

# SMARTLINE TEMPERATURE TRANSMITTERS

Modular, Robust and Reliable



**Honeywell**

High performance transmitters accurate enough to reduce variations in custody transfer measurements and increase process yield in critical control applications. It offers superior stability and noise performance to provide sufficient efficiency improvements, avoid unplanned downtime and reduce maintenance costs.



"[SmartLine®] instruments help with our check out time for new installations. If the HART transmitter has the tag number configured, once the wires are terminated/point loaded into Experion PKS, we can see if all terminations are connected to the correct transmitter. This allows us to reduce our time during checkout of new equipment."

- JON ROBERTSON,  
HESS

## SMARTLINE STT850 AND STT750 TEMPERATURE TRANSMITTERS

SmartLine STT850 and STT750 are industry's most reliable and robust temperature transmitters, featuring dual compartment housing and intuitive diagnostics for both the transmitter and the sensor.

The availability of the dual input and digital output options minimize the number of instruments needed for monitoring and switching needs, reducing the initial investment cost\*.

### INDUSTRY LEADING STABILITY

SmartLine Temperature Transmitters feature the best stability with a drift specification of 0.01% of the URL per year for up to ten years. This superior performance reduces calibration frequency and lessens the need for periodic maintenance.

### MODULAR DESIGN

SmartLine STT850 and STT750 Temperature Transmitters are modular in design, making it easy to replace or upgrade hardware in the field, even under power, without affecting overall performance or impinging on approval body certifications.



### INDUSTRY APPLICATIONS

- Ideal for applications requiring a high accuracy and stability, specifically in the hydrocarbon and specialty chemical industries for custody transfer and reactor, distillation column temperature measurements.
- High noise immunity and robust galvanic isolation make it ideal for smelting, blast furnace applications in metal industries like steel, alumina and zinc manufacturing plants.

## UNIVERSAL TERMINALS

Loop wiring can be reversed without damaging or affecting normal operations. This reduces costly wiring errors, troubleshooting and rework, saving valuable commissioning time.

## ENHANCED USER INTERFACE AND CONFIGURATION

The rich advanced display of STT850 got richer with large PV screen, viewable from a distance and the new Standard Display of STT850/STT750 coupled with local configuration capabilities enables field operators to more efficiently perform tasks, solve problems and avoid errors with no need for a handheld device.

In addition to configuring with any handheld device or using the new device type managers (DTMs), users can configure the transmitters through externally accessible buttons, even in an intrinsically safe environment. Now, whether on the bench or in the field, configure parameters, change tag information, or change languages and even more without need of additional devices.



"Because of our positive experiences, we at Gaylord Chemical are transitioning to only using SmartLine Transmitters. Some characteristics we appreciate regarding SmartLine are:

- Accuracy
- Dependability
- Modular design
- Reduction of calibration requirements
- Universal features"

- STEVE BARBER,

GAYLORD CHEMICAL COMPANY



# SMARTLINE STT700 TEMPERATURE TRANSMITTER FOR BROAD APPLICATION USE

The STT700 features an outstanding performance to price value combination making it suitable for the bulk of your temperature measurement needs. With performance suitable for control but at a market value typical of those transmitters used for monitoring, the STT700 can be the site's go-to temperature transmitter.

## BEST-IN-CLASS STABILITY AND ACCURACY

The STT700 features stability of 0.05% of URL per year for up to 10 years, and a digital accuracy of 0.15% (RTD PT100). This performance means that the STT700 can provide long-term reliable and accurate measurements for years, requiring less servicing than other transmitters in this performance class.

## INDUSTRY LEADING RESPONSE TIME

The STT700's analog output will reach 96% of the final output within 500 msec which is the performance leader in its class. Faster response time means that the STT700 can be used beyond just monitoring; it has the performance to meet control applications as well.

## DIVERSE OPTIONS FOR COMPREHENSIVE SITE DEPLOYMENT

With a diverse set of options including single or dual input, HART or DE protocols, universal sensor inputs, 2-, 3- or 4-wire RTDs, four different mount options, SIL 2/3 certification and various safety agency approvals, the STT700 can be targeted for usage across the entire plant site.



## STT700 INDUSTRIAL APPLICATIONS

- Ideal for hazardous environments requiring rugged construction designs such as those in the oil and gas upstream and downstream, chemical and refining industries.
- Available with a head mountable module or a field-mounted unit in aluminum or a stainless steel housing for corrosive environments.
- Suitable for Utility, BOP, gas plants, F&B, pulp and paper applications requiring sensor head mounting in pulp mill digestors, recovery boilers and paper machine areas

# SMARTLINE STT650 DIN RAIL MOUNTED TEMPERATURE TRANSMITTER

SmartLine STT650 DIN Rail Mounted Temperature Transmitter offers high measurement accuracy, stability and reliability over a wide range of process and ambient temperatures.

Designed and manufactured to deliver very high performance, the STT650 transmitter easily meets the most demanding needs for temperature measurement applications. The total accuracy level of the transmitter, including the ambient temperature effect in harsh industrial environments, allows the STT650 transmitter to replace virtually any transmitter available today. Another great value is the dual channel options combined with the compact design that can help save over 40% panel space, lowering costs and inventory with it.



# SMARTLINE TEMPERATURE PROBE ASSEMBLIES

SmartLine Temperature probe assemblies are installation-ready temperature measurement assemblies offered with SmartLine temperature transmitters, variety of temperature sensors, thermowells and process connections.

SmartLine temperature probe assemblies are available in single, easy-to-order configurations, thereby eliminating the need for multiple ordering sources, compatibility checks, field wiring and include comprehensive approvals for the assembly.

SmartLine STT85A is a complete assembly with STT850 transmitter, consisting

- Rigid Probe Assembly
- Threaded and Socket Weld Thermowell Assembly (Spring loaded)
- Drilled Flanged Thermowell Assembly (Spring loaded)

## ASSEMBLY/SYSTEM CALIBRATION & PERFORMANCE

Complete sensor and transmitter assembly is calibrated together as one "System Calibration" for improved measurement accuracy.

## ASSEMBLY APPROVAL

Regulatory compliance is more streamlined as the entire sensor with transmitter assembly is certified by global approval agencies.

## OUT OF BOX INSTALLATION

Pretested and pre-assembled from factory for out of box installation, saving manhours and cost.

## ONE STOP SHOP

Single source for transmitters and temperature elements with thermowells assembly, thereby saving engineering, procurement and commissioning time and cost.



## SMARTLINE CONNECTION ADVANTAGE



### The SmartLine Connection Advantage

Ensures a unique integration of the SmartLine transmitters with the Experion control system, making your operations more efficient, processes more reliable and employees safer. Transmitter messaging, maintenance mode indication, tamper reporting and Field Device Manager (FDM) area health views are uniquely available to operators and field personnel. The SmartLine transmitters are extensively tested with Experion, assuring simple, trouble-free installation and start-up.

## REDEFINING SMART

Honeywell's SmartLine transmitters include the industry's first modular and most reliable transmitters, delivering total value across the entire plant lifecycle and setting the standard for total performance in harsh and noisy process environments. The SmartLine family includes the STT850/STT750 field mounted, the STT700 field, head and DIN rail mounted, and the STT650 DIN rail mounted temperature transmitters, offering high accuracy and stability over a wide range of process and ambient temperatures.



TEMPERATURE TRANSMITTERS	MODEL KEYS	MOUNTING OPTIONS				FUNCTIONAL OPTIONS				COMMUNICATION OPTIONS		
		PIPE	WALL	HEAD	DIN RAIL	DUAL INPUT	DUAL CHANNEL	LOCAL METER	INTEGRATED ASSEMBLY	HART	DE	FF
SmartLine	STT850	✓	✓			✓		✓	✓	✓	✓	✓
	STT750	✓	✓					✓		✓		
	STT700	✓	✓	✓	✓	✓		✓		✓	✓	
	STT650				✓	✓	✓			✓		
STT3000	STT171	✓	✓	✓	✓				✓			
	STT173	✓	✓	✓	✓				✓			
	STT17H	✓	✓	✓	✓				✓	✓		

Honeywell Temperature Transmitter detailed Specifications are available on our website [www.process.honeywell.com](http://www.process.honeywell.com). Links to the product specifications and document reference numbers are in table below.

PRODUCT	SPECIFICATION
<a href="#">STT850</a>	34-TT-03-14
<a href="#">STT750</a>	34-TT-03-16
<a href="#">STT700</a>	34-TT-03-19
<a href="#">STT650</a>	34-TT-03-15
<a href="#">STT170</a>	34-TT-03-07
<a href="#">STT85A</a>	34-TT-03-21
<a href="#">STT800</a>	34-TT-03-08

### GLOBAL AGENCY CERTIFICATION

Honeywell Temperature transmitters are certified by global agencies.















## Discover SmartLine Here

**APPLICATION  
VALIDATION TOOL**

## SmartLine Warranty

To boost your confidence and efficiency, choose an extended warranty option for your SmartLine transmitters – and protect your investment even after your factory warranty has expired.

**BOOST CONFIDENCE  
WITH SMARTLINE**

## For more information

To learn more about Honeywell's SmartLine Transmitters, visit [www.process.honeywell.com/smartline](http://www.process.honeywell.com/smartline) or contact your Honeywell account manager.

## Honeywell Process Solutions

2101 CityWest Blvd, Houston, TX 77042

Honeywell House, Arlington Business Park  
Bracknell, Berkshire, England RG12

1EB Shanghai City Centre, 100 Junyi  
Road Shanghai, China 20051

[www.process.honeywell.com](http://www.process.honeywell.com)

SmartLine® and Experion® are registered trademarks of Honeywell International Inc.

HART® is a registered trademark and FOUNDATION™ Fieldbus is a trademark of the FieldComm Group.

BRO-23-69-EN | 01/24  
© 2024 Honeywell International Inc.

**THE  
FUTURE  
IS  
WHAT  
WE  
MAKE IT**

**Honeywell**