

# Ruggedized Temperature Sensor



## Features:

- Tested to 10,000 freeze/thaw thermal cycles
- Wide operating temperature range: -40°C to 105°C
- Design allows for quick response and excellent thermal tracking
- Excellent for freeze/thaw applications in HVAC, Food and Beverage, and refrigeration systems

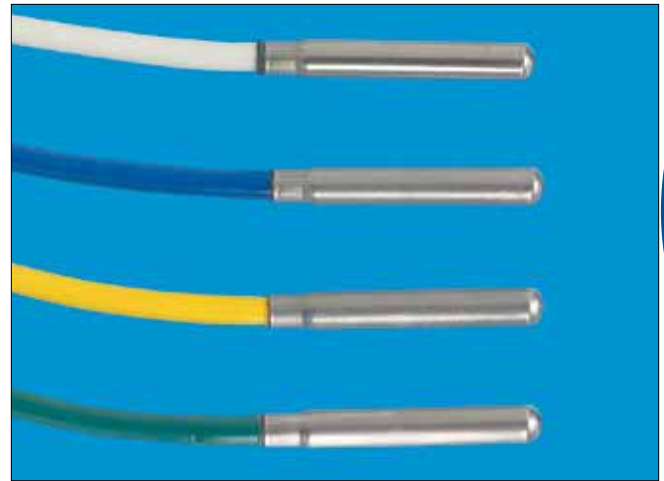
## Description:

MS's ruggedized sensor is designed to offer a robust solution for monitoring temperature in difficult environments. This product is especially useful in high moisture applications where the sensor is subjected to continuous freeze/thaw cycles.

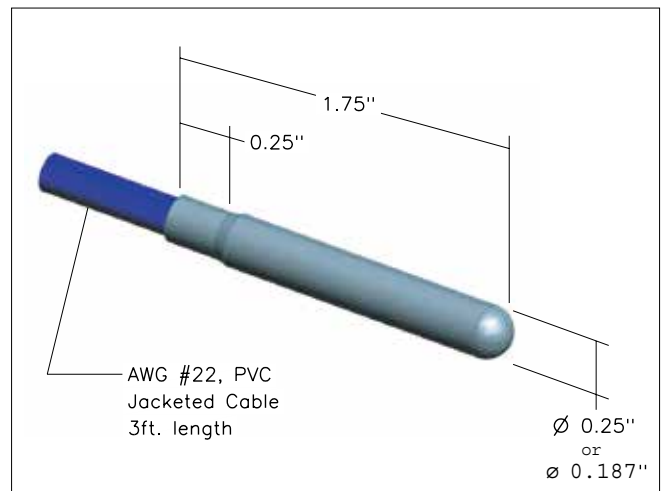
Ice build up is a common condition in many HVAC, appliance, refrigeration and food service applications. With standard temperature sensors, ice can exert a significant mechanical force on the wire or cable, often allowing water to breach the end seal of the probe. Once water is inside the housing, subsequent freeze/thaw cycles can provide a direct moisture path to the thermistor element.

The unique, swaged end design from MS offers an excellent moisture seal between the cable and the housing. It has the added benefit of providing a superior mechanical bond for strain relieving the sensor and internal connections. This isolates the thermistor element not only from the outside moisture but also from the high stresses that can be associated with freezing and thawing.

The ruggedized temperature sensor can incorporate a wide variety of thermistor curves and resistances. Other options include cable lengths and terminals. It can also be used with the MS Clip-On for 3/8" and 1/2" copper pipes (*see page 21*).



*Ruggedized Thermistor Sensor*



## Ordering Information

MS Part Number	R <sub>25</sub> (Ω)	Material Curve	Wire Color
A2253SS22P0	2,252	Z	Green
A3003SS22P0	3,000	Z	Yellow
A5003SS22P0	5,000	Z	Blue
A1004SS22P0	10,000	Z	White

Standard temperature accuracy is  $\pm 0.2^{\circ}\text{C}$  from  $0^{\circ}\text{C}$  to  $70^{\circ}\text{C}$ . Other resistance values and accuracies available upon request.

Standard cable length is 3 ft.  
other cable lengths available upon request.

Resistance versus temperature information for material curve Z can be found on page 59.

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