

## SFC Smart Field Communicator Model STS103

34-ST-03-55  
12/95

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## Specification

### Description

The hand-held SFC Smart Field Communicator is a battery-powered device which establishes secure two-way communications between Honeywell Smart Transmitters and the user over the existing signal lines.

The SFC is extremely useful for simplifying maintenance by providing access to the field devices without a trip to the field.

When the SFC is connected to the transmitter signal lines at an accessible location anywhere from the control room to the transmitter, the operator can send data to and receive data from the transmitter's microprocessor.

The SFC is in an impact resistant housing and comes with test leads, a weather-proof carrying case, a Ni-Cd rechargeable battery pack, and a battery charger.

### Function

Model STS103 communicates with the Honeywell Smartline products including:

- ST 3000 Pressure and Differential Pressure Transmitters
- STT 3000 Temperature Transmitters
- MagneW 3000 Magnetic Flowmeters
- SCM 3000 Smart Coriolis Mass Flowmeters
- SGC 3000 Gas Chromatograph
- SMV 3000 Smart Multivariable Transmitters
- SLT—Drexelbrook Level Transmitter

The SFC has many functions. It can:

- Select the Communications Mode**
- The transmitter can be



Figure 1—Model STS103 Smart Field Communicator

configured to transmit its output in either an Analog (4 to 20 mA) mode or in the Digital Communications (DE) mode.

**Configure** - operating parameters such as LRV, URV, Damping, Fail-safe mode, and Input actuation type for the STT may be programmed into the transmitter using the SFC.

**Diagnose** - access the Smart Transmitter's self-diagnostic capabilities to troubleshoot suspected operation or communication problems.

**Check Calibration** - The SFC provides a simplified procedure for checking calibration of Smart Transmitters, thus maintaining excellent transmitter accuracy and significantly reduced maintenance requirements. The accuracy of the SFC's digital readout of the transmitter's output may be certified allowing the STS103 to be used

as part of calibration schemes following ISO 9000 procedures. Re-ranging of the transmitter is also possible using the STS103.

**Display** - All configuration parameters as well as other data such as PROM/serial number, tag name, sensor temperature (ST), hi/lo PV (STT), and scratch pad memory can be readout on the two line LCD display. The STS103 also displays measured process variables (pressure, differential pressure, flow rate) in selectable engineering units.

**Checkout** - By configuring the transmitter for the output mode you can command the smart transmitter to transmit a precise signal, selectable from 0% to 100% full scale, to assist in verifying loop operation, loop calibration, or troubleshooting.

## Specifications:

Operating Conditions		
	Operating Conditions	Transportation and Storage
Ambient Temperature	°C -10° to 50° °F 14° to 122°	-20° to 60° -4° to 140°
Humidity	10% to 90% RH	5% to 95% RH
Vibration		
Maximum Acceleration (G)	0.2	0.5
Frequency (Hz)	0 to 100	0 to 100
Amplitude (mm peak to peak)	0.75	-----
Shock		
Maximum Acceleration (G)	5	15
Duration (ms)	50	11
Minimum Load Resistance @ 24Vdc Supply Voltage	250 Ohms	
Performance		
Safety Approvals	FM Intrinsically Safe, Class I, II, III, Div 1, Groups A-G Outdoor Nonincendive, Class I, Div 2, Groups A-G Outdoor	
CE Conformity, Europe	89/336/EEC, the EMC Directive	
Physical		
Dimensions		
Overall Keypad	102 mm x 42 mm x 206 mm (4 in. x 1.7 in. x 8 in.) 86 mm x 136 mm (3.4 x 5.4 in.)	
Weight	470 g (1 lb.)	
LCD Display Display Character	2 lines x 16 characters 5 x 7 dots with line for cursor	
Keyboard Type	Tactile feedback embossed membrane, 4 by 8 matrix, 32 keys	
Lead Connectors	Easy hook and alligator clips	
Battery Charger		
Input Power	108 – 120 Vac, 200 – 240 Vac, 50/60 Hz	
Output Power	7 Vdc, 180 mA	
Time to charge	16 hours minimum	
Time between charges	24 hours minimum, a colon ":" in the eighth character position indicates low battery power.	

## Ordering Information

Contact your nearest Honeywell sales office, or

Honeywell Industrial Automation and Control  
16404 N. Black Canyon Highway  
Phoenix, AZ 85023

In Canada — Honeywell Limited  
155 Gordon Baker Rd.  
Willowdale, Ontario  
M2H 3N7

*Specifications are subject to change without notice.*

**Connections:**

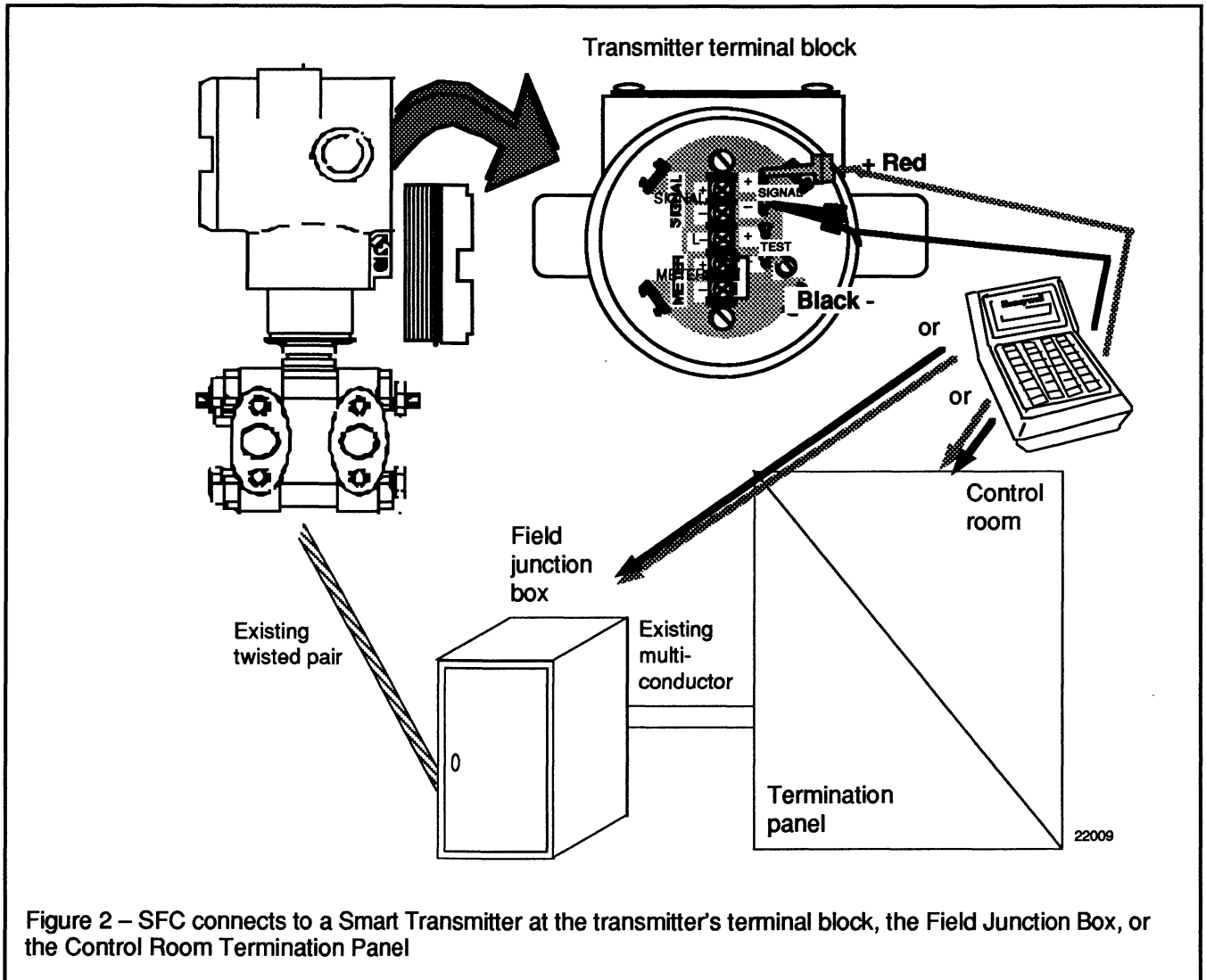


Figure 2 – SFC connects to a Smart Transmitter at the transmitter’s terminal block, the Field Junction Box, or the Control Room Termination Panel

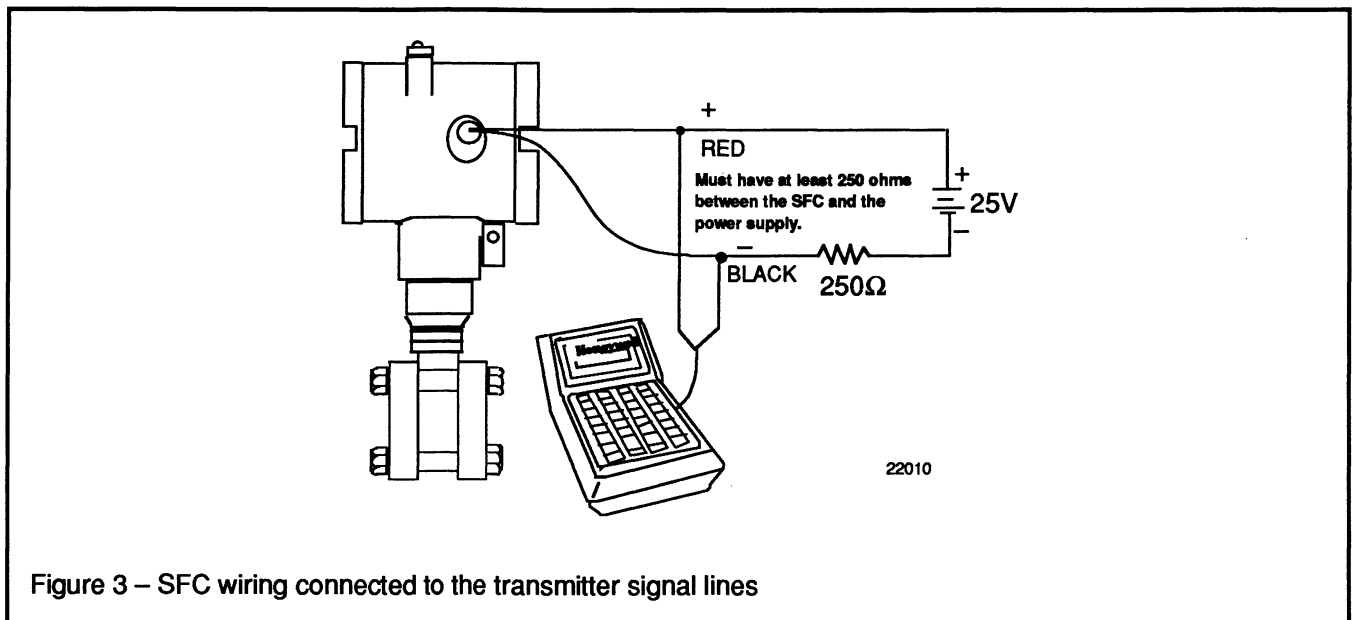
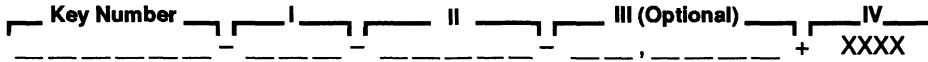


Figure 3 – SFC wiring connected to the transmitter signal lines

## Model Selection Guide

### INSTRUCTIONS

- Select the desired key number. The arrow to the right marks the selection available.
- Make one selection from each table, I and II, using the column below the proper arrow. Select as many Table III options as desired (If no options are desired, specify 00). A dot (•) denotes unrestricted availability. A letter denotes restricted availability. Restrictions follow Table IV.



KEY NUMBER	Selection	Avail-ability
<b>Design Style</b>		
Smart Field Communicator (additional multivariable capability) ...	STS103	↓

### TABLE I

Display Language	English .....	001	•
	German .....	002	•
	Spanish .....	003	•
	French .....	005	•

### TABLE II

Cable Length	6 Feet .....	00006	•
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### TABLE III OPTIONS

None .....		00	•	] b
Battery Charger — 120 Vac 50/60 Hz .....		12	•	
Battery Charger — 240 Vac 50/60 Hz .....		24	•	
Digital Mode Certification .....		DC	•	
CE Conformity Europe .....		CE	c	
Approval Body	Approval Type	Location or Classification		
Factory Mutual	Intrinsically Safe	Class I, II, III, Div. 1, Groups A,B,C,D,E,F,G	F1D2	•
CSA	Intrinsically Safe	Class I, II, III, Div. 1, Groups A,B,C,D,F,G	C1D2	•
SAA	Intrinsically Safe	EEx ia IIC T6	A0CA	•
	Non Incendive	Ex n IIC T6		
LCIE	Intrinsically Safe	EEx ia IIC T5	EOD2	•

### TABLE IV

Factory Identification	XXXX	•
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### RESTRICTION

Restriction Letter	Available Only With		Not Available With	
	Table	Selection	Table	Selection
b c				
■	Select only one option from this group			
■	Not available with Table III Options 00 and 12			