

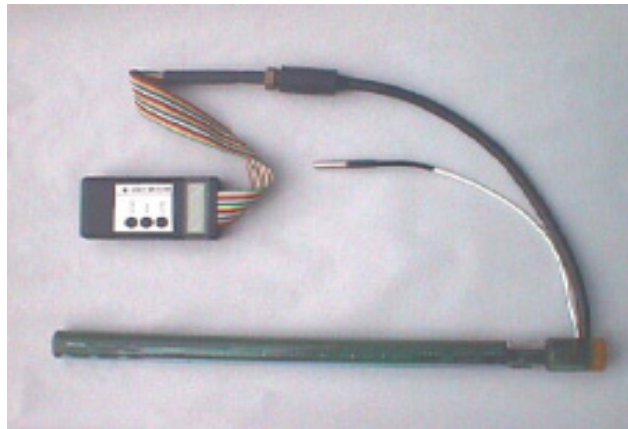
# MRC Temperature Probes

## For Pavement, Sub-Grade and Soil Temperature Monitoring

Take the guesswork out of the freeze-thaw cycle in pavement structures and sub-grades by using MRC's Temperature Probes. Manufactured exclusively by Measurement Research Corporation, the MRC Temperature Probe provides the data for decisive management of roadway truck traffic and the minimization of pavement damage.

The Measurement Research Temperature Probe was developed in 1982 as a direct result of the need for local agencies to monitor annual cyclic changes in pavement subgrade temperatures, specifically the freeze-thaw phenomena. This information has provided data for decisive management of roadway load restrictions resulting in minimization of pavement damage caused by spring thaw cycles. Emphasis was placed on providing a rugged, easy to use system that would result in the direct sampling of temperatures below the pavement at specific critical depths.

MRC Temperature Probes are designed to perform under severe environmental conditions over a range of -30 to +75 degrees C. These units use a thermistor as the temperature-sensing element. The standard probe is 1.1» in diameter and 48» long with 11 sensors located at 0, 3, 6, 9, 12, 18, 24, 30, 36, 42, and 48 inches. All probe assemblies are potted within a clear, schedule 40 PVC pipe, allowing for a completely encapsulated environment and ensuring a long installation life. The TP101 is accurate to  $\pm 0.1$  Degrees C.



<b>TP101/105 (Temperature Probe)</b>	
Std. Dimensions:	1.1" diameter, 48» length
Accuracy: TP101	$\pm 0.1^\circ \text{C}$ @ -30 to +75° C - YSI 440032
Accuracy: TP105	$\pm 0.2^\circ \text{C}$ @ -30 to +75° C
Operating Temp	-30 to +75 Deg. C
Operating Humidity	0 to 100%
Power Requirements	15uA Stand-By - 380uA w/Clock Pulse High
Interconnection	Underwater connector or open leads