

pro^{sense} Thermowells for RTD Probes with M12 Cable Connector



Overview

- All thermowells are pre-built stock items
- Thermowells for ProSense RTD probes with M12 cable connector
- All wetted parts are 316 stainless steel
- 600°F (315°C) temperature and 232 psi (16 bar) pressure rating
- CF06-25N or CF10-50N fitting required to mount RTD probes in thermowell
- 3-year warranty



| Thermowells for RTD Probes with M12 Cable Connector | | | | | | | | | | |
|---|---------|--------|---------|---------------|-----------------|----------------------|----------------------|-----------------|---|---------------------------|
| Part Number | Pcs/Pkg | Wt(lb) | Price | I.D. | Overall Length | Male Process Threads | Female Probe Threads | Wetted Material | Temperature/Pressure Rating | Use With |
| RTDTW-06-010-50N | 1 | 0.10 | \$28.00 | 7 mm (0.28") | 113 mm (4.4") | 1/2" NPT | 1/4" NPT | 316 SS | 600°F (315°C) max; 232 psi (16 bar) max | RTD0100-06-010-H CF06-25N |
| RTDTW-06-020-50N | 1 | 0.20 | \$30.00 | | 213 mm (8.4") | | | | | RTD0100-06-020-H CF06-25N |
| RTDTW-06-030-50N | 1 | 0.30 | \$33.25 | | 313 mm (12.3") | | | | | RTD0100-06-030-H CF06-25N |
| RTDTW-10-010-50N | 1 | 0.10 | \$28.00 | 11 mm (0.43") | 92 mm (3.62") | 1/2" NPT | 1/2" NPT | 316 SS | 600°F (315°C) max; 232 psi (16 bar) max | RTD0100-10-010-H CF10-50N |
| RTDTW-10-020-50N | 1 | 0.15 | \$30.00 | | 192 mm (7.55") | | | | | CF10-50N |
| RTDTW-10-030-50N | 1 | 0.22 | \$33.25 | | 292 mm (11.48") | | | | | CF10-50N |
| RTDTW-10-050-50N | 1 | 0.10 | \$36.00 | | 492 mm (19.37") | | | | | RTD0100-10-050-H CF10-50N |

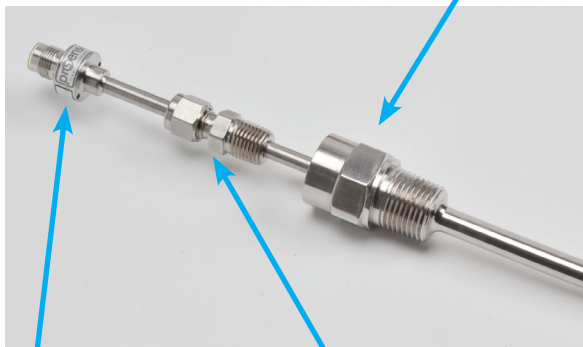


NOTE: CHECK THE CHEMICAL COMPATIBILITY OF THE THERMOWELL'S WETTED PARTS WITH THE MEDIUM TO BE MEASURED.
www.automationdirect.com/static/specs/prosensechemresistance.pdf



NOTE: RESPONSE TIME IS REDUCED WHEN INSTALLED IN A THERMOWELL. BE SURE TO INSTALL THE PROBE SO THAT IT CONTACTS THE END OF THE THERMOWELL FOR FASTER RESPONSE.. THERMAL COMPOUND MAY BE USED DEPENDING ON APPLICATION

RTD & Thermowell Assembly Example



RTD0100 Series Probe

CF06-25N or CF10-50N Compression Fitting

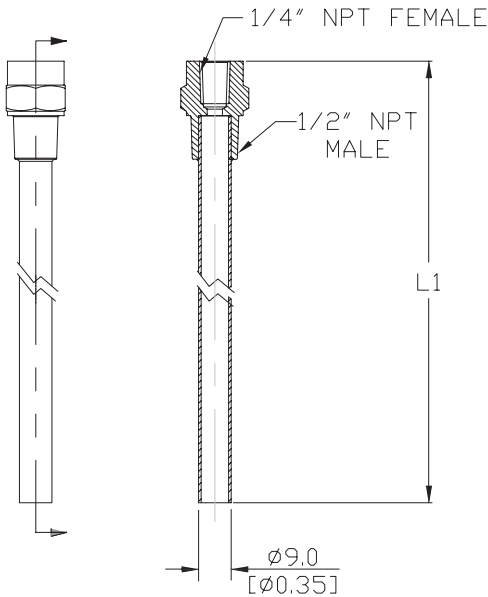
Note: Once tightened compression fitting cannot be re-adjusted

pro^{sense}® Thermowells for RTD Probes with M12 Cable Connector

Dimensions

inches [mm]

RTDTW-06 Series



| Part Number | L1 |
|------------------|---------------|
| RTDTW-06-010-50N | 113 mm [4.4] |
| RTDTW-06-020-50N | 213 mm [8.4] |
| RTDTW-06-030-50N | 313 mm [12.3] |

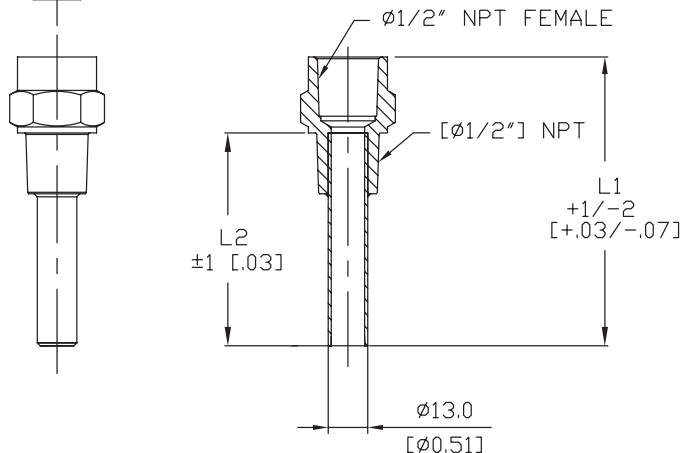
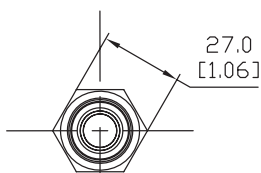
Torque threads to 40 lb-ft [54.23 Nm]*

* Torque values are for reference. Actual torque required for a proper seal of NPT threads is influenced by tolerance, sealant, lubricant, etc.

Dimensions

inches [mm]

RTDTW-10 Series



| Part Number | L1 | L2 |
|------------------|----------------|----------------|
| RTDTW-10-010-50N | 92 mm [3.62] | 70 mm [2.75] |
| RTDTW-10-020-50N | 192 mm [7.55] | 170 mm [6.69] |
| RTDTW-10-030-50N | 292 mm [11.48] | 270 mm [10.6] |
| RTDTW-10-050-50N | 492 mm [19.37] | 470 mm [18.47] |

Torque threads to 40 lb-ft [54.23 Nm]*

pro^{ense}® RTD Probes with M12 Cable Connector



Overview

- All temperature sensors are pre-built stock items
- 100 ohm platinum RTD element
- Class A accuracy
- 316 stainless steel sheath to protect from harsh sensing applications
- 6 mm (0.24") diameter 3-wire or 10 mm (0.4") diameter 4-wire probes
- Probe lengths of 160 mm, 260 mm, 360 mm, and 560 mm
- 4-pin M12 cable connector plug for simplified wiring
- 3-year warranty



| RTD Probes With M12 Cable Connector | | | | | | | | | |
|-------------------------------------|---------|--------|---------|----------------|------------------|--------------------|---|------------------|------------------------------|
| Part Number | Pcs/Pkg | Wt(lb) | Price | Type | Diameter | Length | Temperature Sensing Range | Mounting Fitting | Thermowell |
| RTD0100-06-010-H | 1 | 0.10 | \$29.00 | PT 100, 3-wire | 0.24 inch (6 mm) | 6.3 inch (160 mm) | -40 to 302°F (-40 to 150°C), Wiring connection limited to -13 to 176°F (-25 to 80°C) | CF06-25N | RTDTW-06-010-50N CF06-25N |
| RTD0100-06-020-H | 1 | 0.20 | \$30.00 | PT 100 3-wire | 0.24 inch (6 mm) | 10.2 inch (260 mm) | | CF06-25N | RTDTW-06-020-50N CF06-25N |
| RTD0100-06-030-H | 1 | 0.30 | \$33.25 | PT 100 3-wire | 0.24 inch (6 mm) | 14.2 inch (360 mm) | | CF06-25N | RTDTW-06-030-50N CF06-25N |
| RTD0100-10-010-H | 1 | 0.10 | \$29.00 | PT 100 4-wire | 10 mm (0.4 inch) | 160 mm (6.3 inch) | | CF10-50N | RTDTW-10-010-50N CF10-50N |

| RTD Probes With M12 Cable Connector Technical Specifications | |
|--|---|
| Sensing Element | Single 100 ohm platinum (Pt100), TCR = 0.00385 Ω/Ω/°C |
| Initial Accuracy | DIN EN 60751, Class A, ± (0.15 + 0.002[t])°C |
| Probe | 6 mm (0.24") or 10 mm (0.4"), 316 stainless steel sheath with single RTD element, 316 stainless steel wiring connection |
| Minimum Installation Depth | 0.6" (15 mm) |
| Response Time | *t0.5 = 1 sec/ t0.9 = 3 sec (DIN EN 60751) |
| Wiring | M12 connector; gold-plated contacts, IP 68 / IP 69K, Class III |

* t0.5 = a 50% of full scale change in output when immersed in water at 0.4m/s, t0.9 = a 90% FS change.



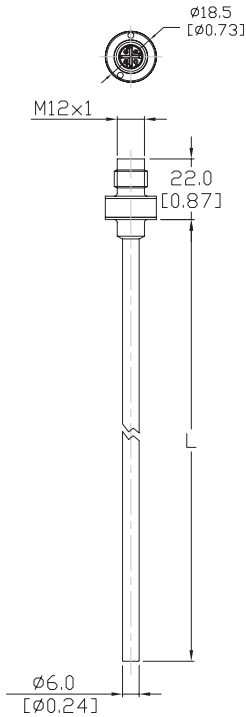
NOTE: CHECK THE CHEMICAL COMPATIBILITY OF THE SENSOR'S WETTED PARTS WITH THE MEDIUM TO BE MEASURED.
www.automationdirect.com/static/specs/prosensechemresistance.pdf

pro^{sense} RTD Probes with M12 Cable Connector

Dimensions

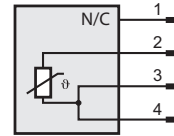
mm [inches]

RTD0100-06 Series



| Part Number | Length | L |
|------------------|--------|--------|
| RTD0100-06-010-H | 160 mm | [6.3] |
| RTD0100-06-020-H | 260 mm | [10.2] |
| RTD0100-06-030-H | 360 mm | [14.2] |

Wiring Information



Cable Assembly Wiring Colors:

- Pin 1 - Brown
- Pin 2 - White
- Pin 3 - Blue
- Pin 4 - Black

Note: wiring colors are based on AutomationDirect CD12L and CD12M 4-pole cable assemblies.

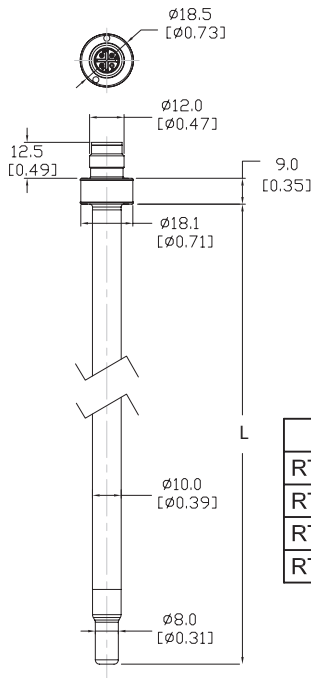


NOTE: MOUNT 0.24 (6 MM) INCH DIAMETER RTDs BY USING PROSENSE RTD^{TW} SERIES THERMOWELLS AND / OR CF06-25N COMPRESSION FITTING.

Dimensions

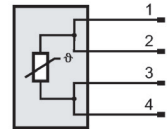
mm [inches]

RTD0100-10 Series



| Part Number | Length | L |
|------------------|--------|--------|
| RTD0100-10-010-H | 160 mm | [6.3] |
| RTD0100-10-020-H | 260 mm | [10.2] |
| RTD0100-10-030-H | 360 mm | [14.2] |
| RTD0100-10-050-H | 560 mm | [22.0] |

Wiring Information



Cable Assembly Wiring Colors:

- Pin 1 - Brown
- Pin 2 - White
- Pin 3 - Blue
- Pin 4 - Black

Note: wiring colors are based on AutomationDirect CD12L and CD12M 4-pole cable assemblies.



NOTE: MOUNT 10MM DIAMETER RTDs BY USING PROSENSE RTD^{TW} SERIES THERMOWELLS AND / OR CF10-50N COMPRESSION FITTING.