FC500-CCL
FC500-DAC
FC500-EIP
FC500-485
FC500-232

DIN RAIL MOUNT WEIGHING INDICATOR

CC-Link EtherNet/IP CE RoHS2

UNIPULSE NEW!

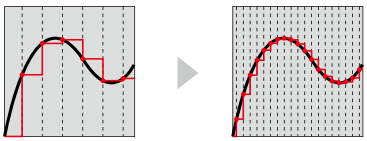
Suitable for many weighing applications such as hopper scale, packing scale, weight level meter, etc....

FC500-CCL A weighing system can be configured easily using CC-Link network.
FC500-DAC Current output, corresponding to the indicated value, is available.
FC500-EIP A weighing system can be configured easily using EtherNet/IP network.
FC400-485 Measured data and results can be collected using RS-485 interface.
FC500-232 Measured data and results can be collected using RS-232C interface.

Lightweight & compact body for 35 mm DIN rail mount.

High sampling rate & resolution

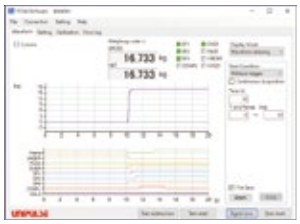
High-Speed A/D conversion and powerful digital processing capability of 1200 times/sec. (Convertible to 300 times/sec.)
High display resolution of 1/100000 (max).



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

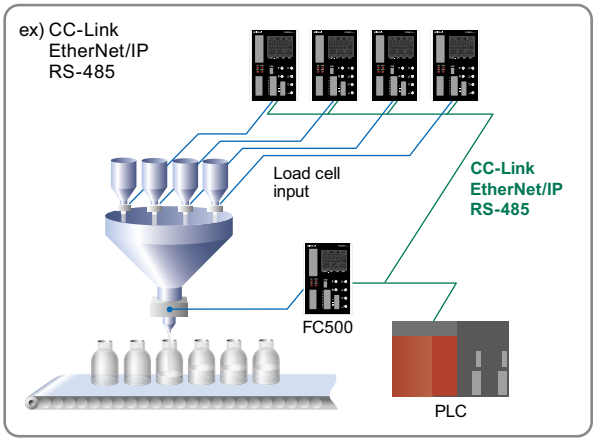
Application software for USB interface

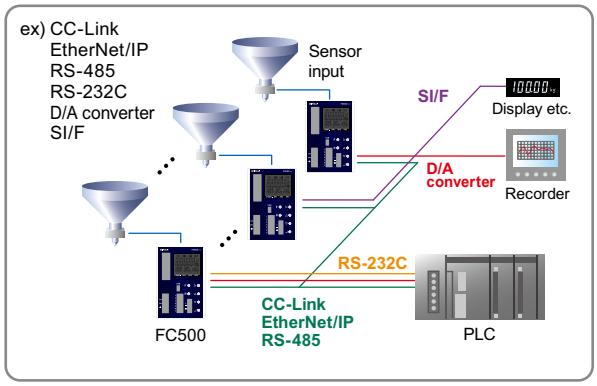
With communication through USB interface, logging, graph display, setting parameters, and calibration can be done.

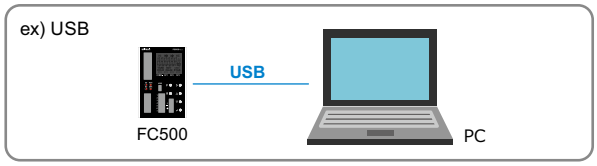


Various interfaces

FC500-CCL Equipped with CC-Link, SI/F, USB interface
FC500-DAC Equipped with D/A converter, SI/F, USB interface
FC500-EIP Equipped with EtherNet/IP, SI/F, USB interface
FC500-485 Equipped with RS-485, SI/F, USB interface
FC500-232 Equipped with RS-232C, SI/F, USB interface







Data memory function

Latest 100 data of calibration value and error information with clock time are recorded and can be checked via USB interface.

Basic weighing process control function

Equipped with weighing sequence function to control feeding/discharge gate.

Memory for 32 weight settings

32 different weight settings can be saved in the memory and selected through I/O or interface. Batch weighing can be performed easily.

Equivalent input calibration

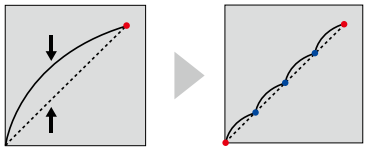
Theoretical calibration can be performed easily by registering the capacity and rated output of load cells.

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.

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	DC 5 V±5% Output current: Within 90 mA Ratiometric method (Up to 6 350 Ω load cells can be connected in parallel)
	Signal input range	−2.5 to +5.1 mV/V
	Zero adjustment range	Automatic adjustment by digital processing −0.5 to +2.0 mV/V
	Span adjustment range	Automatic adjustment by digital processing 0.005 to 3.2 mV/V
	Linearization function	Up to three point multi-point calibration is possible using linearization function
	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 Gain drift: 1 ppm/℃ 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. (Convertible to 300 times/sec.) Resolution: 24 bit (binary)
Display	Display unit	Character height 11 mm Numerical display by liquid crystal display module
	Display value	Up to 6 digits. Sign: Minus display on the highest digit
	Unit selectable	t, g, kg, lb, N, None
	Display frequency	Selectable from 1, 3, 6, 13, and 25 times/sec.
	Status display	COMPL./SP1/SP2/SP3/HI/GO/LO/NZ/TARE/NET/HOLD/ZALM/STAB RUN/SD/RD/ERR(FC500-CCL) MS/NS(FC500-EIP)
External signal	Input signal (5)	Selectable/ configurable <No-voltage contact input> Input is ON when shorted to COM terminal by contact (relay, switch, etc.) or non contact (transistor, photocoupler, etc.). <Voltage input plus common/ minus common shared>(specifies at time of order) Input is ON when a voltage is applied in between to input terminal and COM terminal by contact (relay, switch, etc.) or non contact (transistor, photocoupler, etc.). Rated voltage: DC 27.6 V or less "ON": when the voltage is above DC 9 V (Load Current: approx. 10 mA at DC 24 V), "OFF: " below DC 3 V.
	Output signal (5)	Selectable/ configurable PhotoMOS relay output (common for sink and source type) Vceo = 30 V, Ic = 50 mA
Interface	CC-Link interface (FC500-CCL) D/A converter (Current output) (FC500-DAC) EtherNet/IP interface (FC500-EIP) RS-485 interface (Selectable from Modbus-RTU or UNI-Format) (FC500-485) RS-232C interface (Selectable from Modbus-RTU or UNI-Format) (FC500-232) SI/F 2-wire type serial interface USB interface	

General specification	Power supply voltage	DC 24 V (±15%)
	Power consumption	6 W typ. (FC500-DAC, FC500-EIP) 5 W typ. (FC500-CCL) 4 W typ. (FC500-485, FC500-232)
	Operating conditions	Operation temperature: -10 to +50℃ Storage temperature: -20 to +85℃ Humidity: 85% RH or less (non-condensing)
	Dimension	65(W) × 94(H) × 108(D) mm (Not including projections)
	Weight	Approx. 370g
Attachments	Operation manual.....2 Mini driver .....1 Jumper wire .....2 I/O connector .....1 Power connector.....1 Interface connector(FC500-CCL, FC500-DAC, FC500-485).....1	
Optional accessories	CN74: CC-Link connector (Same as the attachment) CN75: CC-Link connector (Y type branch connector) CN76: CC-Link connector (Terminator connector) CN86: 3 p connector D/A converter (Same as the attachment) CN7B: Power connector (Same as the attachment) CN7D: I/O connector (Same as the attachment) CN7C: RS-485 connecter (Same as the attachment)	
CE marking certification	EMC directive EN61326-1	

* 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

FC500- □ □
① ② ③

①Standard unit

②Interface

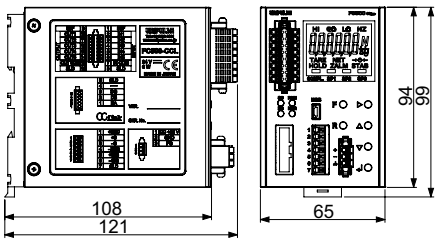
Model	Interface
CCL	CC-Link, SI/F, USB
DAC	D/A converter (Current output), SI/F, USB
EIP	EtherNet/IP, SI/F, USB
485	RS-485 (Selectable from Modbus-RTU or UNI-Format), SI/F, USB
232	RS-232C (Selectable from Modbus-RTU or UNI-Format), SI/F, USB

③Input signal

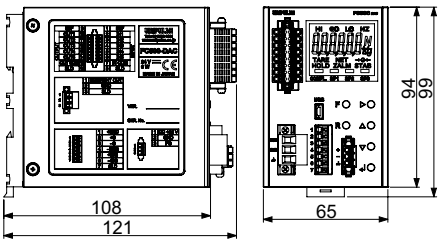
Sign	Input type
Standard	No-voltage contact input
DCI	Voltage input

External dimension

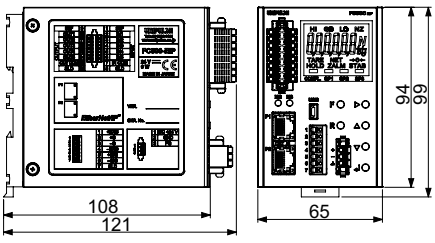
■ FC500-CCL



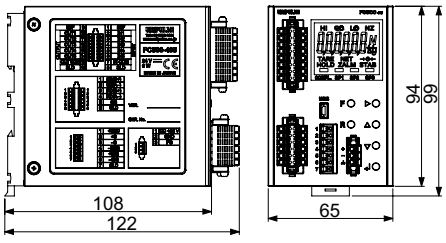
■ FC500-DAC



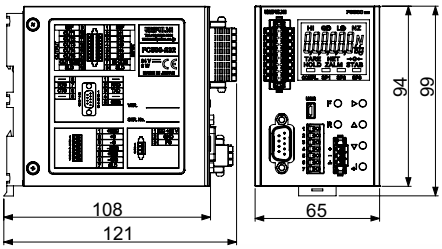
■ FC500-EIP



■ FC500-485



■ FC500-232



Unit: mm