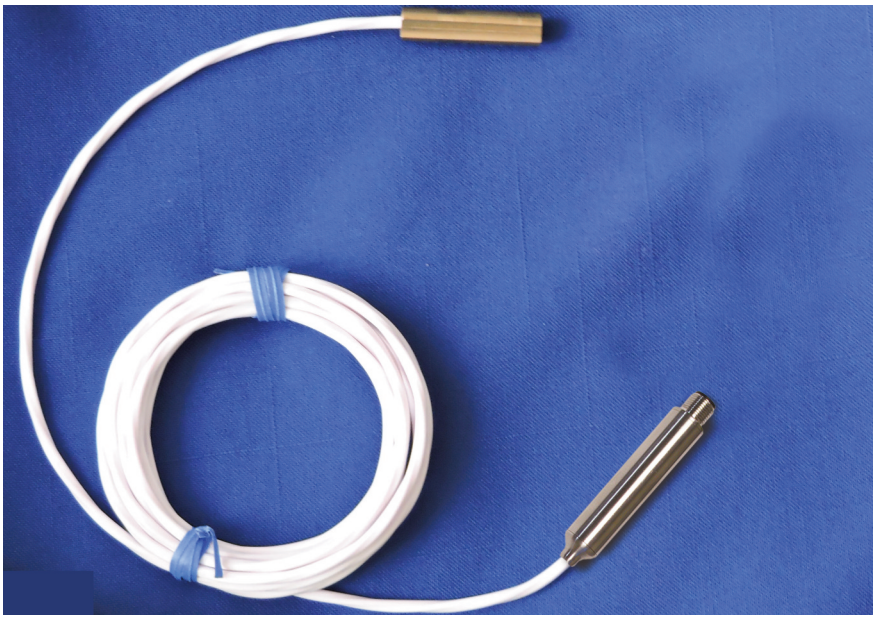


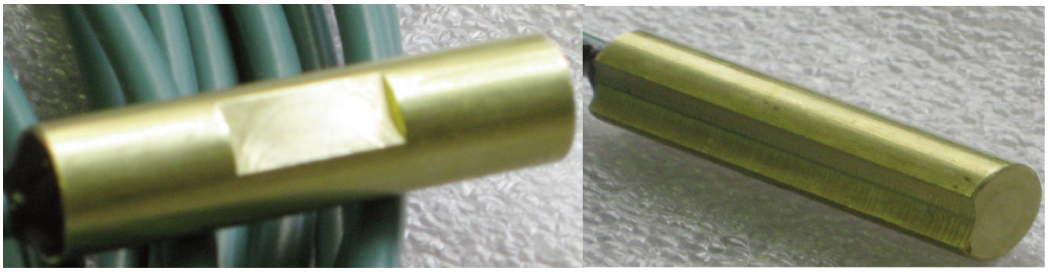


Fig 2. A enlarged view of the brass RTD housing

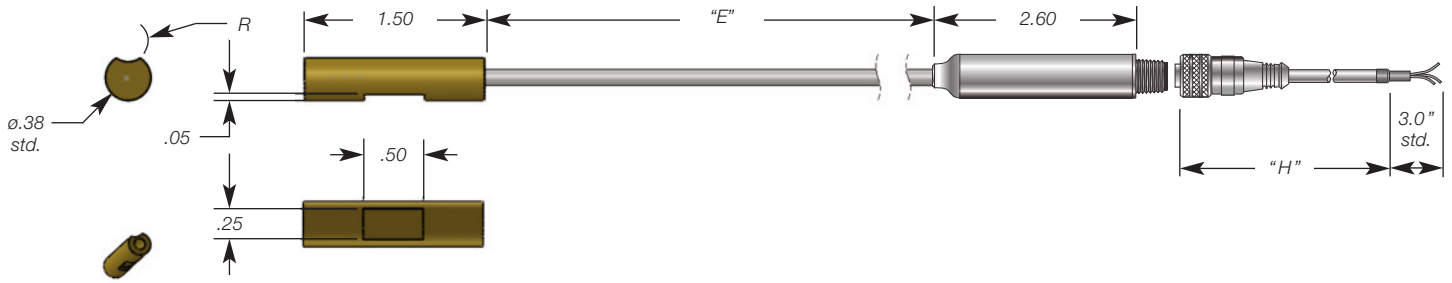
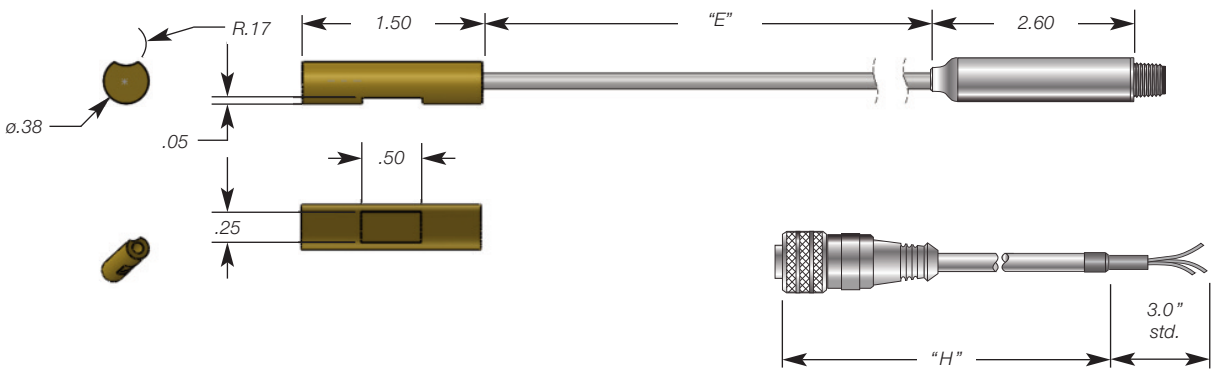


Fig3. Mechanical Dimensions of an R344 with a radius option.

MIST M344 For BTU Applications

Surface Mount RTD Temperature Transmitter
Cylinder Pad Type



USA Patent No.: 7,223,014
CDN Patent No.: 2,561,570

Custom Builder

MODEL	1	2	3	4	5	6	7	8	9	10	11
M344	- __	- __	- _	- _	- __	- __	- __	- ___	- __	- __	- _

BOX1 CODE	Calibrated Temperature Range
05	0°C to 50°C (32/122°F)
10	0°C to 100°C (32/212°F)
15	0°C to 150°C (32/302°F)
20	0°C to 200°C (32/392°F)
30	0°C to 300°C (32/572°F)
40	0°C to 400°C (32/752°F)
55	-50°C to 50°C (-58/122°F)
51	-50°C to 150°C (-58/302°F)
52	-50°C to 200°C (-58/392°F)
L*	-50°C to 200°C (-58/392°F)
M*	-50°C to 400°C (-58/752°F)

* *Code **L** & **M** are not factory calibrated. Requires customer calibration using the **MIST PKIT**.*

Notes:

1. *MIST Temperature Sensors™ are factory calibrated at one point to an accuracy of ±0.12°@0°C or better. See MIST specs.*
2. *For non-standard temperature ranges, indicate desired value in °C or °F in Box1; see our web site www.intempco.com.*
3. *Order **MIST PKIT** for sensor customization.*

BOX2 CODE	Output
LP	4-20 mA loop, upscale burnout (std.)
LD	4-20 mA loop, downscale burnout
VA	0-5 Vdc, 3-wire
VB	1-5 Vdc, 3-wire
VD	0-10 Vdc, 3-wire

Other outputs (RS232, RS485, Modbus...) available. Consult factory.

* *Code **B** sensors are factory calibrated at two points as matched pair. Highest accuracy required for BTU measurement.*

BOX3 CODE	Pad Diameter " D "
F	3/8" (0.375") Std.
H	1/2" (0.500") Spc.

Other diameters available. Consult factory.

BOX4 CODE	Pad Material
B	Brass (std.)
A	Aluminium
S	Stainless steel 316

Other materials available. Consult factory.

BOX5 CODE	Pad Length " L "
15	Pad 1.50" long, Std.
__	In 0.10" increments Ex.: **20** = 2.0" long, Spc.

BOX6 CODE	Mounting Pad Radius "R"
18	Pad Radius 0.18" Std.
__	In 0.01" increments Ex.: **25** = 0.25" radius

Notes :
1. *Min. radius available is 0.10"*
2. *For pipes sizes above 1.0" no pad radius needed but radius 0.18" with heat conducting paste works very well*
2. *For certian pad sizes, a specified radius may not be available. Consult factory.*

BOX11 CODE	Matched Pair Options
A	Supplied as 1 Single M344 Unit
B*	Supplied as 2 Matched M344 Units*

* *Two M344's supplied, factory calibrated as a matched pair at two points. Highest accuracy available for BTU measurement.*

BOX7 CODE	Extension Cable Type " E "
TS	Teflon® with SS overbraid, 200°C (392°F) max. (best design)
TF	Teflon® insulation, stranded cond. 200°C (392°F) max.
TA	Teflon® with SS armor, 200°C (392°F) max.
PV	PVC insulation, stranded cond. 90°C (195°F) max. (lowest cost)
FG	Fiberglass insulation, stranded cond. 400°C (752°F) max.
FA	Fiberglass insulation with SS armor, 400°C (752°F) max.
FS	Fiberglass insulation, with SS overbraid, 400°C (752°F) max.

BOX8 CODE	Extension Cable Length " E "
___	In feet Ex.: **060** = 60 feet long

BOX9 CODE	Connector Type
MC	M12 Micro-Male Connector

Other types of connectors availabe. Consult factory.

BOX10 CODE	Extension Cable Length " H "
N	None
A2	Straight, 2 meters
A5	Straight, 5 meters
B2	Right angle, 2 meters
B5	Right angle, 5 meters

TECHNICAL SPECIFICATIONS

USA Patent No.: 7,223,014
CDN Patent No.: 2,561,570

Electrical Properties

Input :	RTD, type Pt100
Sensor Temperature Ranges :	See Box1 code for standard ranges. Field re-scalable between -200 °C to 600 °C or -50 °C to 200 °C, depending on model.
Outputs :	4-20 mA loop powered, 2-wire, linear to temperature
	0-5 Vdc, 1-5 Vdc, 0-10 Vdc all 3-wire, linear to temperature
Minimum Input Impedance :	1000 Ohm (of measuring device, for voltage output)
Power Supply :	12-32 VDC, polarity protected
Supply Effect :	0.001 % / V
Accuracy :	± (.25 °C + 0.40 % of span) with one-point calibration [1]. ± (.10 °C + 0.10 % of calibrated span) with two-point calibration [2].
Maximum Loop Resistance :	[(Vsupply – 7) * 40] ohms (for 4-20 mA output only)
Sensor Open Circuit :	Upscale 24 mA or Downscale 2.5 mA (for 4-20 mA output only)
Warmup :	30 seconds
RFI Effect :	1 % or less typical
Isolation :	500 Vdc Input / Output
Temp. Effects :	± 0.001 % of Span / °C
Long Term Drift :	≤ 0.1 % FS / Year

Mechanical Properties

Sanitary Series

Wetted Surface Material :	Stainless steel 316 / 316L, dual certified
Environmental Rating	
Head assemblies :	Refer to head enclosures specifications
Cabled probe and M12 connection :	Meets NEMA 6P (IP67), hermetically sealed
Cable Material :	PVC, Teflon®, SS armor over Teflon®
Protection :	Meets NEMA 6P (IP67), hermetically sealed
Storage Temp. Range :	-40 °C to 80 °C
Operating Temp. Range :	-40 °C to 80 °C (housing only)
Maximum Operating Pressure :	500 PSIG (applies to sensor portion only)

[1]. Max. error on complete span. Error at calibration point ≤ 0.1 % of Span.

[2]. Max. error on complete calibrated span. Error at calibration points ≤ 0.1 % of Span.

[3]. Intempco sanitary sensors bearing the 3-A symbol meet the requirements of 3-A Sanitary Standards for Sensors and Sensor Fittings and Connections, Number 74-03, with some exceptions to section D10 for heat sterilization systems . Intempco sensors meet the requirements of section D10.1 and D10.1.1 for sterilization of the product contact surfaces, with exception made for section D10.1.2 and D10.1.3. Intempco sensors do not have a steam or other sterilization chamber surrounding the joint at the product contact surfaces between the fitting and the devices.

- *Information furnished by Intempco is believed to be accurate and reliable. However, no responsability is assumed by Intempco for its use.*
- *Specifications subject to change without notice.*