Honeywell
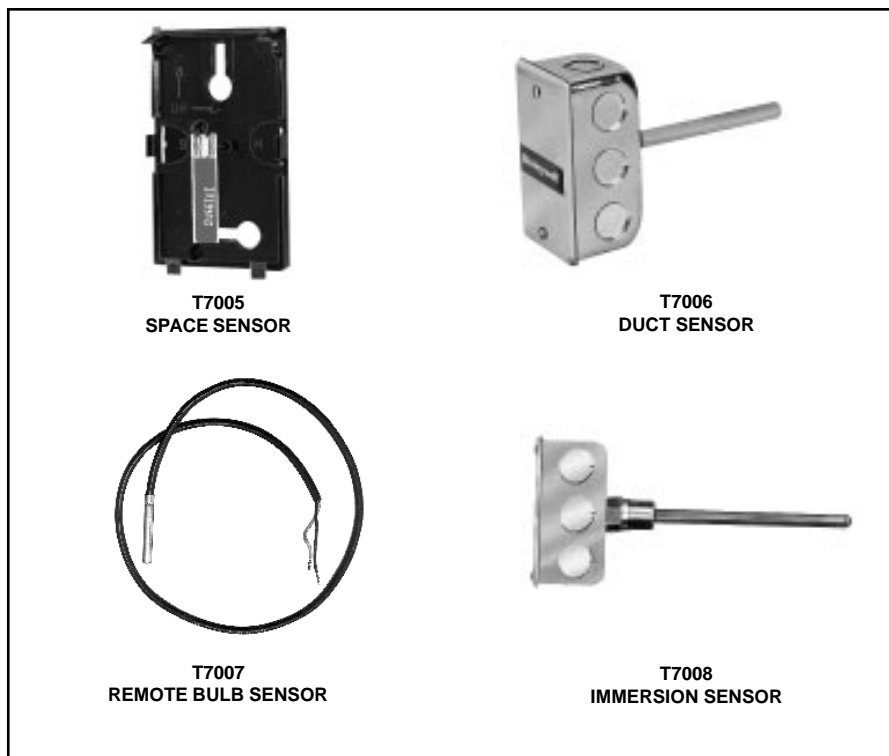
T7005, T7006, T7007, and T7008 Platinum Sensors

FEATURES

- **Fast response**
- **Precise temperature measurement**
- **EXCEL 5000®, DELTA, and DeltaNet system compatibility**

T7005
SPACE SENSOR

T7006
DUCT SENSOR

T7007
REMOTE BULB SENSOR

T7008
IMMERSION SENSOR

GENERAL

T7005, T7006, T7007, and T7008 Platinum Sensors ("Sensors") monitor temperatures in building management control applications, including Direct Digital Control systems. They are designed for a variety of media such as air, liquid, and steam and can be used with EXCEL 5000 Controllers, DELTA 540 and 541 Data Gathering Panels, DeltaNet R7044 Excel Plus Controllers, and DeltaNet MicroCel™ and MacroCel™Controllers.

Each Sensor consists of a platinum-film resistance element on a ceramic chip and is overlaid with protective glass to ensure long-term reliability. Platinum element resistance varies directly with temperature change. Sensors are calibrated to a very close tolerance by double laser trimming of the element. This method of calibration eliminates field calibration.

DESCRIPTION

T7005, T7006, T7007, and T7008 Platinum Sensors ("Sensors") monitor temperatures in building management control applications, including Direct Digital Control systems. They are designed for a variety of media such as air, liquid, and steam.

SPECIFICATIONS

Models:

❑ **T7005 Space Sensor:**
The T7005 Space Sensor monitors temperature in a room or area of a building. The platinum sensing element provides fast response to temperature changes. Any Honeywell T7000 Standard Series no display (blank) cover can be used. Indicate cover selection when ordering sensor.

T7006 Duct Sensor:
The T7006 Duct Sensor measures air temperature in a duct. The platinum sensing element is in the tip of a brass probe.
   ❑ Sensor with 11-7/8-in. (301.6-mm) probe
   ❑ Sensor with 4-3/8-in. (111.1-mm) probe
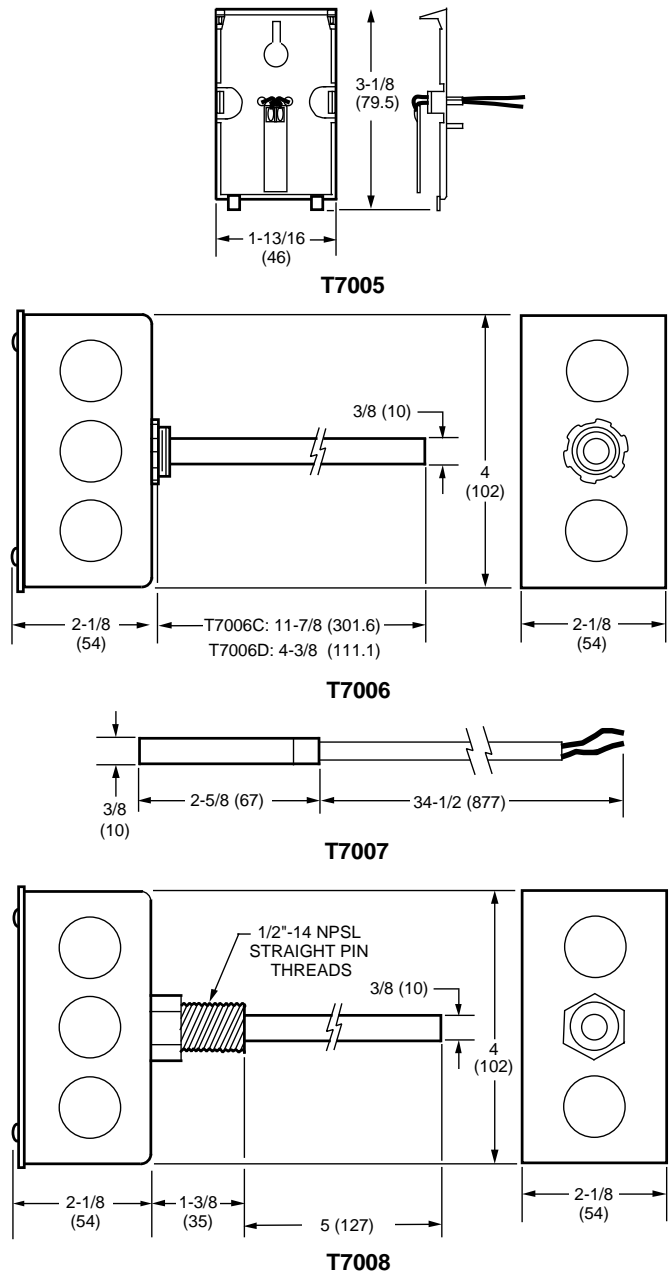
❑ **T7007 Remote Bulb Sensor:**
The T7007 Remote Bulb Sensor measures the temperature in applications where other sensors are not appropriate such as outdoor air temperature and strap-on pipe sensing. The sensor can also be used in ducts where standard duct sensors are not practical. The platinum sensing element is in a sealed probe attached to an oil resistant cable.

T7008 Immersion Sensor:
The T7008 Immersion Sensors detect temperatures of heated or chilled water, or other fluids. The platinum sensing element is in the tip of a sealed, corrosion-resistant brass probe. The T7008 sensors have 1/2 in—14 NPSC straight pipe threads and mounts in a well for tank or pipe installation.
   ❑ T7008A1042 High Temperature Sensor
   ❑ T7008A1059 Chilled Water Sensor-higher accuracy sensing element, hermetically sealed to prevent damage due to moisture from condensation.

Dimensions in Inches (Millimeters):

T7005

T7006C: 11-7/8 (301.6)
T7006D: 4-3/8 (111.1)

T7006

T7007

T7008

C3963-3

Sensor Specifications:

Data	Models				
	T7005 Space Sensor	**T7006C&D Duct Sensor**	**T7007 Remote Bulb Sensor**	**T7008 Immersion Sensor**	
				High Temperature	**Chilled Water**
Application	Room and area air temperatures	Air temperature in ducts	Outdoor air and pipe temperature sensing	High temperature fluid system such as hot water	Fluid systems requiring high or accuracy such as chilled water or where condensation in the sensor may occur
Mounting	Directly on wall	Directly on duct	Sun Shield/Bulb Holder for outdoor air use, or Strap-on Kit or clamp on pipe sensing	1/2 in. — NPSC straight pipe threads into well	
Lead Wires	Two 22 AWG (0.38 sq mm) wires for low resistance splicing		Oil resistance cable with two 18 AWG (0.81 sq mm) wires for low resistance splicing	Two 18 AWG (0.81 sq mm) wires for low resistance splicing	Two 18 AWG (0.81 sq mm) wires for low resistance splicing
Operating Temperature	35 to 149F (1.7 to 65C)	–40 to 160F (–40 to 71C)		70 to 392F (–21 to 200C)	20 to 225F (6.7 to 108C)
Ambient Humidity	95% rh, noncondensing				100% Condensing
Coefficient	4.8 ohms/F (8.6 ohms/K) — positive temperature coefficient				
Sensing Element	Platinum-Film	Platinum-film in brass tube	Platinum-film	Platinum-film in brass tube	
Sensor Resistance	3474 ohms at 75F (23.9C)				

Accessories:

T7005 Space Sensor:
    Cover, Satin Chrome:
        ❑ Vertical Mount with Logo, 14004406-300
        ❑ Horizontal Mount with Logo, 14004406-400
        ❑ Vertical or Horizontal no Logo, 14004406-800
    Cover, Beige:
        ❑ Vertical Mount with Logo, 14004407-300
        ❑ Horizontal Mount with Logo, 14004407-400
        ❑ Vertical or Horizontal no Logo, 14004407-800
    ❑ Finish Plate, Black: 14002136-004
    ❑ Finish Plate, Beige: 14002136-005
    ❑ Wall Mounting Ring: 14004458-001
    ❑ Adapter Plate: 14001496-001
    ❑ Standoff Ring: 14000885-005

T7007 Remote Bulb Sensor:
    ❑ Installation Kit (all pipes): 14503800
    ❑ Installation Kit (uninsulated pipe): 14503801
    ❑ Sun Shield/Bulb Holder: 107323A

T7008 Immersion Sensor:
    ❑ Copper Well: 23904A
    ❑ Heat Conductive Compound (required for use with well): 107408 (4 oz) or equivalent

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