

RTD R03

Capsule RTD with no Transition
Extension Cable and Adjustable Compression Fitting



Features

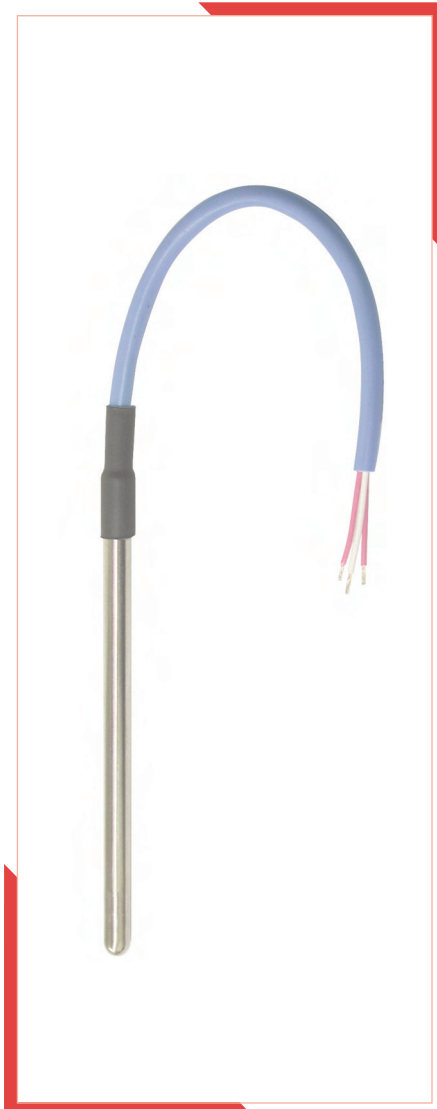
- General purpose RTD probe with PVC or Teflon lead wires
- No transition junction between leads and sheath
- Adjustable fitting available

Description

This general purpose RTD probe is compact, low cost and ideal for OEM applications. Lead wires transition the sheath without the use of metal transition fitting and are at that point not as durable as on the model R06 probe. PVC or Teflon jacketed lead wires are available.

Specifications (for all models)

| | |
|--------------------------------|---|
| Temperature range : | Code L -50 to 200°C (-58 to 392 °F) Teflon wires -20 to 90°C (-4 to 195 °F) PVC wires |
| Sheath Material : | 316 stainless steel. |
| Finish (standard) : | 32 micro-inches max. |
| Pressure rating : | 500 psi (34.5 bar). |
| RTD Element : | Pt 100 Ohm @ 0°C, $\alpha=0.00385$ IEC 751 & DIN 43760 standard |
| Lead wires : | Stranded 22 AWG std., PVC or Teflon insulation |
| Self-heating : | 50 mW/°C typical in moving water. |
| Insulation resistance : | Single element probes: 100 mega-ohms min. at 500 VDC, leads to case Dual element probes : 100 mega-ohms min. at 100 VDC, between element and leads to case |



Stocked items

Intempco stocks the most commonly used R03 style capsule probes with the following features :

- Teflon insulated leads, stranded 22 AWG silver plated copper, terminating in stripped ends, 3 feet long
- 3-wire configuration, Code S3
- Element Pt 100 Ohm @ 0 °C, $\alpha=0.00385$, Class B
- Temperature range of -50/200 Deg. C
- 1/8", 3/16" and 1/4" diameter SS316 sheath
- Probe lengths available are 4", 6", 9", 12", 18", and 24"

Ordering Information (Order using Intempco inventory number)

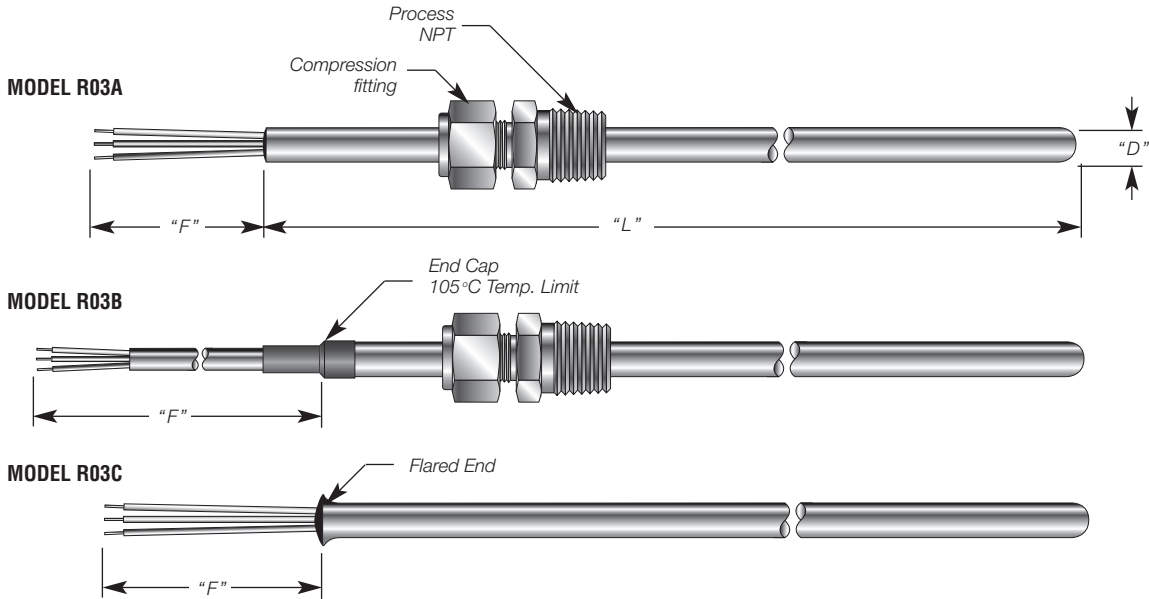
| Inventory Number | Description |
|--------------------|---|
| R03B-L-2-TF-036-L* | Probe 1/8" diameter, specify sheath length |
| R03B-L-3-TF-036-L* | Probe 3/16" diameter, specify sheath length |
| R03B-L-4-TF-036-L* | Probe 1/4" diameter, specify sheath length |

*Sheath length L :

Select -> **040** for 4 inch **120** for 12 inch
060 for 6 inch **180** for 18 inch
090 for 9 inch **240** for 24 inch

RTD R03

Capsule RTD with no Transition
Extension Cable and Adjustable Compression Fitting



Custom Builder

MODEL 1 2 3 4 5 6 7 8 9 10 11

R03 - [] - [] - [] - [] - [] - [] - [] - [] - [] - [] - []

| BOX 1 CODE | Temperature Range |
|------------|---|
| A | Low temperature -20 to 90°C (-4/195°F) |
| L | Low temperature -50 to 200°C (-58/392°F) |

| BOX 2 CODE | Element Type |
|------------|---|
| P | 100Ω @ 0°C, α = 0.00385 DIN EN 60751 |

Other elements available. Consult factory.

| BOX 3 CODE | Element Tolerance |
|------------|---------------------------------|
| 1 | ±0.12% (±0.3°C) @ 0°C, Class B |
| 2 | ±0.06% (±0.15°C) @ 0°C, Class A |
| 3 | ±0.04% (±0.1°C) @ 0°C, Class AA |

Other tolerances available. Consult factory.

| BOX 4 CODE | RTD Circuit Type |
|------------|------------------|
| S2 | Single, 2 wire |
| S3 | Single, 3 wire |
| S4 | Single, 4 wire |
| D2 | Dual, 2 wire |
| D3 | Dual, 3 wire |
| D4 | Dual, 4 wire |

Note: 1. Dual RTD's require 0.187 O.D. min.
2. S3 industry standard circuit
3. S4 circuit most accurate

| BOX 5 CODE | Probe Diameter |
|------------|----------------|
| 2 | 1/8" Diameter |
| 3 | 3/16" Diameter |
| 4 | 1/4" Diameter |
| 5 | 5/16" Diameter |
| 6 | 3/8" Diameter |

| BOX 6 CODE | Probe Material |
|------------|--------------------------|
| S | Stainless steel 316/316L |

| BOX 7 CODE | Fitting Type |
|------------|---------------------------------|
| 0 | None |
| A**S | Adjustable compression fitting* |

Ferrule material:
A = Stainless steel* B = Brass* T = Teflon®
* Not readjustable with metal ferrule

Fitting material:
S = Stainless steel B = Brass
Ex.: T14B = Teflon® ferrule, 1/4" NPT, Brass fitting

Process NPT size:
** 18 = 1/8" NPT 14 = 1/4" NPT
38 = 3/8" NPT 12 = 1/2" NPT
34 = 3/4" NPT

| BOX 8 CODE | Extension Cable Type |
|------------|---|
| PV | PVC insulation, 105°C (221°F) max. (ambient & process) |
| TF | Teflon® insulation, 200°C (392°F) max. (ambient & process) |

| BOX 12 CODE | Extension Cable Length "F" |
|-------------|----------------------------------|
| --- | In inches Ex.: 060 = 60" long |

Note: Extension wires 12" long and less are single stranded leads, 22 AWG

| BOX 10 CODE | Probe Length "L" |
|-------------|--|
| --- | In 0.1" increments Ex.: 065 = 6.5" long |

| BOX 11 CODE | Options |
|-------------|--------------------------------|
| N | None |
| C1 | CoC @ 0°C R vs T table |
| C2 | CoC @ 0°C & 100°C R vs T table |