

FEATURES

- -55-125°C Operating Temperature
- Waterproof 1-Wire Digital Temperature Sensor
- $\pm 0.4^{\circ}\text{C}$ Accuracy
- IP68 (waterproof)
- RoHS compliant
- Supply Voltage 2.5 to 5.5 V
- Resolution: 12-bit

DESCRIPTION

The PTS-D Waterproof 1-Wire Digital DS18B20 Temperature Sensor offers advanced temperature measurement capabilities. With its durable, pre-wired, and waterproof design, it is ideal for applications in wet or remote environments. Its reliability and ease of use make it a preferred choice for a wide range of industries, including HVAC, machinery, and process monitoring.

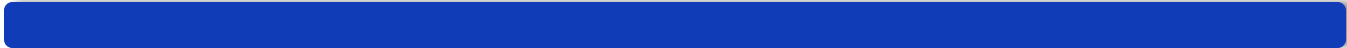
APPLICATIONS

- Thermostatic Controls
- Industrial Systems
- Thermometers
- Thermally Sensitive Systems
- Consumer Products

Maximum Environmental Ratings

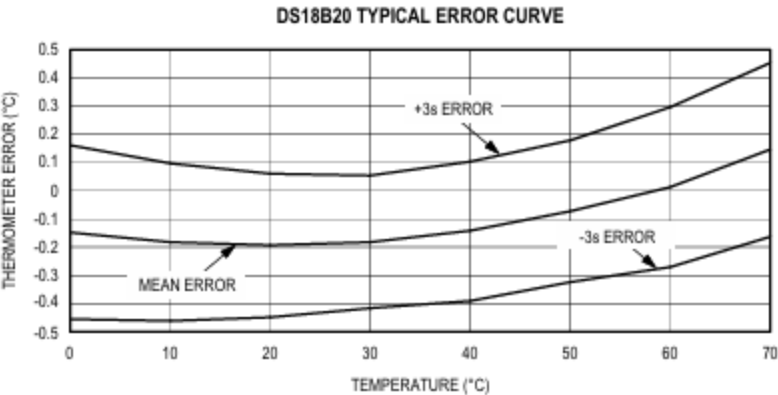
Operating Temperature -55°C to 125°C

Storage Temperature Range -55°C to 140°C

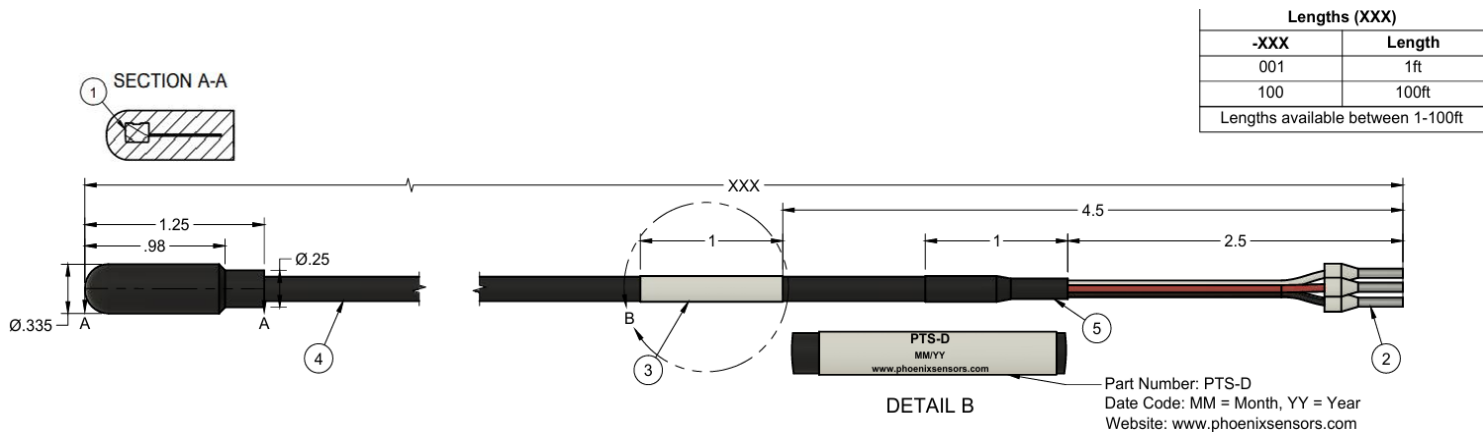


PARAMETER	SYMBOL	MIN	TYP	MAX	UNITS
Supply Voltage	VDD	+3.0		+5.5	V
Pullup Supply Voltage	VPU	+3.0 +3.0		+5.5 VDD	V
Thermometer Error	tERR			± 0.5 ± 1 ± 2	$^{\circ}\text{C}$
Input Logic-Low	VIL	-0.3		+0.8	V
Input Logic-High	VIH	+2.2 +3.0		The Lower of 5.5 or VDD +0.3	V
Sink Current	IL	4.0			mA
Standby Current	IDDS		750	1000	nA
Active Current	IDDS		1	1.5	mA
DQ Input Current	IDQ		5		μA
Drift			± 0.2		$^{\circ}\text{C}$

DS18B20 Typical Error Curve



Mechanical Dimensions (inches)



Part Number Configurations

Phoenix Sensors Nomenclature				
Model			Lengths (XXX)	Connector Options
PTS-D			001= 1 ft	A= Amphenol
			100= 100ft	M= Molex
				Null= Flying leads
Example: PTS-D-5FT-M 5 FT Cable With Molex Connector				

Notice:

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