# Sterisensor® Autoclave Chamber/Load Sensor

Sterisensor® withstands the environmental conditions found in pharmaceutical autoclave chambers. Sterisensor's engineered moisture seal prevents the ingress of moisture which is the leading cause of failure.

Thermocouple Type T or RTD, 100Ω@0°C, .00385Ω/Ω/°C calibrations are available, sensor lengths and diameters are configured to meet application requirements.
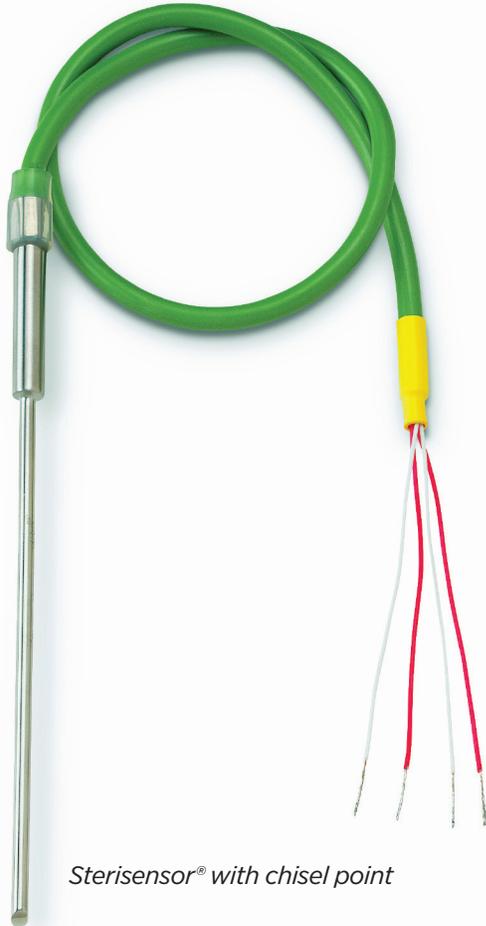
Sterisensor® with chisel point

Mechanical

Sensor Diameter:
• 3.0mm, 3.18mm (.125"), 4.76mm (.187"), 6.0mm, 6.35 (.250")

Sensor Length:
• 75mm (3") minimum, 305mm (12") maximum

Sheath Material:
• 316 Stainless Steel

Leadwire/Jacket Length:
• 900mm (36") length minimum

RTD

Element:
• Single or dual PT 100 with 3 or 4 wire connection, Class 'B', and 'A' tolerance meeting BS EN 60751:1996. Fractional 1/10 tolerance available.

Leadwire/Jacket:
• PTFE insulated 26AWG stranded conductors with thick walled extruded silicone rubber jacket

Operating Range:
• -50°C to +150VC (-58°F to +302°F)
• Vacuum to 3.5 BAR (50 PSIG)

Note: Multiple detector configurations are determined by the sensor diameter.

Thermocouple

Type:
• Type T: Single or Dual to ASTM E230

Leadwire/Jacket:
• PTFE insulated 24AWG stranded conductors with thick walled extruded silicone rubber jacket

Operating Range:
• -50°C to +150°VC (-58°F to +302°F)
• Vacuum to 3.5 BAR (50 PSIG)

Accessories

• Various types of leadwire sealing connector assemblies are available. Refer to Conax Technologies' Catalog 5001.

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T E C H N O L O G I E S

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Sterisensor® Assembly Description for RTDs
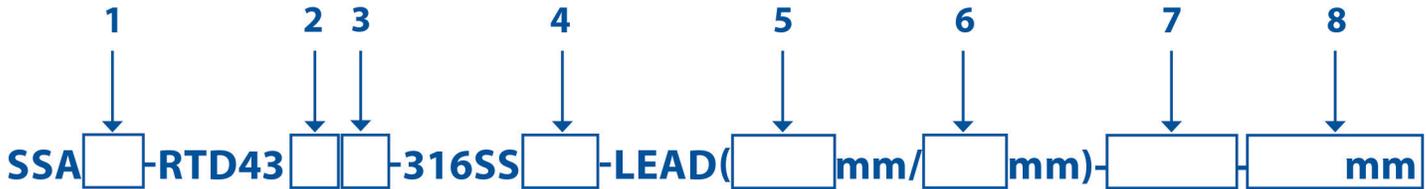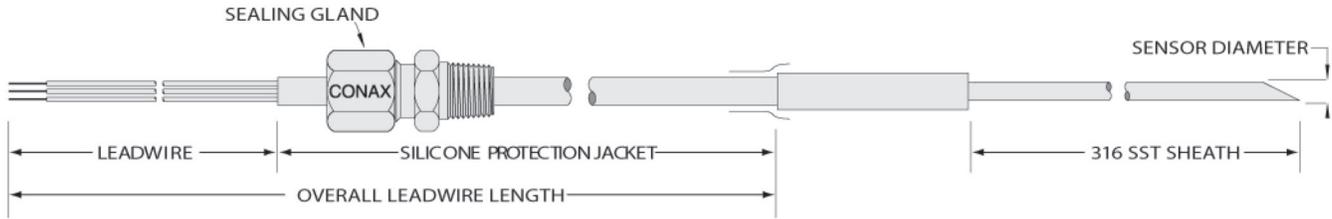
EXAMPLE: SSA6-RTD43W3-316SS635-LEAD(1000mm/100mm)-PG2AV-300mm

RTD Type

1. Tip Configuration:

• 5 = Enclosed, welded closed

• 6 = chisel point, welded closed

2. RTD Type and Tolerance:

• 100Ω@0°C, α = .00385Ω/Ω/°C:

• W = Class B (±.3°C@0°C)

• S = Class A (±.15°C@0°C)

• R = 1/10 Class B (±.03°C@0°C)

3. Sensor Lead Configuration/ Available Sensor Diameter:

• 3 = Single 3-Wire / All Dia.

• 4 = Single 4-Wire / All Dia.

• 7 = Dual 3-Wire / ≥4.76mm (.187″ Dia.)

• 8 = Dual 4-Wire / ≥4.76mm (.187″ Dia.)

4. Sensor Diameter:

• 300 = 3.00mm

• 320 = 3.18mm (.125″)

• 476 = 4.76mm (.187″)

• 600 = 6.00mm

• 635 = 6.35mm (.250″)

5. Length - (mm) of overall leadwire:

• Maximum overall leadwire length - 6100mm (240″)

• Minimum silicone protection jacket length - 900mm (36″)

6. Length (mm) of exposed PTFE leadwire with 12.70mm (1/2″) bare lead:

• Minimum exposed leadwire length - 75mm (3″)

• Maximum exposed leadwire length - 200mm (8″)

7. Specify sealing gland type:

• X = not required

• MPGAV: .125 NPT mounting thread Viton® sealant

• PG2AV: .250 NPT mounting thread Viton® sealant

• PG2 (S316L/SFA10W)AV: PG2 sealing connector welded to 1 & 1 ½″ 16 AMP sanitary flange, Viton sealant

8. Length (mm) of sensor sheath:

• Minimum sensor sheath length - 75mm (3″)

• Maximum sensor sheath length - 305mm (12″)

Note: *Consult factory for catalog number for optional bending and reduced tip sensor configurations. RTD types S and R are recommended with four wire lead configuration. Refer to Conax Technologies' Catalog 5001 or www.conaxtechnologies. com for additional compression seal fitting (Sealing Gland) information.• Lava sealant not recommended for high vacuum.*

Sterisensor® Assembly Description for Thermocouples

SSA [ ] - [ ] 316SS [ ] - [ ] -LEAD([ ] mm/ [ ] mm)- [ ] - [ ] mm
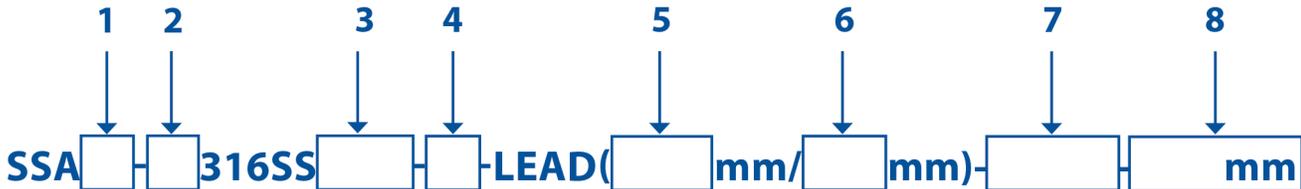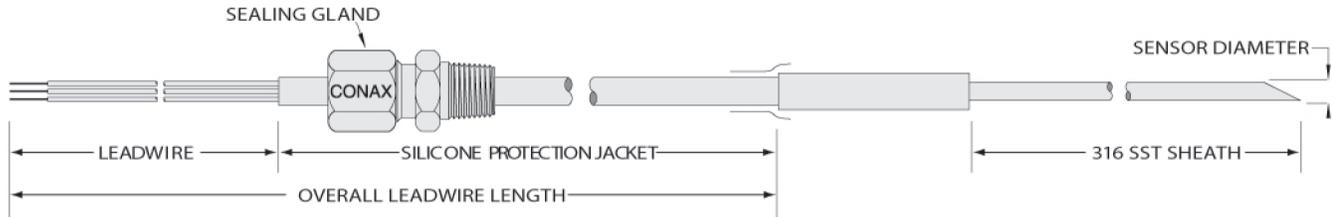
EXAMPLE: SSA6-T-316SS635-U-LEAD(1000mm/100mm)PG2AV-300mm

Thermocouple Type

1. Tip Configuration:

• 5 = Ungrounded, welded closed

• 6 = Chisel point, ungrounded, welded closed

2. Thermocouple Type:

• T = Copper/Constantan

3. Sensor Diameter:

• 300 = 3.00mm

• 320 = 3.18mm (.125″)

• 476 = 4.76mm (.187″)

• 600 = 6.00mm

• 635 = 6.35mm (.250″)

4. Thermocouple Configuration/ Available Sensor Diameter:

• U = Single 2-wire

• 2U = Dual 4-wire

5. Length - (mm) of overall leadwire:

• Maximum overall leadwire length - 6100mm (240″)

• Minimum silicone protection jacket length - 900mm (36″)

6. Length (mm) of exposed PTFE leadwire with 12.70mm (1/2″) bare lead:

• Minimum exposed leadwire length - 75mm (3″)

• Maximum exposed leadwire length - 200mm (8″)

7. Specify sealing gland type:

• X = not required

• MPGAV: .125 NPT mounting thread Viton® sealant

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8. Length (mm) of sensor sheath:

• Minimum sensor sheath length - 75mm (3″)

• Maximum sensor sheath length - 305mm (12″)

Note: *Consult factory for catalog number for optional bending and reduced tip sensor configurations. Refer to Conax Technologies' Catalog 5001 or www.conaxtechnologies.com for additional compression seal fitting information.*

Sterimaster® Autoclave Chamber/Load Sensor

Sterimaster® Chamber/Load Sensor

The environmental conditions found in pharmaceutical autoclave chambers are extreme for any equipment. These same conditions are a major cause of sensor failure in chamber/load probes. This is due to the ingress of moisture into the sensor and the unacceptable leakage of steam/condensate through the bulkhead connection.

The Sterimaster® Chamber/Load Sensor has been designed to withstand these conditions and offers a reliability factor surpassing that previously obtainable. Every weld undergoes NDT examination and each completed assembly is leak tested.

RTD and thermocouple assemblies are available. Further information can be found in Conax Technologies' Sterimaster Bulletin 6012. Contact your Conax Technologies representative, our Sales offices, or go to our website to obtain a copy.

For more information

Please visit www.conaxtechnologies.com for technical data on temperature sensors, thermocouples, RTDs, thermowells, transmitters, special assemblies and more.

Request Catalog 5005, our RTD & Thermocouple Assemblies Handbook.

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