

radix[®]



**TEMPERATURE SENSORS
FOR FOOD AND PHARMA**

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TEMPERATURE SENSORS - FOOD & PHARMA

AUTOCLAVES / STEAM STERILIZERS

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

CONTINUOUS USE

RTD

MODEL **RAC244**

Silicone rubber jacketed cable

RAC244 has a completely sealed construction. As a result, the entire sensor assembly, including the probe and cables extending from the RTD, can be completely submerged in water without affecting accuracy or long-term stability.

- Pt100, 3/4-wire
- Class A / higher accuracy
- 0 to 150°C measuring range
- Single / dual elements



MODEL **RFA244**

For Fedegari autoclave



- Pt100, 4-wire configuration
- Class AA accuracy
- 4, 7 & 10 meter cable length
- -50°C to 150°C range
- FEP/Silicone insulated cable

MODEL **RFA254**

For straight construction



- Pt100, 4-wire configuration
- Class A / higher accuracy
- 8 meter cable length
- -50°C to 150°C range
- Silicone rubber insulated cable

MODEL **RFA255**

For angular construction

VALIDATION

A critical factor when validating any autoclave is the calibration of measurement probes, especially temperature probes.

RTD

RAC243 is a highly accurate special purpose RTD. It's Teflon insulated cable with SS and reinforced tip gives it rugged and leakproof construction. Its compact design permits multiple sensors installation through a single validation port

- Pt100, 3/4-wire
- Class A / higher accuracy
- 0 to 150°C
- Single element



MODEL **RAC243**

Teflon insulated cable

THERMOCOUPLE

Teflon insulated cable with insulated tip prevents penetration of steam/condensate through cable termination.

- Copper / constantan (T type) thermocouple
- Special limits of error (Class 1)
- Stranded wires for flexibility
- 0 to 150°C measuring range



MODEL **TAC243**

Teflon insulated tip

TEMPERATURE SENSORS - FOOD & PHARMA

FOR DRY HEAT STERILIZER (DHS)

RTD

RDH245 is designed to withstand temperatures up to 265°C (482°F) in continuous use.

MODEL **RDH245**

- Pt100, 3-wire
- Class A accuracy
- 0 to 265°C
- Teflon insulated cable with stress relieving spring
- Single/dual element



TUNNEL VALIDATION

THERMOCOUPLE

TTV246 tunnel validation thermocouples are suitable for temperatures upto 316°C continuous use and which can be used up to 360°C (15% extra) for intermittent use.

MODEL **TTV246**

- T- type or K-type calibrations
- Special limits of error (Class 1)
- Upto 360°C measuring range
- Kapton insulated cable



VALIDATION PORTS FOR AUTOCLAVE



Used with teflon insulated cable

MODEL **VPA241**

- Individual slots for up to 18 RTD/Thermocouples
- Gland body : SS316L
- Mounting : 1.5" Tri-clover
- Pressure rating : 3 bar
- Temperature rating : Up to 150°C
- Sealant : Medical grade silicone rubber, FDA USP Class IV
- Cap : Barstock brass
- Compression disc & screw : SS304
- 'Y' or 'T' adaptor for doubling the quantity
- Optional : Expander, mounting clamp & gasket



Used with silicone rubber insulated cable

MODEL **VPA242**

- Individual slots for up to 8 RTDs
- SS316 construction
- Mounting : 2" Tri-clover
- Pressure rating : 3 bar
- Temperature rating : Up to 150°C
- Sealant : Medical grade silicone rubber, FDA USP Class IV
- Optional : "Y" or "T" adaptor, mounting clamp & gasket

TEMPERATURE SENSORS - FOOD & PHARMA

LYOPHILIZER & DEEP FREEZER

RTD

RFL248 is designed to withstand the low temperature and vacuum that are found inside lyophilizers during the dehydration process.

- Pt100, 3-wire
- Class A / better accuracy
- -100 to 200°C measuring range
- PTFE insulated cable



MODEL RFL248

THERMOCOUPLE

Teflon insulated cable with Insulated tip prevents penetration of steam / condensate through cable termination.

- Copper / constantan (T type) thermocouple
- Special limits of error (Class 1)
- Stranded wires for flexibility
- -100 to 200°C measuring range



MODEL TFL248
Teflon insulated tip

MEASUREMENT OF SHELF TEMPERATURE UNIFORMITY IN A LYOPHILIZER

Pucks or discs made of copper, brass or aluminum are offered with thermocouples as well as RTD.

RTD

- Pt100, 3-wire
- Class A / higher accuracy
- Copper, SS316 or brass body
- -80°C to 100°C



MODEL RFL249

THERMOCOUPLE

- T type
- Class 1 accuracy
- Copper or brass body
- -80°C to 100°C



MODEL TFL249

SUITABLE FOR USE WITH RABBITS & LARGE ANIMALS

RECTAL PROBE

- Pt100, 3-wire, others on request
- Class A A accuracy
- 0 to 100°C
- 2 & 5 mtr cable lengths
- Offered without connector



MODEL RRP240

Also known as Veterinary Implantation Probe

MEASUREMENT OF GELATIN TEMPERATURE

RTD FOR CAPSULE BANDING MACHINE

- Pt100, 3-wire, others on request
- Class A / higher accuracy
- -50 to 200°C measuring range
- Offered without connector



MODEL RCB200

TEMPERATURE SENSORS - FOOD & PHARMA

RTD WITH M12 CONNECTOR

GENERAL PURPOSE

- Pt100, 3-wire, others on request
- Class A / higher accuracy
- -50 to 200°C measuring range
- Threaded, fixed process connections
- 4-pin M12 plug-in connector
- Optional connection cable with M12 matching connector



MODEL RCM202



RCP Series

FOR PIPE LINES

- Pt100, 3-wire, others on request
- Class A / higher accuracy
- -50 to 250°C measuring range
- 4-20 mA output optional
- For pipelines from 15NB onwards
- Threaded process connections
- 4-pin M12 plug-in connector
- Optional, connection cable with M12 matching connector
- Mating Sanitary Fittings on request

FOR WELD-IN BOSS / THERMOWELL

- -50 to 150°C measuring range
- G1/8" for mounting to weld-in boss
- Weld-in boss, dummy plug & thermowell optional
- 4-pin M12 plug-in connector
- Optional connection cable with M12 matching connector



MODEL RCP512



MODEL RCP602



MODEL RCP612

WITH FIXED SANITARY FITTINGS

- Pt100, 3-wire, others on request
- Class A / higher accuracy
- -50 to 250°C measuring range
- With / without 4-20 mA output
- With 3/4" & 1" Tri-clovers
- 4-pin M12 plug-in connector
- Optional connection cable with M12 matching connector

ACCESSORIES FOR RCM AND RCP SERIES



ACM202



ACM204



ACM212



ACM214



CABLE

TEMPERATURE SENSORS - FOOD & PHARMA

RTD FOR VESSELS & PIPES

FOR TEMPERATURE MEASUREMENT IN TUBES

Hygienic sensors for weld-in boss or thermowell

- Pt100, 3/4-wire
- Maximum temperature 200°C
- Class A accuracy
- 15/25mm probe lengths
- G1/8" process connection
- Weld-in boss, dummy plug & thermowell optional
- With aluminium / stainless steel heads
- Head mounted transmitter optional



MODEL RHP502

- Pt100, 3/4-wire
- Maximum temperature 200°C
- Class A accuracy
- 15/25 mm probe lengths
- Cable length in 5/10/15 mtr
- PFA cable for RTP502 & PVC cable for RTP503 models
- G1/8" process connection
- Weld-in boss, dummy plug & thermowell optional



MODEL RTP502



MODEL RTP503



MODEL RHV200

WITH G1/2 HYGIENIC

- Measurement in vessels with agitators with front flush version
- Temperature monitoring in milk vessels
- SS316L wetted parts
- Head mounted transmitter optional
- Weatherproof / Flameproof / Stainless Steel termination head
- Pt100, 3-wire, single / dual element
- Class A accuracy or better
- 0 to 200°C range

WITH INGOLD PORT

- Pt100, 3-wire
- -50 to 200°C
- Class A accuracy or better
- 3/4" BSP (F) or 1 1/4" BSP (F), nut
- Ingold fitting design for easy installation
- Sanitary O-ring for moisture proof operation
- Stainless steel locking nut for Ingold port
- Optional reduced tip for faster response
- Weatherproof / Flameproof / Stainless Steel termination head
- Head mounted transmitter optional



MODEL RHV300

TEMPERATURE SENSORS - FOOD & PHARMA

SANITARY RTDS & THERMOCOUPLES

TRI-CLOVER CONNECTION

- SS316L wetted parts
- Reduced tip design option for fast response
- Optional head mounted transmitter, mounting clamp & gasket
- Pt100, 3-wire, other calibrations available
- -50 to 250°C, other ranges available
- Class A / higher, accuracy
- ½" / 1" / 2" / 2.5", Tri-clover sizes

Polypropylene head



Aluminium head



ATEX head



SS mini head



RHS SERIES

PIPE LINE RTD

RHP series is a true CIP & SIP design. This series of RTD's are used where direct insertion, viscosity or flow rate would affect accuracy. They are available with different pipe length and diameter.

WELD-IN CONNECTION

Offered with Sanitary Tri-clover RTD, Weld-in Tee joint with / without mounting clamps and gaskets



MODEL RHP602

CLAMP-IN CONNECTION

Offered with Sanitary Tri-clover RTD, Clamp-in Tee joint with / without mounting clamps and gaskets



MODEL RHP612

WITH FIXED SANITARY FITTINGS

- Pt100, 3-wire, others on request
- Class A / higher accuracy
- -50 to 250°C measuring range
- With integral cable
- With ¾" & 1" Tri-clovers



MODEL RTS602

TEMPERATURE SENSORS - FOOD & PHARMA

GENERAL PURPOSE ASSEMBLIES

WEATHERPROOF & FLAMEPROOF TERMINATIONS

- Pt100, 3/4-wire, others on request
 - Class A / higher accuracy
 - Single / dual circuits
 - -50 to 400°C measuring range
 - Cast aluminium head as standard
- Optional
 - Process connection
 - SS304 / SS316 heads
 - ATEX certified FLP head
 - Cable glands



RHG SERIES FOR WP & RFG SERIES FOR FLP MODELS

SURFACE TEMPERATURE

CLAMP-ON RTD

- Pt100, 3/4-wire sensing element
- Class A accuracy
- Single circuit



MODEL RCE202

- Pipe diameters
25/50/75/100/150mm
- SS304/SS316 pads
- Stainless steel clamps for durability
- Detachable RTD sensor for Model RCS202
- -20 to 200°C range



MODEL RCS202

TEMPERATURE MEASUREMENT OF FROZEN FOOD

- Offered in K thermocouple & Pt100, 3-wire
- Grounded hot junction in thermocouples
- -50 to 400°C for K type & -50 to 200°C for RTD
- Pointed tip for easy penetration
- Retractable PVC cable for K type
- Silicone rubber cable for RTD
- Hand held digital indicator available

PENETRATION PROBE



MODEL RHH221
MODEL THH221

PRICK PROBE



MODEL RHH220
MODEL THH220

TEMPERATURE SENSORS - FOOD & PHARMA

HVAC AND GAS TEMPERATURE MEASUREMENT

- Wall mountable aluminium housing
- Cable gland, temperature transmitter and cable are optional
- Pt100, 3-wire
- Class B accuracy
- -50 to 100°C measuring range

IN-DOOR

SS316L
perforated sheath
MODEL RAV210



OUT-DOOR

Black anodized
aluminium sheath
MODEL RAV212



RTD FOR AIR AND GAS

Perforated tip RTD is suitable for measuring temperature of flowing non-corrosive air and gas (indoor use only)

- Thin film element for fast response
- Weatherproof head
- Measuring range up to 400°C
- Different process connections



MODEL RAV220

AIR / GAS / DUCT TEMPERATURE MEASUREMENT

- Light in weight, easy to use
- ABS housing
- PG 9, polyamide cable gland
- Optional temperature transmitter and cable



MODEL RAV310



MODEL RAV311



MODEL RAV300



MODEL RAV301

THERMOWELL ASSEMBLIES

Thermowells are tubular fittings used to protect temperature sensors installed in industrial processes

- Straight, Stepped or Tapered designs
- One piece barstock / fabricated constructions
- Wide selection of sizes, material and dimensions
- Threaded / Flanged / Weldstock / Sanitary mountings
- 1/2", 3/4" and 1" NPT/BSP threads
- Bore size : 7, 9, 10mm....
- MOC : SS316L/316/304, Hastalloy, AL6XN, Brass
- Up to 1300mm in single piece barstock



TEMPERATURE SENSORS - FOOD & PHARMA

DIAL THERMOMETERS

- Bimetal & Gas designs
- -100 to 600°C
- In 63/100mm diameters
- Up to 2000mm in rigid version
- With capillary for remote mounting
- In 63, 100 & 150mm dial sizes
- Class 1 accuracy to EN 13190
- Various process connections on request



PRESSURE / VACUUM GAUGES

- Bourdon / Diaphragm Gauges
- Vacuum to 1000 bar
- Bottom, Back, Panel & Surface mounting
- With capillary for remote mounting
- In 63, 100 & 150mm dial sizes
- Class 1 accuracy to EN 837-1
- 1/8" to 1" BSP/NPT threads



ACCESSORIES FOR PRESSURE GAUGES



PULSATION DAMPENER



GAUGE COCK



MANIFOLD



NEEDLE VALVE



SYPHON



COOLING TOWER

PRESSURE TRANSMITTERS

- Compact stainless steel construction
- $\pm 0.5\%$ accuracy
- IP67 protection
- G1/4 thread as standard
- Wide range of mechanical connections
- -25°C to 85°C usable temperature range



PTD201



PTF601



PTF602



PTD251

TEMPERATURE SENSORS - FOOD & PHARMA

ACCESSORIES



OTHER PRODUCTS

INSTRUMENTS



BMS PRODUCTS



LEVEL PRODUCTS



DOOR INTERLOCK SYSTEMS



AUTOMATION



DWYER INTERNATIONAL DISTRIBUTOR



ENQUIRIES

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