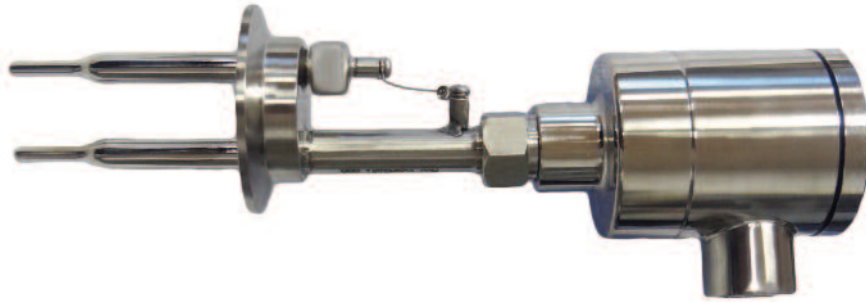


RS280

Sanitary RTD w/Connection Head
and Integral Test Well



Applications and Uses

Intempco's RS280 Dual stem sanitary sensor is ideal for process systems requiring temperature validation in real time when a process is running. This is the best way to validate that the sensor used for control or recording, is functioning in accordance to particular process requirements. Intempco RS280 series hygienic clamp union style assemblies are an excellent choice for easy installation into a "tee", "cross", or directly into a sanitary tube. Minimum tube size is 2" Connection. Head options include polypropylene, stainless steel, bakelite, Teflon® and others.

A quick access port to the test well is available for inserting a reference standard. When not in use, a cap seals the test well to NEMA6/IP67 compliance. A teflon coated SS wire attaches the cap to the assembly to prevent misplacement.

Both the test well and the sensor have identical profiles and mass to obtain similar thermal characteristics for better real time comparisons.

Use on Pasteurization Systems :

Choose model designation RS280P for faster time response. Models with this designation have a thermometric response criteria that exceeds the requirements referenced in the PHS/FDA PASTEURIZATION MILK ORDINANCE for HTST indicating thermometers. If indication is also required, see our complete line of Digital Temperature Gauges and Indicating Thermometers.

Stock Items

Intempco stocks the most commonly used RS280 style sanitary sensor assemblies with the following features :

- Operating temperature range of -50 to 200°C (-58 to 392°F)
- RTD element 100 Ω DIN EN 60751, $\alpha = 0.00385 (\Omega / \Omega) / ^\circ\text{C}^{-1}$, Class A, Duplex 3-wire
- 2" hygienic clamp union size
- Probe length 3" (76mm)
- FDA compliant white polypropylene or machined SS enclosure

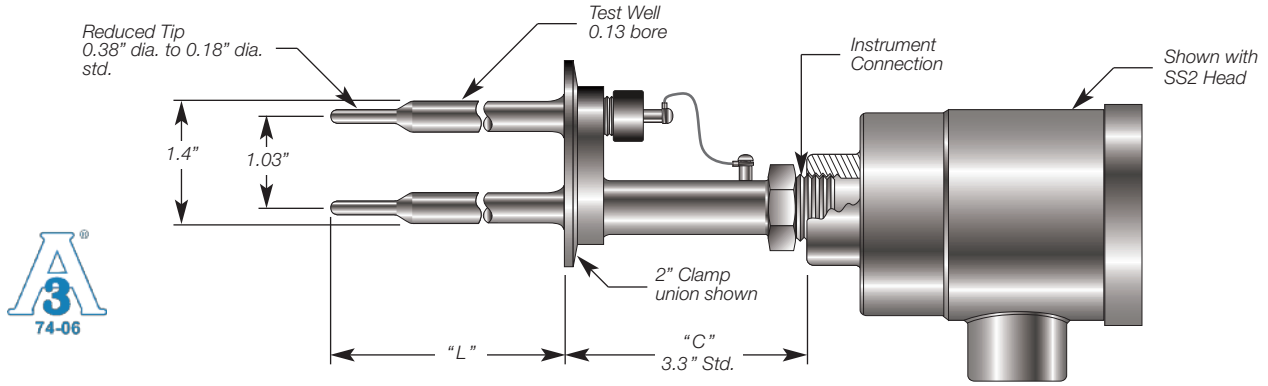
Ordering Information

| Catalog Number | Immersion Length "L" | Hygienic Clamp Union Size |
|---|----------------------|---------------------------|
| RS280-L-P-2-D3-FC-S-030-N33-EE-T20-P03-SF | 3.0" | 2" |
| RS280-L-P-2-D3-FC-S-030-N33-EE-T20-SS2-SF | 3.0" | 2" |



RS280

Sanitary RTD w/Connection Head and Integral Test Well



Custom Builder

MODEL 1 2 3 4 5 6 7 8 9 10 11 12

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| MODEL CODE | Model |
|------------|--|
| RS280 | Sanitary RTD w/Test Well |
| RS280P | Sanitary RTD w/Test Well Pasteurization Specification* |

* Note : RS280P option requires code L in BOX1 and code FC in BOX5

| BOX5 CODE | Probe Diameter "D" | |
|-----------|--------------------|----------|
| F | 3/8" | |
| CODE | Sheath O.D. | Tip O.D. |
| FC | 3/8" | 3/16" |
| FD | 3/8" | 1/4" |

Other diameters available. Consult factory.

| BOX10 CODE | Process Fitting Type / Size |
|------------|-----------------------------|
| T20 | Hygienic clamp union, 2" |
| T25 | Hygienic clamp union, 2.5" |
| T30 | Hygienic clamp union, 3" |

Other fittings available. Consult factory.

| BOX1 CODE | Temperature Range |
|-----------|-------------------------|
| L | Low Temp. -50 to 200°C |
| M | Med. Temp. -50 to 400°C |

| BOX6 CODE | Probe Material |
|-----------|--------------------------|
| S | Stainless steel 316/316L |

Other materials available. Consult factory.

| BOX11 CODE | Head/Termination |
|------------|---|
| 0 | No head, supplied with 6" single Teflon® leads |
| PO* | White polypropylene screw cover, meets NEMA 4X/IP65 requirements |
| BA2 | Bakelite screw cover, meets NEMA 4X/IP65 requirements |
| SS2 | Machined & polished stainless steel 316/316L screw cover, meets NEMA 4X/IP66 requirements |
| CS* | Cast stainless steel 316 screw cover, meets NEMA 4X/IP66 requirements |
| CX* | Cast stainless steel, explosion proof, CSA, FM Approval Class I, Div. 1, Gps. B, C & D Class II, Div. 1, Gps. E, F & G, NEMA 4X |

*2 = 1/2" NPT Conduit *3 = 3/4" NPT Conduit

| BOX2 CODE | Element Type |
|-----------|---|
| P | 100Ω @ 0°C, α = 0.00385 DIN EN 60751 |

Other elements available. Consult factory.

| BOX7 CODE | Probe Length "L" |
|-----------|--|
| 030 | 3.0", standard |
| 020 | 2.0", minimum |
| --- | In 0.1" increments Ex.: 065 = 6.5" long |

| BOX8 CODE | Extension Length "C" |
|-----------|--|
| N33 | 3.3", standard & minimum |
| N45 | 4.5" |
| N55 | 5.5" |
| N -- | In 0.1" increments (2.5" Std.) Ex.: N25 = 2.5" long |

| BOX3 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.

| BOX9 CODE | Instrument Connection |
|-----------|-----------------------|
| EN | 1/2" NPT male |
| EE* | 1/2" NPS male |

* Code EE is standard when ordering with a head.

| BOX12 CODE | Surface Finish |
|------------|------------------------------------|
| SF | 32 ?-in (0.8 ?m) Ra max. or better |
| F1 | 20 ?-in (0.5 ?m) Ra max. w/o EP |
| F4 | 15 ?-in (0.4 ?m) Ra max. with EP |

| BOX4 CODE | Output RTD Circuit Type |
|-----------|-------------------------|
| S2 | Single, 2 wire |
| S3 | Single, 3 wire |
| S4 | Single, 4 wire |
| D2 | Dual, 2 wire |
| D3 | Dual, 3 wire |

| BOX4 CODE | Output Transmitter Type (Installed) |
|-----------|-------------------------------------|
| TA | Model RT810, 4-20mA |
| TB | Model RT820, 4-20mA |
| TX | Other, specify model type |

Specify temp. range at the end of part number.
Ex.: RS280-L-P-2-TA...SF, (0/100°C)
Model RT810 transmitter, range 0/100°C