

The hottest product for temperature measurement

MX1609 – The reliable thermocouple module with automatic transducer identification



QUANTUM X

Temperature is the No. 1 measured quantity worldwide. If you have applications where temperatures need to be measured, you can now rely on MX1609 – the new star for reliability and ease-of-use.

MX1609 is part of the QuantumX family and offers many excellent qualities: Reliable temperature measurement using the proven and widely used type K thermocouple. It also opens up interesting new opportunities for your daily measurement tasks ...

Advanced Plug-and-Measure now also available for temperature measurement!

Test engineers worldwide benefit from HBM's APM (Advanced Plug-and-Measure) technology already today: Just connect your transducer and get started immediately.



Identification chip

Plug in and start measuring immediately.

MX1609 introduces APM technology into the world of temperature measurement: The mini thermocouple connector can be equipped with an identification chip. The chip can also be retrofitted. It enables your transducers to be automatically and unmistakably identified by the MX1609 as soon as they are connected. The days are gone when labels needed to be attached to measuring points in a time-consuming and error-prone process. MX1609 automatically puts your test setups in digital order.



Reliable temperature measurement in mini format: MX1609 convinces through extra performance

XXL performance in mini format: Now this applies also for measuring temperature. Thanks to its compact design MX1609 perfectly fits into even the smallest test bench – and can thus be installed very close to your measuring points.

Good for your test results – the shorter the measuring cables, the smaller the influence of interferences.

Mini format – and giant performance! Each module provides 16 electrically isolated channels for recording the signals of type K thermocouples ranging from -100°C to $+1300^{\circ}\text{C}$ (-148°F to $+2372^{\circ}\text{F}$).

The unit is also easily upgradeable: More thermocouple modules can be easily and instantly connected to the MX1609 to increase the number of channels.



Ethernet offers reliable, long-distance measurement.

MX1609 can be connected by Ethernet. Your test data is thus transmitted almost without loss of quality. MX1609 provides reliable and uncompromisingly good results. It offers increased quality and time savings, and is available at an attractive price per channel.

Info at:
www.hbm.com/quantumX

Specifications		
Number of thermocouples that can be connected		16
Transducer identification		TEDS through RFID
Interface		Ethernet
Temperature measuring range, linearization for type K	$^{\circ}\text{C}$ ($^{\circ}\text{F}$)	$-100^{\circ}\text{C} \dots +1300^{\circ}\text{C}$ ($-148^{\circ}\text{F} \dots +2372^{\circ}\text{F}$)
Measurement error at 22°C (71.6°F)	kelvin (K)	± 0.5
Supply voltage	V (DC)	10 ... 30, 24 V nominal (rated) voltage
Power consumption	W	< 6
Protection (height up to 2,000 m (6,560 ft); degree of contamination 2)	class	III
EMC requirements		according to EN 61326
Mechanical tests ¹⁾ (transport tests)		
Vibration (30 min)	m/s^2 (ft/s^2)	50 m/s^2 (164 ft/s^2)
Shock (6 ms)	m/s^2 (ft/s^2)	350 m/s^2 (1148 ft/s^2)
Maximal input voltage at transducer socket	V	60 (transient free)
Nominal (rated) temperature range	$^{\circ}\text{C}$ ($^{\circ}\text{F}$)	$-20^{\circ}\text{C} \dots +60^{\circ}\text{C}$ ($-4^{\circ}\text{F} \dots +140^{\circ}\text{F}$)
Dimensions (W x H x D)	mm (inch)	$44 \times 174 \times 119 \text{ mm}$ ($1.73 \times 6.85 \times 4.69 \text{ inch}$) (without case protection 1-CASEPROT)
	mm (inch)	$52.5 \times 200 \times 122 \text{ mm}$ ($2.07 \times 7.87 \times 4.80 \text{ inch}$) (with case protection 1-CASEPROT)
Degree of protection per EN 60529		IP20
Weight	g (lb)	900 g (1.98 lb)

¹⁾ Mechanical test according to European standards EN60068-2-6 (vibration) and EN60068-2-27 (shock). Instruments are subjected to an acceleration of 25 m/s^2 (82 ft/s^2) in a frequency range of 5 ... 65 Hz in all three axes. Duration of this vibration test: 30 minutes per axis. The shock test is performed at a nominal acceleration of 200 m/s^2 (656 ft/s^2) for 11 ms, half-sinusoidal and with shocks in each of the six possible directions.

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measurement with confidence