FC400-CCL-FA
FC400-DAC-FA
FC400-EIP-FA
FC400-ECT-FA
FC400-232-FA

UNIPULSE NEW!

DIN-RAIL MOUNT DIGITAL INDICATOR

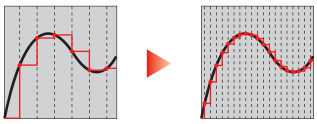
Applicable from fast response measurement to multi-weighing with high accuracy!

CC-Link
EtherCAT
EtherNet/IP
CE RoHS2

FC400-CCL-FA	A measurement system can be configured easily using CC-Link network.
FC400-DAC-FA	Either voltage or current output, corresponding to the indicated value, is available.
FC400-EIP-FA	A measurement system can be configured easily using EtherNet/IP network.
FC400-ECT-FA	A measurement system can be configured easily using EtherCAT network.
FC400-232-FA	Measured data and results can be collected using RS-232C network.

High sampling rate & resolution

High-Speed A/D conversion and powerful digital processing capability of 2400 times/sec.
High display resolution of 1/100000 (max).



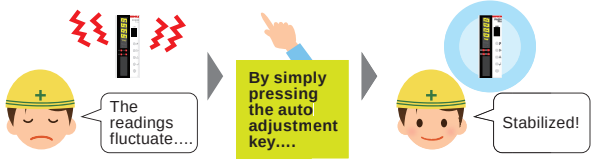
Measurement can be performed quickly and precisely due to high speed A/D conversion.

Application software for USB interface

With communication through USB interface, logging, graph display, setting parameters, and calibration can be done.

High performance filter & Auto filter adjustment

With combination of low pass filter (0.1 to 600 Hz) which corresponds to various vibration and moving average filter (OFF, 2 to 999) that is effective for periodic vibration, automatic searching for optimal value with accuracy and stability can be achieved.
(You can manually adjust settings too)

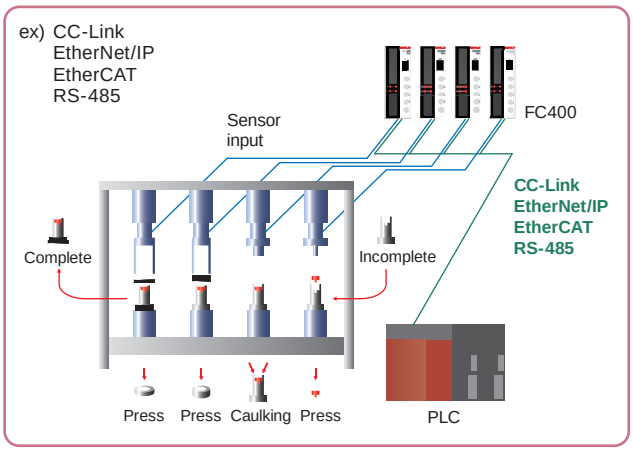


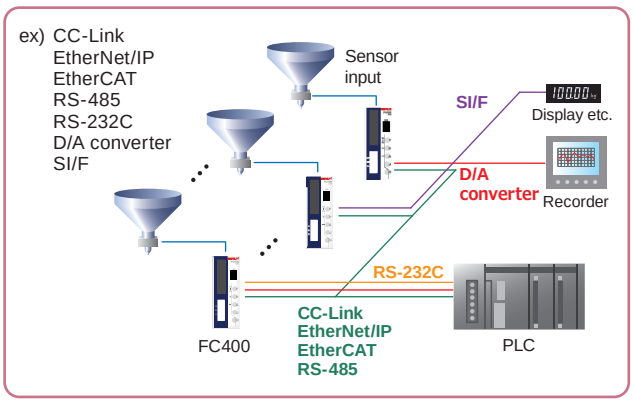
Compact size

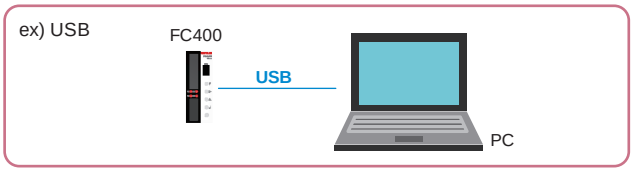
It can be fit into a limited space!
Light weight & compact body for 35 mm DIN rail mount.

Various interfaces

FC400-CCL-FA	Equipped with CC-Link, SI/F, USB interface
FC400-DAC-FA	Equipped with D/A converter, RS-485, USB interface
FC400-EIP-FA	Equipped with EtherNet/IP and USB interface
FC400-ECT-FA	Equipped with EtherCAT and USB interface
FC400-232-FA	Equipped with RS-232C, SI/F, USB interface







Digital peak & bottom hold, Hi & Lo function

Quickly detect high speed changes & make OK / NOK judgement

Input conversion value display

The output signal level of load cell can be displayed in mV/V/ for monitor purpose.
Malfunction indicator or faulty sensor can be differentiated easily.

Equivalent input calibration

Theoretical calibration can be performed easily by registering the capacity and rated output of load cells.

6-digit display

24 bit A/D converter enables 6-digit display

Specifications

Analog	Excitation voltage	DC 5 V±5% Output current: Within 90 mA DC 2.5 V±5% Output current: Within 45 mA (depending on settings) Ratiometric method (Up to 6 350 Ω load cells can be connected in parallel)
	Signal input range	−3.9 to +3.9 mV/V
	Zero adjustment range	Automatic adjustment by digital processing −3.0 to +3.0 mV/V
	Span adjustment range	Automatic adjustment by digital processing 0.01 to 3.8 mV/V
	Min. input sensitivity	0.15 μV/count
	Accuracy	Non-linearity: Within 0.01% FS Zero drift: 0.0002% FS/℃ typ. * When calibrated by 3 mV/V with 5 V of the excitation voltage Gain drift: 1 ppm/℃ typ.
	Filter	Digital low-pass filter: 0.1 to 600 Hz Moving average filter: OFF, 2 to 999 times
	A/D converter	Speed: 2400 times/sec. Resolution: 24 bit (binary)
Display	Display unit	Character height: 8 mm Numerical display by 7-segment green LED
	Display value	Up to 6 digits
	Display frequency	Selectable from 1, 3, 6, 13, 25 times/sec.
	Status display	RUN, SD, RD, ERR (FC400-CCL-FA) MS, NS (FC400-EIP-FA) RUN, ERR (FC400-ECT-FA)
Hold		Sample, Peak, Bottom, Peak&Bottom, Average
External signal	Output signal (5)	Transistor's open collector output Vceo = 30 V, Ic = 50 mA
	Input signal (3)	Selectable/configurable Input is ON when shorted to COM terminal by contact (relay switch, etc.) or non contact (transistor, open collector, etc.). * DC 24 V external power supply is required.
Interface		CC-Link interface (FC400-CCL-FA) D/A converter interface (Voltage and current output) (FC400-DAC-FA) EtherNet/IP interface (FC400-EIP-FA) EtherCAT interface (FC400-ECT-FA) RS-232C interface (Selectable from Modbus-RTU or UNI-Format) (FC400-232-FA) RS-485 interface (Selectable from Modbus-RTU or UNI-Format) (FC400-DAC-FA) SI/F 2-wire type serial interface (FC400-CCL-FA, FC400-232-FA) USB interface

General specification	Power supply voltage	DC 24 V (±15%)
	Power consumption	3 W typ. (FC400-DAC-FA, FC400-232-FA) 4 W typ. (FC400-CCL-FA, FC400-EIP-FA, FC400-ECT-FA)
	Operating conditions	Operating temperature range: −10 to +50℃ Storage temperature range: −20 to +85℃ Humidity: 85% RH or less (non-condensing)
	Dimensions	34(W) × 88(H) × 91(D) mm (Projections excluded)
	Weight	Approx. 210 g (FC400-CCL-FA, FC400-DAC-FA) Approx. 230 g (FC400-EIP-FA, FC400-ECT-FA) Approx. 220 g (FC400-232-FA)
Attachment		Quick manual…2 Jumper wire…2 Mini driver…1 CC-Link connector (FC400-CCL-FA)…1 Various I/O connector (FC400-CCL-FA, FC400-EIP-FA, FC400-ECT-FA)…2 (FC400-DAC-FA, FC400-232-FA)…3
Accessories		CA81-USB: miniUSB-computer USB cable 1.8 m CN74: CC-Link connector (Same accessory as the attached one) CN75: CC-Link connector (Y type branch connector) CN76: CC-Link connector (Terminator connector) CN85: 13 p connector for power source/sensor/RS-485 (Same accessory as the attached one) CN86: 3 p connector D/A converter (Common with RS-232C connector) (Same accessory as the attached one) CN87: 10 p connector for external I/O (Same accessory as the attached one)
CE marking certification		EMC directive EN61326-1

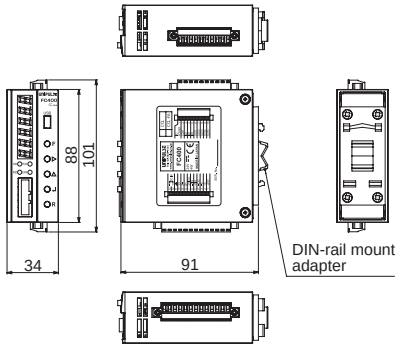
* FC400-ECT-FA is Free Run mode.
* Please note that there are possibilities of individual differences in a color tone on display devices such as LEDs, fluorescent display tubes and LCDs due to manufacturing process or production lots.

Structure of product code

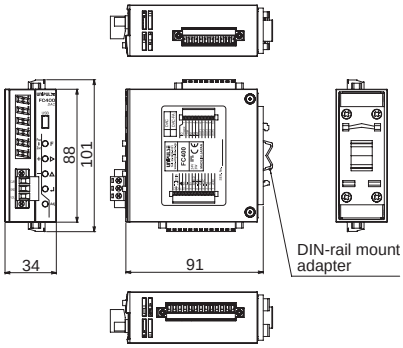
Model	Interface
FC400-CCL-FA	CC-Link, SI/F, USB
FC400-DAC-FA	D/A converter (Voltage and current output), RS-485, USB
FC400-EIP-FA	EtherNet/IP, USB
FC400-ECT-FA	EtherCAT, USB
FC400-232-FA	RS-232C, SI/F, USB

External dimension

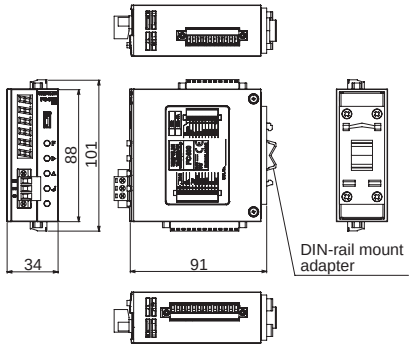
■ FC400-CCL-FA



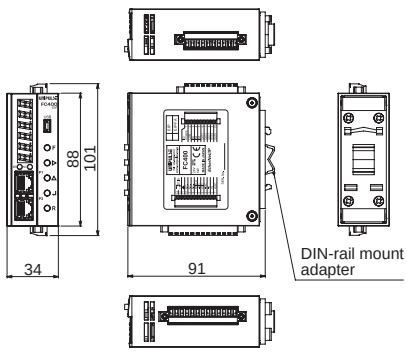
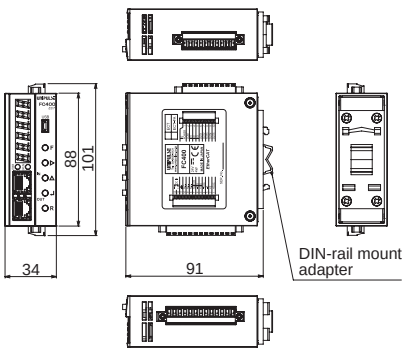
■ FC400-DAC-FA



■ FC400-232-FA



■ FC400-EIP-FA



■ FC400-ECT-FA