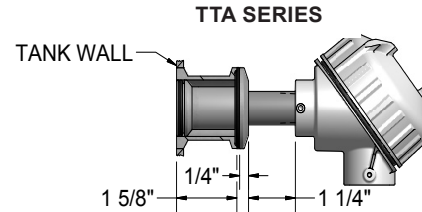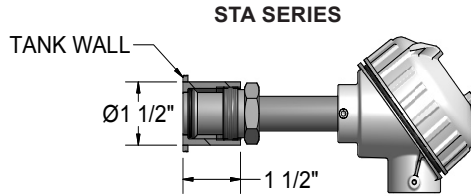The non-intrusive tank sensors listed on this page are designed to mount flush with the interior tank wall for maximum product contact. This allows the wiping or mixing blades to properly mix the product within the tank without damaging the temperature sensor. The temperature sensors are manufactured of highly polished stainless steel and use various mounting methods for simple installation. These sensors are supplied standard with a 100 Ω, Platinum RTD sensing element. These RTD assemblies are constructed of 316 stainless steel and all wetted parts are supplied with a surface finish that meets or exceeds 32µin $R_a$. Surface finishes of 15µin $R_a$ or better are available upon request. These RTD assemblies have an operation temperature of (-50 to 200) ºC [-58 to 400] ºF. See back of section for complete dimensions and installation instructions.

**STA SERIES**

TANK WALL

Ø1 1/2"

1 1/2"

**TTA SERIES**

TANK WALL

1/4"

1 5/8"  1 1/4"

## ORDER CODES

*Example Order Number:* 

| 1-0 | 1-1 | 1-2 | 1-3 |
|---|---|---|---|
| **RAF185L** **3** | - **DTA** | - **63** | |

### 1-0  100 Ω Platinum RTD Elements

| CODE | | TOLERANCE[1] | TEMPERATURE COEFICIENT |
|---|---|---|---|
| Single | Duplex | | |
| RBF185L | RBF285L | Class B | α = 0.003 85 ºC⁻¹ |
| RAF185L | RAF285L | Class A | α = 0.003 85 ºC⁻¹ |
| [1] Tolerance is based on initial element accuracy and can not be guaranteed in flush mount applications. | | | |

### 1-1  Element Connection

| CODE | DESCRIPTION |
|---|---|
| 3 | 3-Wire Element |
| 4 [1] | 4-Wire Element |
| [1] Not Available in Duplex | |

### 1-2  Assembly Types and Options

| SINGLE-WALL RTD SENSOR | |
|---|---|
| CODE | DESCRIPTION |
| STA | Complete assembly, includes sensor, mounting adaptor, and O-ring |
| STS | Replacement sensor, includes sensor and O-ring |
| **DUAL-WALL RTD SENSOR** | |
| CODE | DESCRIPTION |
| DTA | Complete assembly, includes sensor, mounting adaptor, and O-ring |
| DTS | Replacement sensor, includes sensor and O-ring |
| **TRI-CLAMP® RTD SENSOR** | |
| CODE | DESCRIPTION |
| TTA | Complete assembly, includes sensor, mounting adaptor, clamp, gasket and O-ring |
| TTS | Replacement sensor, includes sensor and O-ring |
| **CAN STYLE RTD SENSOR** | |
| CODE | DESCRIPTION |
| FCA | Complete assembly, includes sensor, backing nut, mounting adaptor, and FEP gasket |
| FCS | Replacement sensor, includes sensor and FEP gasket |

### 1-3  Head Terminations and Options

| CODE | DESCRIPTION |
|---|---|
| 63 | White polypropylene screw-cover head |
| 31,W | Aluminum screw-cover head with white epoxy coating |
| 91 | 316 Stainless steel screw-cover head |
| 35T-642A | (4 to 20) mA HART® Field Transmitter with aluminum general-purpose housing |
| 36T82-D10 | (4 to 20) mA dual input HART® transmitter with digital display and general-purpose aluminum housing with glass lid |
| 37T-662A | (4 to 20) mA HART® Field Transmitter with general-purpose aluminum housing |

**Optional Temperature Transmitters and Head Options**

| CODE | DESCRIPTION |
|---|---|
| T-440 | (4 to 20) mA head-mounted RTD transmitter |
| T-441 | (4 to 20) mA isolated head-mounted transmitter |
| T-442 | (4 to 20) mA isolated Hart® head-mounted transmitter |
| T82-00 | (4 to 20) mA dual input HART® head-mounted transmitter |
| I | Stainless steel identification tag |
| SB | 1/2" NPT conduit reducer bushing |
| NB | 1/2" NPT nylon conduit reducer bushing |

**Replacement Parts**

| CODE | DESCRIPTION |
|---|---|
| 13445 | Single-wall tank mounting adaptor (STA assembly) |
| 13446 | Dual-wall tank mounting adaptor (DTA assembly) |
| 13538 | Silicon/FEP O-ring for STA and DTA assemblies |
| 13470 | Tank mounting adaptor for Tri-Clamp® assembly |
| 13542 | Silicon/FEP O-ring for TTA Tri-Clamp® assembly |
| 13439 | 1 1/2" clamp for TTA Tri-Clamp® assembly |
| 13440 | EDPM gasket for TTA Tri-Clamp® assembly |
| 13447 | Tank mounting adaptor for FCA Can style assembly |
| 13449 | Backing nut for FCA Can style assembly |
| 13448 | FEP gasket for FCA Can style assembly |

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HART® is a registered trademark of HART Communication Foundation.

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