

Smart Isolated 2-Wire Transmitter Signal Transmission-The Smart Way Series SST-300

FEATURES:

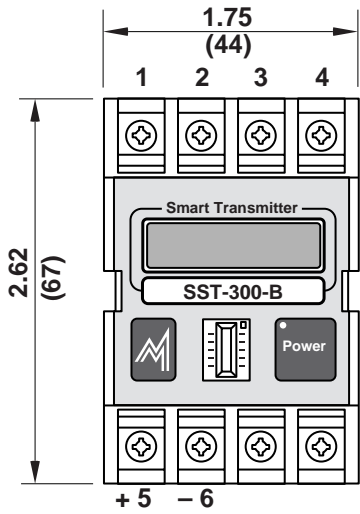
- Universal input capability in 3 variations to accept most of today's process parameters: All Thermocouples, RTD's, DCmV, Potentiometers, Resistance sensors, DCmA, DCV, Frequency and pulse.
- Fully software driven. All input parameters are programmable. An external hand-held programmer or an integral transmitter mounted programmer (both optional) enable on-site calibration and indication of process parameters.
- High precision linearization for Thermocouple and RTD sensor inputs, Inverse output capability, variable input signal damping, Sensor breakdown indication, full display scaling capability, auto-zero input, and more.
- Advanced signal processing technology provides features not commonly found among other smart transmitters such as: Square-root function, Loop-simulation, and optional capabilities for Dual Inputs and Mathematical manipulations.
- The SST is available for surface or DIN rail mounting, and can be furnished in NEMA 4 and explosion-proof enclosures.

OPTIONS:

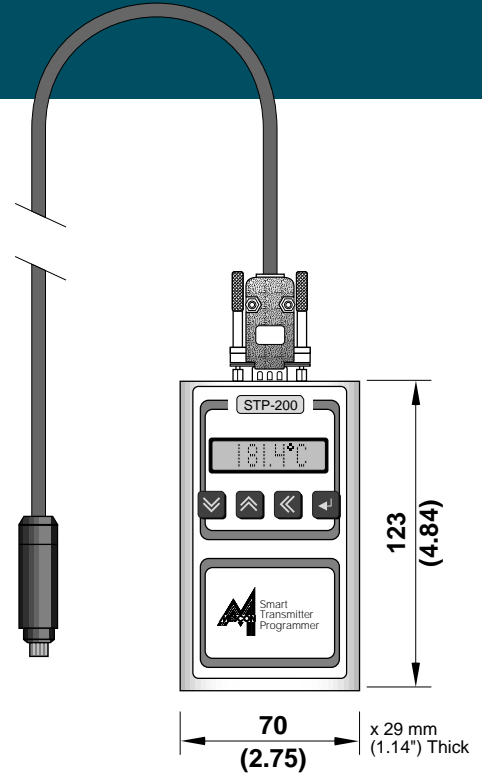
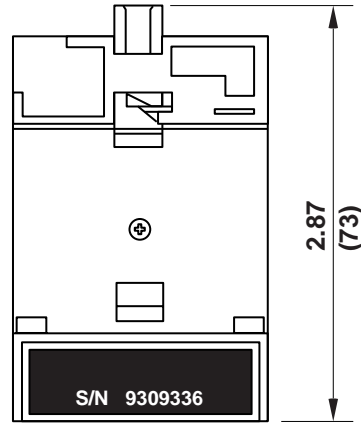
- LCD Indicator
- Programmers, hand-held or integrally mounted, both with LCD indicator.
- Digital communications for interfacing with PC's, PLC's, and remote programmers (HART® Protocol)

The SST-300 is one of the most advanced, user-friendly and powerful, smart 2-wire transmitters. The state of the art micro-processor design combines simplicity, precision, and ruggedness to produce a unique product suitable for industrial measurement in countless applications.

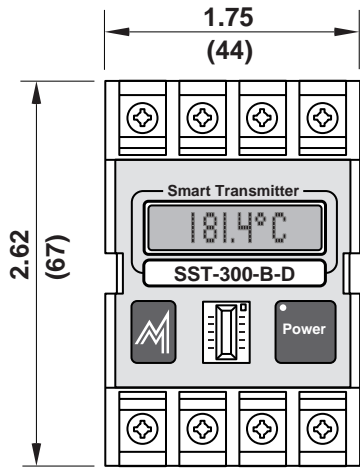




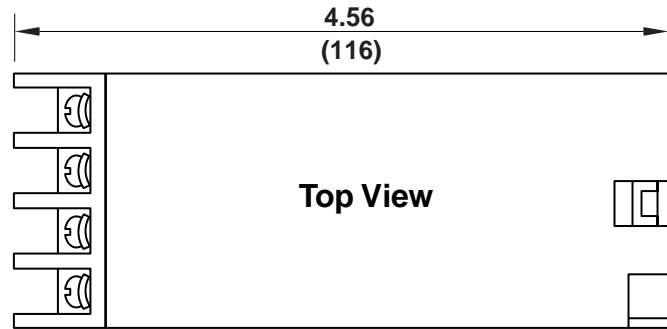
Standard



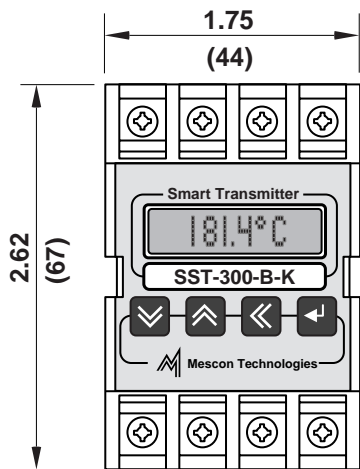
Hand-Held Programmer



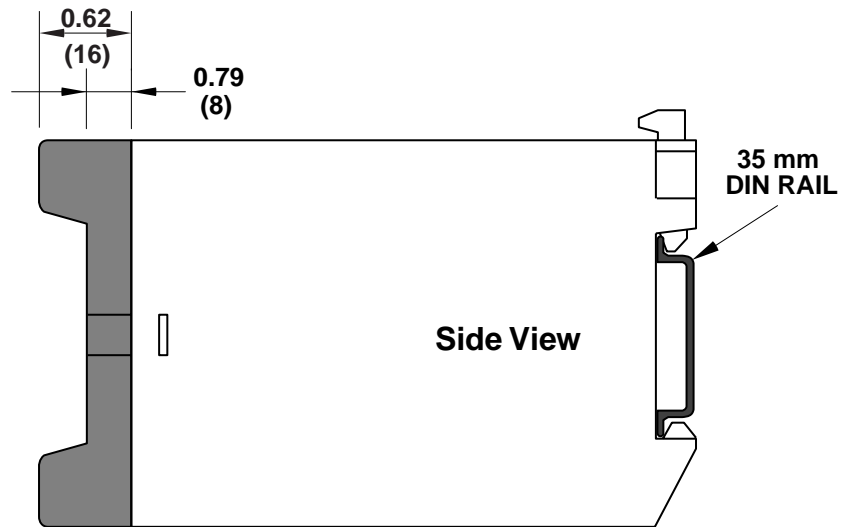
Optional Display



Top View



Optional Programmer Display



Side View

Dimensions are in inches (mm)

SPECIFICATIONS:

INPUTS TYPES:

Thermocouples	(types E, J, K, T, R, S, N, B, C)
RTD	2, 3, and 4 wires Pt-100, (DIN & NIST curves), Ni-100, and other RTD's.
DC-mV	$\pm 120.00\text{mV}$ input span.
Potentiometers	100 μ to 20 k Ω
Resistance	2,3 and 4-wire 0 to 600 Ω .
Optional Inputs	DCmA, DCV. Optional: Pt-300, Frequency/Pulse.
Minimum Range	None, limited only by signal quality.
Digital Resolution	>17 Bits.
Output Standard	4-20mA isolated analog current loop, standard.
Output Optional	Digital communications, HART [®] Protocol/4-20mA output
Display Optional	8 x 1 Character LCD indicator for programming and display of input and output parameters and status.
Power Supply	12-45VDC (no load). Reverse polarity protected.
Operating Temperature	-20°C to +70°C.
Storage Temperature	-55°C to +125°C
Humidity	0-95% RH, non-condensing
Maximum Load	$R_{\text{max}} = (V \text{ supply} - 12\text{V}) / 20\text{mA}$
Turn-On-Time	Within 4 seconds to rated response
Response Time	0.5 seconds to 99% of reading (2 updates per second)
Damping Factors	Programmable 0.0 to 32.0 seconds

SPECIFICATIONS: Cont.

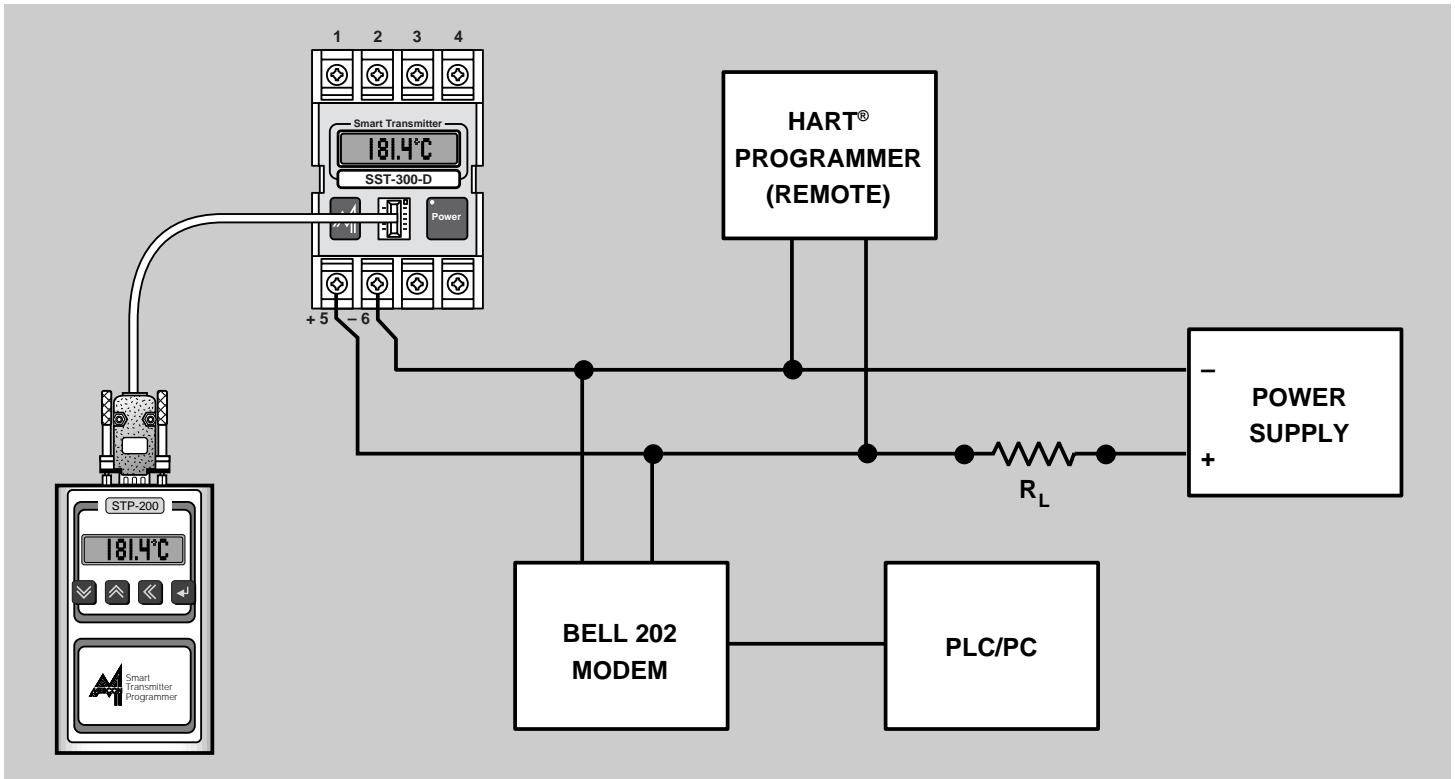
Long Term Stability	Better than $\pm 0.1\%$ of span for 6 months
Isolation	1500 VDC or peak AC
C.M.R.R	>120db DC to 60Hz
Enclosure	Din rail mounted. ABS housing, Noryl VO 150 Front

PERFORMANCE SPECIFICATIONS

Analog Output (D/A) Linearity	$\pm 0.025\%$ of span
Digital Sensor Linearization	$< \pm 0.025^\circ\text{C}$ for Pt-100 RTD. $< \pm 0.1^\circ\text{C}$ for T/C.
Cold Junction Compensation	Automatically corrected to within $< 0.3^\circ\text{C}$ for all thermocouples types
Temperature Stability	Zero: $< \pm 0.003\% / ^\circ\text{F}$ of span Span: $< \pm 0.005\% / ^\circ\text{F}$ of span
Supply Voltage Effect:	$< \pm 0.002\%$ per Volt
Calibration	Automatic Unit includes all of the calibration parameters. It performs periodic "zero", "span", self-test, and auto calibration. No field calibration is required.
Programmers	STP-200: Smart portable transmitter programmer.
Accessories	EXP-300: Explosion-proof housing for SST-300. EXP-201: Window-type explosion-proof housing.

All specifications are subject to change without notice.

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Sample loop showing the SST-300 with both analog and digital devices

ORDERING INFORMATION

SST - 3 - X₁ - 0 - X₂ - X₃

Input Options:

- 0 - T/C, RTD, mV, Pot, RES
- 1 - DC-mA, DC-V
- 2 - Frequency/Pulse

EXAMPLE:
SST-300-B-A
SST-300-K-H

Output Options

- A - (4-20)mA Analog output
- H - HART® + (4-20)mA

Programming Options:

- B - Basic/Programming via STP-200 external programmer
- D - Same as option B with integral display
- K - Programming via front panel keyboard and display

Please request our ordering and calibration diskette describing the rest of Mescon's products.

HART® is a registered trademark of Hart Communications Foundation



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