



## Magnetic Mount (MMTS) | RTD Temperature Sensor



*MMTS with NPT Connection*

*MMTS with Armored Cable*

**The Dynamic Ratings series of magnetic mount temperature (MMTS) sensors are designed to provide an easy method for measuring transformer; top oil, bottom oil or load tap changer tank temperatures.**

**MMTS uses resistive temperature device (RTD) sensors having durable construction and the utmost in measurement accuracy.**

### Design Advantages

MMTS sensors are designed to be highly; accurate and reliable and provide a variety of sensor outputs and terminal options to accommodate the industry installation and use requirements.

### Features & Benefits

- **Accuracy & Environmental Reliability**  
MMTS devices are designed for the highest accuracy and optimal environmental reliability. Accuracy is delivered by design with an RTD sensor contact point that is the only thermally conductive part in contact with a transformer or tap changer tank. This feature removes any temperature influences of a tank surface even at extreme temperatures.  
  
Environmental effects are minimised given MMTS sensor housings are manufactured using a high temperature, UV stable material. Further, high temperature rated magnets are fully enclosed within the housing therefore, no thermal losses occur near the measurement point yet the combined rated magnetic force of over 75lbs (over 34kg) ensure no sensor movement leading to consistent measurement at the desired tank location.
- **Versatile**  
The MMTS devices are available with either a PT-100 RTD or 4-20mA output signal.
- **Rapid Commissioning**  
Magnets facilitate immediate and reliable installation without the need for RTV or other adhesive materials to hold the sensor in place. When ordered with either a 1/2" NPT fitting for use with conduit or ordered with a stainless steel armored cable and flying leads so rapid commissioning can occur.

# Magnetic Mount | RTD Temperature Sensor

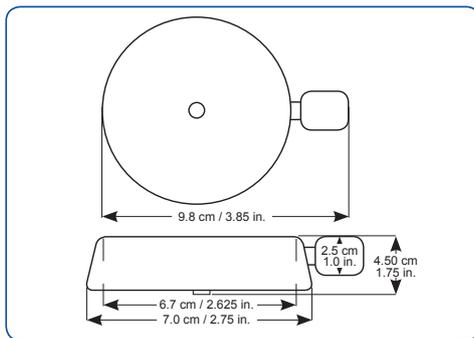
## Accuracy by Design (Patent Pending)

MMTS sensors are designed for accuracy featuring a Class A sensing element for the utmost in measurement accuracy. A low mass sensor provides solid surface contact ensuring minimal thermal delay. Further, a thermally non-conductive housing ensures the sensor does not act as a radiator, cooling the surface near the measurement point.

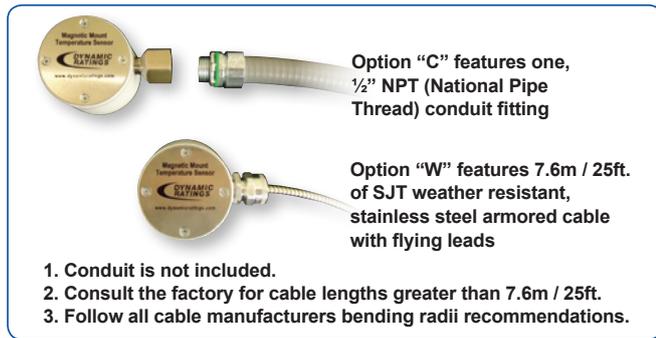
Given all of these key design elements, our experienced engineers know external surface temperature sensing is inherently different than internal oil temperature sensing. Dynamic Ratings (DR) developed a (Patent Pending) mathematical model to adjust for this difference. The mathematical model is available ONLY in DR transformer monitors. It uses the measured surface temperature with ambient temperature with the known performance characteristics of the MMTS sensor to accurately forecast internal oil temperature. This model improves the sensor performance to within 1-2% of the thermal well across a transformer's normal operating range.

## SPECIFICATIONS

Temperature Sensing Range	- 50° C to 200° C / - 58° F to 392° F	
Maximum Continuous Operating Temperature	150° C / 302° F	
Sensor element accuracy	Class A = 0.06%	
Temperature Coefficient (TCR)	DIN Standard $\alpha = 0.00385$	
4-20mA Scaled Output Range	- 50° C / - 58° F = 4mA	150° C / 302° F = 20mA
4-20mA Version Power Supply	Loop powered 6.5 to 32 VDC	



MMTS minimum clearance dimensions



Two wiring termination options and notes

## MAGNETIC MOUNT TEMPERATURE SENSOR — ORDERING INFORMATION

Part #	Description	Sensor Output	Termination	Weight kg/lbs
<b>MMTS-3C</b>	Magnetic mount RTD with conduit termination	3 Wire, 100 Ohm PT-100, RTD	1/2" NPT Conduit fitting	0.5 kg / (1 lb)
<b>MMTS-3W</b>	Magnetic mount RTD with S/S armored cable	3 Wire, 100 Ohm PT-100, RTD	7.6m / 25 ft. of S/S armored cable	1.5 kg / (3 lbs)
<b>MMTS-4C</b>	Magnetic mount temp. sensor 4-20mA output and conduit termination	4-20mA	1/2" NPT Conduit fitting	0.5 kg / (1 lb)
<b>MMTS-4W</b>	Magnetic mount temp. sensor 4-20mA output and S/S armored cable termination	4-20mA	7.6m / 25 ft. of S/S armored cable	1.5 kg / (3 lbs)

**Contact your sales representative for application assistance or pricing.**



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