

FC400-CCL FC400-DAC FC400-EIP

DIN-RAIL MOUNT
WEIGHING INDICATOR



It is suitable for many weighing applications
such as hopper scale, packing scale,
weight level meter, etc....



FC400-CCL: A weighing system can be configured easily using CC-Link network.

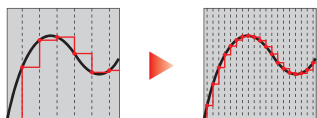
FC400-DAC: Either voltage or current output, corresponding to the indicated value, is available.

FC400-EIP: A weighing system can be configured easily using EtherNet/IP network.

High sampling rate & resolution

High-Speed A/D conversion and powerful digital processing
capability of 1200 times/sec.

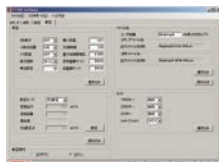
High display resolution of 1/100000 (max).



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

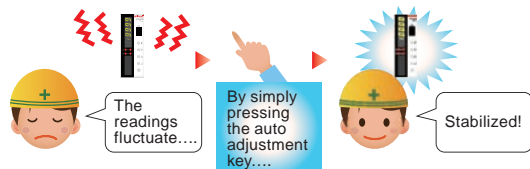
Application software for USB interface

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 300Hz) which
corresponds to various vibration and moving average filter (OFF,
2 to 512) that is effective for periodic vibration, automatic
searching for optimal value with accuracy and stability
can be achieved. (You can manually adjust the settings too)



Compact size

It can be fit into a limited space!

Light weight & compact body for 35mm DIN rail mount.



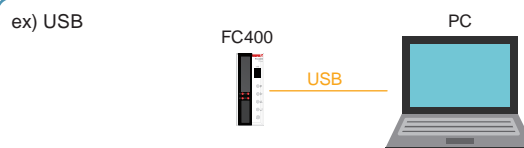
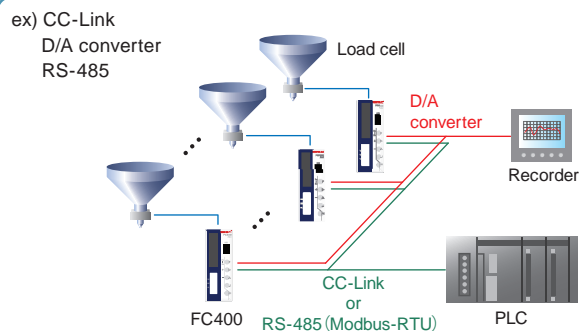
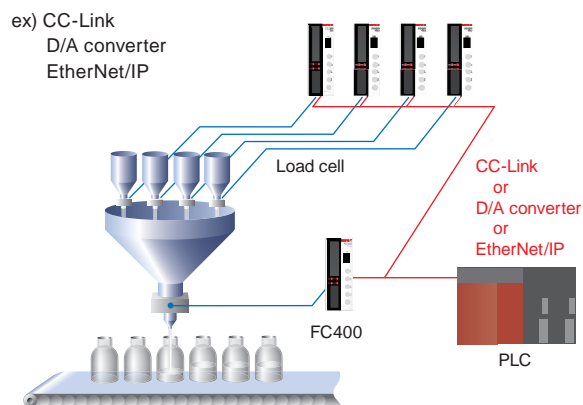
Various interfaces

FC400-CCL: Equipped with CC-Link, RS-485*, and USB interface

FC400-DAC: Equipped with D/A converter, RS-485*, and USB interface

FC400-EIP: Equipped with EtherNet/IP and USB interface

* Selectable from Modbus-RTU or UNI-Format



Basic weighing process control function

Sequential control can be performed without connecting external PLC etc.

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.

6-digit display

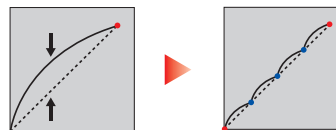
24bit A/D converter enables 6-digit display

Equivalent input calibration

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

Multipoint calibration (linearization)

Three additional points can be defined in the middle between zero and span for better linearity. Eventhough the scale has poor linearity, it can be corrected to be a highly accurate scale.



Specifications

Analog	Excitation voltage	DC5V±5% Output current :90mA (FC400-CCL,FC400-DAC,FC400-EIP) DC2.5V±5% Output current :45mA (depending on settings) (Only for FC400-EIP) Ratiometric method (Up to 6 350 load cells can be connected in parallel) -2.5 to 5.1mV/V
	Signal input range	-2.5 to 5.1mV/V
	Zero adjustment range	Automatic adjustment by digital processing -0.5 to 2.0mV/V
	Span adjustment range	Automatic adjustment by digital processing 0.02 to 3.0mV/V
	Gain correction	Up to three point multi-point calibration is possible using linearization function
	Min. input sensitivity	0.15µV/count
	Accuracy	Non-linearity: within 0.01%FS Zero drift: 0.0002%FS/°C Typ Gain drift: 1ppm/°C Typ
	Filter	Digital low-pass filter 0.1 to 300 Hz Moving average filter OFF, 2 to 512 times
	A/D converter	Speed: 1200 times/sec Resolution: 24bit
	Display	Character height 8mm Numerical display by 7-segment green LED
Display	Display unit	Up to 6 digits.
	Display value	Selectable from 3, 6, 13, 25 times/sec.
	Display frequency	RUN, SD, RD, ERR (Only for FC400-CCL)
	Status display	MS, NS(Only for FC400-EIP)
External signal	Output signal (5)	Transistor's open collector output V _{ceo} =30V, I _c =50mA
	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.). *DC24V external power supply is required.

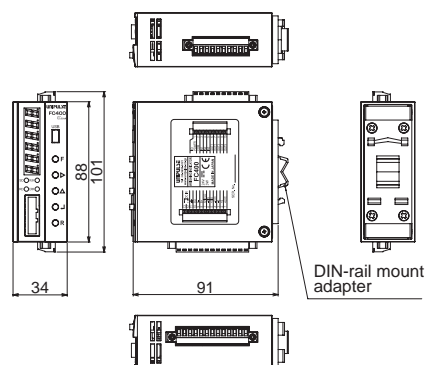
Interface	CC-Link interface(FC400-CCL) D/A converter(Voltage and current output) (FC400-DAC) EtherNet/IP interface(FC400-EIP) RS-485 interface (Selectable from Modbus-RTU or UNI-Format) (FC400-CCL, FC400-DAC)	
	USB interface	
	Power supply voltage	DC24V (±15%)
	Power consumption	3W typ (FC400-CCL, FC400-DAC) 4W typ (FC400-EIP)
	Operating conditions	Temperature: Operating temperature range:-10 to +50°C Storage temperature range:-20 to +85°C Humidity: 85%RH or less (non-condensing)
	Dimensions	34 (W)×88 (H)×91 (D)mm (Projections excluded)
	Weight	Approx. 210g (FC400-CCL, FC400-DAC) Approx. 230g (FC400-EIP)
	Attachment	Quick manual...2 Jumper wire...2 Mini driver...1 CC-Link connector...1 (FC400-CCL) Various I/O connector ...FC400-CCL:2, FC400-DAC:3, FC400-EIP:2
	Accessories	CA81-USB: miniUSB-computer USB cable 1.8m CN74: CC-Link connector (Same accessory as the attached one) CN75: CC-Link connector (Y type branch connector) CN76: CC-Link connector (Terminator connector) CN82: 10p connector for external I/O CN85: 13p connector for power source/sensor/RS-485
	CE MARKING CERTIFICATION	EMC directive EN61326-1 (FC400-CCL, FC400-DAC)

Structure of product code

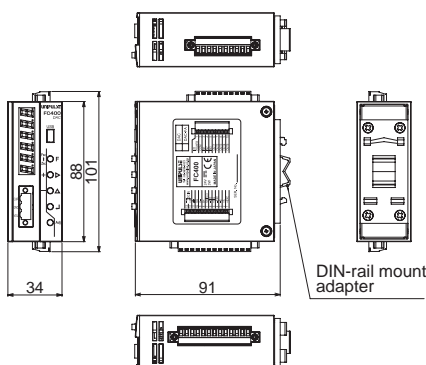
Model	Interface
FC400-CCL	CC-Link, RS-485, USB
FC400-DAC	D/A converter (Voltage and current output), RS-485, USB
FC400-EIP	EtherNet/IP, USB

External dimension

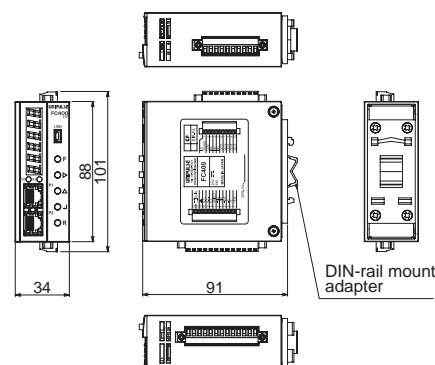
FC400-CCL



FC400-DAC



FC400-EIP



Unit:mm