

Applications and Uses

Intempco RS80 series hygienic clamp union style assemblies are an excellent choice for easy installation into a “tee”, “cross”, or directly into a sanitary tube. Connection head options include polypropylene, stainless steel, bakelite, Teflon® and others. The probes can be ordered up to 1/2 inch in diameter for applications where long structurally robust probes are required. Many different mechanical configurations derived from this basic RS80 series are available. Review the complete sanitary RTD brochure to find an assembly appropriate for your application or contact Intempco and we will provide a complete customized solution.

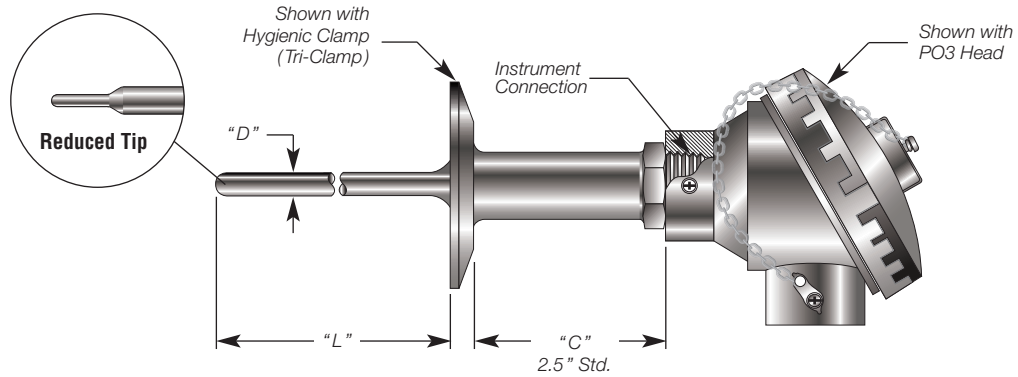
Stock Items

Intempco stocks the most commonly used RS80 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, single, 4 wire*
- *1.5” and 2” hygienic clamp union sizes available*
- *1/4” probe diameter, stainless steel 316*
- *Immersion lengths available are 2.5”, 4” and 6”*
- *FDA Compliant white polypropylene enclosure with 3/4” electrical conduit connection.*

Ordering Information (Order stock items using Intempco inventory number)

Catalog Number	Inventory Number	Immersion Length “L”	Hygienic Clamp Union Size
RS80-L-P-2-S4-D-S-025-N25-EE-T15-P03-SF	RS80L-T15025P03	2.5”	1.5”
RS80-L-P-2-S4-D-S-040-N25-EE-T15-P03-SF	RS80L-T15040P03	4.0”	1.5”
RS80-L-P-2-S4-D-S-060-N25-EE-T15-P03-SF	RS80L-T15060P03	6.0”	1.5”
RS80-L-P-2-S4-D-S-025-N25-EE-T20-P03-SF	RS80L-T20025P03	2.5”	2”
RS80-L-P-2-S4-D-S-040-N25-EE-T20-P03-SF	RS80L-T20040P03	4.0”	2”
RS80-L-P-2-S4-D-S-060-N25-EE-T20-P03-SF	RS80L-T20060P03	6.0”	2”



Custom Builder

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

RS80 - - - - - - - - - - - - -

BOX 1 CODE	Temperature Range
L	Low Temp. -50 to 200°C
M	Med. Temp. -50 to 400°C

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

BOX 4 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.: RS80-L-P-2-TA...SF, (0/100°C)
Model RT810 transmitter, range 0/100°C

BOX 5 CODE	Probe Diameter "D"	
D	1/4"	
F	3/8"	
H	1/2"	
CODE	Sheath O.D.	Tip O.D.
DB	1/4"	1/8"
FC	3/8"	3/16"
HC	1/2"	3/16"
HD	1/2"	1/4"
JD	5/8"	1/4"

Other diameters available. Consult factory.

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

Other materials available. Consult factory.

BOX 7 CODE	Probe Length "L"
---	In 0.1" increments Ex.: 065 = 6.5" long Ex.: 120 = 12" long

BOX 8 CODE	Extension Length "C"
N--	In 0.1" increments (2.5" Std.) Ex.: N25 = 2.5" long

BOX 9 CODE	Instrument Connection
EN	1/2" NPT male
EE*	1/2" NPS male

* Code **EE** is standard when ordering with a head.

BOX 10 CODE	Process Fitting Type/Size
T10	Hygienic clamp union, 1"
T15	Hygienic clamp union, 1.5"
T20	Hygienic clamp union, 2"
T25	Hygienic clamp union, 2.5"
T30	Hygienic clamp union, 3"

Other fittings available. Consult factory.

BOX 11 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

BOX 12 CODE	Surface Finish
SF	32 μ-in (0.8 μm) Ra max. or better
F1	20 μ-in (0.5 μm) Ra max. w/o EP
F4	15 μ-in (0.4 μm) Ra max. with EP