

TC-32 series - Open Thermocouple Detection can cause a small measurement offset

MCC has determined that on TC-32 and TC-32-EXP units with 1.06 firmware, if open thermocouple detection (OTD) is enabled and also if a channel is open, it is possible that temperature readings on one or several follow-on channels will have an offset error of approximately +1 deg C (the magnitude of the offset is +50 uV). The initial workaround has been to disable the open thermocouple detection (OTD) feature, though now new firmware is available to prevent the issue.

New firmware versions 1.07 (Measure) and 1.08 (Comms) together resolve the issue. Customers can update their units in the field. The new firmware and update instructions are available here:

<https://www.mccdaq.com/firmware.aspx>

This firmware update lowers the maximum per-channel measurement update rate to 2 Hz if OTD is enabled. If a 3 Hz per-channel measurement update rate is still desired, you will need to

disable OTD. No software changes will be necessary because of this update. It will be still possible to read the TC-32 faster than 3 Hz however, when doing so it returns the last reading unit the next one is available.

Measurement Computing Data Acquisition Knowledgebase

<https://kb.mccdaq.com/KnowledgebaseArticle50790.aspx>