Life Is On | Schneider Electric

HVAC Sensors Catalog

EMEA & APAC

EcoBuilding Division Catalog | 2018

Single source for sensors & input devices

Overview

Schneider Electric - the single source for all your sensor and input device needs

This catalog presents the comprehensive sensor and input device portfolio from Schneider Electric. By dealing with one trusted supplier, our customers save time and money, fully confident of the quality, performance and value of the Schneider Electric offer.

For further information on sensor and input device products visit the EcoBuilding Exchange Extranet at: https://ecobuilding.schneider-electric.com (registration requirement applies) or contact your local Schneider Electric sales office.

A global leader in intelligent building management products, systems and solutions

As a global specialist in energy management with operations in more than 100 countries, Schneider Electric offers integrated solutions across multiple market segments, including leadership positions in Utilities & Infrastructure, Industries & Machines Manufacturers, Non-residential Building, Data Centres & Networks and in Residential. Focused on making energy safe, reliable, efficient, productive and green, the Group's 160,000 plus employees achieved sales of 26 billion Euros in 2015, through an active commitment to help individuals and organizations make the most of their energy.

Sensors


Global leader in intelligent building management products, systems & solutions

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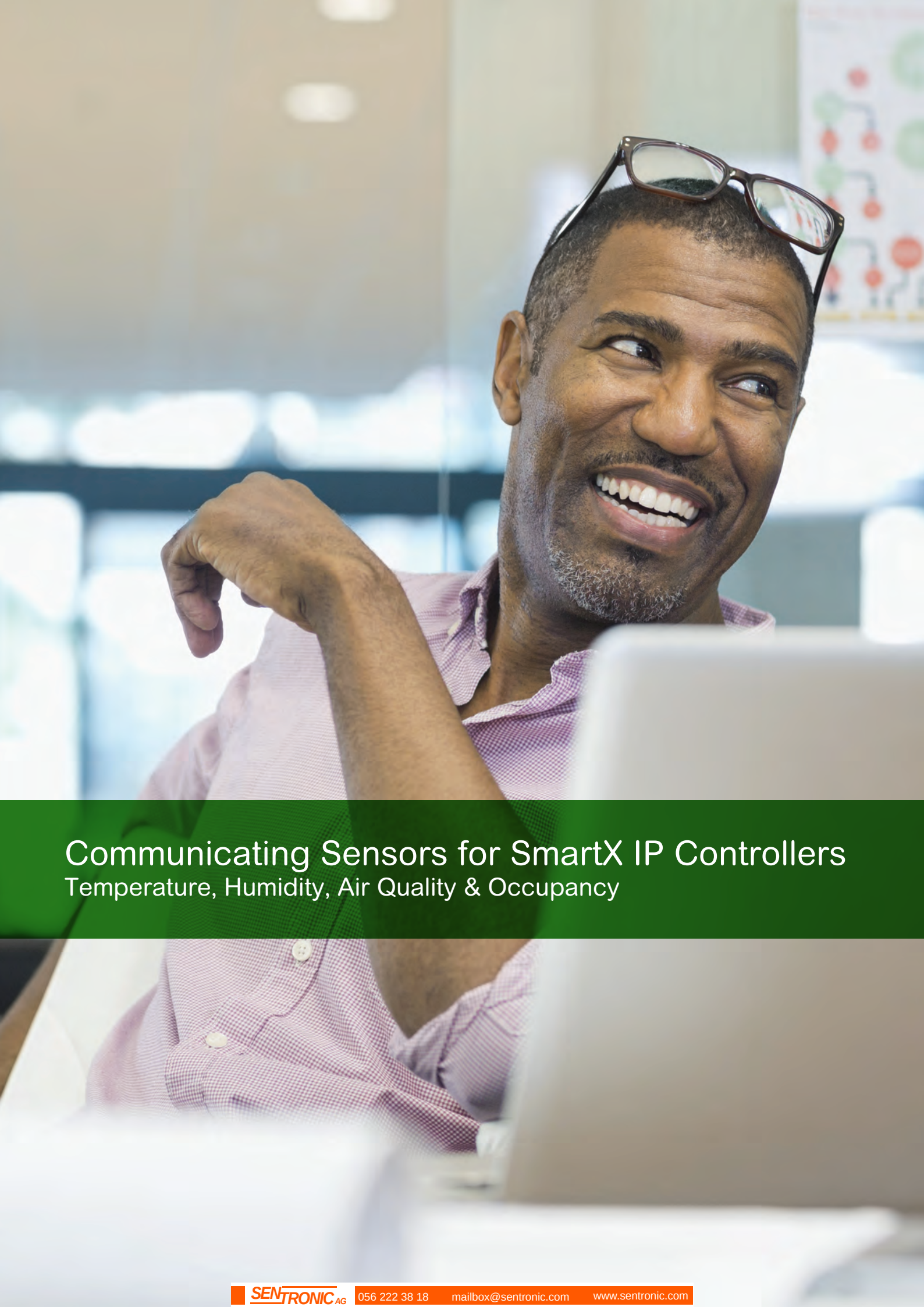

Communicating Sensors for SmartX IP Controllers

Temperature, Humidity, Air Quality & Occupancy

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SmartX Sensors

Living Space

SmartX Family

SmartX sensors are a family of living space sensors for use with SmartX IP controllers that use the EcoStruxure Building Operation user interface. These sensors use an RJ-45 sensor bus that provides communication and power from the SmartX IP controller. For quick installation, up to four SmartX sensors may be connected to each SmartX IP controller through the RJ-45 sensor bus using Cat 5/6 cable (22 to 26 AWG). A Bluetooth® adapter is available for commissioning and service. It is temporarily connected to installed communicating sensors and allows for quick setup and configuration. The Bluetooth adapter communicates to upload devices (smart phone, laptop, table, etc.) with the Living Space Sensor EcoStruxure Building Operation app installed via USB or Bluetooth communications.

SmartX living space sensors are modular and are ordered in two parts: the sensor base and the cover. Four SmartX communicating sensor base models are available that can be paired with any one of six covers. CO_2, Relative Humidity, and Temperature sensor base options provide an efficient, cost-effective solution for living space air quality and comfort needs. Covers are available with a 61 mm (2.4”) backlit color touchscreen and a three button non-display version for override and setpoint. Blank covers with no user interface are also available. All modular cover variants are available with and without passive infrared occupancy sensors.

Two complete sensor/cover combination models are available:

- SXWSATXXXSLX - Temperature-only with LCD display. Communicating with three button cover. This is a low cost temperature sensor with a basic display.
- SXWSATXXXRXX - A two-wire, resistive-only, non-communicating temperature sensor is offered for a low cost conformance part. This uses an I/O port on the controller.

Combination models come with a sensor base and cover and have the same form factor as the modular sensor bases and covers. Combination units will not work with other covers.

SmartX living space sensors measure the levels of CO_2 (if equipped), RH (if equipped), and temperature of air in a living space application. The CO_2 sensor operates within accuracy specifications for an interval of two years and can be field calibrated. The RH and temperature sensors are warranted to meet accuracy specifications for a period of two years.

Specifications

CO_2 sensor	
Sensor type	Non-dispersive infrared (NDIR), diffusion sampling
Output range	0 … 2000 ppm
Accuracy	±30 ppm ±2% of measured value
Repeatability	±20 ppm ±1% of measured value
Response time	<60 seconds for 90% step change
RH sensor	
HS sensor	Thin-film capacitive
Accuracy	±2% from 10 … 80% RH @ 25°C (77 °F)
Hysteresis	1.5% typical
Linearity	Included in accuracy specification
Stability	±1% @ 20°C (68 °F) annually for 2 years
Output range	0 to 100% RH
Temperature coefficient	±0.1% RH/°C above or below 25 °C (77 °F) typical

SmartX Sensors

Living Space (cont.)

Specifications (cont.)

Temperature sensor (non-communicating models)	
Sensor type	10K Type 3 thermistor
Accuracy	±0.2 °C (±0.4 °F) typical
Resolution	0.1 °C (0.2 °F)
Output range	0 … 50 °C (32 … 122 °F)
Temperature sensor (communicating models)	
Accuracy	±0.2 °C (±0.4 °F) typical
Occupancy sensor	
Sensor type	Passive infrared (PIR)
Operating environment	
Operating temperature	0 … 50 °C (32 … 122 °F)
Operating humidity range	0 … 95% RH, non-condensing
Housing material	High impact ABS plastic Flammability rating UL 94 V-0
Input power	2 watts, 24 Vdc over sensor bus
Wiring terminals	
Non-communicating models	Screw, 2-wire, 18-24 AWG
Communicating models	RJ-45 female sensor bus

SmartX Sensor Bases

Part number	Temp	RH	CO_2	Cover	SmartX system bus	Resistive only (10K T3)
SXWSBTXXXSXX	X			Not included	X	
SXWSBTHXXSXX	X	X		Not included	X	
SXWSBTXCXSXX	X		X	Not included	X	
SXWSBTHCXSXX	X	X	X	Not included	X	

SmartX Sensor Covers

Part number	61 mm (2.4") color touchscreen	Override	Setpoint	Occupancy sensor (PIR)
SXWSCDXSELXX	X	X	X	
SXWSC3XSELXX		X	X	
SXWSCBXSELXX				
SXWSCDPSELXX	X	X	X	X
SXWSC3PSELXX		X	X	X
SXWSCBPSELXX				X

SmartX Combination Base/Sensor Covers

Part number	Description	Temp	RH	CO_2	Cover	SmartX sys. bus*	Resistive only**
SXWSATXXXSLX	Sensor, temp, LCD, setpoint, pushbutton, cover plate	X			Included	X	
SXWSATXXXRXX	Sensor, temp, 10K T3, cover plate	X			Included		X

*Communicating **Non-communicating

Notes Page

Temperature Sensors

STR100, 200 & 500 Series

Living Space

STR Family

The STR range of wall modules are designed to provide temperature sensing in a wide variety of Living Space applications. Contemporary design ensures they are suitable for installation in both new and existing buildings. The STR wall modules are designed to be mounted directly onto the wall or a back-box/J-box. The base plate is designed to be compatible with a wide range of global fixing methods.

STR100 Series

TAC Xenta Controllers (except Xenta 102-AX)

Part number	Model number	Temp sensor	Mode indicator	Xenta OP jack	Set-point offset	Bypass button	Fan speed control
004600100	STR100	1.8 kΩ					
004600110	STR100-W	1.8 kΩ					
004600200	STR101	1.8 kΩ	X	X			
004600300	STR102	1.8 kΩ	X	X	X		
004600700	STR103	1.8 kΩ	X	X		X	
004600400	STR104	1.8 kΩ	X	X	X	X	
004600500	STR106	1.8 kΩ	X	X	X	X	A-0-I-II-III
004600800	STR106-B	1.8 kΩ	X	X	X	X	A-0-I-II-III
004600900	STR106-3	1.8 kΩ	X	X	X	X	A-0-I-II-III
004600600	STR107	1.8 kΩ	X	X	X	X	Auto-Off-On

STR106-B bypass button has no icon (blank)
STR106-3 set-point offset max 3 °C (5.4 °F)

STR200 Series

TAC Xenta 102-AX and I/NET Controllers

Part number	Model number	Temp sensor	Mode indicator	Xenta OP jack	Set-point offset	Bypass button	Fan speed control
004603000	STR200	10 kΩ					
004603010	STR200-W	10 kΩ					
004603200	STR202	10 kΩ		X	X	X	

STR500 Series

Andover Continuum Controllers

Part number	Model number	Temp sensor	Mode indicator	RJ-10 jack	Set-point offset	Bypass button	Fan speed control
004606000	STR500	10 kΩ					
004606100	STR502	10 kΩ	X	X	X		
004606200	STR504	10 kΩ	X	X	X	X	

STR600 & 800 Series

Living Space

STR600 Series
Satchwell Controllers

Part number	Model number	Temp sensor	Mode indicator	Xenta OP jack	Set-point offset	Bypass button	Fan speed control
004604000	STR600D	30 kΩ					
004604100	STR600	5.02 kΩ					
004604200	STR601	5.02 kΩ	X				
004604300	STR602	5.02 kΩ			X		
004604400	STR609	5.02 kΩ	X		X		Auto-Off-On
004604500	STR610	5.02 kΩ	X		X		A-0-I-II-III
004604600	STR611	5.02 kΩ			X		
004604700	STR612	5.02 kΩ	X		X		
004604800	STR613	5.02 kΩ	X		X		
004604900	STR614	3k (SVT)					

STR600D for Drayton controllers
STR611 set-point offset not user accessible
STR612 has 10 … 30 °C set-point dial
STR613 has generic - to + set-point dial

STR800 Series
I/A Controllers

The STR800 series of living space temperature sensors are designed to be used with the I/A series of controllers and to replace the existing TSMN range.

The introduction of these sensors completes the STR range so a single design style can be offered across the Schneider Electric range.

The products are simple to install and can be directly wall mounted or mounted on to a back-box/J-box. They are designed for use in any public building, such as offices, hotels, schools or shopping malls. A model selection guide is shown below.

Specifications

Output	NTC Thermistor, Balco, or Platinum Resistance
Range	0 … 50 °C (32 … 122 °F) Max. 90% RH non-condensing

Accuracy: See Appendix A, table G

Part number	Model number	Description	Compare to
004607000	STR800	Living Space temp sensor	TSMN-57011-850
004607100	STR801	Living Space temp sensor w/ASD jack	TSMN-90220-850
004607200	STR802F	Living Space temp w/ °F set-point Adj. & ASD jack	–
004607210	STR802C	Living Space temp w/ °C set-point Adj. & ASD jack	–
004607220	STR802WC	Living Space temp w/warmer/cooler set-point Adj. & ASD jack	–
004607300	STR803	Living Space temp w/bypass & ASD jack	TSMN-90230-850
004607400	STR804F	Living Space temp w/bypass °F set-point Adj. & ASD jack	TSMN-90250-850
004607410	STR804C	Living Space temp w/bypass °C set-point Adj. & ASD jack	TSMN-90250-852
004607420	STR804WC	Living Space temp w/bypass/warmer/cooler set-point Adj. & ASD jack	–
004607500	STRBKO	Living Space temp sensor	TSMN-81011
004607510	STRPKO	Living Space temp sensor	TSMN-58011

STR300 & 150

Living Space

STR300

The STR300 is an electronic living space transmitter that converts a measured temperature into an electric current signal. The transmitter is delivered as a complete unit, comprising a Pt100 class B sensing element and an amplifier mounted in a housing. STR300 is intended either for surface mounting on a wall or installation in a standard back-box/J-box in conditioned spaces.

Specifications

Output	4 … 20 mA
Range	0 … 40 °C (32 … 104 °F)
Accuracy	±0.5 °C at 25 °C (±0.9 °F at 77 °F)
Supply	15 … 30 Vdc

Part number	Model number	Description	System
006922000	STR300	Living Space Temperature Transmitter	All

STR150

TAC Xenta 102 / 103 / 104 and 121 Controllers (except Xenta 102-AX)

The STR150 is a wall module optimized for public facilities such as office buildings, hotels, hospitals, schools and shopping malls. Its attractive appearance and well designed interface makes it suitable for any contemporary building. It is easy to operate and install. STR wall modules are mounted directly on the wall or onto a back-box/J-box and the base plate is designed to be compatible with common global fixing methods. The STR150 is equipped with an LCD for displaying information.

Specifications

Range	5 … 45 °C (41 … 113 °F)
Accuracy	±0.5 °C at 15 … 30 °C (±0.9 °F at 59 … 86 °F)
Resolution	0.1 … 0.5 °C (0.2 … 0.9 °F)
Supply	From controller

Part number	Model number	Com	Display	Backlight
004602800	STR150	Special Comms on digital input	X	

STR250 & 350/351

Living Space

STR250

TAC Xenta 102-AX Controller

STR wall modules are optimized for public facilities such as office buildings, hotels, hospitals, schools and shopping malls. Their attractive appearance and well designed interface makes them suitable for any contemporary building. They are easy to operate and install. STR wall modules are designed to be mounted directly on the wall or onto a variety of back-boxes/ J-boxes. The plug-in concept makes wiring quick and easy.

The STR250 replaces the I/STAT LCD with regard to major functionality such as indoor and outdoor temperature indication, set-point adjustment, bypass mode and fan speed commands. The STR250 can be used with the I/NET 7728 and MR, and Xenta 102-AX controllers. All local configuration is carried out using an M/STAT module.

Specifications

Range	5 … 45 °C (41 … 113 °F)
Accuracy	±0.5 °C at 15 … 30 °C (±0.9 °F at 59 … 86 °F)
Resolution	Selectable, 0.1 … 0.5 °C (0.2 … 0.9 °F)
Supply	From controller

Part number	Model number	Com	Display	Backlight
004603300	STR250	Special Comms	X	
004603310	STR250 No Logo	Special Comms	X	

STR350/351

TAC Xenta Controllers (except Xenta 102-AX)

The STR350 and STR351 use LON communication to display and control the room temperature and fan speed. Optionally, one lighting group and/or one sunblind group can be controlled. The STR350/351 can also be used in TAC Vista Classic configurations, that is, without the need for separate binding tool.

Both models, STR350 and STR351, have an extra analog (0 … 10 Vdc) input that can be connected to a CO_2, relative humidity or occupancy sensor. The STR350 and STR351 are equipped with an LCD display (STR351 with backlight) that displays the different functions of the module. STR wall modules are mounted directly on the wall or onto a back-box/J-box.

Specifications

Range	5 … 45 °C (41 … 113 °F)
Accuracy	±0.6 °C (±1.0 °F)
Resolution	0.1 or 1 °C (0.2° or 2 °F)
Supply	24 Vac

Part number	Model number	Com	Display	Backlight
004605000	STR350	LonWorks	X	
004605200	STR350-B	LonWorks	X	
004605100	STR351	LonWorks	X	X
004605110	STR351 No Logo	LonWorks	X	X

STD100, 200, 500 & 660

Duct

STD100, 200, 500

STD 100, 200 and 500 temperature sensors are intended for air duct mounting. The STD housing is equipped with a Ø 20 mm (0.79 in.) cut-out for the cable, a 20 mm (0.79 in.) conduit gland nut and a mounting flange.

Accuracy: See Appendix A, tables A, B, C

Part number	Model number	Description	Probe length	System
5123002010	STD100-50	Duct Temperature Sensor	50 mm (1.97 in.)	TAC Vista, TAC Xenta
5123004010	STD100-100	Duct Temperature Sensor	100 mm (3.94 in.)	TAC Vista, TAC Xenta
5123006010	STD100-150	Duct Temperature Sensor	150 mm (5.91 in.)	TAC Vista, TAC Xenta
5123008010	STD100-200	Duct Temperature Sensor	200 mm (7.87 in.)	TAC Vista, TAC Xenta
5123010010	STD100-250	Duct Temperature Sensor	250 mm (9.84 in.)	TAC Vista, TAC Xenta
5123012010	STD100-300	Duct Temperature Sensor	300 mm (11.81 in.)	TAC Vista, TAC Xenta
5123014010	STD100-400	Duct Temperature Sensor	400 mm (15.75 in.)	TAC Vista, TAC Xenta
5123030010	STD200-50	Duct Temperature Sensor	50 mm (1.97 in.)	TAC I/NET
5123032010	STD200-100	Duct Temperature Sensor	100 mm (3.94 in.)	TAC I/NET
5123034010	STD200-150	Duct Temperature Sensor	150 mm (5.91 in.)	TAC I/NET
5123036010	STD200-200	Duct Temperature Sensor	200 mm (7.87 in.)	TAC I/NET
5123038010	STD200-250	Duct Temperature Sensor	250 mm (9.84 in.)	TAC I/NET
5123040010	STD200-300	Duct Temperature Sensor	300 mm (11.81 in.)	TAC I/NET
5123042010	STD200-400	Duct Temperature Sensor	400 mm (15.75 in.)	TAC I/NET
5123074010	STD500-150	Duct Temperature Sensor	150 mm (5.91 in.)	Andover Continuum
5123078010	STD500-250	Duct Temperature Sensor	250 mm (9.84 in.)	Andover Continuum
5123082010	STD500-400	Duct Temperature Sensor	400 mm (15.75 in.)	Andover Continuum

STD660

The STD660 temperature sensor is intended for air duct mounting, and has a telescopic probe extendable from 100 … 300 mm (3.94 … 11.81 in.). The STD660 housing is equipped with a Ø 20 mm (0.79 in.) cut-out for the cable. A 20 mm (0.79 in.) conduit gland nut and a mounting flange are supplied with the product.

Accuracy: See Appendix A, table F

Part number	Model number	Description	Probe length	System
5126030000	STD660	Telescopic Duct Temp. Sensor	100 … 300 mm (3.94 … 11.81 in.)	Satchwell

STD150, 300, 550, 670

Duct

STD300

STD300 is an electronic temperature transmitter that converts the temperature measured into an electric current signal of 4 … 20 mA. The transmitter is delivered as a complete unit, comprising a stainless steel immersion well, the sensing element and an amplifier, mounted in a housing.

The transmitter is intended for immersion installation and is used for temperature measurement in air ducts. The transmitter connects via a 2-wire cable, which serves both as power supply and for signal transmission.

Specifications

Output	2-wire, 4 … 20 mA
Range	-50 … 50 °C; 0 … 100 °C (-58 … 122 °F; 32 … 212 °F)
Accuracy	±0.4% of range
Supply	15 … 36 Vdc

Part number	Model number	Description	Probe length	System
006920141	STD300-300 0/100	Duct Temperature Sensor	300 mm (11.81 in.)	All
006920121	STD300-300 -50/50	Duct Temperature Sensor	300 mm (11.81 in.)	All

STD670

The STD670 temperature sensor is intended for air duct mounting. The STD670 has 1.5 m flying leads.

Accuracy: See Appendix A, table F

Part number	Model number	Description	System
5126040000	STD670	Duct Temperature Sensor	Satchwell

STD150, 550

The STD150 and 550 are intended for measuring air temperature in fan coil applications or exhaust ducts.

The sensors, which are made of stainless steel, are delivered with a 2 m (6.5 ft.) cable, PVC sheathed overall. Mounting details such as screw and clamp are included with the product.

Accuracy: See Appendix A, tables A, C

Part number	Model number	Description	System
5123058000	STD150	Duct Temperature Sensor	TAC Vista TAC Xenta
5123084000	STD550	Duct Temperature Sensor	Andover Continuum

STD190, 290, 400, 410, 591

Duct Averaging

STD190, 290, 591

The STD190, STD290, and STD591 sensors are delivered as complete units that consist of a housing and a cable with four sensors located at 0.5 m (1.6 ft.) intervals. The distance from the first sensor to the housing is 2.5 m (8.2 ft.).

This mean-value temperature sensor contains four thermistors. It is is used for temperature measurement in air ducts and is mounted onto a grid or on wires suspended across a duct.

Accuracy: See Appendix A, tables D, E

Part number	Model number	Description	System
5123060010	STD190	Average Duct Temperature Sensor	TAC Vista TAC Xenta
5123060020	STD290	Average Duct Temperature Sensor	TAC I/NET
5123086010	STD591	Average Duct Temperature Sensor	Andover Continuum

STD400/410

The STD400 and STD410 are electronic averaging transmitters that convert the average measured temperature into an electric signal, either 4 … 20 mA (STD400) or 0 … 10 Vdc (STD410). They are used for temperature measurement in air ducts.

The transmitter is available in lengths of 0.4 m (1.3 ft.), 3 m (9.8 ft.) and 6 m (19.7 ft.), with the temperature measurements taken over the entire length of the sensor. The 0.4 m (1.3 ft.) sensor has a solid copper element, whilst the 3 m (9.8 ft.) and 6 m (19.7 ft.) sensors have a flexible PVC insulated element, which can be bent to a minimum radius of 50 mm (2 in.), allowing the sensor to be shaped across larger ducts.

Connection is with either 2-wire (4 … 20 mA) or 3-wire (0 … 10 Vdc) cable.

Specifications

Range	-50 … 50 °C; 0 … 100 °C (-58 … 122 °F; 32 … 212 °F)
Accuracy	±0.4% of range
Supply	24 Vac (±10%) or 15 … 36 Vdc

Part number	Model number	Description	Probe length	Output	System
006920681	STD400-04 0/100	Average Duct Temperature Transmitter	0.4 m (1.31 ft.)	4 … 20 mA	All
006920701	STD400-04 -50/50	Average Duct Temperature Transmitter	0.4 m (1.31 ft.)	4 … 20 mA	All
006920721	STD400-30 0/100	Average Duct Temperature Transmitter	3 m (9.84 ft.)	4 … 20 mA	All
006920741	STD400-30 -50/50	Average Duct Temperature Transmitter	3 m (9.84 ft.)	4 … 20 mA	All
006920761	STD400-60 0/100	Average Duct Temperature Transmitter	6 m (19.69 ft.)	4 … 20 mA	All
006920781	STD400-60 -50/50	Average Duct Temperature Transmitter	6 m (19.69 ft.)	4 … 20 mA	All
006920841	STD410-04 0/100	Average Duct Temperature Transmitter	0.4 m (1.31 ft.)	0 … 10 Vdc	All
006920861	STD410-04 -50/50	Average Duct Temperature Transmitter	0.4 m (1.31 ft.)	0 … 10 Vdc	All
006920881	STD410-30 0/100	Average Duct Temperature Transmitter	3 m (9.84 ft.)	0 … 10 Vdc	All
006920901	STD410-30 -50/50	Average Duct Temperature Transmitter	3 m (9.84 ft.)	0 … 10 Vdc	All
006920921	STD410-60 0/100	Average Duct Temperature Transmitter	6 m (19.69 ft.)	0 … 10 Vdc	All
006920941	STD410-60 -50/50	Average Duct Temperature Transmitter	6 m (19.69 ft.)	0 … 10 Vdc	All

STX120, 122, 140, 520

Immersion

STX140

The sensor, which is made of polythene tube Ø 10 mm (0.39 in.), is delivered with a 2 m (6.56 ft.) cable. The STX140 is primarily intended for laying underfloor. Four thermistors are evenly spaced along the length of the tube.

When laying underground, the thermistor cable should be placed in pipes with a minimum inside diameter of 12 mm (0.47 in.).

Accuracy: See Appendix A, table D

Part number	Model number	Description	System
5123310000	STX140	Ground Temperature Sensor	TAC Vista TAC Xenta

STX120, 220, 520

The sensor, which is made of stainless steel, is delivered with a 2 m (6.56 ft.) or 4 m (13.12 ft.) cable PVC sheathed overall. STX120 is intended for measuring water temperature in heating applications, mounted in a well/pocket.

Accuracy: See Appendix A, tables A, D

Part number	Model number	Description	System
5123302000	STX120-200	Immersion Temperature Sensor	TAC Vista TAC Xenta
5123304000	STX120-400	Immersion Temperature Sensor	TAC Vista TAC Xenta
5123240000	STX220-400	Immersion Temperature Sensor	TAC I/NET
5123320000	STX520-200	Immersion Temperature Sensor	Andover Continuum
5123322000	STX520-400	Immersion Temperature Sensor	Andover Continuum

STX122, 222

The STX122 is primarily intended for pipe mounting without a separate pocket in heating coils. The insert pipe is stainless steel. The sensor is delivered with a 2 m (6.56 ft.) connecting cable, and has a R1/4 in. (DN 8) male thread fixing. As standard the sensor is delivered with a separate R1/2 in. (DN 15) male thread reducing bush.

Accuracy: See Appendix A, table A

Part number	Model number	Description	Probe length	System
5123306000	STX122-250	Coil Temperature Sensor	250 mm (9.84 in.)	TAC Vista TAC Xenta
5123308000	STX122-400	Coil Temperature Sensor	400 mm (15.75 in.)	TAC Vista TAC Xenta
5123242000	STX222-250	Coil Temperature Sensor	250 mm (9.84 in.)	TAC I/NET
5123244000	STX222-400	Coil Temperature Sensor	400 mm (15.75 in.)	TAC I/NET

STP100, 200, 500, 600

Immersion

STP100, 200, 500, 600

These sensors are designed for immersion mounting in pipe systems with a separate pocket/well. The pocket/well is sealed, making it easy to replace the sensor if necessary. The STP housing is equipped with a Ø 20 mm (0.79 in.) cable fitting. A 20 mm (0.79 in.) cable gland is supplied. The pocket/well must be ordered separately (see page 18 for ordering information).

Accuracy: See Appendix A, tables A, B, C

Part number	Model number	Description	Probe length	System
5123102010	STP100-50	Pipe Temperature Sensor	50 mm (1.97 in.)	TAC Vista, TAC Xenta
5123104010	STP100-100	Pipe Temperature Sensor	100 mm (3.94 in.)	TAC Vista, TAC Xenta
5123106010	STP100-150	Pipe Temperature Sensor	150 mm (5.91 in.)	TAC Vista, TAC Xenta
5123108010	STP100-200	Pipe Temperature Sensor	200 mm (7.87 in.)	TAC Vista, TAC Xenta
5123110010	STP100-250	Pipe Temperature Sensor	250 mm (9.84 in.)	TAC Vista, TAC Xenta
5123112010	STP100-300	Pipe Temperature Sensor	300 mm (11.81 in.)	TAC Vista, TAC Xenta
5123114010	STP100-400	Pipe Temperature Sensor	400 mm (15.75 in.)	TAC Vista, TAC Xenta
5123130010	STP200-50	Pipe Temperature Sensor	50 mm (1.97 in.)	TAC I/NET
5123132010	STP200-100	Pipe Temperature Sensor	100 mm (3.94 in.)	TAC I/NET
5123134010	STP200-150	Pipe Temperature Sensor	150 mm (5.91 in.)	TAC I/NET
5123136010	STP200-200	Pipe Temperature Sensor	200 mm (7.87 in.)	TAC I/NET
5123138010	STP200-250	Pipe Temperature Sensor	250 mm (9.84 in.)	TAC I/NET
5123140010	STP200-300	Pipe Temperature Sensor	300 mm (11.81 in.)	TAC I/NET
5123142010	STP200-400	Pipe Temperature Sensor	400 mm (15.75 in.)	TAC I/NET
5123170010	STP500-50	Pipe Temperature Sensor	50 mm (1.97 in.)	Andover Continuum
5123172000	STP500-100	Pipe Temperature Sensor	100 mm (3.94 in.)	Andover Continuum
5123174010	STP500-150	Pipe Temperature Sensor	150 mm (5.91 in.)	Andover Continuum
5123176010	STP500-200	Pipe Temperature Sensor	200 mm (7.87 in.)	Andover Continuum
5123180010	STP500-300	Pipe Temperature Sensor	300 mm (11.81 in.)	Andover Continuum
5123182000	STP500-400	Pipe Temperature Sensor	400 mm (15.75 in.)	Andover Continuum
5126010000	STP600D	Pipe Temperature Sensor	100 mm (3.94 in.)	Drayton

STP120, 220, 620, 660

Immersion

STP120, 220, 620

The STP120, 220, 620 temperature sensors are intended for immersion mounting in pipe systems without requiring a pocket/well. This product is for use in fast time constant systems such as district heating applications. The STP housing is equipped with a Ø 20 mm (0.79 in.) cable fitting. A 20 mm (0.79 in.) cable gland is supplied.

Accuracy: See Appendix A, tables A, B, F

Part number	Model number	Description	Probe length	System
5123158010	STP120-70	Pipe Temperature Sensor	70 mm (2.76 in.)	TAC Vista TAC Xenta
5123160010	STP120-120	Pipe Temperature Sensor	120 mm (4.72 in.)	TAC Vista TAC Xenta
5123162010	STP120-220	Pipe Temperature Sensor	220 mm (8.66 in.)	TAC Vista TAC Xenta
5123230000	STP220-70	Pipe Temperature Sensor	70 mm (2.76 in.)	TAC I/NET
5123232000	STP220-120	Pipe Temperature Sensor	120 mm (4.72 in.)	TAC I/NET
5123234000	STP220-220	Pipe Temperature Sensor	220 mm (8.66 in.)	TAC I/NET
5126090000	STP620	Pipe Temperature Sensor	100 mm (3.94 in.)	Satchwell

STP660

The STP660 temperature sensor is intended for immersion mounting in pipe systems with a separate pocket/well, and has a telescopic probe extendable from 100 … 300 mm (3.94 … 11.81 in.). This technology makes the product ideal for the HVAC service industry as the probe is adjustable for various sizes of pocket/well (see page 18 for ordering information). The tip is primed with heat conductive paste, ensuring that the time constant is optimized. The pocket/well is sealed, making it easy to replace the sensor if necessary.

The STP housing is equipped with a Ø 20 mm (0.79 in.) cable fitting. A 20 mm (0.79 in.) cable gland is supplied. As there is a choice of both pocket/well material (brass or stainless steel) and size (120 or 200 mm) (3.94 or 7.87 in.) for this sensor, the pocket/well must be ordered separately. See the DWA range in the pockets/wells section of this catalog.

Accuracy: See Appendix A, table F

Part number	Model number	Description	Probe length	System
5126080000	STP660	Telescopic Pipe Temp. Sensor	100 … 300 mm (3.94 … 11.81 in.)	Satchwell

STP300

Immersion

STP300

The STP300 is an electronic immersion temperature transmitter that converts a measured temperature into an electronic current signal of 4 … 20 mA. The STP300 is designed for immersion mounting in pipe systems with a separate pocket/well (see page 18 for ordering information). The pocket/well is sealed, making it easy to replace the transmitter if necessary.

The transmitter is intended for measurement of high and low temperatures. The transmitter is connected with a 2-wire cable, which serves both as power supply and for signal transmission. The reading of the measured signal is done over an external load resistance.

Specifications

Output	2-wire, 4 … 20 mA
Range	0 … 100 °C, 0 … 160 °C or -50 … 50 °C (32 … 212 °F, 32 … 320 °F or -58 … 122 °F)
Accuracy	±0.4% of range
Supply	15 … 36 Vdc

Part number	Model number	Description	Probe length
006920241	STP300-100 0/100	Pipe Temperature Sensor 0 … 100 °C (32 … 212 °F)	100 mm (3.94 in.)
006920261	STP300-100 0/160	Pipe Temperature Sensor 0 … 160 °C (32 … 320 °F)	100 mm (3.94 in.)
006920221	STP300-100 -50/50	Pipe Temperature Sensor -50 … 50 °C (-58 … 122 °F)	100 mm (3.94 in.)
006920301	STP300-200 0/100	Pipe Temperature Sensor 0 … 100 °C (32 … 212 °F)	200 mm (7.87 in.)
006920321	STP300-200 0/160	Pipe Temperature Sensor 0 … 160 °C (32 … 320 °F)	200 mm (7.87 in.)
006920281	STP300-200 -50/50	Pipe Temperature Sensor -50 … 50 °C (-58 … 122 °F)	200 mm (7.87 in.)
006920361	STP300-300 0/100	Pipe Temperature Sensor 0 … 100 °C (32 … 212 °F)	300 mm (11.81 in.)
006920381	STP300-300 0/160	Pipe Temperature Sensor 0 … 160 °C (32 … 320 °F)	300 mm (11.81 in.)
006920341	STP300-300 -50/50	Pipe Temperature Sensor -50 … 50 °C (-58 … 122 °F)	300 mm (11.81 in.)
006920421	STP300-400 0/100	Pipe Temperature Sensor 0 … 100 °C (32 … 212 °F)	400 mm (15.75 in.)
006920441	STP300-400 0/160	Pipe Temperature Sensor 0 … 160 °C (32 … 320 °F)	400 mm (15.75 in.)
006920401	STP300-400 -50/50	Pipe Temperature Sensor -50 … 50 °C (-58 … 122 °F)	400 mm (15.75 in.)

Pockets/Wells

Pockets/Wells

The table below provides a list of pockets/wells suitable for use with most pipe sensors and transmitters. For Satchwell pipe sensors use DWA pockets/wells. Note: pockets/wells must be ordered separately..

Part number	Description	Probe length
9121040000	Pocket STP 50 mm Brass	50 mm (1.97 in.)
9121050000	Pocket STP 50 mm Stainless steel	50 mm (1.97 in.)
9121041000	Pocket STP 100 mm Brass	100 mm (3.94 in.)
9121051000	Pocket STP 100 mm Stainless steel	100 mm (3.94 in.)
9121042000	Pocket STP 150 mm Brass	150 mm (5.91 in.)
9121052000	Pocket STP 150 mm Stainless steel	150 mm (5.91 in.)
9121043000	Pocket STP 200 mm Brass	200 mm (7.87 in.)
9121053000	Pocket STP 200 mm Stainless steel	200 mm (7.87 in.)
9121044000	Pocket STP 250 mm Brass	250 mm (9.84 in.)
9121054000	Pocket STP 250 mm Stainless steel	250 mm (9.84 in.)
9121045000	Pocket STP 300 mm Brass	300 mm (11.81 in.)
9121055000	Pocket STP 300 mm Stainless steel	300 mm (11.81 in.)
9121046000	Pocket STP 400 mm Brass	400 mm (15.75 in.)
9121056000	Pocket STP 400 mm Stainless steel	400 mm (15.75 in.)
9121058000	Pocket Adaptor (Satchwell DWA0001)	N/A
9121060000	Pocket STP 120 mm Stainless steel (Satchwell DWA0002)	120 mm (4.72 in.)
9121062000	Pocket STP 200 mm Brass (Satchwell DWA0003)	200 mm (7.87 in.)
9121064000	Pocket STP 200 mm Stainless steel (Satchwell DWA0004)	200 mm (7.87 in.)
9121066000	Pocket STP 120 mm Brass (Satchwell DWA0005)	120 mm (4.72 in.)

STC100, 110, 120,200, 210, 500, 510, 600

Strap-on/Contact

STC100, 200, 500, 600

STC strap on temperature sensors are designed for surface pipe mounting. The STC housing is equipped with a Ø 20 mm (0.79 in.) cable fitting.

Accuracy: See Appendix A, tables A, B, C, F

Part number	Model number	Description	System
5123202010	STC100	Contact Temperature Sensor	TAC Vista TAC Xenta
5123206010	STC200	Contact Temperature Sensor	TAC I/NET
5123218010	STC500	Contact Temperature Sensor	Andover Continuum
5126070000	STC600	Contact Temperature Sensor	Satchwell
5126020000	STC600D	Contact Temperature Sensor	Drayton

STC110, 210, 510

The STC110, 210 and 510 temperature sensors are designed for mounting on pipe systems of max. Ø 90 mm (3.54 in.). The temperature sensor is supplied with a connection cable of 2 m (6.56 ft.) or 4 m (13.12 ft.).

Accuracy: See Appendix A, tables A, B, C

Part number	Model number	Description	System
5123210000	STC110-200	Contact Temperature Sensor (2 m cable)	TAC Vista TAC Xenta
5123212000	STC110-400	Contact Temperature Sensor (4 m cable)	TAC Vista TAC Xenta
5123236000	STC210-200	Contact Temperature Sensor (2 m cable)	TAC I/NET
5123238000	STC210-400	Contact Temperature Sensor (4 m cable)	TAC I/NET
5123220000	STC510-200	Contact Temperature Sensor (2 m cable)	Andover Continuum

STC120

STC120 is a temperature sensor designed for mounting on a pipe system of heating coils Ø 10 … 15 mm (0.39 … 0.59 in.). The sensor is supplied with a connection cable of 250 mm (9.84 in.).

Accuracy: See Appendix A, table A

Part number	Model number	Description	System
5123214000	STC120	Contact Temperature Sensor	TAC Vista TAC Xenta

STC300

Strap-on/Contact

STC300

STC300 is an electronic pipe contact temperature transmitter that converts the temperature measured into an electronic current signal 4 … 20 mA. The transmitter is delivered as a complete unit, comprising a pipe clamp, the sensing element and an amplifier, mounted in a housing. The sensor and amplifier are encapsulated in separate units, to protect the electronics from excessive heat. A 2 m (6.56 ft.) cable connects the two units.

The transmitter element is intended for external mounting directly on pipes, [max diameter 100 mm (3.94 in.)] e.g., for flow and return water pipes. The transmitter is connected with a 2-wire cable, which serves both as power supply and for signal transmission.

Specifications

Output	2-wire, 4 … 20 mA
Range	0 … 100 °C, 0 … 160 °C or -50 … 50 °C (32 … 212 °F, 32 … 320 °F or -58 … 122 °F)
Accuracy	±0.3 °C at 25 °C
Supply	15 … 36 Vdc

Part number	Model number	Description	System
006920041	STC300 0/100	Contact Temperature Sensor 0 … 100 °C (32 … 212 °F)	All
006920061	STC300 0/160	Contact Temperature Sensor 0 … 160 °C (32 … 320 °F)	All
006920021	STC300 -50/50	Contact Temperature Sensor -50 … 50 °C (-58 … 122 °F)	All

STO100, 200, 300, 500, 600

Outdoor

STO100, 200, 500, 600

These outdoor sensors are intended for outdoor wall mounting. Variants are available for TAC Vista, TAC I/NET, Andover Continuum and Satchwell systems. The body has a Ø 20 mm (0.79 in.) conduit entry and the product is supplied with a conduit gland.

Accuracy: See Appendix A, tables A, B, C, F

Part number	Model number	Description	System
5141100010	STO100	Outdoor Temperature Sensor	TAC Vista TAC Xenta
5123246000	STO200	Outdoor Temperature Sensor	TAC I/NET
5141104010	STO500	Outdoor Temperature Sensor	Andover Continuum
5126060000	STO600	Outdoor Temperature Sensor	Satchwell
5126050000	SSO600	Outdoor Temperature Sensor	Satchwell
5126000000	STO600D	Outdoor Temperature Sensor	Drayton

STO300

The STO300 transmitter is supplied as a complete unit, comprising a sensing element and an amplifier mounted in a housing which is resistant to ultraviolet light. The transmitter is intended for mounting on an outside wall, on the north side where possible. The transmitter is connected over a 2-wire cable, which serves both as power supply and signal transmission. The reading of the measured signal is made over an external load resistance.

Specifications

Output	2-wire, 4 … 20 mA
Range	-50 … 50 °C (-58 … 122 °F)
Accuracy	±0.4% of range
Supply	15 … 36 Vdc

Part number	Model number	Description	System
006920501	STO300 -50/50	Outdoor Temperature Sensor	All

STT900

Frost Thermostats

STT900

The frost protection thermostats are used for air, or water-side temperature monitoring of heat exchangers, hot water circulation systems, water/air heaters, e.g. in ventilation and air conditioning systems and to avoid frost damage. The product features a small operating differential and high reproducibility. Resetting of the STT900 to STT904 occurs automatically and the STT910 to STT914 are designed to be reset manually by a reset button.

The output would typically switch off ventilators, close outside air flaps, open up air heating valves, switch on air heat pumps, switch off refrigeration compressors, switch off air humidifiers, or initiate a visual and/or acoustic frost alarm.

Location of these items is not critical, even in harsh environments as they are all rated to IP65.

Part number	Model number	Description	Capillary length	Reset type	Permissible medium
5127040000	STT900	Frost Thermostat	0.6 m (2 ft.)	Automatic	Air
5127010000	STT901	Frost Thermostat	1.8 m (5.9 ft.)	Automatic	Water
5127020000	STT902	Frost Thermostat	3 m (9.8 ft.)	Automatic	Air
5127000000	STT903	Frost Thermostat	6 m (19.7 ft.)	Automatic	Air
5127030000	STT904	Frost Thermostat	12 m (39 ft.)	Automatic	Air
5127090000	STT910	Frost Thermostat	0.6 m (2 ft.)	Manual	Air
5127060000	STT911	Frost Thermostat	1.8 m (5.9 ft.)	Manual	Water
5127070000	STT912	Frost Thermostat	3 m (9.8 ft.)	Manual	Air
5127050000	STT913	Frost Thermostat	6 m (19.7 ft.)	Manual	Air
5127080000	STT914	Frost Thermostat	12 m (39 ft.)	Manual	Air

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Thermostats & Room Controllers

TC100 Series

Electro-Mechanical Thermostats

The TC100 Series of fan coil thermostats are optimized for office building, hotel and residential applications. The TC100 Series can be used for 2-pipe or 4-pipe applications. Their simple design makes them suitable for any contemporary building. They are both easy to operate and install.

Features

- Set-point, fan speed and mode control
- Easy to install and maintain
- Green set-point marking indicates ideal range for energy efficiency

Functions

Set-point Adjustment - The set-point adjustment dial allows users to select a desired set-point for the space. The green set-point marking provides the user with the ideal range to optimize energy efficiency. The set-point range can also be limited by locking the set-point range.

Fan Speed - Users can select between High, Medium and Low fan speeds by adjusting the fan speed switch.

Mode Control - Users can switch modes from heating to cooling, or turn the thermostat off by adjusting the mode switch.

Specifications

Sensing element	10 kΩ NTC (3950)
Accuracy	±1.5 °C at 20 °C
Set-point range	5 … 30 °C
Operating temperature	0 … 45 °C
Operating humidity	5 … 90% RH
Power supply	230 Vac ±10%, 50/60 Hz
Switch current rating	5 A resistive, 2 A inductive
Protection class	IP20
Housing	Flame-retardant PC
Dimensions.	86 x 86 x 27 mm (3.38 x 3.38 x 1.06 in.)
Hole pitch	60 mm (2.36 in.) (Standard)

Part number	Description	Application
TC103-3A2	FCU Thermostat for 2-position on/off actuator (2-wire)	2-pipe
TC103-3A2C	FCU Thermostat for 2-position on/off actuator w/fan stop (2-wire)	2-pipe
TC103-3B2	FCU Thermostat for 2-position on/off actuator (3-wire)*	2-pipe
TC103-3B2C	FCU Thermostat for 2-position on/off actuator w/fan stop (3-wire)*	2-pipe
TC103-3A4	FCU Thermostat for 2-position on/off actuator (2-wire) 4-pipe	4-pipe

*Note: 3-wire actuator requires Form C /time-out functionality.

TC300 Series

Digital Thermostats

The TC300 Series fan coil thermostats are optimized for office building, hotel and residential applications. The TC300 Series can be used for two-pipe or four-pipe applications. Their simple design makes them suitable for any contemporary building. They are both easy to operate and install.

The TC300 features microprocessor-based control and a large backlit LCD screen. The LCD display modes include operation status (cooling, heating, and ventilation), fan speed, room temperature, and set-point.

Features

- Modern appearance
- Large, blue backlit, LCD screen
- Eco button for energy saving
- Button lockout function controls unauthorized operation
- Non-volatile memory (EEPROM) retains user settings during power loss
- Low temperature protection
- Standard 86 x 86 mm box for installation
- Temperature sensors are provided with failure alarm function to facilitate maintenance
- Optional Modbus communication
- Deluxe models include:
  - Sleep mode for energy savings
  - Occupancy/Card Key input
  - Real-time display
  - Optional remote temperature sensor
  - Optional Infrared remote control

Specifications

Sensing element	10 kΩ NTC (3950)
Accuracy	±1 °C
Set-point range	5 … 35 °C
Display range	0 … 50 °C (shown in 0.5 °C increments)
Operating temperature	0 … 45 °C
Operating humidity	5 … 95% RH (non-condensing)
Power requirement	< 1 W
Power supply	85 … 260 Vac, 50/60 Hz
Terminals	Can be connected to 2 x 1.5 mm2 or 1 x 2.5 mm2 conductors
Communicating speed	4800 bps
Switch current rating	5 A resistive, 3 A inductive @ 230 Vac
Switch power rating	Max. inrush 1385 VA / 150 W
Protection class	IP30
Housing	Flame-retardant PC
Dimensions	88.5 x 86 x 16 mm (3.48 x 3.38 x 0.63 in.)
Hole pitch	60 mm (2.36 in.) (Standard)

Part number	Description	Application	Communication	Real-time
TC303-3A2L	FCU Thermostat for 2-position on/off actuator (2-wire)	2-pipe	None	No
TC303-3A4L	FCU Thermostat for 2-position on/off actuator (2-wire)	4-pipe	None	No
TC303-3A2LM	FCU Thermostat for 2-position on/off actuator (2-wire)	2-pipe	Modbus	No
TC303-3A4LM	FCU Thermostat for 2-position on/off actuator (2-wire)	4-pipe	Modbus	No
TC303-3A2DLS	Deluxe FCU Thermostat for 2-position on/off actuator (2-wire)	2-pipe	None	Yes
TC303-3A4DLS	Deluxe FCU Thermostat for 2-position on/off actuator (2-wire)	4-pipe	None	Yes
TC303-3A2DLMS	Deluxe FCU Thermostat for 2-position on/off actuator (2-wire)	2-pipe	Modbus	Yes
TC303-3A4DLMS	Deluxe FCU Thermostat for 2-position on/off actuator (2-wire)	4-pipe	Modbus	Yes
TC303-3A2DPMS	Deluxe FCU Thermostat for 0 … 10 V modulating actuator	2-pipe	Modbus	Yes
TC303-3A4DPMS	Deluxe FCU Thermostat for 0 … 10 V modulating actuator	4-pipe	Modbus	Yes
IR-300	TC3xx IR Remote Control			
RS-03	10k NTC Remote Sensor (10 pcs) - 3 m (9.8 ft.)			

TC350 Series

Digital Thermostats

The TC350 Series fan coil thermostats are optimized for office building, hotel and residential applications. The TC350 Series can be used for two-pipe or four-pipe applications. Their simple design makes them suitable for any contemporary building. They are both easy to operate and install.

The TC350 features microprocessor-based control and a large backlit LCD screen. The LCD display modes include operation status (cooling, heating, and ventilation), fan speed, room temperature, and set-point.

Features

- Modern appearance
- Large, blue backlit, LCD screen
- Eco button for energy saving
- Weekly scheduling application
- Button lockout function controls unauthorized operation
- Non-volatile memory (EEPROM) retains user settings during power loss
- Low temperature protection
- Standard 86 x 86 mm box for installation
- Temperature sensors are provided with failure alarm function to facilitate maintenance
- Deluxe models include:
  - Occupancy/Card Key input
  - Real-time display
  - Optional remote temperature sensor
  - Optional Infrared remote control

Specifications

Sensing element	10 kΩ NTC (3950)
Accuracy	±1 °C
Set-point range	5 … 35 °C
Display range	0 … 50 °C (shown in 0.5 °C increments)
Operating temperature	0 … 45 °C
Operating humidity	5 … 95% RH (non-condensing)
Power requirement	< 1 W
Power supply	85 … 260 Vac, 50/60 Hz
Terminals	Can be connected to 2 x 1.5 mm2 or 1 x 2.5 mm2 conductors
Switch current rating	5 A resistive, 3 A inductive @ 230 Vac
Switch power rating	Max. inrush 1385 VA / 150 W
Protection class	IP30
Housing	Flame-retardant PC
Dimensions	88.5 x 86 x 16 mm (3.48 X 3.38 X 0.63 in.)
Hole pitch	60 mm (2.36 in.) (Standard)

Part number	Description	Application	Scheduling	Real-time
TC353-3A2L	FCU Thermostat for 2-Position On/Off Actuator (2-Wire)	2-pipe	Yes	No
TC353-3A4L	FCU Thermostat for 2-Position On/Off Actuator (2-Wire)	4-pipe	Yes	No
TC353-3A2DLS	FCU Thermostat for 2-Position On/Off Actuator (2-Wire)	2-pipe	Yes	Yes
TC353-3A4DLS	FCU Thermostat for 2-Position On/Off Actuator (2-Wire)	4-pipe	Yes	Yes
IR-300	TC3xx IR Remote Control			
RS-03	10k NTC Remote Sensor (10 pcs) - 3 m (9.8 ft.)			

KLR-E/RTR-E/FR-E Series

Room Controllers

KLR-E

This selection of air conditioning controllers offer a variety of features most commonly required for the control of heating and cooling in residential and office applications.

Part number	Description
KLR-E 517 7801	0 … 10 Vdc Outputs + On/Off Heat with LCD
KLR-E 517 7805	0 … 10 Vdc Outputs + On/Off Heat & Fan with LCD
KLR-E 517 7810	0 … 10 Vdc Outputs + On/Off Heat + Fan Speed with LCD
KLR-E 525 52 HP	On/Off Outputs with Power Indicator + Fan Speed
KLR-E 525 52 4P	On/Off Outputs with Mode Indicators + Fan Speed
KLR-E 525 55	0 … 10 Vdc Outputs
KLR-E 525 56	0 … 10 Vdc Outputs + Fan Speed
KLR-E 527 23	On/Off Outputs + Fan Speed with LCD
KLR-E 527 24	On/Off Outputs + Fan Speed + Mode Select with LCD
KLR-E 7009	On/Off Outputs + Fan Speed
KLR-E 7010	On/Off Outputs + Fan Speed + Mode Select
KLR-E 7011	On/Off Outputs + Fan Speed
KLR-E 7012	On/Off Outputs + Fan Speed + Mode Select
KLR-E 7026	On/Off Output + Fan Speed
KLR-E 7038	On/Off Outputs + Fan Speed + Mode Select
KLR-E 7202	On/Off Outputs without Indicators
KLR-E 7203	On/Off Outputs + Fan Speed without Indicators
KLR-E 7204	On/Off Outputs + Fan Speed with Indicators
KLR-E 7611	On/Off Output + On/Off

RTR-E

These electronic room controllers offer a basic form of on/off heat or heat/cool control within a 75 x 75 mm enclosure.

Part number	Description
RTR-E 3502	On/Off output with set-point, indicator and On/Off switch
RTR-E 3520	On/Off output with set-point only
RTR-E 6124	On/Off output with set-point and On/Off switch
RTR-E 6721	Change-over output without indicator

FR-E

An electronic temperature controller with remote temperature sensor suitable for electric floor heating systems.

Part number	Description
FR-E 525 31	Floor Heating Controller with Remote Sensor

Accessories

For mounting controllers to nearly all conduit boxes used internationally.

Part number	Description
ARA 1.7 E	KLR-E Series Plastic Adaptor Frame
ARA 1 E	RTR-E Series Plastic Adaptor Frame

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Humidity Transmitters

SHR Series

Living Space

SHR Series

The SHR Series is an active sensor, which measures relative humidity (% RH) and converts the measurement into two selectable output signals: voltage 0 … 5 Vdc or 0 … 10 Vdc, or an electric current 4 … 20 mA. The SHR models measure relative humidity using a digitally profiled thin-film capacitive element that provides ±2% accuracy over the range. Replaceable humidity elements are available in NIST and non-NIST versions. Each SHR model comes with an embedded temperature sensing element. Please refer to the table below to determine system compatibility.

Specifications

Output	Selectable, 0 … 5 Vdc, 0 … 10 Vdc or 4 … 20 mA
Range	0 … 95% RH
Accuracy	±2%
Supply	24 Vac/20 … 36 Vdc

Part number	Model number	Humidity	Temperature	System Compatibility
006903115	SHR110-T	X	X	TAC Vista
006903215	SHR210-T	X	X	TAC I/NET
006903515	SHR510-T	X	X	Andover Continuum
006903615	SHR610-T	X	X	Satchwell
006903815	SHR810-T	X	X	TAC I/A Series
5152339010	HS2xx	X		2% RH
5152339000	hs2Nx	X		2% RH NIST

SHD100

Duct

SHD100

The SHD100 is an active sensor, which measures relative humidity (% RH) and converts the measurement into an electric current 4 … 20 mA or a voltage level 0 … 10 Vdc. SHD100 is intended for duct installation and is used for relative humidity measurement within air ducts. The transmitter is delivered as a complete unit, comprising an aluminium mounting flange with the sensing element, and an amplifier mounted in a separate housing.

The sensor has negligible hysteresis and is insensitive to dust as well as a wide range of chemicals. The housing accommodates a 20 mm dual-dimension conduit. A conduit gland nut is supplied with the unit.

Models with -T also include temperature measurement through use of a passive thermistor output suitable for connection to the appropriate controller system type.

Specifications

Output	Selectable, 0 … 10 Vdc or 4 … 20 mA
Range	0 … 95% RH
Accuracy	±2%
Supply	24 Vac/15 … 36 Vdc

Part number	Model number	Description	System
006902321	SHD100	Duct Humidity Sensor	All (% RH only)
006902331	SHD100-T	Duct Humidity + Temperature	TAC I/NET TAC Vista TAC Xenta
006902381	SHD101-T5	Duct Humidity + Temperature	Andover Continuum TAC Vista TAC Xenta
006902411	SHD101-T6	Duct Humidity + Temperature	Satchwell

SHO100

Outdoor

SHO100

The SHO100 is an active sensor, which measures relative humidity (% RH) and converts the measurement into an electric current 4 … 20 mA or a voltage level of 0 … 10 Vdc. The SHO series is intended for outdoor humidity measurement.

Models with -T also include temperature measurement through use of a passive thermistor output suitable for connection to the appropriate controller system type.

Specifications

Output	Selectable, 4 … 20 mA, 0 … 10 Vdc
Range	0 … 95% RH
Accuracy	±2%
Supply	24 Vac/15 … 36 Vdc

Part number	Model number	Description	System
006902361	SHO100	Outdoor Humidity Sensor	All (% RH only)
006902371	SHO100-T	Outdoor Humidity + Temperature	TAC I/NET TAC Vista TAC Xenta
006902401	SHO101-T5	Outdoor Humidity + Temperature	Andover Continuum TAC Vista TAC Xenta

SCP110/SCC110

Pipe, Contact

SCP110/SCC110

These devices are suitable for fixing to chilled pipework to sense and therefore take control action against the formation of condensation.

The SCP110 is designed for direct mounting onto pipe systems. The sensor element is mounted in the contact material below the housing.

The SCC110 has a remote sensor with a 2 m (6.56 ft.) wire. The sensor element is fitted into a sensor head made of aluminium.

Specifications

Output	Relay contact (change-over), 250 Vac / 5 A, potential-free, contact material Ag/Ni 90/10
Range	Switching threshold adjustable 90 … 96% RH Mid-position equals 93% RH
Supply	24 Vac (±10%)/15 … 36 Vdc

Part number	Model number	Description
006902500	SCP110	Pipe Condensation Switch
006902510	SCC110	Contact Condensation Switch

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Pressure Transmitters

SPD310/SPD360

Air Differential

SPD310/SPD360

SPD310/SPD360 differential pressure transmitters are intended for use in air handling systems for the monitoring of air ducts, filters and fans. SPD310/SPD360 are electronic differential pressure transmitters that convert the differential pressure measured into an electric signal. SPD360 has an LCD display, showing the differential pressure in Pa.

SPD310/SPD360 are delivered with a 2 m (6.56 ft.) tube and two plastic duct connectors.

Specifications

Output	3-wire, 0 … 10 V 2-wire, 4 … 20 mA
Ranges (Pa)	-100 … 100 0 … 100 0 … 300 0 … 500 0 … 1000 0 … 1500 0 … 2000 0 … 2500 0 … 1000 0 … 1500 0 … 2000 0 … 2500 0 … 3000 0 … 4000 0 … 5000 0 … 7000
Accuracy	
Linear output	≤ ±2% FS (≤ ±6 Pa < 250 Pa)
Linearity, including temperature and hysteresis	≤ ±2.5% FS (≤ ±3 FS < 250 Pa)
Accuracy at ambient temp. of 25 °C Supply 24 Vac/16 … 32 Vdc	≤ ±1.0% FS

Part number	Model number	Description
004700320	SPD310-100 ... 2500Pa	SPD310 Differential Air Pressure Transmitter 100/300/500/1000/1500/2000/2500 Pa
004700340	SPD310-1000 ... 7000Pa	SPD310 Differential Air Pressure Transmitter 1000/1500/2000/2500/3000/4000/5000/7000 Pa
004700360	SPD360-100 ... 2500Pa	SPD360 Differential Air Pressure Transmitter 100/300/500/1000/1500/2000/2500 Pa

SPP110

Pressure Transmitter

SPP110

SPP110 pressure transmitters are intended for use in HVAC pipe systems to monitor pressure. The SPP110 is an electronic pressure transmitter that converts the measured pressure into an electric 0 … 10 Vdc signal. The SPP110 is delivered with 2 m (6.56 ft) cable and a G1/2 in. adapter nut.

Medium: any medium suitable for stainless steel.

Specifications

Output	3-wire, 0 … 10 Vdc
Ranges (kPa)	0 … 100, 0 … 250, 0 … 600, 0 … 1000, 0 … 1600, 0 … 2500, 0 … 4000
Accuracy	
Total of linearity, hysteresis and repeatability	±0.5% FS
Zero point residual voltage	< 50 mV
Supply	24 Vac/15 … 36 Vdc

Part number	Model number	Description
004702020	SPP110-100kPa	Wet Media Pressure Transmitter 0 … 100 kPa
004702040	SPP110-250kPa	Wet Media Pressure Transmitter 0 … 250 kPa
004702060	SPP110-600kPa	Wet Media Pressure Transmitter 0 … 600 kPa
004702080	SPP110-1000kPa	Wet Media Pressure Transmitter 0 … 1100 kPa
004702100	SPP110-1600kPa	Wet Media Pressure Transmitter 0 … 1600 kPa
004702120	SPP110-2500kPa	Wet Media Pressure Transmitter 0 … 2500 kPa
004702140	SPP110-4000kPa	Wet Media Pressure Transmitter 0 … 4000 kPa

SPW100

Differential Wet Pressure Transmitter

SPW100

SPW differential wet pressure sensors utilise well proven ceramic technology. They have a low sensitivity to change in temperature and a high resistance to extreme temperatures.

Supplied with female plug type connector and rubber seal to provide IP65 protection when fitted and screwed.

Available both without display (models SPW1xx) and with display (models SPW1xx-D).

Specifications

Output	3-wire, 0 … 10 Vdc
Ranges (bar)	0 … 0.5, 0 … 1.0, 0 … 1.6, 0 … 2.5, 0 … 4.0, 0 … 6.0, 0 … 10 or 0 … 16.0.
Total of linearity, hysteresis and repeatability	Max. ±1.25% FS
Medium	Liquids and neutral gases
Supply	24 Vac (±15%)/18 … 33 Vdc
Mounting	Metal bracket and screws provided.

Part number	Model number	Description
6552047000	SPW100	Differential Pressure Transmitter 0 … 0.5 bar
6552059000	SPW100-D	Differential Pressure Transmitter 0 … 0.5 bar with Display
6552048000	SPW102	Differential Pressure Transmitter 0 … 1 bar
6552060000	SPW102-D	Differential Pressure Transmitter 0 … 1 bar with Display
6552049000	SPW104	Differential Pressure Transmitter 0 … 1.6 bar
6552061000	SPW104-D	Differential Pressure Transmitter 0 … 1.6 bar with Display
6552050000	SPW106	Differential Pressure Transmitter 0 … 2.5 bar
6552062000	SPW106-D	Differential Pressure Transmitter 0 … 2.5 bar with Display
6552051000	SPW108	Differential Pressure Transmitter 0 … 4 bar
6552063000	SPW108-D	Differential Pressure Transmitter 0 … 4 bar with Display
6552052000	SPW110	Differential Pressure Transmitter 0 … 6 bar
6552064000	SPW110-D	Differential Pressure Transmitter 0 … 6 bar with Display
6552053000	SPW112	Differential Pressure Transmitter 0 … 10 bar
6552065000	SPW112-D	Differential Pressure Transmitter 0 … 10 bar with Display
6552054000	SPW114	Differential Pressure Transmitter 0 … 16 bar

SPP920

Differential Pressure Switches

SPP920

SPP920 differential pressure switches are suitable for use with neutral and slightly aggressive liquids and gases.

Rugged construction with a high overpressure safety margin at both pressure connections of 10 bar (mbar models) and 20 bar (bar models).

They provide switching over a pressure range of 6 mbar through to 5.5 bar and are suitable for flow monitoring in heating or cooling applications and level monitoring.

Specifications

Ranges	6 … 20, 15 … 60 or 40 … 200 mbar, 0.15 … 1, 1 … 3 or 2 … 5.5 bar
Nominal voltage	250 Vac
Nominal current	1 A (resistive), 0.5 A (inductive)
Contact material	AgCdO
Contact type	SPDT (changeover)
Service life	Mechanically 10^6 switching cycles
Protection class	IP65
Electrical connection	Screw terminals
Cable gland	PG9

Part number	Model number	Description
004701100	SPP920-020	Differential Pressure Switch 6 … 20 mbar
004701110	SPP920-060	Differential Pressure Switch 15 … 60 mbar
004701120	SPP920-200	Differential Pressure Switch 40 … 200 mbar
004701130	SPP920-1000	Differential Pressure Switch 0.15 … 1 bar
004701140	SPP920-3000	Differential Pressure Switch 1 … 3 bar
004701150	SPP920-5500	Differential Pressure Switch 2 … 5.5 bar

Note that this is a Huba differential pressure switch Type 630. Class III product and technical support will be provided by Huba. Click link www.hubacontrol.com

SPP930

Relative Pressure Switches

SPP930

SPP930 relative pressure switches are suitable for the monitoring of both liquid and neutral gases in a variety of applications, including HVAC, manufacturing and process control.

Available in 2 models to cover a range from 120 … 6000 mbar with high precision. The pressure diaphragm is made from EPDM material, with adjustable upper and lower switching points.

The pressure chamber itself is made of brass material with a single G¼ thread pressure connection, making it suitable for installation in any orientation.

Specifications

Ranges (mbar)	120 … 2200 or 1000 … 6000
Nominal voltage	250 Vac
Nominal current	6 A (resistive), 3 A (inductive)
Contact material	AgCdO
Contact type	SPDT (changeover)
Service life	Mechanically 10^6 switching cycles
Protection class	IP54
Electrical connection	Screw terminals
Cable gland	PG11

Part number	Model number	Description
004701160	SPP930-2200	Relative Pressure Switch 120 … 2200 mbar
004701170	SPP930-6000	Relative Pressure Switch 1000 … 6000 mbar

Note that this is a Huba relative pressure switch Type 625. Class III product and technical support will be provided by Huba. Click link www.hubacontrol.com

SPD910

Pressure Switches

SPD910

SPD910 is a relative and differential pressure switch suitable for use with air and neutral gases, for the monitoring of air ducts, filters and fans within ventilation systems.

Available in 4 models to cover a range from 20 … 2500 Pa with high adjustment accuracy. Each model has an adjustable dial with clearly marked individual scale for easy adjustment of the swtiching set-point.

Supplied complete with 2 m (6.56 ft.) clear tubing plus 2 plastic pipe duct connectors and screws.

Specifications

Ranges (Pa)	20 … 200, 50 … 500, 100 … 1000 or 500 … 2500
Nominal voltage	250 Vac
Nominal current	5 A (resistive), 0.8 A (inductive)
Contact material	Multi-layer gold plated
Contact type	SPDT (changeover)
Service life	Mechanically > 10^6 switching cycles>
Protection class	IP54
Electrical connection	Screw terminals
Cable gland	PG11

Part number	Model number	Description
004701060	SPD910-200Pa	Differential Air Pressure Switch 20 … 200 Pa
004701070	SPD910-500Pa	Differential Air Pressure Switch 50 … 500 Pa
004701080	SPD910-1000Pa	Differential Air Pressure Switch 100 … 1000 Pa
004701090	SPD910-2500Pa	Differential Air Pressure Switch 500 … 2500 Pa

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Current Monitoring

Current Switches

The Schneider Electric range of current switches delivers high performance, reliable current monitoring for applications including fan status, belt loss, and most Variable Speed Drive (VSD) applications. Current switches detect changes in a conductor's current/amperage and provide a digital output to Building Management System (BMS) controllers. The current switches are available in solid-core versions for new projects and split-core versions to accommodate retrofits.

Specifications

Sensor power	Induced from monitored conductor
Frequency	50/60 Hz
Hysteresis	10% of set-point (typical)
Off state resistance	Open switch represents 1+ MΩ
On state resistance	Closed switch represents <200 mΩ
Agency approvals	CE: EN61010-1
Installation category	Cat. III, pollution degree 2

Solid-Core

Part number	Model number	Current/ Amperage range	Output ratings	Set-point
3240100000	H708-S6	1 … 135 A continuous	N.O. 1.0 A @ 30 Vac/dc, not polarity sensitive	Adjustable
3240101000	H709HV-S6	1 … 135 A continuous	N.O. 1.0 A @ 250 Vac, not polarity sensitive	Adjustable
3240106000	H800-S6	0.25 … 200 A continuous	N.O. 1.0 A @ 30 Vac/dc, not polarity sensitive	Fixed (0.25 A or less)

Split-Core

Part number	Model number	Current/ Amperage range	Output ratings	Set-point
3240102000	H308-S6	0.75 … 50 A continuous	N.O. 1.0 A @ 30 Vac/dc, not polarity sensitive	Adjustable
3240103000	H608-S6	0.5 … 175 A continuous	N.O. 1.0 A @ 30 Vac/dc, not polarity sensitive	Adjustable
3240104000	H908-S6	2.5 … 135 A continuous	N.O. 1.0 A @ 30 Vac/dc, not polarity sensitive	Adjustable
3240105000	H909HV-S6	2.5 … 135 A continuous	N.O. 1.0 A @ 250 Vac, not polarity sensitive	Adjustable
3240108000	H300-S6	0.15 … 60 A continuous	N.O. 1.0 A @ 30 Vac/dc, not polarity sensitive	Fixed (0.15 A or less)
3240109000	H600-S6	0.15 … 200 A continuous	N.O. 1.0 A @ 30 Vac/dc, not polarity sensitive	Fixed (0.15 A or less)
3240110000	H900-S6	1.5 … 200 A continuous	N.O. 1.0 A @ 30 Vac/dc, not polarity sensitive	Fixed (1.5 A or less)

Accessories

Part number	Model number	Description
3240301000	AH01-S6	DIN rail adapter for H6/7/8/9xx-S6
3240302000	AH27-S6	DIN rail adapter for H3xx-S6

H11D-S6

Current Switch

H11D-S6

The Schneider Electric H11D-S6 is an over-current and under-current switch intended for use with HVAC systems (i.e., fans or blowers). When the H11D-S6 is unpowered, the status output contacts are open. When the device is powered, the contacts close and remain closed during normal operation. The H11D-S6 learns the nominal amperage in the conductor, then monitors for amperage changes outside the range chosen using the slide switch. If the amperage goes out of the established range, the contacts open, raising an alarm in the system controller.

This alarm state persists until the amperage comes back to within range (5% of learned nominal rate below the upper trip limit or 5% of learned nominal rate above the lower trip limit of the learned nominal conditions) and remains within range for 30 seconds to ensure that the system has truly returned to normal operation. If load conditions change, use the reset button to send the H11D-S6 back into learning mode.

Specifications

Sensor power	Induced by monitored conductor
Amperage range	60 Hz: 2.5 … 200 A Max. 50 Hz: 3.0 … 200 A Max.
Sensor output rating	N.O. 1.0 A@30 Vac/dc; not polarity sensitive
LCD backlight	Off at low currents; illuminates when monitored current exceeds 4.5 A; flashes during an alarm state while current remains above 4.5 A
Response Time	1 sec.
Insulation class	300 Vac RMS, insulated conductors only
Frequency	50/60 Hz
On-state resistance	≤1.0 Ω
Off-state resistance	≥1.0 MΩ
Accuracy	±2% FS
Set-point target range, Switch Setting A	±40% of learned nominal current; Max. learned current of 142 A to enable an upper trip limit at or below 200 A
Set-point Target Range, Switch Setting B	±60% of learned nominal current; Max. learned current of 125 A to enable an upper trip limit at or below 200 A
Switch Setting C	On/Off Status; contacts are closed while amperage is above 2.5 A
Alarm Reset Range	±5% of learned nominal current
Set-point Calibration Learn Period	30 sec.; self-learning, pushbutton reset
Normal-to-Alarm Output Delay	1 sec. maximum
Alarm-to-Normal Output Delay	30 sec. nominal
Agency approvals	CE: EN61010-1
Installation category	Cat. III, pollution degree 2

Part number	Model number
3240111000	H11D-S6

H614-S6

Current Switch

H614-S6

The Schneider Electric H614-S6 is a current-sensitive switching device designed for use with variable speed drive (VSD) systems. It is equipped with an auto-calibration feature that allows the device to distinguish between a reduced current/amp draw due to normal changes in frequency and an abnormal drop due to belt loss or other mechanical failures.

The H614-S6 is designed for HVAC fan and blower systems, as well as some pumping systems involving consistent viscosity liquids. If an H614-S6 is installed on one phase of the VSD, it detects changes in that phase that result from the VSD compensating for changes elsewhere in the system. Alternatively, for increased sensitivity, an H614-S6 can be used on all three phases for immediate detection of amperage changes anywhere in the system.

A change from the normal amperage and frequency profile in the monitored conductor will cause the resistance of the FET status output to change state, similar to the action of a mechanical switch. The status output is suitable for connection to building controllers or other appropriate data acquisition equipment operating at up to 30 volts. The H614-S6 requires no external power supply to generate its output.

Performance of the H614-S6 can be optimized through an optional step. When the H614-S6 is first powered and is in Learn Mode, manually cycle through each 5 Hz frequency band, allowing the VSD to remain at each band for 15 seconds.

Specifications

Sensor power	Induced from monitored conductor
Amperage range	1.5 … 150 A Continuous
Sensor output rating	N.O. 1.0 A@30 Vac/dc
Response time	1 sec.
Insulation class	300 Vac RMS, insulated conductors only
Frequency	12 … 115 Hz
Alarm limits	±20% of learned current in every 5 Hz freq. band
Normal-to-Alarm status output delay	5 sec. max.
Alarm-to-Normal status output delay	1 sec. nominal
Off Delay	<30 sec (nominal)
Agency approvals	CE: EN61010-1
Installation category	Cat. III, pollution degree 2

Part number	Model number
3240112000	H614-S6

Current Transducers

The Schneider Electric range of current transducers delivers high performance, reliable current monitoring for applications including fan status, belt loss, and most Variable Speed Drive (VSD) applications. Current transducers detect changes in a conductor's current/amperage and provide an analog output to Building Management System (BMS) controllers. The current transducers are available in solid-core versions for new projects and split-core versions to accommodate retrofits.

Specifications

Response Time	2 sec.
Frequency	50/60 Hz
Accuracy	±2% FS from 10 … 100% of selected range
Agency approvals	CE: EN61010-1
Installation category	Cat. III, pollution degree 2

Solid-Core

Part number	Model number	Power	Amperage range	Output
3240201000	H721LC-S6	30 mA (Max.) @12 … 30 Vdc	0 … 10/20/40 A (selectable)	4 … 20 mA
3240202000	H721HC-S6	30 mA (Max.) @12 … 30 Vdc	0 … 50/100/200 A (selectable)	4 … 20 mA
3240204000	H722LC-S6	Induced from monitored conductor	0 … 10/20/40 A (selectable)	0 … 5 Vdc
3240205000	H722HC-S6	Induced from monitored conductor	0 … 50/100/200 A (selectable)	0 … 5 Vdc
3240212000	H822-S6	Induced from monitored conductor	0 … 10 A	0 … 5 Vdc
3240213000	H822-20-S6	Induced from monitored conductor	0 … 20 A	0 … 5 Vdc
3240206000	H723LC-S6	Induced from monitored conductor	0 … 10/20/40 A (selectable)	0 … 10 Vdc
3240207000	H723HC-S6	Induced from monitored conductor	0 … 50/100/200 A (selectable)	0 … 10 Vdc

Split-Core

Part number	Model number	Current/ amperage range	Output ratings	Set-point
3240203000	H921-S6	30 mA (Max.) @12 … 30 Vdc	0 … 30/60/120 A (selectable)	4 … 20 mA
3240210000	H221-S6	30 mA (Max.) @12 … 30 Vdc	0 … 100 A to 0 … 300 A (adjustable)	4 … 20 mA
3240211000	H321-S6	30 mA (Max.) @12 … 30 Vdc	0 … 300 A to 0 … 800 A (adjustable)	4 … 20 mA
3240208000	H922-S6	Powered from conductor	0 … 30/60/120 A (selectable)	0 … 5 Vdc
3240209000	H923-S6	Powered from conductor	0 … 20/100/150 A (selectable)	0 … 10 Vdc

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Air Quality Transmitters

SCR Series

Living Space

SCR Series

The SCR range of CO_2 transmitters combine the option of adding a humidity transmitter into a single unit. Temperature sensing for all current platforms is available dependent on the model selected thus offering lower cost installation. Outputs are user selectable, 0 … 10 Vdc, 0 … 5 Vdc or 4 … 20 mA.

The sensor is auto-calibrating using the Auto Baseline Calibration (ABC) feature and will sense CO_2 concentrations in the range 0 … 2000 ppm with an accuracy of ±2% of measured value (at 20 °C and 101.3 kPa).

The transmitter also includes a relay that will switch at 800/1000 or 1200 ppm dependent on internal switch settings.

Replacement humidity tips are available including a 2% NIST traceable tip. If calibration is required, order the standard product and the replacement 2% tip.

Specifications

Input voltage	24 Vac/20 … 36 Vdc
Analog output	4 … 20 mA, 0 … 5 Vdc or 0 … 10 Vdc
Current draw	50 … 170 mA (dependent on input voltage)

Part number	Model number	Wall mounted CO_2 sensor with:			
		LED	TEMP	2% RH	System
5152400000	SCR110	x	x		TAC Vista 1.8 kΩ
5152402000	SCR110-H	x	x	x	TAC Vista 1.8 kΩ
5152420000	SCR110B		x		TAC Vista 1.8 kΩ
5152422000	SCR110B-H		x	x	TAC Vista 1.8 kΩ
5152404000	SCR210	x	x		TAC I/NET 10 kΩ T2
5152406000	SCR210-H	x	x	x	TAC I/NET 10 kΩ T2
5152424000	SCR210B		x		TAC I/NET 10 kΩ T2
5152426000	SCR210B-H		x	x	TAC I/NET 10 kΩ T2
5152408000	SCR510	x	x		Andover Continuum 10 kΩ T3
5152410000	SCR510-H	x	x	x	Andover Continuum 10 kΩ T3
5152428000	SCR510B		x		Andover Continuum 10 kΩ T3
5152430000	SCR510B-H		x	x	Andover Continuum 10 kΩ T3
5152412000	SCR610	x	x		Satchwell 10 kΩ T3 Resistor/Shunt
5152414000	SCR610-H	x	x	x	Satchwell 10 kΩ T3 Resistor/Shunt
5152432000	SCR610B		x		Satchwell 10 kΩ T3 Resistor/Shunt
5152434000	SCR610B-H		x	x	Satchwell 10 kΩ T3 Resistor/Shunt
5152416000	SCR810	x	x		I/A 10 kΩ T3 with Shunt
5152418000	SCR810-H	x	x	x	I/A 10 kΩ T3 with Shunt
5152436000	SCR810B		x		I/A 10 kΩ T3 with Shunt
5152438000	SCR810B-H		x	x	I/A 10 kΩ T3 with Shunt
5152339010	HS2NX	Replaceable RH Element, 2% NIST			
5152339000	HS2XX	Replaceable RH Element, 2%			

SCD Series

Duct

SCD Series

The SCD range of CO_2 transmitters with temperature sensing combines the option of adding a humidity transmitter into a single unit. Temperature sensing for all current platforms is available dependent on the model selected thus offering lower cost installation.

Outputs are user selectable, 0 … 10 Vdc, 0 … 5 Vdc or 4 … 20 mA. The sensor is auto-calibrating using the Auto Baseline Calibration (ABC) feature and will sense CO_2 concentrations in the range 0 … 2000 ppm with an accuracy of ±2% of measured value.

The transmitter also include a relay that will switch at 800/1000 or 1200 ppm dependent on internal switch settings.

Replacement humidity tips are available including a 2% NIST traceable tip. If calibration is required, order the standard product and the replacement 2% tip.

Specifications

Input voltage	24 Vac/20 … 36 Vdc
Analog output	4 … 20 mA, 0 … 5 Vdc or 0 … 10 Vdc
Current draw	40 … 150 mA (dependent on input voltage)

Part number	Model number	Duct mounted CO_2 sensor with:			
		Temp	2% RH	LCD	System
5152300000	SCD110	X			TAC Vista 1.8 kΩ
5152302000	SCD110-D	X		X	TAC Vista 1.8 kΩ
5152304000	SCD110-H	X	X		TAC Vista 1.8 kΩ
5152306000	SCD110-D-H	X	X	X	TAC Vista 1.8 kΩ
5152308000	SCD210	X			TAC I/NET 10 kΩ T2
5152310000	SCD210-D	X		X	TAC I/NET 10 kΩ T2
5152312000	SCD210-H	X	X		TAC I/NET 10 kΩ T2
5152314000	SCD210-D-H	X	X	X	TAC I/NET 10 kΩ T2
5152316000	SCD510	X			Andover Continuum 10 kΩ T3
5152318000	SCD510-D	X		X	Andover Continuum 10 kΩ T3
5152320000	SCD510-H	X	X		Andover Continuum 10 kΩ T3
5152322000	SCD510-D-H	X	X	X	Andover Continuum 10 kΩ T3
5152324000	SCD610	X			Satchwell 10 kΩ T3 Resistor/Shunt
5152326000	SCD610-D	X		X	Satchwell 10 kΩ T3 Resistor/Shunt
5152328000	SCD610-H	X	X		Satchwell 10 kΩ T3 Resistor/Shunt
5152330000	SCD610-D-H	X	X	X	Satchwell 10 kΩ T3 Resistor/Shunt
5152332000	SCD810	X			I/A 10 kΩ T3 with Shunt
5152334000	SCD810-D	X		X	I/A 10 kΩ T3 with Shunt
5152336000	SCD810-H	X	X		I/A 10 kΩ T3 with Shunt
5152338000	SCD810-D-H	X	X	X	I/A 10 kΩ T3 with Shunt
5152339010	HS2NX	Replaceable RH Element, 2%, NIST			
5152339000	HS2XX	Replaceable RH Element, 2%			

aSENSE Series

Duct

aSENSE m III CO & CO_2 Combi

This device measures both carbon monoxide and carbon dioxide and therefore is ideal for measuring air quality for health purposes in indoor carparks and traffic tunnels. Energy efficiency can be achieved by using the measurement(s) to vary the fan speed of the fresh air supply equipment.

Part number	Model number	Description	Manufacturer
6553064000	040-8-0066	aSENSE m III CO & CO_2 Combi for Duct Mounting	SenseAir

Technical documentation from www.SenseAir.se

aSENSE m III CO & CO_2 Combi

A combined carbon monoxide and carbon dioxide sensor ideal for measuring air quality for health purposes in indoor carparks and traffic tunnels. Energy efficiency can be achieved by using the measurement(s) to vary the fan speed of the fresh air supply equipment.

Part number	Model number	Description	Manufacturer
6553063000	040-8-0064	aSENSE m III CO & CO_2 Combi for Large Spaces	SenseAir

Technical documentation from www.SenseAir.se

Smoke Detectors

UG-3 Series

Duct

The Uniguard smoke detector from Calectro has been developed to detect smoke in ventilation ducts and consists of an optical smoke detector, mounted in an adapter system where both tube and housing are specially designed for optimum airflow through the smoke detector.

Fan assisted variant also available, along with a range of options such as covers, various lengths of venturi pipes and control units.

Part number	Model number	Description
6553034000	UG-3-A4O	Duct Smoke Detector Optical - 24 Vac/dc
6553036000	UG-3-A5O	Duct Smoke Detector Optical - 230 Vac
6553028000	UG-3-O	Duct Smoke Detector Optical
6553038000	UG-3-O-F	Duct Smoke Detector Optical with Fan Pipe

Accessories for Duct Smoke Detectors

Part number	Model number	Description
6553039000	UG-COVER	Protective Cover
6553049000	UG-MB	Mounting Bracket
9814000388	VR-0.6M	Venturi Pipe - 0.6 m
6553065000	VR-1.5M	Venturi Pipe - 1.5 m
6553066000	VR-2.8M	Venturi Pipe - 2.8 m
9814000311	VRF-2.8M	Venturi Pipe - 2.8 m Integrated Fan

Technical documentation from www.Calectro.com

EVC/NS/ABAV Series

Living Space

The Calectro optical smoke detector can be used for both ventilation ducts and ceiling mount installations. The design of the detector makes it almost completely immune to high air speeds, dirt and radio frequency interference.

The detector is equipped with a bayonet mount, which makes it easy to fit and remove, either from the UB-6 ceiling terminal base or the Uniguard duct mounted housing of the UG-3 detector.

Part number	Model number	Description
6553014000	EVC-PY-DA	Optical Smoke Detector (including base UB-6)
6553041000	EVC-PY-DA/I	Optical Smoke Detector (detector head only)
6553048000	UB-6	Smoke Detector Terminal Base

Technical documentation from www.Calectro.com

Control Units for Smoke Detectors

These controllers are designed for DIN rail mounting. Relays operate on an active smoke alarm that can be used to stop ventilation fans and close fire dampers. Front LEDs provide local status including a service indication showing a need for sensor replacement.

Part number	Model number	Description
6553006000	ABAV-S3 24V	Control Unit 24 Vac/dc For use with EVC-PY-DA
6553007000	ABAV-S3 230V	Control Unit 230 Vac For use with EVC-PY-DA

Technical documentation from www.Calectro.com

PIR and CLA Series

Living Space

Occupancy Sensors

These motion sensors are primarily intended for use within ventilation and lighting control. By detecting activity in rooms, it is possible to control ventilation and lighting only when actually required, thus saving energy.

The PIR-TF-25-360 motion sensor has a lens which provides 360° coverage to ensure reliable motion detection.

The PIR-TFT-550-B provides a detection angle of 110° and can be installed on either ceiling or wall.

Part number	Model number	Description
6553055000	PIR-TF-25-360	Occupancy Sensor Ceiling 360°
6553070000	PIR-TFT-550-B	Occupancy Sensor Ceiling/Wall 110°

Technical documentation from www.Calectro.com

Leakage Detection

For the monitoring of electrically conductive fluid leakage, such as water. Typical application within computer centres, archives, lofts or floor/ceiling structures.

The control unit measures the resistance in the sensor tape (CLA-ST) which consists of two conductors woven into a textile strip. The resistance changes when water comes into contact with the textile strip and the CLA activates an alarm.

Part number	Model number	Description
6554001000	CLA-24/230V	Leakage Alarm Control Unit
6559501000	CLA-ST	Leakage Alarm Tape

Technical documentation from www.Calectro.com

Light Transmitters

SLR320

Living Space

SLR320

The SLR320 electronic light transmitter converts a lux measurement into a 0 … 10 Vdc output signal or an electric current signal 4 … 20 mA. It has two sensitivity ranges to suit different light levels:

- 0 … 400 lux (for controlling outdoor lighting)
- 0 … 20k lux (for controlling sunshade systems)

The transmitter is delivered as a complete unit, comprising the sensing element, and an amplifier mounted in a housing. The transmitter is intended for wall mounting indoors. The sensitivity peak is for light at an angle of incidence of 0° to the perpendicular. The sensor has the same spectrum sensitivity peak as the human eye.

The SLR320 converts a lux measurement into a current signal 4 … 20 mA or an electric signal 0 … 10 Vdc; selectable by a link located on the PCB.

Specifications

SLR320 – current mode	
Output	2-wire, 4 … 20 mA
Range	Selectable, 0 … 400 lux, 0 … 20,000 lux
Accuracy	±5%
Supply	15 … 36 Vdc
SLR320 – voltage mode	
Output	3-wire, 0 … 10 Vdc
Range	Selectable, 0 … 400 lux, 0 … 20,000 lux
Accuracy	±5%
Supply	24 Vac/15 … 36 Vdc

Part number	Model number	Description
006920630	SLR320	Living Space Light Sensor

SLO320

Outdoor

SLO320

The SLO320 electronic light transmitter converts a lux measurement into an electric current (4 … 20 mA) or voltage (0 … 10 Vdc) signal. They have two sensitivity ranges to suit different light levels:

- 0 … 400 lux (for controlling outdoor lighting)
- 0 … 20k lux (for controlling sunshade systems)

The transmitter is delivered as a complete unit, comprising the sensing element and an amplifier mounted in a housing. The transmitter is intended for wall mounting. The sensitivity peak is for light at an angle of incidence of 0° to the perpendicular.

The sensor has the same spectrum sensitivity peak as the human eye. The SLO320 is an electronic light transmitter that converts a lux measurement into a current signal 4 … 20 mA or an electric signal 0 … 10 Vdc selectable by a link located on the PCB.

Specifications

SLO320 – current mode	
Output	2-wire, 4 … 20 mA
Range	Selectable, 0 … 400 lux, 0 … 20,000 lux
Accuracy	±5%
Supply	15 … 36 Vdc
SLO320 – voltage mode	
Output	3-wire, 0 … 10 Vdc
Range	Selectable, 0 … 400 lux, 0 … 20,000 lux
Accuracy	±5%
Supply	15 … 36 Vdc

Part number	Model number	Description
006920640	SLO320	Outdoor Light Sensor

Notes Page

Appendix A

Sensor Accuracy Tables

Table A

For all TAC Vista (100 Series Sensors), e.g. STD100

At temperature	Accuracy
-25 °C/-13 °F	±0.7 °C/±1.3 °F
±0 °C/32 °F	±0.5 °C/±0.9 °F
25 °C/77 °F	±0.3 °C/±0.5 °F
50 °C/122 °F	±0.6 °C/±1.1 °F
75 °C/167 °F	±0.9 °C/±1.6 °F
100 °C/212 °F	±1.3 °C/±2.3 °F

Table B

For all TAC I/NET (200 Series Sensors), e.g. STD200

At temperature	Accuracy
25 °C/-13 °F	±0.5 °C/±0.9 °F
±0 °C/32 °F	±0.2 °C/±0.4 °F
25 °C/77 °F	±0.2 °C/±0.4 °F
50 °C/122 °F	±0.2 °C/±0.4 °F
70 °C/158 °F	±0.2 °C/±0.4 °F
100 °C/212 °F	±0.5 °C/±0.9 °F

Table C

For all Andover Continuum (500 Series Sensors), e.g. STD500

At temperature	Accuracy
-25 °C/-13 °F	±0.5 °C/±0.9 °F
±0 °C/32 °F	±0.2 °C/±0.4 °F
25 °C/77 °F	±0.2 °C/±0.4 °F
50 °C/122 °F	±0.2 °C/±0.4 °F
70 °C/158 °F	±0.2 °C/±0.4 °F
100 °C/212 °F	±0.5 °C/±0.9 °F

Table D

For all TAC Vista Averaging Sensors (100 Series), e.g.STD 190

At temperature	Accuracy
-25 °C/-13 °F	±0.7 °C/±1.3 °F
±0 °C/32 °F	±0.5 °C/±0.9 °F
25 °C/77 °F	±0.3 °C/±0.5 °F
50 °C/122 °F	±0.6 °C/±1.1 °F
75 °C/167 °F	±0.9 °C/±1.6 °F
100 °C/212 °F	±1.3 °C/±2.3 °F

Table E

For all Andover Continuum Averaging Sensors (500 Series), e.g. STD500-150

At temperature	Accuracy
-25 °C/-13 °F	±0.5 °C/±0.9 °F
±0 °C/32 °F	±0.2 °C/±0.4 °F
25 °C/77 °F	±0.2 °C/±0.4 °F
50 °C/122 °F	±0.2 °C/±0.4 °F
70 °C/158 °F	±0.2 °C/±0.4 °F
100 °C/212 °F	±0.5 °C/±0.9 °F

Table F

For all Satchwell Sensors (600 Series), e.g. STR600

At temperature	Accuracy
-25 °C/-13 °F	±0.6 °C/±1.0 °F
±0 °C/32 °F	±0.3 °C/±0.5 °F
25 °C/77 °F	±0.2 °C/±0.4 °F
50 °C/122 °F	±0.2 °C/±0.4 °F
75 °C/167 °F	±0.3 °C/±0.5 °F
100 °C/212 °F	±0.3 °C/±0.5 °F

Table G

For all TAC I/A Series Sensors

At temperature	Accuracy
0 °C/32 °F	±0.3 °C/±0.5 °F
10 °C/50 °F	±0.3 °C/±0.5 °F
25 °C/75 °F	±0.3 °C/±0.5 °F
35 °C/95 °F	±0.3 °C/±0.5 °F
50 °C/122 °F	±0.3 °C/±0.5 °F

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