



mTC002

ANALOG GRAIN TEMPERATURE CABLE INTERFACE



- Seamlessly integrates thermocouples into CMC's digital HazMon network
- Straightforward to upgrade to more accurate and reliable digital system
- Eliminate antiquated scanners and bring data into a PLC – more reliable data at control center
- Fast data scan times – read thousands of thermocouples in minutes rather than hours!
- Automatic detection of open thermocouples - straightforward troubleshooting

The mTC002 converts Type-T Thermocouples to CMC's Single Wire Digital, Intrinsically Safe Network, converting up to 168 thermocouples into absolute temperature values in minutes. It uses only one device address by time multiplexing the 168 temperatures into a single address word on the network, and is de-multiplexed at the PLC or HMI. Each mTC002 connects to the single-wire bus with 110 punch-down terminals for fast and secure terminations.

One input and two output connections are provided to offer easy branch and T networked system

configurations, connecting multiple boxes to the network via water-proof, direct-burial CAT5 cable.

The mTC002 Thermocouple Converter is supplied pre-installed in a tough, NEMA 4X plastic enclosure (see main image). This enclosure has been selected to prevent condensation from forming on the internal electronics due to external temperature variations. A pressure equalization vent has been installed to remove water vapor from the enclosure.

MTC002 DS 1022

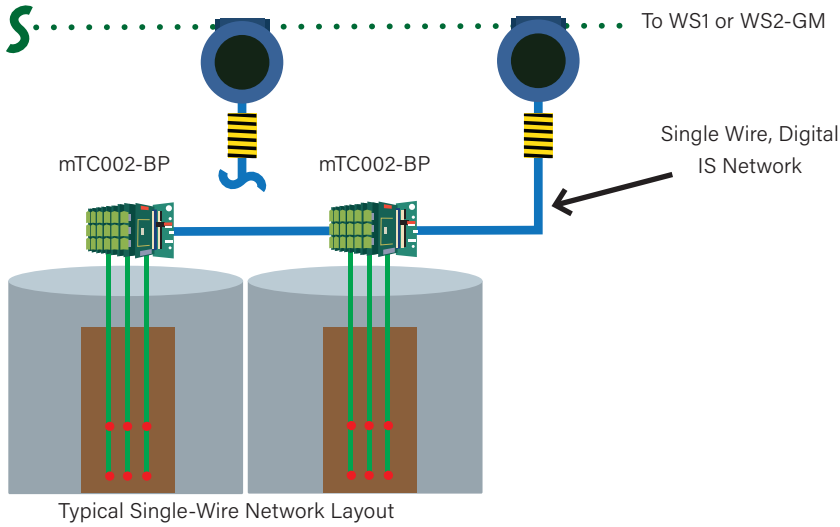
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SPECIFICATIONS	DESCRIPTION	CHARACTERISTIC
IS SENSOR BUS	Voltage	5 VDC
	Current	3.5 mA maximum
	Communications	Single-Wire Bus
TYPE T INPUTS	T/C Inputs	168 arranged as 24 groups of 7 inputs
	Resolution	2°F (1°C)
	Range	-40°F to +417°F (-40°C to +214°C)
ACCURACY	Span Accuracy	±3.6°F (-40°F to +122°F case temperature)
	Offset Accuracy	±1.8°F for each 18°F ambient change
	Calibration Temperature	68°F (20°C)
ENVIRONMENT	Operating Temperature	-40°F to +158°F (-40°C to +70°C)
	Relative Humidity	0 to 95% non-condensing
DIMENSIONS	Length	12.3" (312mm)
	Width	7.8" (198mm)
	Depth	6.0" (152mm)

- mTC002-BP-EK Thermocouple converter backplane, CC, and TC cards in Type 4X enclosure P/N 11485
- mTC002-TC Thermocouple analog card (8 per backplane)
- mTC002-CC Thermocouple controller card (1 per backplane)
- mTC002-BP Thermocouple backplane including card guides P/N 11114-1