

System 450™ Compatible Sensors, Transducers, and Accessories Catalog Page

Description

System 450 control modules are designed to operate with a variety of compatible sensors and transducers. The System 450 compatible sensors and transducers cover a wide range of temperature, pressure, and humidity conditions.

System 450 compatible sensors and transducers come in a variety of styles and configurations, allowing you to select the sensor or transducer that best fits your control system requirements.

For ease of installation and setup, the Sensor Type that you select in the UI for a sensor or transducer automatically determines the sensed condition, unit of measurement, minimum differential, setup value ranges, and the default setup values for each control system output that references the sensor or transducer.

Refer to the *System 450™ Series Modular Controls Product Bulletin (LIT-12011458)* for important product application information on System 450 Controls.

Refer to the following documents for important product application information on sensors used with System 450 Controls:

- *A99B Series Temperature Sensors Product/Technical Bulletin (LIT-125186)*
- *TrueRH™ Series HE-67xx Humidity Element with Temperature Sensors Product Bulletin (LIT-216245)*
- *HE-6800 Series Humidity Transmitters with Temperature Sensor Product Bulletin (LIT-12011625)*
- *P499 Series Electronic Pressure Transducers Product/Technical Bulletin (LIT-12011190, Part No. 24-7664-2659)*
- *P598 Series Electronic Pressure Transducers Product/Technical Bulletin (LIT-12012447, Part No. 24-7664-3299)*
- *TE-6000 Series Temperature Sensing Elements Product Bulletin (LIT-216288)*
- *TE-6300 Series Temperature Sensors Product Bulletin (LIT-216320)*
- *TE-6800 Series Temperature Sensors Product Bulletin (LIT-12011542)*
- *Setra Systems Model DPT265 Very Low Differential Pressure Transducer Catalog Page*

DPT265 Series Low Pressure Differential Pressure Transducers



A99 Temperature Sensors



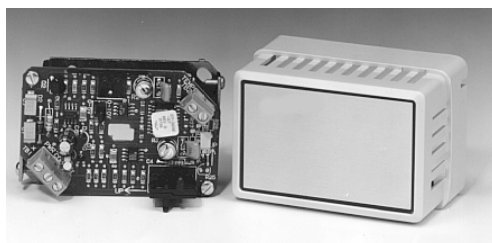
TE-6300 Series Temperature Sensors



Duct-Mount HE67S3 Humidity Sensor



Wall-Mount HE67S3 Humidity Sensor



TE-6000-1 Temperature Sensing Element



TE-6800 Series Wall Mount Temperature Sensors and HE-6800 Series Humidity Transmitters with Temperature Sensors





System 450™ Compatible Sensors, Transducers, and Accessories Catalog Page (Continued)

P499 Series Electronic Pressure Transducers



P598 Series Electronic Pressure Transducers



Selection Charts

Use these tables to order System 450 compatible sensors, transducers, and accessories.

System 450 Compatible A99B Temperature Sensors and Accessories Ordering Information¹

Product Code Number	Product Description
A99BA-200C	PTC Silicon Sensor with Shielded Cable; Cable Length 2 m (6-1/2 ft); Sensor Temperature Range: -40 to 120°C (-40 to 250°F) Cable Jacket Temperature Range: -40 to 100°C (-40 to 212°F)
A99BB-25C	PTC Silicon Sensor with PVC Cable; Cable Length 0.25 m (9-3/4 in.); Sensor Temperature Range: -40 to 120°C (-40 to 250°F) Cable Jacket Temperature Range: -40 to 100°C (-40 to 212°F)
A99BB-200C	PTC Silicon Sensor with PVC Cable; Cable Length 2 m (6-1/2 ft); Sensor Temperature Range: -40 to 120°C (-40 to 250°F) Cable Jacket Temperature Range: -40 to 100°C (-40 to 212°F)
A99BB-300C	PTC Silicon Sensor with PVC Cable; Cable Length 3 m (9-3/4 ft); Sensor Temperature Range: -40 to 120°C (-40 to 250°F) Cable Jacket Temperature Range: -40 to 100°C (-40 to 212°F)
A99BB-500C	PTC Silicon Sensor with PVC Cable; Cable Length 5 m (16-3/8 ft); Sensor Temperature Range: -40 to 120°C (-40 to 250°F) Cable Jacket Temperature Range: -40 to 100°C (-40 to 212°F)
A99BB-600C	PTC Silicon Sensor with PVC Cable; Cable Length 6 m (19-1/2 ft); Sensor Temperature Range: -40 to 120°C (-40 to 250°F) Cable Jacket Temperature Range: -40 to 100°C (-40 to 212°F)
A99BC-25C	PTC Silicon Sensor with High Temperature Silicon Cable; Cable Length 0.25 m (9-3/4 in.); Sensor Temperature Range: -40 to 120°C (-40 to 250°F) Cable Jacket Rated for Full Sensor Temperature Range.
A99BC-300C	PTC Silicon Sensor with High Temperature Silicon Cable; Cable Length 3 m (9-3/4 ft) Sensor Temperature Range: -40 to 120°C (-40 to 250°F) Cable Jacket Rated for Full Sensor Temperature Range.
A99BC-1500C	PTC Silicon Sensor with High Temperature Silicon Cable; Cable Length 15 m (49 ft) Sensor Temperature Range: -40 to 120°C (-40 to 250°F) Cable Jacket Rated for Full Sensor Temperature Range.
BOX10A-600R	PVC Enclosure for A99 Sensor; Includes Wire Nuts and Conduit Connector (for Outdoor Sensor)
WEL11A-601R	Immersion Well for A99 Sensor Liquid Sensing Applications
A99-CLP-1	Mounting Clip for A99 Temperature Sensor
ADP11A-600R	Conduit Adaptor, 1/2 in. Snap-Fit EMT Conduit Adaptor (box of 10)
TE-6001-1	Duct Mounting Hardware with Handy Box for A99 Sensor
TE-6001-11	Duct Mounting Hardware without Handy Box for A99 Sensor
SHL10A-603R	Sun Shield (for Use with Outside A99 Sensors in Sunny Locations)

1. Refer to the A99B Series Temperature Sensors Product/Technical Bulletin (LIT-125186) on the Johnson Controls® QuickLIT website for more information.

System 450 Compatible TE-6000 Series 1,000 Ohm Nickel Temperature Sensors and Accessories Ordering Information

Product Code Number	Product Description
TE-6000-x	TE6000 Series 1,000 ohm at 20°C (70°F) nickel temperature sensors (only). Only the TE-6000-6 sensor can be used for the entire HI°C and HI°F temperature range. Different sensing element packages are available for various applications. For a complete list of compatible 1,000 ohm nickel sensors, including sensor descriptions, technical specifications, and mounting accessories, refer to the TE-6000 Series Temperature Sensing Elements Product Bulletin (LIT-216288). (System 450 Sensor Types HI°C and HI°F)



System 450™ Compatible Sensors, Transducers, and Accessories Catalog Page (Continued)

System 450 Compatible TE-6300 Series 1,000 Ohm Nickel Temperature Sensors and Accessories Ordering Information

Product Code Number	Product Description
TE-631xx-x	TE6300 Series 1,000 ohm at 20°C (70°F) nickel averaging and 1,000 ohm thin-film nickel temperature sensors (only). For a complete list of compatible 1,000 ohm nickel averaging and thin-film nickel sensors, including sensor descriptions, technical specifications, and mounting accessories, refer to the <i>TE-6300 Series Temperature Sensors Product Bulletin (LIT-216320)</i> . (System 450 Sensor Types HI°C and HI°F)

System 450 Compatible TE-68NT-0N00S 1,000 Ohm Nickel Temperature Sensor Ordering Information

Product Code Number	Product Description
TE-68NT-0N00S	TE6800 Series 1,000 ohm nickel temperature sensor for wall-mount applications. For more information, including sensor description, technical specifications, and mounting accessories, refer to the <i>TE-6800 Series Temperature Sensors Product Bulletin (LIT-12011542)</i> . (System 450 Sensor Types HI°C and HI°F)

System 450 Compatible HE67S3 Type Humidity Sensors with Integral A99B Temperature Sensor Ordering Information¹

Product Code Number	Product Description
HE-67S3-0N0BT	Wall Mount Humidity Sensor with A99B Type Temperature Sensor: 10 to 90% RH; 0 to 60°C (32 to 140°F)
HE-67S3-0N00P	Duct Mount Humidity Sensor with A99B Type Temperature Sensor: 10 to 90% RH; 0 to 60°C (32 to 140°F)

1. The HE-67S3 sensors require 24 VAC input and must use the 0 to 5 VDC output. Refer to the *TrueRH Series HE-67xx Humidity Element with Temperature Sensors Product Bulletin (LIT-216245)* on the Johnson Controls QuickLIT website for more information, including technical specifications and mounting accessories.

System 450 Compatible HE6800 Series Humidity Transmitters with Temperature Sensor Ordering Information¹

Product Code Number	Product Description
HE-68N2-0N00WS	Wall Mount Humidity Transmitter with Nickel Temperature Sensor: 10 to 90 ±2% RH; 0 to 55°C (32 to 131°F)
HE-68N3-0N00WS	Wall Mount Humidity Transmitter with Nickel Temperature Sensor: 10 to 90 ±3% RH; 0 to 55°C (32 to 131°F)

1. The HE-6800 transmitters require 24 VAC input and must use the 0 to 5 VDC output. Refer to the *HE-6800 Series Humidity Transmitters with Temperature Sensor Product Bulletin (LIT-12011625)* on the Johnson Controls QuickLIT website for more information, including technical specifications and mounting accessories.

System 450 Compatible Low Pressure Differential Transducer Ordering Information^{1 2}

Product Code Number	Product Description
DPT2650-R25B-AB	Low Pressure Differential Transducer: -0.25 to 0.25 in. W.C. (System 450 Sensor Type: P 0.25) ³
DPT2650-0R5D-AB	Low Pressure Differential Transducer: 0 to 0.5 in. W.C. (System 450 Sensor Type: P 0.5)
DPT2650-2R5D-AB	Low Pressure Differential Transducer: 0 to 2.5 in. W.C. (System 450 Sensor Type: P 2.5)
DPT2650-005D-AB	Low Pressure Differential Transducer: 0 to 5.0 in. W.C. (System 450 Sensor Type: P 5)
DPT2650-10D-AB	Low Pressure Differential Transducer: 0 to 10 in. W.C. (System 450 Sensor Type: P 10)

1. Refer to the *Setra Systems Model DPT265 Very Low Differential Pressure Transducer Catalog Page* on the Johnson Controls QuickLIT website for more information.
2. The DPT265 sensors require 24 VAC input and must use the 0 to 5 VDC output. Refer to the *Setra Systems Model DPT265 Very Low Differential Pressure Transducer Catalog Page* on the Johnson Controls QuickLIT website for more information.
3. Used only with Communications Control Modules.

System 450 Compatible P499 Series Transducers with 1/4 in. SAE 45 Flare Internal Thread with Depressor (Style 47) Ordering Information¹

Product Code Number	Product Description
P499RCPS100C	-10 to 100 psis (sealed for wet and freeze/thaw applications); order WHA-PKD3 type wire harness separately
P499RCPS100K	-10 to 100 psis (sealed for wet and freeze/thaw applications); WHA-PKD3-200C wire harness included
P499RCPS102C	0 to 200 psis (sealed for wet and freeze/thaw applications); order WHA-PKD3 type wire harness separately
P499RCPS102K	0 to 200 psis (sealed for wet and freeze/thaw applications); WHA-PKD3-200C wire harness included
P499RCP-101C	0 to 100 psi; order WHA-PKD3 type wire harness separately
P499RCP-101K	0 to 100 psi; WHA-PKD3-200C wire harness included
P499RCP-105C	0 to 500 psi; order WHA-PKD3 type wire harness separately
P499RCP-105K	0 to 500 psi; WHA-PKD3-200C wire harness included
P499RCP-107C	0 to 750 psi; order WHA-PKD3 type wire harness separately
P499RCP-107K	0 to 750 psi; WHA-PKD3-200C wire harness included

1. The P499 sensors must be powered with the +5 VDC and C terminals and the output is 0.5 to 4.5 VDC. Refer to the *P499 Series Electronic Pressure Transducers Product/Technical Bulletin (LIT-12011190, Part No. 24-7664-2659)* on the Johnson Controls QuickLIT website for more information.



System 450™ Compatible Sensors, Transducers, and Accessories Catalog Page (Continued)

System 450 Compatible P499 Series Transducers with 1/8 in. 27 NPT External Thread (Style 49) Ordering Information¹

Product Code Number	Product Description
P499RAPS100C	-10 to 100 psis (sealed for wet and freeze/thaw applications); order WHA-PKD3 type wire harness separately
P499RAPS100K	-10 to 100 psis (sealed for wet and freeze/thaw applications); WHA-PKD3-200C wire harness included
P499RAPS102C	0 to 200 psis (sealed for wet and freeze/thaw applications); order WHA-PKD3 type wire harness separately
P499RAPS102K	0 to 200 psis (sealed for wet and freeze/thaw applications); WHA-PKD3-200C wire harness included
P499RAP-101C	0 to 100 psig; order WHA-PKD3 type wire harness separately
P499RAP-101K	0 to 100 psig; WHA-PKD3-200C wire harness included
P499RAP-102C	0 to 200 psig; order WHA-PKD3 type wire harness separately
P499RAP-105C	0 to 500 psig; order WHA-PKD3 type wire harness separately
P499RAP-105K	0 to 500 psig; WHA-PKD3-200C wire harness included
P499RAP-107C	0 to 750 psig; order WHA-PKD3 type wire harness separately
P499RAP-107K	0 to 750 psig; WHA-PKD3-200C wire harness included

1. The P499 sensors must be powered with the +5 VDC and C terminals and the output is 0.5 to 4.5 VDC. Refer to the *P499 Series Electronic Pressure Transducers Product/Technical Bulletin (LIT-12011190, Part No. 24-7664-2659)* on the Johnson Controls QuickLIT website for more information.

WHA-PKD3 Wire Harnesses Ordering Information¹

Product Code Number	Product Description
WHA-PKD3-200C	Plug and Three-Wire Harness for P499 Electronic Pressure Transducers: 2.0 m (6-1/2 ft) cable
WHA-PKD3-400C	Plug and Three-Wire Harness for P499 Electronic Pressure Transducers: 4.0 m (13 ft) cable
WHA-PKD3-600C	Plug and Three-Wire Harness for P499 Electronic Pressure Transducers: 6.0 m (19-5/8 ft) cable

1. Refer to the *P499 Series Electronic Pressure Transducers Product/Technical Bulletin (LIT-12011190, Part No. 24-7664-2659)* on the Johnson Controls QuickLIT website for more information.

System 450 Compatible P598 Series Transducers with 1/4 in. SAE 45 Flare Internal Thread with Depressor (Style 47) Ordering Information¹

Product Code Number	Product Description
P598RCPSN401C	-1 to 8 bar; order WHA-PKD3 type wire harness separately.
P598RCPSN402C	-1 to 15 bar; order WH A-PKD3 type wire harness separately.
P598RCPSN404C	0 to 30 bar; order WHA-PKD3 type wire harness separately.
P598RCPSN405C	0 to 50 bar; order WHA-PKD3 type wire harness separately.
P598RCPSN100C	-10 to 100 psis (sealed for wet and freeze/thaw applications); order WHA-PKD3 type wire harness separately.
P598RCPSN100K	-10 to 100 psis (sealed for wet and freeze/thaw applications); WHA-PKD3-200C wire harness included.
P598RCPSN101C	0 to 100 psig; order WHA-PKD3 type wire harness separately.
P598RCPSN101K	0 to 100 psig; WHA-PKD3-200C wire harness included.
P598RCPSN102C	0 to 200 psis (sealed for wet and freeze/thaw applications); order WHA-PKD3 type wire harness separately.
P598RCPSN102K	0 to 200 psis (sealed for wet and freeze/thaw applications); WHA-PKD3-200C wire harness included.
P598RCPSN105C	0 to 500 psig; order WHA-PKD3 type wire harness separately.
P598RCPSN105K	0 to 500 psig; WHA-PKD3-200C wire harness included.
P598RCPSN107C	0 to 750 psig; order WHA-PKD3 type wire harness separately.
P598RCPSN107K	0 to 750 psig; WHA-PKD3-200C wire harness included.

1. The P598 sensors must be powered with the +5 VDC and C terminals and the output is 0.5 to 4.5 VDC. Refer to the *P598 Series Electronic Pressure Transducers Product/Technical Bulletin (LIT-12012447, Part No. 24-7664-3299)* on the Johnson Controls QuickLIT website.



System 450™ Compatible Sensors, Transducers, and Accessories Catalog Page (Continued)

System 450 Compatible P598 Series Transducers with 1/8 in. 27 NPT External Thread (Style 49) Ordering Information¹

Product Code Number	Product Description
P598RAPSN100C	-10 to 100 psis (sealed for wet and freeze/thaw applications); order a WHA-PKD3 type wire harness separately.
P598RAPSN100K	-10 to 100 psis (sealed for wet and freeze/thaw applications); WHA-PKD3-200C wire harness included.
P598RAPSN101C	0 to 100 psig; order a WHA-PKD3 type wire harness separately.
P598RAPSN101K	0 to 100 psig; WHA-PKD3-200C wire harness included.
P598RAPSN102C	0 to 200 psis (sealed for wet and freeze/thaw applications); order WHA-PKD3 type wire harness separately.
P598RAPSN102K	0 to 200 psis (sealed for wet and freeze/thaw applications); WHA-PKD3-200C wire harness included.
P598RAPSN105C	0 to 500 psig; order WHA-PKD3 type wire harness separately.
P598RAPSN105K	0 to 500 psig; WHA-PKD3-200C wire harness included.
P598RAPSN107C	0 to 750 psig; order WHA-PKD3 type wire harness separately.
P598RAPSN107K	0 to 750 psig; WHA-PKD3-200C wire harness included.

1. The P598 sensors must be powered with the +5 VDC and C terminals and the output is 0.5 to 4.5 VDC. Refer to the *P598 Series Electronic Pressure Transducers Product/Technical Bulletin (LIT-12012447, Part No. 24-7664-3299)* on the Johnson Controls QuickLIT website.

WHA-PKD3 Wire Harnesses Ordering Information¹

Product Code Number	Product Description
WHA-PKD3-200C	Plug and 3-Wire Harness for P598 Electronic Pressure Transducers: 2.0 m (6.5 ft) cable
WHA-PKD3-400C	Plug and 3-Wire Harness for P598 Electronic Pressure Transducers: 4.0 m (13 ft) cable
WHA-PKD3-600C	Plug and 3-Wire Harness for P598 Electronic Pressure Transducers: 6.0 m (19.6 ft) cable

1. Refer to the *P598 Series Electronic Pressure Transducers Product/Technical Bulletin (LIT-12012447, Part No. 24-7664-3299)* on the Johnson Controls QuickLIT website.