

# SFC

## Model SFC 160 / SFC 260

### Smart Field Communicator

#### OVERVIEW

The Smart Field Communicator (SFC) allows you to establish communication with a Smart Field Instrument over the existing 4-20 mA DC lines on a 1:1 basis, covering the four major process variables of flow rate, pressure, temperature, and liquid level.



#### FEATURES

- With a single unit of SFC, communication can be made with the various types of Smart Field Instruments.
- The SFC can be hooked up to a loop simply by connecting the SFC to the “+” and “-” terminals of a 4-20 mA DC signal lines, without requiring to break up the loop even temporarily.
- The SFC is compact and can be hand-held.
- The SFC has an LCD display (16 characters × 2 lines).
- The SFC260 has a printer which provides a hardcopy.

## **SPECIFICATIONS**

### **Ambient Temperature**

SFC160 : -10 to 50 °C

SFC260 : 0 to 40 °C

### **Ambient Humidity**

SFC160 : 10 to 90%RH

SFC260 : 10 to 80%RH

### **Terminal Voltage**

DC 10-45V

### **Display**

LCD, 16 characters × 2 lines

### **Keyboard**

Touch key

### **Communication Cable Connection**

Hookup cable

### **Battery Charger**

100V AC, 50/60Hz

115/120V AC, 50/60Hz

200/220/240V AC, 50/60Hz

### **Power Source**

Rechargeable battery

Charge up time : 6 hours

Operable time : 24 hours

### **Casing**

#### **Material**

ABS resin

#### **Color**

Smoke black

#### **Type**

Portable type (hand-held type)

### **Selectable Items**

#### **Printer**

24-character thermal printer

### **Weight**

SFC160 : Approx. 500g

SFC260 : Approx. 700g

### **Accessories**

Communication hookup cable with alligator clips

Communication hookup cable with easy hookups

Battery charger

Rolled thermal paper (SFC260)

## **Communication Functions**

The SFC provides the following communications

### **Check and change of configuration parameters.**

- Tag No.
- Type of output
- Damping time constant
- Range (Range can be changed without requiring to give any reference input)
- Pulse output
- Contact input/output
- Cold junction temperature, etc.

### **Check of operation data**

- Instantaneous input/output values of a Smart Field Instrument can be checked.

### **Setting of constant-current output**

- A Smart Field Instrument can be set into a constant current source of 4-20 mA DC to check the performance of the loop.

### **Calibration**

- Zero adjustment can be made by keying in an input value equivalent to 0% of output.
- Zero adjustment can be made by applying an input equivalent to 0% of output to the Smart Field Instrument and setting that value

### **Diagnosis**

- Performance check of Smart Field Instrument.
- Abnormality check of process
- Configuration check
- Check of communication state

## **Printer**

### **The SFC260 has a 24-character printer, which allows the following:**

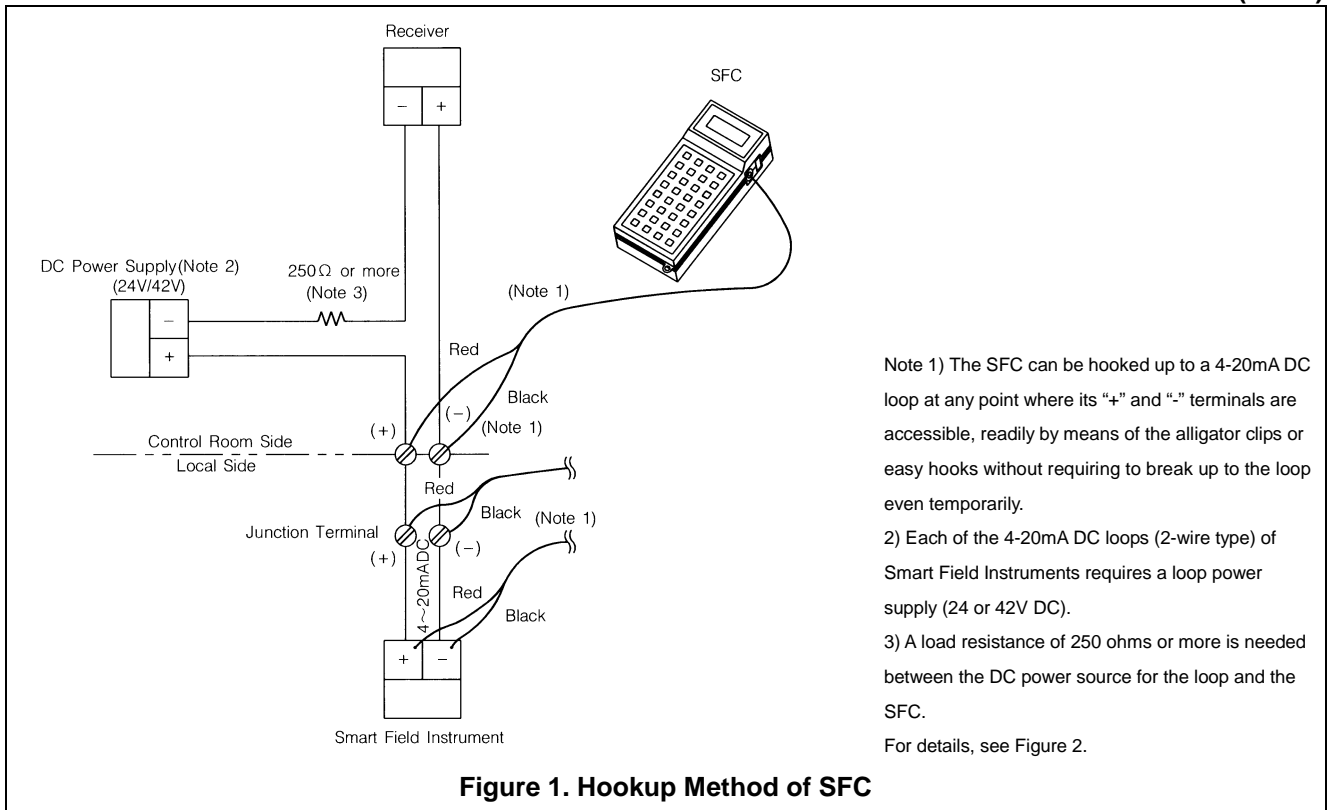
To print out date, time, Tag No., and configuration data.

To print out date, time, Tag No., and action data as follows:

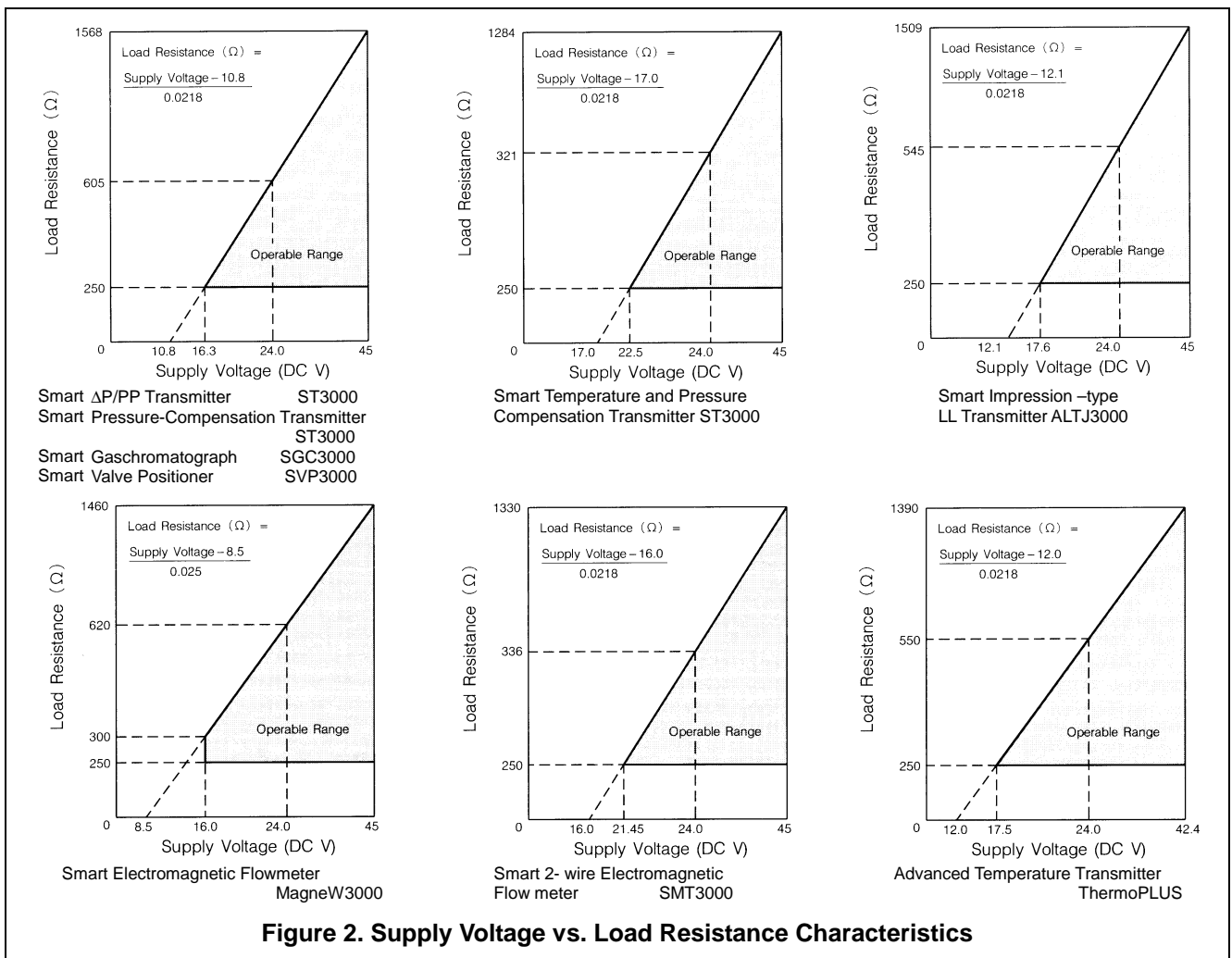
- Configuration change events can be printed out in the order of their occurrences.
- To confirm the operation data, instantaneous input/output values can be printed out.

### **Supported Devices**

Smart ΔP/PP Transmitter	ST3000
Smart Pressure-Compensation ΔP Transmitter	ST3000
Smart Temperature and Pressure Compensation Transmitter	ST3000
Advanced Temperature Transmitter	ThermoPLUS
Smart Impression-type Liquid Level Transmitter	ALTJ3000
Smart Electromagnetic Flow Meter	MagneW3000
Smart 2-wire Electromagnetic Flow Meter	SMT3000
Smart Gas Chromatograph	SGC3000
Smart Valve Positioner	SVP3000



**Figure 1. Hookup Method of SFC**



**Figure 2. Supply Voltage vs. Load Resistance Characteristics**

**MODEL SELECTION**

Model No. SFC160 / SFC260

Ex SFC160-11X-XC

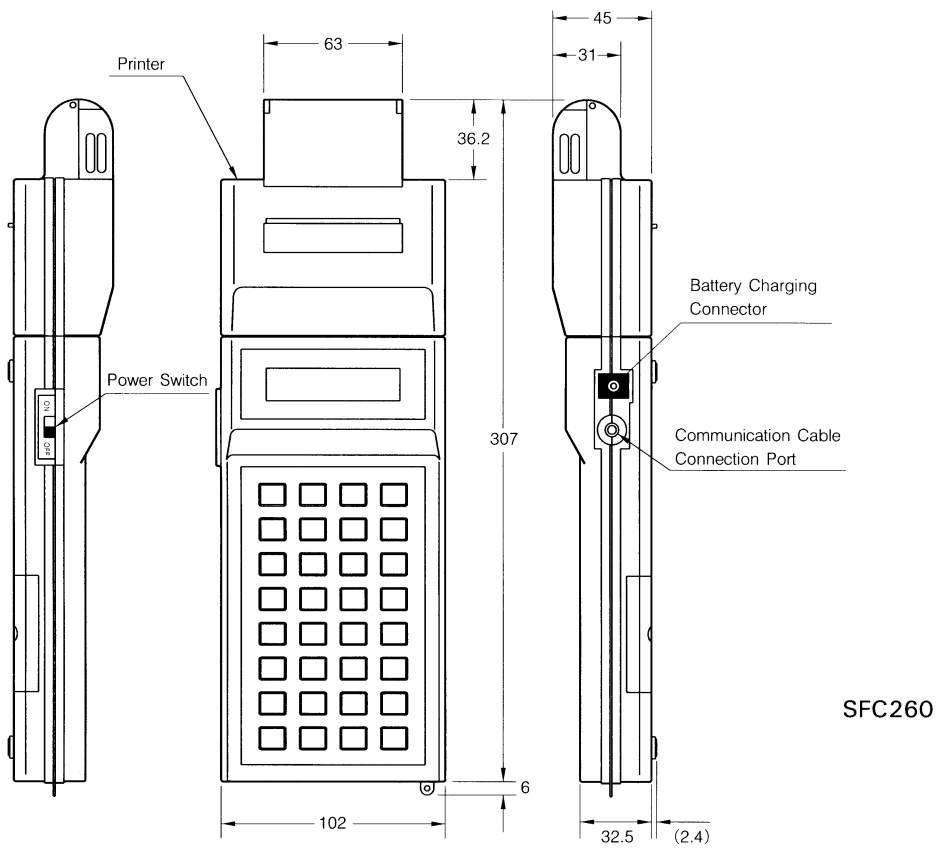
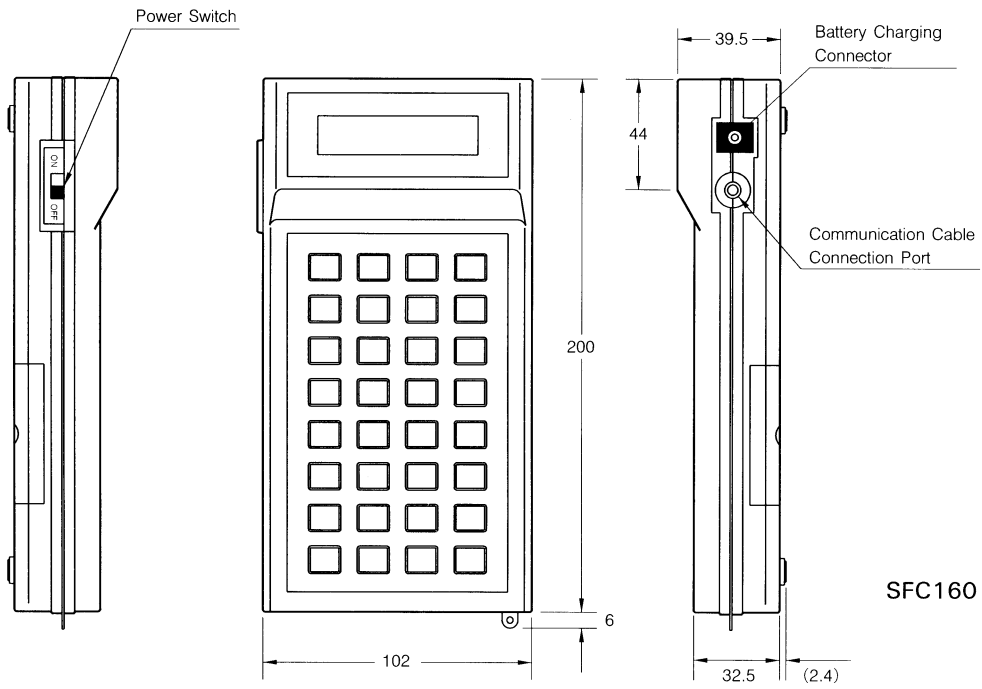
		Basic Model No.	Selection		Option	
ITEM	Description					
Basic Model No. *1	Smart Field Communicator (Standard type)	SFC160				
	Smart Field Communicator (with printer)	SFC260				
( I ) Display *2 (Language, measuring unit)	English, non-SI unit		1			
	English, SI unit		2			
	English, SI unit set as default		3			
	English, inch/lb		4			
	Japanese, SI unit only		7			
( II ) Battery Charger	Ac100V, 50 / 60Hz		1			
	AC115 / 120V, 50 / 60Hz		2			
	AC200 / 220 / 240V, 50 / 60Hz		3			
( III ) Explosionproof	Explosion proof feature				X	
	JIS intrinsic safety ( For SFC160 only)				H	
	FM Explosionproof, Division 1 (For SFC160 only)				S	
	FM Explosionproof, Division 2				N	
( IV ) Option	No option					X
	With SPS board for SVP *3					P
	Without carrying case					X
	With carrying case					C

\*1 SFC160 can not be modified and changed to SFC260 after delivery.

\*2 Language can not be changed after delivery.

\*3 This board must be needed for AVP301, 201

**DIMENSIONS**







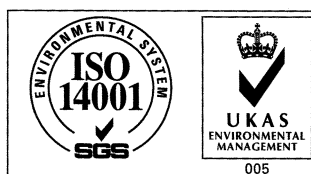
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