RTD TEMPERATURE SENSORS FOR TEMPERATURE MEASUREMENT UP TO 400°F (204°C)

PRODUCT OVERVIEW
The nVent RAYCHEM RTD3CS and RTD10CS are three-wire platinum RTD (resistance temperature detectors) typically used with monitoring and control systems such as the RAYCHEM 910 controller when accurate temperature control is required.

The RTD3CS and RTD10CS can be installed directly to the controller using the supplied 1/2" conduit fitting or to an RTD junction box where RTD extension wire is used.

SPECIFICATIONS

SENSOR
Housing 316 stainless steel
Dimensions 3-in (76 mm) length 3/16-in (8 mm) diameter
Sensing area 1-1/2 in (38 mm)
Accuracy ±1°F (0.5°C) at 32°F (0°C)
Range –76°F to 400°F (–60°C to 204°C)
Resistance 100 ohms at 0°C α = 0.00385 ohms/ohm/°C

EXTENSION WIRES
Wire size (each of three) 20 AWG, stranded tinned copper
Note: The length of RTD extension wires is determined by the wire gauge used. To reduce the likelihood that electrical noise will affect temperature measurement, keep RTD extension wires as short as possible. Use shielded instrument cable such as RAYCHEM MONI-RTD-WIRE (22 AWG, PVC insulation, –30°F to 140°F, –20°C to 60°C) or Belden 83553 (22 AWG, FEP insulation, –95°F to 395°F, –70°C to 200°C).
Wire insulation rating 300 V
Length RTD3CS: 3-ft (0.9 m) flexible armor, 18-in (457 mm) lead wire
RTD10CS: 10-ft (3 m) flexible armor, 18-in (457 mm) lead wire
Outer shield Stainless steel flexible armor (not suitable for underground applications)
Maximum exposure temperature 400°F (204°C)
Conduit bushing 1/2-in (12.7 mm) NPT

ADDITIONAL MATERIALS REQUIRED
AT-180 aluminum tape

APPROVALS
Approvals associated with control device. Not to be used in Division 1 areas.