

<http://www.EmbeddedDataSystems.com>

FEATURES

- Wide Temperature Range Foil Temperature Sensor.
- 8-18 Stainless Steel adhesive backed foil tape 2" X 2".
- Available with Dallas Semiconductor DS18S20 or DS18B20 Sensors.
- Uses 1-Wire communication protocol.
- Compatible with all EDS 1-Wire bus masters.
- Chemical resistant and water resistant.
- Automatic unique device addressing.
- Highly durable and flexible stranded TPE cable.
- No external power required, or can be optionally powered for fast (non-parasite) operation.
- Applications Include thermostatic controls, industrial systems, consumer products, thermometers, or any thermally sensitive system.



DESCRIPTION

The OW-TEMP-xF-xxx temperature sensor is designed for general-purpose, wide temperature range applications. It is constructed of 8-18 Stainless Steel for durability and is adhesive backed for attachment to flat surfaces or pipes. The foil temperature sensor has good chemical resistance properties to acids, alkalis, ketones, esters, aliphatics, aromatics, and outdoor exposure.

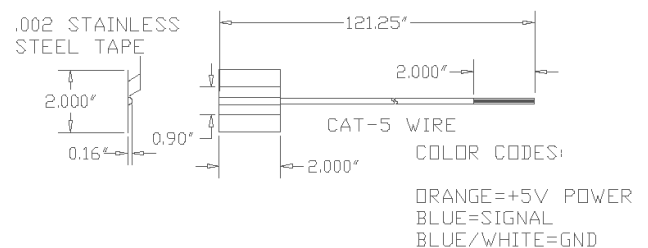
The cable used on this sensor is a highly durable and flexible cable, which uses TPE based materials for both the outer jacket and inner conductor insulation. This cable is particularly suited for harsh environments, and offers excellent resistance to high and low temperatures, oil, gasoline, and sunlight exposure.

The foil temperature sensor is available with either a DS18S20 or a DS18B20 1-Wire temperature sensor embedded into the foil. It is manufactured using a special process that insures the internal sensor is thermally coupled to the foil wall; this helps insure rapid sensor response to changing conditions.

Our OW-TEMP-xF-xxx sensor is supplied standard with stranded TPE cable with stripped leads. Pin outs are as follows:

Common (GND): *White*
 1-Wire Signal: *Blue*
 Ext. Power (Vdd): *Orange*

Please note that if you choose to operate the sensor in parasitically powered mode, you must connect the Vdd and GND lines together, per the DS18x20 specifications. When ordered with the optional RJ12 plug, we take the extra steps necessary during the plug installation to properly configure the sensor for parasitically powered operation.



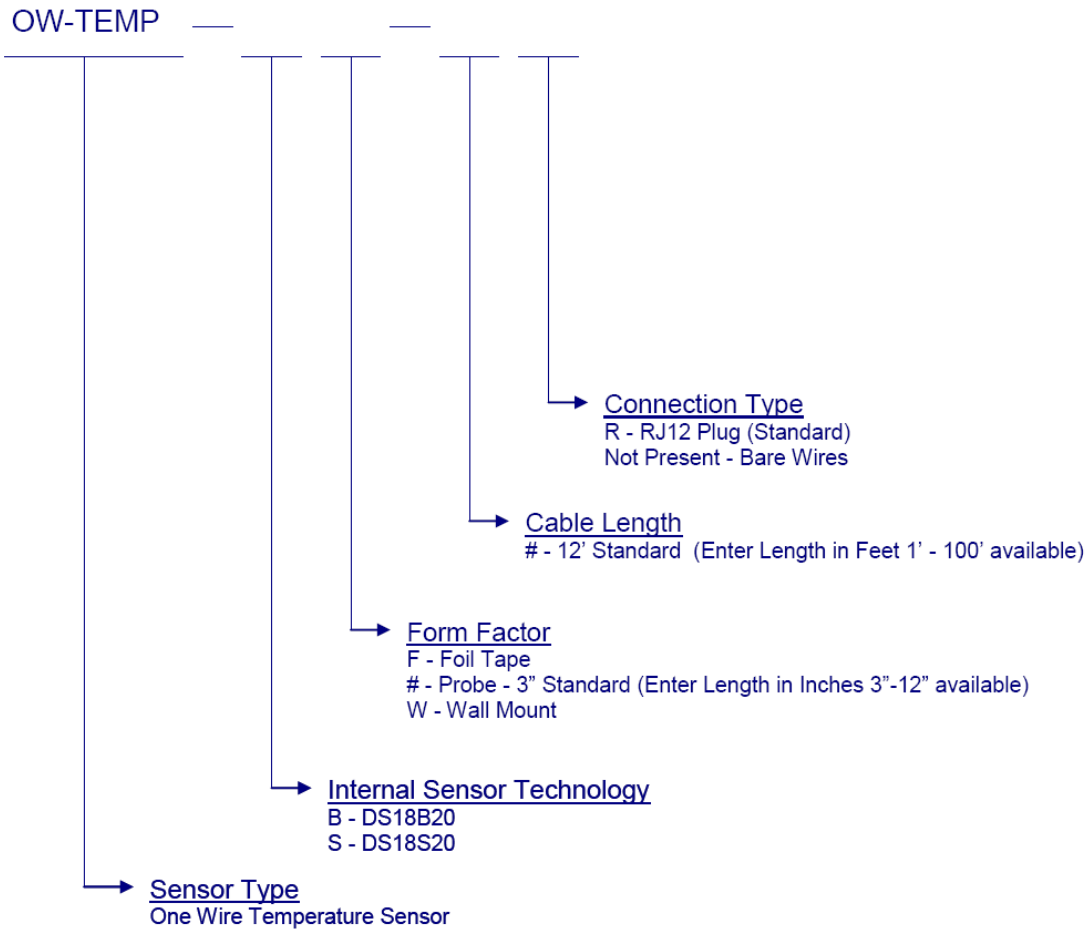
The foil temperature sensors are directly compatible with all Embedded Data Systems and Dallas 1-Wire bus masters, our EDIOS software, and the freely available TMEX drivers. For complete documentation on the embedded DS18x20 sensors, please refer to manufacturer's spec sheets available at <http://www.maxim-ic.com/>.

CUSTOM CONFIGURATIONS

Our standard (stocked) foil sensor has a 12 foot long stranded TPE cable. With minimum orders we can manufacture it to a variety of specifications, including length of cable, with / without RJ12 plugs (commonly called RJ11), etc. Please contact us for a custom quote.

PART NUMBERS

Please use the following chart to determine the appropriate part number for ordering:



Part #'s without minimum order requirement:

OW-TEMP-BF-12 Standard foil sensor: DS18B20, 12' cable
 OW-TEMP-SF-12 Standard foil sensor: DS18S20, 12' cable
 OW-TEMP-BF-12R Standard foil sensor: DS18B20, 12' cable, RJ12 plug installed.
 OW-TEMP-SF-12R Standard foil sensor: DS18S20, 12' cable, RJ12 plug installed.

SPECIFICATIONS

PARAMETER	SYMBOL	MIN	TYP	MAX	UNITS
Temperature Range (Foil)	TR				Degrees C
Temperature Range (Cable)	TR	-70	-	150	Degrees C
Accuracy (-10 to +85 Deg. C)	ACM	-0.5	-	+0.5	Degrees C
Accuracy (-55 to +125 Deg. C)	ACT	-2	-	+2	Degrees C
Resolution (DS18S20)		9	9	9	Bits
Resolution (DS18B20)		9		12	Bits
Supply Voltage	Vdd	3.0	5.0	5.5	Volts
Active Current	Idd		1000	1500	MicroAmp
Standby Current	Iq		100	150	NanoAmp
Input Logic High	Vih	2.2		5.5	Volts
Input Logic Low	Vil	-0.3		+0.8	Volts
Dimensions	D	-	2 X 2	-	In.