

# 1-Wire Temperature Sensor

## *External Temperature Measuring*

The 1-Wire Temperature Sensor is a digital thermometer featuring an easy and accurate temperature measurement. The sensor and the RTCU unit communicate through the sophisticated 1-Wire interface using only a single wire and ground. This offers the opportunity to measure an external temperature in various applications.



The 1-wire Temperature Sensor features an easy to install and easy to use digital thermometer. The sensor can be used with the RTCU MX2i series, DX4 series, AX9 series, M11 series and the RTCU A9i units. Delivered with connectors for the MX2i and M11 series and stripped wires for the DX4, AX9 and A9i series allowing easy installation in any application. The temperature sensor offers an accuracy of typical +/- 0.5°C and ranges from -55°C to +125°C. The communication between the RTCU unit and the temperature sensor is done through the sophisticated 1-Wire interface, and only a single wire and ground are needed to establish the data connection. No external power supply is needed as the temperature sensor derives power directly from the 1-wire bus simplifying application set-up. From the RTCU-IDE program temperatures are measured with a simple function similar to the known board temperature function. The temperature sensor has a unique factory-lasered 64-bit serial number allowing connection of multiple temperature sensors on the same 1-Wire bus. Please consult the RTCU IDE on-line help for more information about the supported 1-Wire Temperature Sensor functions.

The temperature sensor is standard delivered with 3 meters of cable with soldered wires for direct connection to the screw terminals on the RTCU DX4, AX9 and A9i units. For RTCU MX2i series the cable is delivered with a 12-pole connector, and a 9-pole Sub-D connector for the RTCU M11 series unit.

If any other configuration is needed please consult Logic IO.

## Key features:

- ❖ External digital temperature measuring
- ❖ 1-Wire interface
- ❖ Wide temperature range
- ❖ Easy installation
- ❖ No need for external components
- ❖ No need for external power supply

	Min	Typ	Max		
Temperature range	-55	-	+125	°C	
Accuracy (+/-)		0.5		°C	
Communication interface	1-Wire				
Maximum connected sensors			32		
Conversion Time			750	ms	
Humidity (non condensing)	5	-	90	%	

*Technical data subject to change*

**For more information:**

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