

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 operator through use of "smart" type FCX series transmitter.

FEATURES

1. Simple operation

Adoption of large LCD display (16 digits x 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-A II 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.



Display unit: LCD, 16 digits x 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 $\pm 10\%$ 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	
CENELEC FM and CSA	EEx ia IIC T3, T4 Class I, Div 1, Grps A thru D, T3C

Note: Approvals with FCX-A II transmitter pending

SPECIFICATIONS

Standard specifications

Applicable device: "Smart" type FCX series transmitter

FCX transmitter
 FCX-A/C transmitter
 FCX-AX transmitter
 FCX-A II transmitter

Transmission line requirement:

Line length; max 2km (0.75 to 1.25mm² cable. For 1km and above, twist pair-cable is recommended.)

Load resistance;

250 to 578Ω in case of FCX transmitter

250 to 600Ω in case of FCX-A/C, FCX-AX, FCX-A II transmitter

(including cable resistance at 24V DC)

Load capacitance; 0.22μF max.

Load inductance; 3.3mH max.

Separation from power line; 15cm or more (avoid parallel wiring.)

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

No.	Item	Display	Set	Description
1	Tag No.	○	○	Alphanumeric, 26 digits
2	Type	○	○	Type of device
3	Serial No.	○	—	Serial No. of device
4	Engineering unit	○	○	Setting of engineering unit
5	Range limit	○	—	Display of Max value of range
6	Measuring range	○	○	Measuring range setting, re-setting
7	Damping	○	○	Setting within range of 0 to 32 sec
8	Output mode	○	○	Linear / $\sqrt{\quad}$ output mode selection
9	Burnout direction	○	○	Output direction and value at error Burn out change : hold under scale 3.2 ~ 3.8mA over scale 20.8 ~ 21.6mA
A	Input adjustment	○	○	Adjustment of input value
B	Output adjustment	—	—	Adjustment of output, 4 to 20mA
C	Data measurement	○	—	Data display
D	Self -diagnosis	○	○	Failure in device or amplifier
E	Printer function	—	—	Print-out
F	External switch lock	○	○	External lock of zero/span adjustment
G	Transmitter LCD display setting	○	○	Setting of transmitter LCD display range
H	LINEARIZE *	○	○	Programmable linearization function up to 14 point
I	RERANGE *	○	○	Set range (LRV/URV) calibration function

*) FCX-A/C transmitter (Amplifier unit version must be more than 24), FCX-AX transmitter and FCX-A II transmitter are available.

CODE SYMBOLS

1	2	3	4	5	6	7	8	9	10	Description
F	X	W						1	A	3
								1		Printer
								2		Without
										With (explosion-proof structure is not applicable)
								0		Charger
								1		Without
								2		100V AC 50/60Hz
								3		115V AC 50/60Hz
										230V AC 50/60Hz
								A		Explosion-proof structure for hazardous locations
								H		Without
								J		Intrinsic safety explosion-proof (FM)
								K		Intrinsic safety explosion-proof (CSA)
										Intrinsic safety explosion-proof (CENELEC)
										*) Approvals with FCX-A II transmitters pending
								Y		Carrying case
								A		Without
										With
								A		Application
										General
									3	Use
										FCX, FCX-A/C, FCX-AX, FCX-A II transmitter
										(HHC software version 6.0)

Remarks

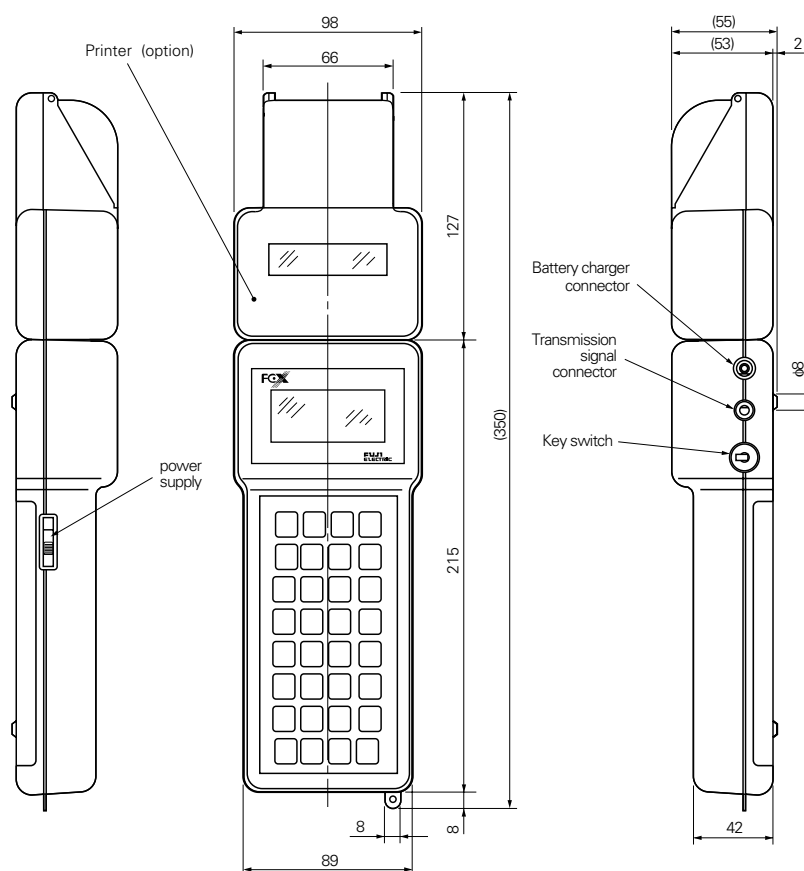
Model: FXW □□□□1-A3 (10th digit: "3") only can operate FCX-A II series.

The FCX-A II 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.

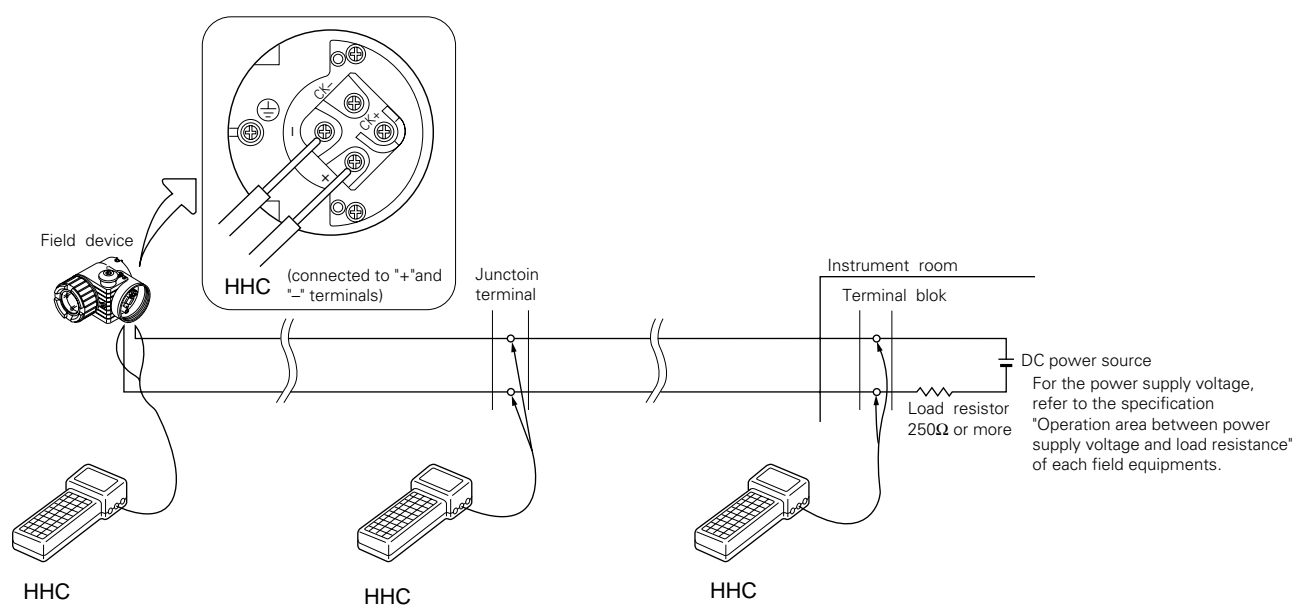
Contact the nearest Fuji Electric representative when it needs to be upgraded.

(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-A/C, FCX-A II transmitter)



The product conforms to the requirements of the Electromagnetic compatibility Directive 89/336/EEC as detailed within the technical construction file number TN510414. The applicable standards used to demonstrate compliance are :-

EMI (Emission) EN61326 : 1997
Class A (standard for Industrial Location)

Frequency range MHz	Limits	Reference standard
30 to 230	40dB ($\mu\text{V}/\text{m}$) quasi peak, measured at 10m distance	CISPR16-1 and CISPR16-2
230 to 1000	47dB ($\mu\text{V}/\text{m}$) quasi peak, measured at 10m distance	

EMI (Immunity) EN61326: 1997
Annex A (standard for Industrial Location)

Phenomenon	Test value	Basic standard	Performance criteria
Electrostatic discharge	4kV (Contact) 8kV (Air)	IEC61000-4-2	C
Electromagnetic field	80 to 1000MHz 10V/m 80%AM (1kHz)	IEC61000-4-3	A
Rated power frequency magnetic field	30A/m 50Hz	IEC61000-4-8	A
Burst	1kV 5kHz	IEC61000-4-4	B

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.

C: During testing, temporary degradation, or loss of function or performance which requires operator intervention or system reset occurs.

The key switch does not meet the Electrostatic Discharge test requirements.

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.

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