

MEAS RTD THIN FILM ELEMENT

- Thin, Flat, Small
- Two-Wire
- Mechanical Robustness
- High Accuracy
- Low Cost

The RTD Thin Film Element are the essential piece in most of our product lines. The element is composed of platinum deposited on a ceramic substrate, then coated with glass. The thin film element can be integrated in different designs of probes.

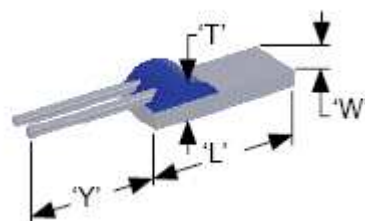
Features

- Temperature Range:
 - » -200°C to 600°C
- Platinum Element Configuration:
 - » 100 Ohm, 1,000 Ohm
 - » Accuracy at 0°C: $\pm 0.06\%$, $\pm 12\%$
- Nickel Element Configuration:
 - » 120 Ohm
 - » Accuracy at 0°C: $\pm 5\%$

Applications

- Process
- Aerospace
- Defense
- Hot Melt
- Motor/Generator

Dimensions



'L' = Element Length
 'W' = Element Width
 'T' = Element Thickness
 'Y' = Leadwire/Cable Length

Performance Specifications

Stability:

Typical drift is less than 0.04% at 1,000 hours at max temperature

Recommended Applied Current:

1.0 mA at 100 Ohm
0.3 mA at 1,000 Ohm

RTD Temperature Accuracy Specifications:

Element Material	TCR	Standard Tolerances at 0°C	
		±.12%	±.5%
Platinum	0.00385	0.30°C, 0.12Ω	1.20°C, 0.46Ω
Platinum	0.00391	0.30°C, 0.12Ω	1.20°C, 0.46Ω
Nickel	0.00672	N/A	0.85°C, 0.68Ω

Ordering Information

Standard RTD Thin Film Element Configurations* (Model 650)

Part Number	Element Configuration	Accuracy	'L' Length	'W' Width	'T' Thickness	'Y' Lead Length	Temperature Range
R-12552-2	Platinum 100 Ohm, .00385 TCR	±.06% at 0°C	2.49 mm [.098"]	1.60 mm [.063"]	1.09 mm [.043"]	10.16 mm [.40"]	-200°C to 600°C
R-12552-1	Platinum 100 Ohm, .00385 TCR	±.12% at 0°C	2.49 mm [.098"]	1.60 mm [.063"]	1.09 mm [.043"]	10.16 mm [.40"]	-200°C to 600°C
R-2823-2	Platinum 100 Ohm, .00385 TCR	±.06% at 0°C	5.00 mm [.197"]	1.52 mm [.060"]	1.29 mm [.051"]	10.16 mm [.40"]	-200°C to 600°C
R-2823	Platinum 100 Ohm, .00385 TCR	±.12% at 0°C	5.00 mm [.197"]	1.52 mm [.060"]	1.29 mm [.051"]	10.16 mm [.40"]	-200°C to 600°C
R-6158-1	Platinum 100 Ohm, .00385 TCR	±.06% at 0°C	1.60 mm [.063"]	1.20 mm [.047"]	.79 mm [.031"]	10.16 mm [.40"]	-200°C to 400°C
R-6158-2	Platinum 100 Ohm, .00385 TCR	±.12% at 0°C	1.60 mm [.063"]	1.20 mm [.047"]	.79 mm [.031"]	10.16 mm [.40"]	-200°C to 400°C
R-6158-12	Platinum 1,000 Ohm, .00385 TCR	±.06% at 0°C	1.60 mm [.063"]	1.20 mm [.047"]	.79 mm [.031"]	10.16 mm [.40"]	-200°C to 400°C
R-6275	Platinum 1,000 Ohm, .00385 TCR	±.12% at 0°C	2.30 mm [.091"]	2.00 mm [.079"]	1.09 mm [.043"]	10.00 mm [.39"]	-200°C to 600°C
R-6275-10	Platinum 1,000 Ohm, .00385 TCR	±.06% at 0°C	2.30 mm [.091"]	2.00 mm [.079"]	1.29 mm [.051"]	8.00 mm [.315"]	-200°C to 600°C
R-6275-5	Platinum 1,000 Ohm, .00385 TCR	±.12% at 0°C	1.55 mm [.061"]	1.20 mm [.047"]	.79 mm [.031"]	10.16 mm [.40"]	-200°C to 600°C
R-12026-1	Platinum 100 Ohm, .00391 TCR	±.12% at 0°C	5.08 mm [.098"]	1.60 mm [.063"]	.91 mm [.036"]	10.16 mm [.40"]	-200°C to 600°C
R-7600-03	Nickel 120 Ohm, .00672 TCR	±.5% at 0°C	3.99 mm [.157"]	2.00 mm [.079"]	1.09 mm [.043"]	6.98 mm [.28"]	-50°C to 250°C

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