

# RTD Sensors—Fast Response

## Exposed RTD Element with Fiberglass Insulated Lead Wires



- ✓ Thermal Response (63%)  
Less Than 1 Second
- ✓ Operating Ranges:  
-30 to 300°C (-22 to 572°F) Class A Thin Film  
Element Styles, -100 to 450°C (-148 to 842°F)  
Class A Wire Wound  
Element Styles
- ✓ 1 m (40") Long 2-, 3-,  
or 4-Wire #26 AWG  
Stranded Nickel Plated  
Copper, Fiberglass  
Insulated and Jacketed  
Cable Constructions  
Available
- ✓ Ceramic Cement  
Insulating Element to  
Cable Connection



RTD-2-1PT100KN2528-36-G  
shown actual size.

**To Order Visit [newportUS.com/RTDELEM](http://newportUS.com/RTDELEM) for Pricing and Details**

Model No.	Resistance at 0° and Accuracy	Element Size	Element Type
RTD-2-F3105-36-G	100 ±0.06 Ω, Class A	2 W x 2 mm L	Thin film
RTD-2-F3102-36-G	100 ±0.06 Ω, Class A	4 W x 5 mm L	Thin film
RTD-2-1PT100KN2515-36-G	100 ±0.06 Ω, Class A	1.5 Dia. x 25 mm L	Wire wound
RTD-2-1PT100KN2528-36-G	100 ±0.06 Ω, Class A	2.8 Dia. x 25 mm L	Wire wound
RTD-2-F3145-36-G	1000 ±0.60 Ω, Class A	2 W x 2 mm L	Thin film
RTD-2-F3142-36-G	1000 ±0.60 Ω, Class A	4 W x 5 mm L	Thin film

For 2-wire, replace "2" in model number with "1" and subtract cost from price. For 4-wire assembly, replace "2" in model number with "3" and add cost to price. For longer leads, change "-36" in model number to length in inches and add cost for 3- and 4-wire cables or 2-wire cables to the price. For spade style terminal lugs standard termination in stripped leads, add "-LUG" to the model number for additional cost. For connectors (3-wire only) add "-OTP" to the model number for full sized connector or "-MTP" for miniature connector for additional cost.

**Ordering Examples:** RTD-3-F3105-36-G, 100 Ω, 2 x 2 mm, thin film Pt100 RTD element, Class A accuracy with 4-wire fiberglass insulated cable 1 m (40") long with ceramic cement over connection and stripped leads.

RTD-2-1PT100KN2515-36-G-MTP, 100 Ω, 1.5 Dia. x 25 long mm, Pt100 wire wound element, Class A accuracy with 3-wire fiberglass insulated cable 1 m (40") long with ceramic cement over connection and miniature 3-pin connector.

### Popular Options Include:



DP25B-RTD 1/2 DIN panel  
meter, see [newportUS.com](http://newportUS.com).



OM-DAQPRO-5300  
handheld  
data logger, see  
[newportUS.com](http://newportUS.com).



HH804U,  
handheld  
meter



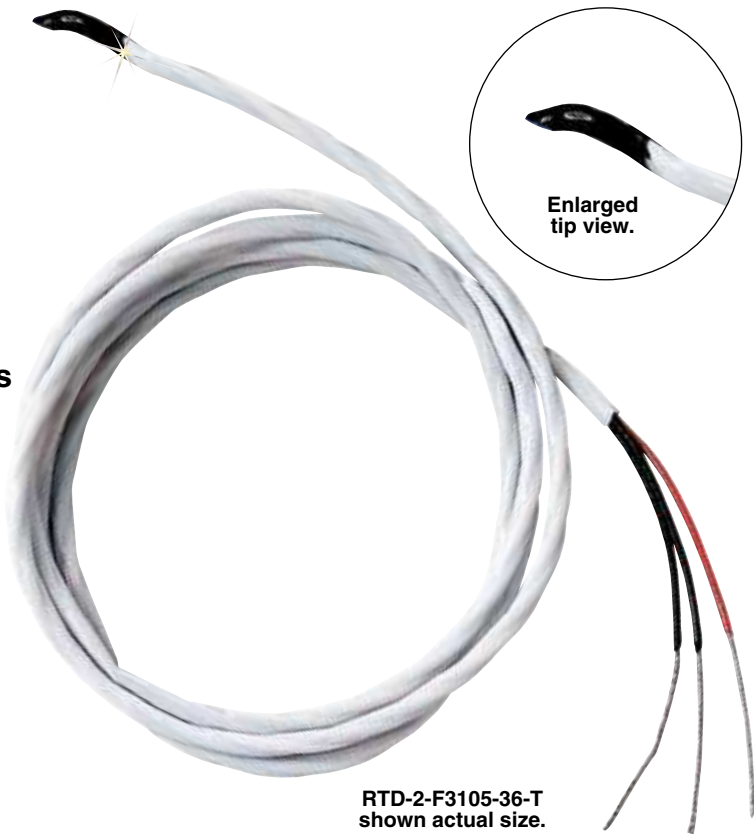
OMEGABOND®  
high temp chemical  
set cements, visit  
[newportUS.com/ob\\_bond\\_chem\\_set](http://newportUS.com/ob_bond_chem_set)

# RTD Sensors—Fast Response

## Exposed RTD Element with PFA Lead Wires



- ✓ Thermal Response (63%)  
Less Than 1 Second
- ✓ High Accuracy Class A, Pt100 and Pt1000 RTD Elements Standard
- ✓ Higher Accuracy 1/3 and 1/10 DIN Elements Are Available in Some Styles\*
- ✓ Operating Range: -30 to 260°C (-22 to 500°F) Class A Thin Film Element Styles, -100 to 260°C (-148 to 500°F) Class A Wire Wound Element Styles
- ✓ 1 m (40") Long 2-, 3- or 4-Conductor #26 AWG Stranded Nickel Plated Copper, PFA Insulated and Jacketed Cable Constructions Available
- ✓ Epoxy Potting Insulating Element to Cable Connection



\* Note: Temperature range for 1/3 DIN is 0 to 150°C (32 to 302°F) and temperature range for 1/10 DIN is 0 to 100°C (32 to 212°F). Also, note 4-wire configuration only for 1/10 DIN.

RTD-2-F3105-36-T shown actual size.

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Model No.	Resistance at 0° and Accuracy	Element Size	Element Type
RTD-2-F3105-36-T	100 ±0.06 Ω, Class A	2 W x 2 mm L	Thin film
RTD-2-F3102-36-T	100 ±0.06 Ω, Class A	4 W x 5 mm L	Thin film
RTD-2-1PT100KN2515-36-T	100 ±0.06 Ω, Class A	1.5 Dia. x 25 mm L	Wire wound
RTD-2-1PT100KN2528-36-T	100 ±0.06 Ω, Class A	2.8 Dia. x 25 mm L	Wire wound
RTD-2-F3145-36-T	1000 ±0.60 Ω, Class A	2 W x 2 mm L	Thin film
RTD-2-F3142-36-T	1000 ±0.60 Ω, Class A	4 W x 5 mm L	Thin film

For 2-wire, replace “2” in model number with “1” and subtract cost from price. For 4-wire assembly, replace “2” in model number with “3” and add cost to price. For 1/3 DIN accuracy, add “-1/3” to end of model number for additional cost. For 1/10 DIN accuracy, add “-1/10” to the model number for additional cost. (Note: 1/10 DIN option is only available in 4-wire construction). For longer leads, change “-36” in model number to length in inches and add cost for 3- and 4-wire cables, or 2-wire cables, for an additional cost. For spade style terminal lugs standard termination in stripped leads, add “-LUG” to the model number for additional cost. For connectors (3-wire only) add “-OTP” to the model number for full sized connector, or “-MTP” for miniature connector for additional cost.

**Ordering Examples:** RTD-3-F3105-36-T-1/3, 100 Ω, 2 x 2 mm, thin film Pt100 RTD element, 1/3 DIN accuracy with 4-wire PFA insulated cable 1 m (40") long with epoxy over connection and stripped leads.

RTD-2-1PT100KN2515-36-T-MTP, 100 Ω, 1.5 Dia. x 25 long mm, Pt100 wire wound element, Class A accuracy with 3-wire PFA insulated cable 1 m (40") long with epoxy over connection and miniature 3-pin connector.

### Popular Options Include:



CN1A temperature controller, see [newportUS.com](http://newportUS.com).

HE-XT105 PLC/HMI all-in-one,



CN3271-R1 high/low limit controller, see [newportUS.com](http://newportUS.com).



OM-SQ2010 data logger, see [newportUS.com](http://newportUS.com).

# RTD Sensors—Fast Response

## Exposed RTD Element with Bare Lead Wires



- ✓ Thermal Response (63%) Less Than 1 Second
- ✓ Operating Ranges:  
-30 to 300°C  
(-22 to 572°F)  
Class A Thin Film Element Styles,  
-100 to 450°C  
(-148 to 842°F)  
Class A Wire Wound Element Styles
- ✓ 1 m (40") Long 2-, 3-, or 4-Wire #26 AWG Solid Nickel Wire



RTD-2-1PT100KN2528-36-B  
shown actual size.

**To Order Visit [newportUS.com/RTDELEM](http://newportUS.com/RTDELEM) for Pricing and Details**

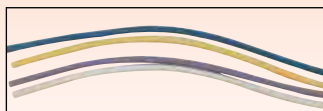
Model No.	Resistance at 0° and Accuracy	Element Size	Element Type
RTD-2-F3105-36-B	100 $\pm$ 0.06 $\Omega$ , Class A	2 W x 2 mm L	Thin film
RTD-2-F3102-36-B	100 $\pm$ 0.06 $\Omega$ , Class A	4 W x 5 mm L	Thin film
RTD-2-1PT100KN2515-36-B	100 $\pm$ 0.06 $\Omega$ , Class A	1.5 Dia. x 25 mm L	Wire wound
RTD-2-1PT100KN2528-36-B	100 $\pm$ 0.06 $\Omega$ , Class A	2.8 Dia. x 25 mm L	Wire wound
RTD-2-F3145-36-B	1000 $\pm$ 0.60 $\Omega$ , Class A	2 W x 2 mm L	Thin film
RTD-2-F3142-36-B	1000 $\pm$ 0.60 $\Omega$ , Class A	4 W x 5 mm L	Thin film

For 2-wire, replace "2" in model number with "1" and subtract cost from price. For 4-wire assembly, replace "2" in model number with "3" and add cost to price. For longer leads, change "-36" in model number to length in inches and add cost for 3- and 4-wire cables or 2-wire cables for additional cost.

**Ordering Examples:** RTD-3-F3105-36-B, 100  $\Omega$ , 2 x 2 mm, thin film Pt100 RTD element, Class A accuracy with 4-wire bare conductors, 1 m (40") long with no ceramic cement over connection and stripped leads.

RTD-2-1PT100KN2515-36-B, 100  $\Omega$ , 1.5 Dia. x 25 long mm, Pt100 wire wound element, Class A accuracy with 3-wire bare conductors, 1 m (40") long with no ceramic cement over connection.

### Popular Options Include:



FBGS-N-24 fiberglass sleeving, visit [newportUS.com/fbgs](http://newportUS.com/fbgs)



OM-CP-OCTRTD data logger, visit [newportUS.com/om-cp-octrtd](http://newportUS.com/om-cp-octrtd)



FRX-02018 thermocouple insulators, see [newportUS.com](http://newportUS.com).



OMEGABOND® high temp chemical set cements, visit [newportUS.com/ob\\_bond\\_chem\\_set](http://newportUS.com/ob_bond_chem_set)