

# Series SST-270

## Smart, Isolated, loop powered Flow Rate transmitters



The SST-270 is a smart, state of the art,  $\mu$ P based, frequency/Pulse input, Flow-Rate 2-wire transmitter. It incorporates advanced circuitry and firmware including user defined 16-point linearization capability, which enables it to provide a high degree of precision performance and user flexibility in industrial flow measurement applications.

The SST-270 is a member of Mescon's advanced user friendly and high-precision, line of industrial, process measurements line of 2-wire transmitters.

Custom versions are available for special purpose and OEM applications

### STANDARD FEATURES

- User Friendly - fully prompted programming
- Heavy duty all metal construction
- 16 point K-factor linearization
- Direct programming in flow units
- Advanced digital signal filtering
- Automatic flow units conversion
- High input range sensitivity
- Loop Powered, 4-20mA output
- User defined input trimming
- Flush, DIN rails or Ex-proof mounting

### OPTIONAL FEATURES

- 8-character Display/programmer for direct reading of Flow-Rate and units (K-option).
- Digital communications HART protocol providing universal HART commands (H-option)
- Hand Held display/programmer for on-site programming (STP-200)
- Magnetically activated keys for programming thru Ex-proof enclosure window (R-option)



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# Series SST-270

## Smart, Isolated, loop powered Flow Rate transmitters

### SPECIFICATIONS:

**Inputs:**.....Frequency/Pulse. Magnetic pick-up, opto or Hall effect sensors.

**Input Range:**.....0.5 to 4000 Hz

**Trigger Sensitivity:**.....30 mV

**Over Voltage Protection:**.....300 VDC

**Digital Resolution:**.....>17 bits.

**Outputs:**.....4-20mA isolated current loop, standard.  
Optional: HART® Protocol communication

**Maximum Load:**..... $R_{max} = (V_{supply} - 12) / 20mA$

**Display/Programmer:**.....8x1 Character LCD indicator for programming and display of input/output parameters and status (K-option).

**Supply:**.....12-40 VDC (@ no load).  
Reverse polarity protected

**Operating Conditions:**.....-4°F to 158°F (-20°C to 70°C).  
0-95% RH, non-condensing.

**Storage Temperature:**.....-67°F to 257°F (-55°C to 125°C)

**Turn-on Time:**.....Within 4 seconds to rated response.

**Response Time:**.....Linear Input: 0.5 second to 99% of reading (2 updates/second).  
Linearized Input: <1 second to 99% of reading (>1 updates second).

**Filter:**.....Damping: Programable 0.0 to 60.0 seconds.  
Band: 0 to 99% (% range where damping is applied)

**Long Term Stability:**.....Better than ±0.01% of span for 6 months.

**Isolation:**.....Input/Output: 800 VDC or peak AC  
Terminals to case: 500 VDC or peak AC.

**RFI/EMI Immunity:**.....Tested per SAMA PMC 33.1C from 20 to 1000 MHz and for field strength up to 30 V/m.  
(CE Marked).

**Enclosure:**.....Extruded, anodized Aluminium. Optional NEMA 4 or explosion proof housing.

**Dimensions:**.....3.00" x 2.44" x 2.46" (w/o display)  
3.00" x 2.44" x 3.00" (with display)  
Hockey-puck housing.

**Analog output Resolution:**.....0.025% of span (±4µA)

**Analog Output Linearity:**.....±0.025% of span. (for D/A)

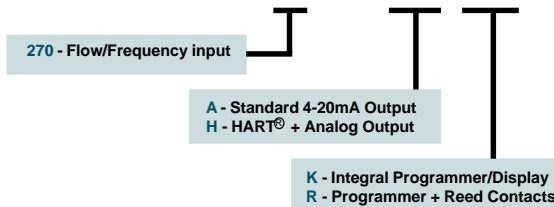
**Supply Voltage Effect:**.....<±0.001% per Volt

### Magnetically Activated Keys:

.....Magnetic reed switch keys allow the programming from outside the enclosure using a magnetic wand. (R-option)

### ORDERING INFORMATION

# SST-270-X-X



### Accessories

- STP-200:** Smart portable programmer.
- MGN-200:** Pen magnet actuator.
- EXP-200:** Explosion-proof housing.
- EXP-201:** Window-type explosion-proof housing.
- MTG-203:** DIN rails mounting adapter.
- MTG-204:** 2" pipe mounting bracket for EXP-200

® HART is a registered trade mark of the Hart Communication Foundation

All specifications are subject to change without notice.



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