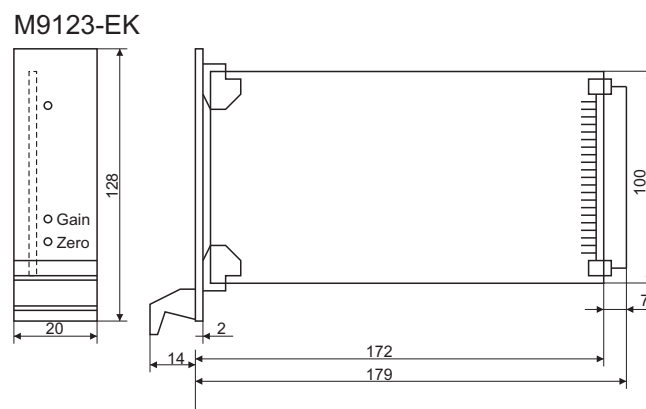
- Extended range
- Other sensor elements (Pt-500, Pt-1000)
- Power supply to supply 10 pcs. M9123-EK
- Power supply to supply 5 pcs. M9123-GEH

Ordering example: M9123-GEH for -30 ...+170°C = 4 ... 20mA

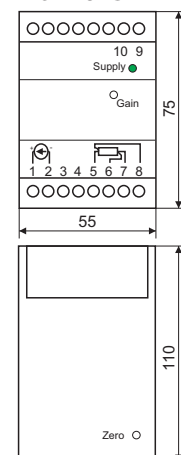
### Terminals Sensor:



### Dimensions:



### M9123-GEH



# MOSTEC

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