

# Site Programmable INterface 4-Wire Transmitter & Trip Alarm Series SPIN™-600

The SPIN™-600 is one of the world's most advanced user-friendly and powerful family of industrial transmitters and signal conditioners. State-of-the-art  $\mu$ processor design combines simplicity, precision and ruggedness to produce unique instruments suitable for a multitude of precision industrial measurement, alarm and control functions in countless applications. The hardware and software building blocks provides the SPIN™-600 with the flexibility to adapt to a large variety of applications.

## FEATURES:

- **Universal input capability:**
  - Model 600: Thermocouples, RTDs, DCmV, Potentiometers, Resistance.
  - Model 610: DCmA, DCmV, DC Volts.
  - Model 620: Frequency/pulse.
  - Model 630: Bridge/strain-gage.
- Fully software driven. All programmable input parameters.
- Precision linearization for Thermocouples and RTDs.
- Custom sensor linearization (40+ segments).
- Inverse input capability. Sensor breakdown indication.
- Fully configurable output, mA/Volts.
- Dual inputs for Thermocouple, mV, RTD, Resistance and Potentiometers.
- Triple input for RTDs, Resistance.
- Full feature dual set-point alarms with relay output.
- Full programming with PC.
- Totalizing/integration/batch control.
- Variable Input signal damping, Output simulation.
- Mathematical manipulation, display scaling.
- DIN rail mounting.
- Programmable no frills 4-wire transmitter function.



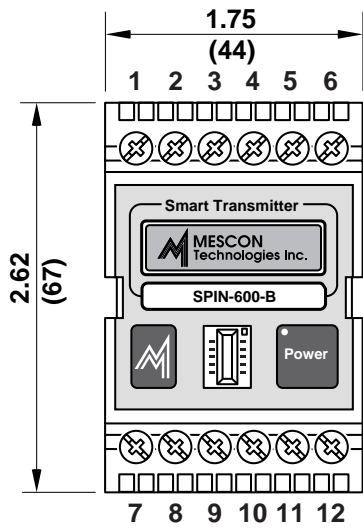
## OPTIONS:

- 8 character alphanumeric LCD indicator for programming and input data display.
- Front panel programming keyboard or low cost hand-held portable programmer.
- Serial digital communications for interfacing with PCs or Programmable Controllers.
- Isolated RS-485 Communications for multi-drop applications.

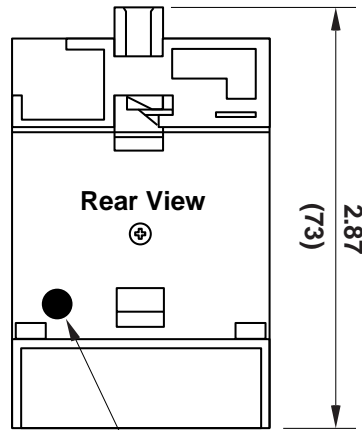


**MESCON**  
Technologies Inc.

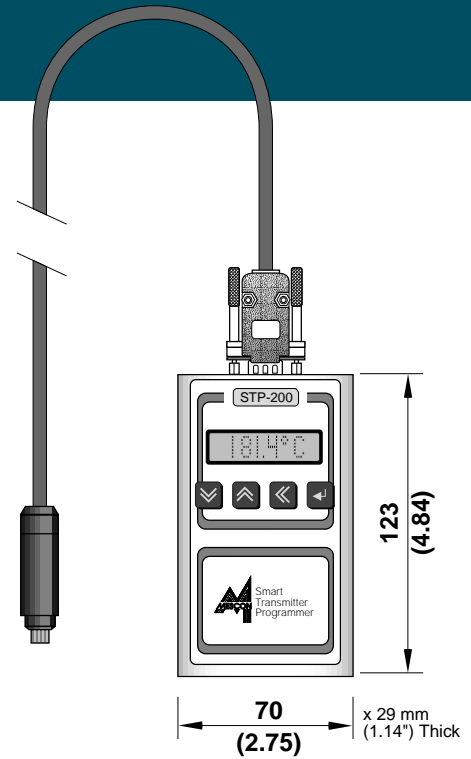
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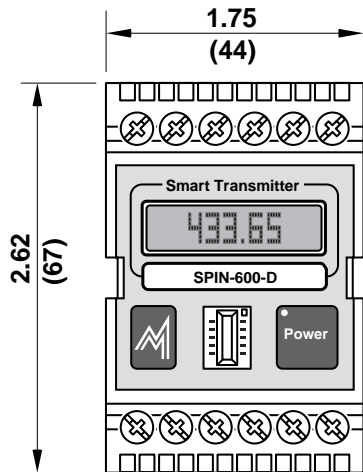
**Standard**



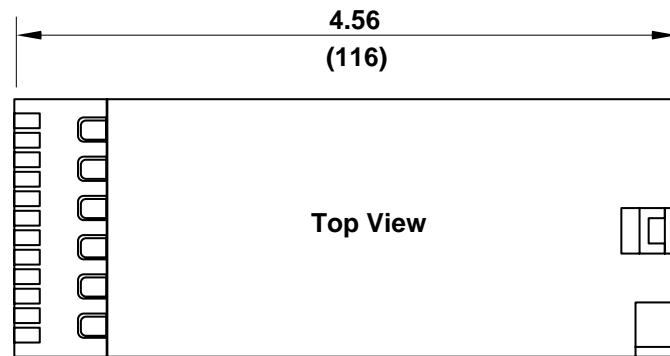
**Programming Port**



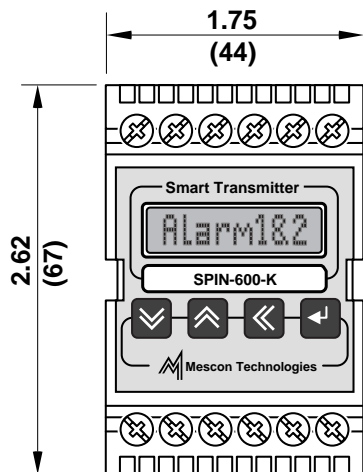
**Hand-Held Programmer**



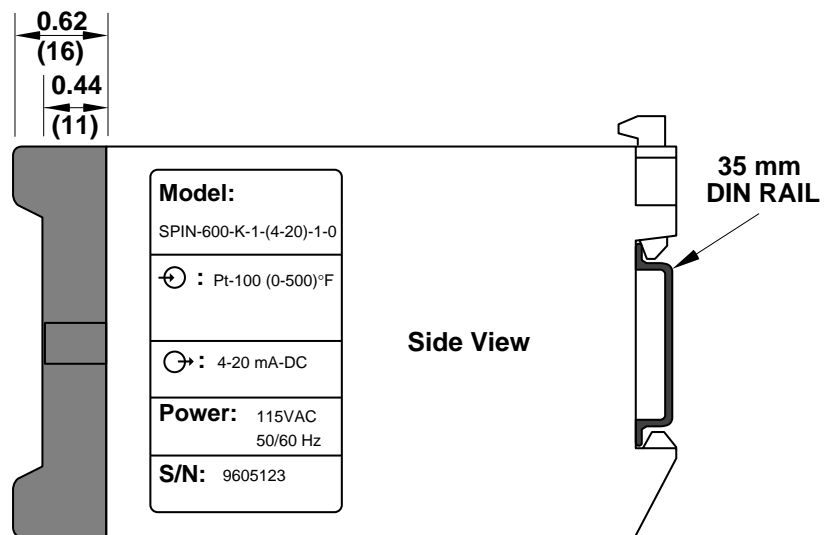
**Optional Display**



**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) Single or dual inputs.
RTD .....	2, 3, or 4-wire. Single, dual and triple 2-wire Pt-100 (DIN & NIST curves) Pt-1000, Ni-110, Cu-10 and other RTD's.
DC-mV .....	$\pm 120.00\text{mV}$ input span. Dual DC-mV, 0-120mV input span.
Potentiometers .....	100 $\Omega$ to 20 k $\Omega$ single or dual.
Resistance .....	2, 3 or 4-wire 0 to 600 $\Omega$ . Dual or Triple 2-wire input.
Optional Inputs .....	DCmA, DCmV, DC Volts, Frequency/Pulse and Bridge.
Minimum Range .....	None, limited only by signal quality.
Digital Resolution .....	>17 Bits.
<b>ANALOG OUTPUT TYPES:</b>	
Current .....	Any output, within the range of $\pm 25\text{mA}$ example: 0-1mA, 4-20mA, $\pm 5\text{mA}$ etc.
Voltage .....	Any output within the range of $\pm 10\text{V}$ example: 0-10V, 0-5V, $\pm 5\text{V}$ , 0-1V, etc.
Relay Output .....	2xSPST rated AC 250V/5Amps, DC 30V/ 5 Amps.
Alarm Response Time .....	Less than 500mS after a step change in input.
Display (opt.) .....	8 x 1 Character LCD indicator for programming and display of input, output and set-point parameters and status.
Supply .....	AC: 115 or 230 Volts 50/60 Hz $\pm 10\%$ .  DC: 24 Volts, $\pm 20\%$ , Polarity protected.

## SPECIFICATIONS: Cont.

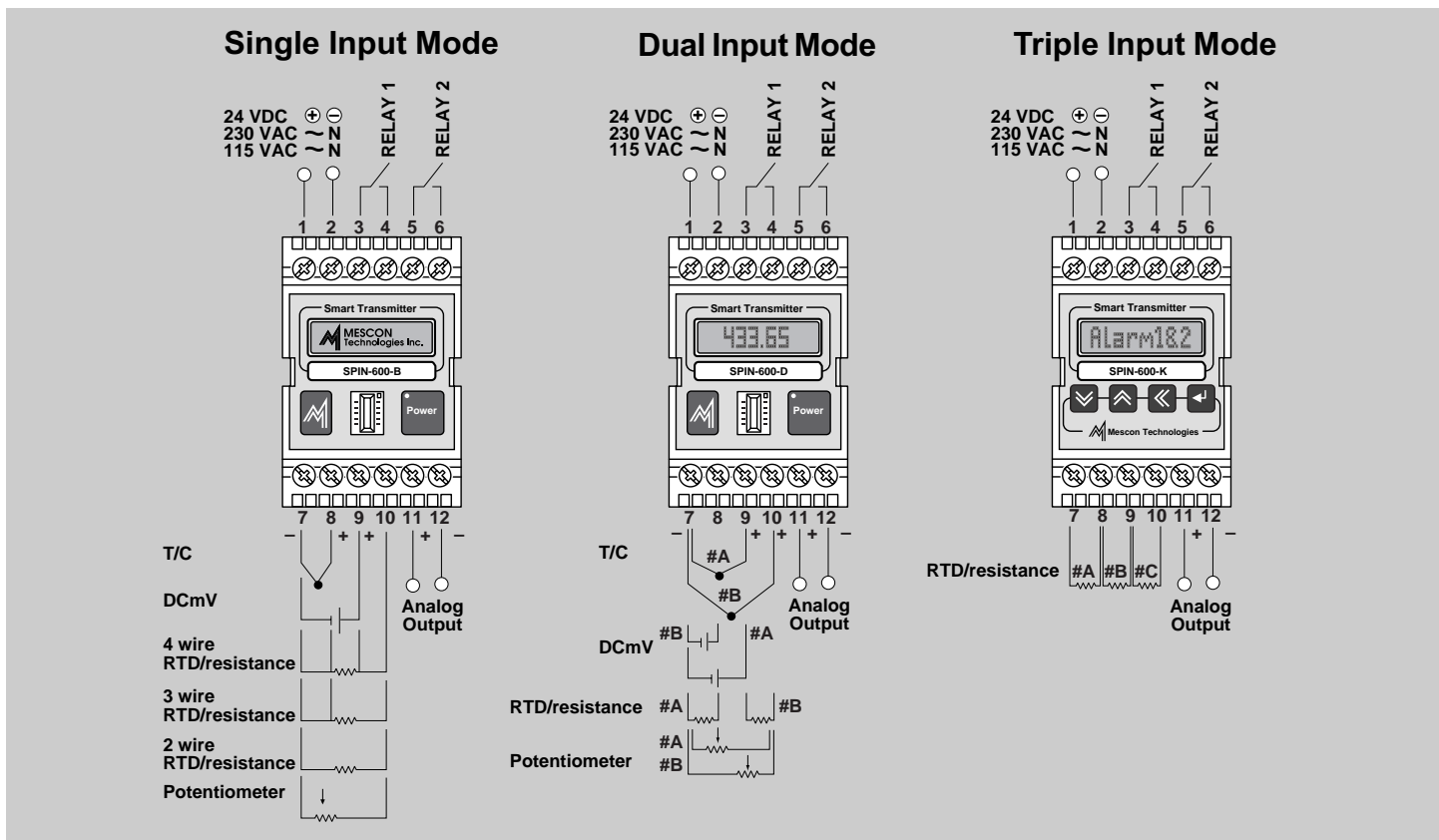
Operating Temperature .....	$-20^{\circ}\text{C}$ to $+70^{\circ}\text{C}$ .
Storage Temp. ....	$-40^{\circ}\text{C}$ to $125^{\circ}\text{C}$ .
Humidity .....	0-95% RH, non-condensing.
Turn-On-Time .....	Within 4 seconds to rated response.
Response Time .....	0.5 seconds to 99% of reading (2 updates/second). Damping Factors Programmable 0.0 to 32.0 seconds.
Long Term Stability .....	Better than $\pm 0.1\%$ of span for 12 months.
Isolation .....	1200 VDC or peak AC.
C.M.R.R. ....	>120db DC to 60Hz.
Enclosure .....	DIN rail mounted, Plastic.
Dimensions .....	W: 1.77" x H: 2.7" x D: 4.6".

### PERFORMANCE SPECIFICATIONS

Analog Output Resolution .....	$\pm 0.015\%$ of output span.
Analog Output (D/A) Linearity .....	$\pm 0.015\%$ of span.
Digital Sensor Linearization .....	< $\pm 0.02^{\circ}\text{C}$ for Pt-100 RTD. < $\pm 0.1^{\circ}\text{C}$ for most useful thermocouple ranges.
Cold Junction Compensation .....	Automatically corrected to within $< \pm 0.3^{\circ}\text{C}$ for all thermocouple types.
Temperature Stability ..	Zero: $< \pm 0.003\%$ of span. Span: $< \pm 0.005\%$ of span.
Calibration .....	Automatic. Unit includes all of the calibration parameters. It performs periodic "zero", "span", self-test, and auto calibration.

*All specifications are subject to change without notice.*

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## ORDERING INFORMATION

SPIN - 6 X1 0 - X2 - X3 - X4 - X5 - X6

Input: _____	Communication: _____
0 - T/C, RTD, mV, Pot, Res	0 - none
1 - DC mA, mV, Volt	1 - Mescom
2 - Frequency/pulse	2 - RS232
3 - Bridge	3 - RS485
Programming version: _____	Analog O/P: _____
B - Basic, external programmer	0 - none
D - Same but with LCD indicator	1 - mA
K - with LCD indicator + keypad	2 - Volt
Supply Options: _____	Analog O/P range: _____
1 - 115 VAC, 50/60Hz	0 - none
2 - 230 VAC, 50/60Hz	(Z/S) - range
3 - 24 VDC	28VDC - fixed 28VDC

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



**MESCON  
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