HAND-HELD COMMUNICATOR <HHC>

DATA SHEET FXW

This instrument is a handy type communicator with built-in battery, being designed to perform facilitated communication with operater through use of "smart" type FCX series transmitter.

FEATURES

1. Simple operation
   Adoption of large LCD display (16 digits × 4 lines) as well as menu assisted software design provides easy-to-use communication interface.
2. Application to every type of device
   The communicator can be used with any "smart" type of FCX transmitter, FCX-A/C transmitter, FCX-AX transmitter and FCX-AII/CII, AIII transmitter.
3. On-line operation
   The communicator can be operated without interrupting 4 to 20mA DC signal.
4. Full variety of protective functions
   The communicator incorporates transmitter diagnostic function, data-write protection key, battery voltage drop alarm function, automatic power standby function, etc.
5. Optional printer
   Set data can be printed on an optional printer.

SPECIFICATIONS

Standard specifications

Applicable device: "Smart" type FCX series transmitter
- FCX transmitter
- FCX-A/C transmitter
- FCX-AX transmitter
- FCX-AII/CII transmitter
- FCX-AIII transmitter

Transmission line requirement:
Line length; max 2km (0.75 to 1.25mm^2 cable. For 1km and above, twist pair-cable is recommended.)
Load resistance;
250 to 578Ω in case of FCX-1 transmitter
250 to 600Ω in case of FCX-A/C, FCX-AX, FCX-AII/CII transmitter (including cable resistance at 24V DC
In case of FCX-AIII transmitter; Refer to "Load limitations".
Load capacitance; 0.22μF max.
Load inductance; 3.3mH max.
Separation from power line; 15cm or more (avoid parallel wiring.)

Display unit: LCD, 16 digits × 4 lines
Operating unit: Flat keys (32 keys), power switch, set value protection key switch
Power source: Built-in nickel-cadmium battery
Battery life: 24 hours (without option under standard conditions after full charge)
Charger power source: 100, 115, 230V ±10% AC, 50/60Hz (as specified)
Charging time: 5 hours
Printer (option): Printing of 24 digits of each remote item
Ambient temperature: -10 to +50°C
Storage temperature: -20 to +60°C
Ambient humidity: 90% RH or less
Hazardous locations: Designed to meet international intrinsic safety standards. Applications have been submitted for the following. (In case of without printer only)

Authorities	
ATEX	EEx ia IIC T3

EMC Comformity: EN61326 CE

Functional specifications

Remote function: See the next page.
Power alarm function: Battery voltage drop is detected and indicated by lamp flickering on display unit (Batt ALM).
Set value protective function: Set value can be changed by using key switch
Automatic power standby function: HHC automatically enters into standby mode when key is not accessed for more than 10 minutes (data measurement only).

Physical specifications

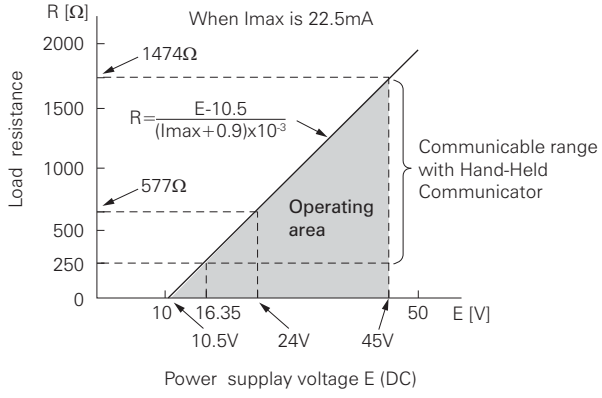
Material: Polycarbonate
Color: Gray
Dimensions (H x W x D):
55 x 98 x 223mm (without printer)
Mass: Approx. 500g (without printer)

Remote functions

Items	Display	Set
Tag No.	*v*	*v*
Model No.	*v*	*v*
Serial No. & Software Version	*v*	—
Engineering unit	*v*	*v*
Range limit	*v*	—
Measuring range	*v*	*v*
Damping	*v*	*v*
Output mode	*v*	—
Burnout direction	*v*	*v*
Calibration	*v*	*v*
Output adjust	—	*v*
Data	*v*	—
Self diagnoses	*v*	—
Printer (In case of FXW with printer option)	*v*	—
External switch lock	*v*	*v*
Transmitter display	*v*	*v*
Linearize	*v*	*v*
Rerange	*v*	*v*
Saturate current	*v*	*v*
Write protect	*v*	*v*
History – Calibration history – Ambient temperature history	 *v* *v*	 *v* —

Note: HHC's version must be higher than 7.1 (or FXW □□□□1–□4), for FCX–AIII.

Load limitations



Note: Imax is the bigger one, either upper saturation current [mA] or upper burnout current [mA].
When Imax is from 20mA to 21.6mA, calculate load resistance using Imax of 21.6mA.
And when Imax is from 21.7mA to 22.5mA, calculate load resistance using the formula in the figure.

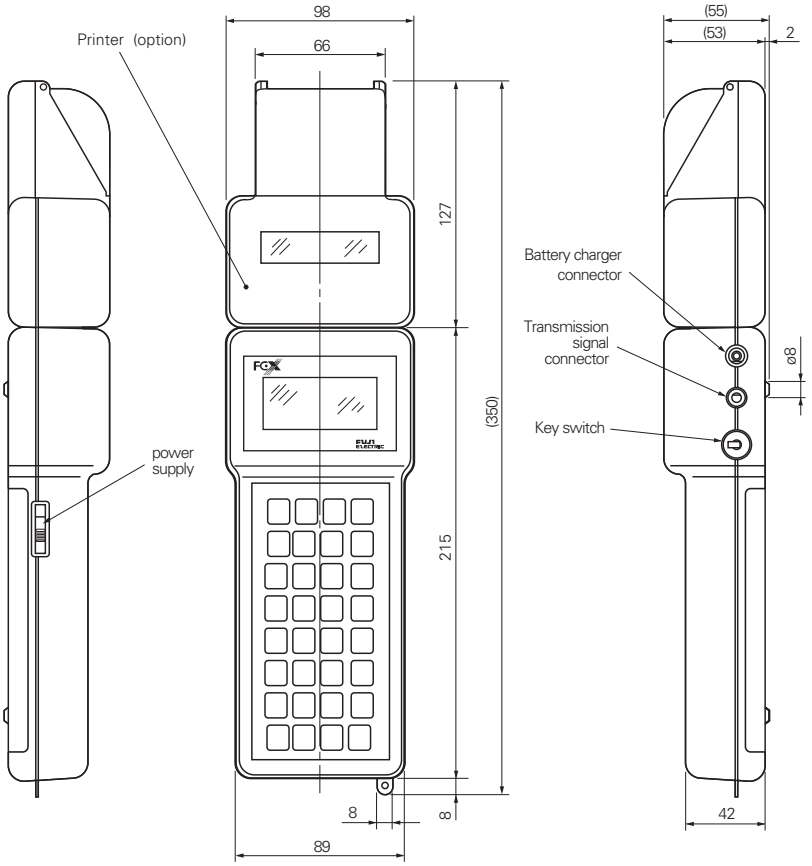
CODE SYMBOLS

1 2 3 4 5 6 7 8	9 10	Description
F X W		
1		**Printer** Without
2		With (explosion-proof structure is not applicable)
		Charger
0		Without
1		100V AC 50/60Hz
2		115V AC 50/60Hz
3		230V AC 50/60Hz
		Explosion-proof structure for hazardous locations
A		Without
K		Intrinsic safety explosion-proof (ATEX)
		Carrying case
Y		Without
A		With
		Application
	A	General
		Use
	4	FCX, FCX-A/C, FCX-AX, FCX-AII/CII, FCX-AIII transmitter (HHC software version 7.1 or upper)

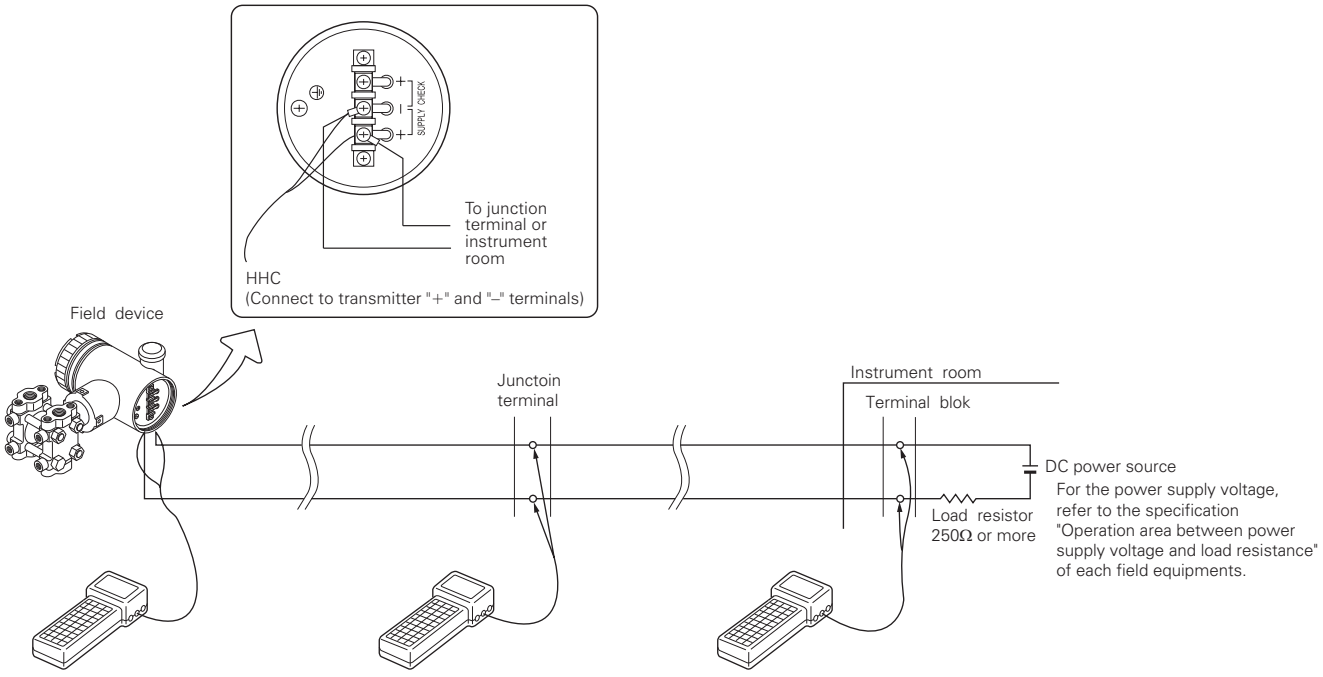
Remarks

The FCX-AII/CII, AIII series cannot be operated with the HHC whose software is older than version 6.0. The version of the HHC software can be upgraded by exchanging the built-in ROM.
Contact the nearest Fuji Electric representative when it needs to be upgraded.
(The software version can be checked on the screen display which appears when turning on HHC power supply.)

OUTLINE DIAGRAM (Unit:mm)



CONNECTION (For example FCX-AIII transmitter)



The product conforms to the requirements of the Electromagnetic compatibility Directive 2004/108/EC. The applicable standards used to demonstrate compliance are :-

EMI (Emission) EN61326-1 : 2006
Group 1 Class 1

Frequency range MHz	Limits	Reference standard
30 to 230	40dB (V/m) quasi peak, measured at 10m distance	EN55011
230 to 1000	47dB (V/m) quasi peak, measured at 10m distance	

EMS (Immunity) EN61326-1: 2006
Table 2 (for Industrial Location)

Phenomenon	Test value	Basic standard	Performance criteria
Electrostatic discharge	4kV (Contact) 8kV (Air)	EN61000-4-2	B
Electromagnetic field	80 to 1000MHz : 10V/m 1.4 to 2.0GHz : 3V/m 2.0 to 2.7GHz : 1V/m 80%AM (1kHz)	EN61000-4-3	A
Rated power frequency magnetic field	30A/m 50Hz	EN61000-4-8	A

Note) Definition of performance criteria

A: During testing, normal performance within the specification limits.

B: During testing, temporary degradation, or loss of function or performance which is self-recovering.

SCOPE OF DELIVERY

HHC, special cable (with clips), keys (2)

OPTION

Charger, carrying case, printer (based on Code symbols)

⚠ Caution on Safety

*Before using this product, be sure to read its instruction manual in advance.

Fuji Electric

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