F701+

ENHANCED VERSION
WEIGHING INDICATOR

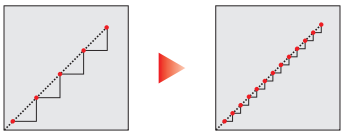
CE RoHS2 DIN 192×96

A weighing indicator F701 is functionally improved !!
Superb performance is achieved
with consideration for convenience at the site.

- High performance filter
- I/O board can be easily replaced on site

High sampling rate & resolution

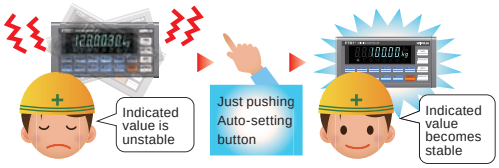
High-Speed A/D conversion and powerful digital processing capability of 500 times/sec.
High resolution of 1/10000 in all input range.
* It can be changed to 100times/sec.



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

Auto filter adjustment

Capable of adjusting filter automatically according to an operating condition. Helpful for setting at the test operation.



Digital low pass filter

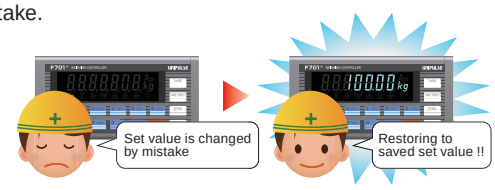
As it is resistant to vibration, measurement can be performed quickly and precisely.
* Conventional analog filter is also selectable

Displaying accumulated value with one-touch

Accumulated value can be shown with one-touch

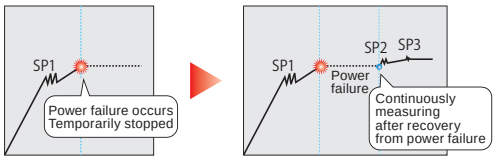
Set value restoration

Set value can be restored, in case set value is changed by mistake.



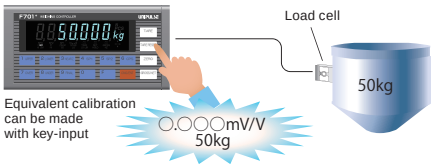
Recovery form temporary stop / power failure

Temporary measurement stop, and Operation restart mode are available. Measurement can be performed continuously from the middle .



Equivalent calibration

Equivalent calibration can be made easily by just inputting rated capacity and output of loadcell to F701+ with key button.



Connecting with printer by using RS-232C communication

Time data can be output for efficient data management.

Various optional interface

D/A converter, BCD output, RS-232C, RS485(Selectable from Modbus-RTU and UNI format), PROFIBUS-DP are available.

Sink type / source type are available

Type of I/O signal are selectable form Sink and Source.

Specifications

Analog	Excitation voltage	DC10V±5%　Output current：within 120mA Remote sense type（Up to 4 350Ω load cells can be connected in parallel）
	Signal input range	−0.5 to 3.0mV/V
	Zero adjustment range	Automatic adjustment by digital processing　−0.5 to 2.0mV/V
	Gain adjustment range	Automatic adjustment by digital processing　0.3 to 3.0mV/V
	Min. input sensitivity	0.3μV/count
	Accuracy	Non-linearity：within 0.01%/FS Zero drift：within 0.2μV/℃ RTI Gain drift：within 15ppm/℃
	A/D converter	Speed：Selectable from 500 times/sec, 100 times/sec Resolution：24bit
	Min. indicated resolution	1/10000
	Secondary calibration	Equivalent calibration Min. indicated resolution during secondary calibration: 1/1000 (room temperature)
Filter	Analog	Low-pass filter　Selectable from 2, 4, 6, 8Hz（−12dB/oct）
	Digital	Low-pass filter　Selectable from OFF, 1, 1.5, 2, 2.5, 3, 4, 5Hz
Display	Display unit	Character height 18.5mm Numerical display (7 digits) by fluorescent display tube
	Display value	5 digits, Sign; Minus sign displayed on most significant digit
	Display frequency	Selectable from 3, 6, 13, 25 times/sec
	Capacity	5 digits
	Min. scale division	Can be set from 1 to 100
	Over scale display	LOAD：A/D converter input over, −LOAD：A/D converter input minus over, OFL1：Net weight over, OFL2：Capacity +9 scale division, OFL3：Gross weight over
	Center zero	A true zero point or the center of each value is displayed.
	Unit	Selectable from kg/g/t/lb/N/None
	Status display	SP3/SP2/SP1/LOCK/ZT/ZALM/STAB/TARE/NET/GROSS/ HI LIM/HI/GO/LO/LO LIM/HOLD/NZ/CZ
Setting	Setting method	Settings are made by operating the membrane keys. Setting by RS-232C interface (option) and RS-485 interface (option) is also possible
	Memory of set value	Calibration value and a part of set value: NOV.RAM (nonvolatile RAM) Other set values: F-RAM (nonvolatile RAM)
	Protect of set value	Protect can be set by Lock switch and Lock parameter.
	Setting item	Upper limit, Lower limit, Near zero, Set point 1, Set point 2, Compensation, Over, Under, Final, Comparison inhibit time, Judging time, Complete output time, Compensation feeding time, Number of times for AZ, Number of times for judging, Auto free fall compensation regulation value, Tare setting, Weighing function 1, Weighing function 2, Weighing function 3, Sequence mode, Function key inhibited, Filter, Motion detect, Zero tracking, Setting value LOCK, Balance weight value, Capacity, Min. scale division, Net over, Gross over, DZ regulation value, Function selection, Compensation for gravitational acceleration, Zero calibration, Span calibration, Equivalent calibration, Input selection, Output selection, Moving average filter, Restart setting set point 1, Restart setting set point 2, Restart setting set point 3

External signal	You can specify whether PNP (Source) type or NPN (Sink) type when order the F701+. Output signals (12 points)　NZ, SP1, SP2, SP3, Under, Over, Lower limit, Upper limit, Stable, Output selection 1, Output selection 2, Output selection 3 Output turns ON when transistor is ON. * PNP (source) type: External voltage must be prepared separately by customer. Input signals (8 points)　G/N, D/Z, One-touch tare subtraction, Input selection 1, Input selection 2, Input selection 3, Input selection 4, Input selection 5 Contact (relay, switch etc.) or non-contact (transistor, open collector etc.) can be connected. * PNP (source) type: External voltage must be prepared separately by customer.
Interface	SIF：2-wire type serial interface 232：RS-232C communication interface（Option）＊1 485：RS-485 communication interface（Selectable from Modbus-RTU, UNI format）（Option）＊1 BCO：BCD parallel data output interface（Option）＊2 DAC：D/A converter (Option) ＊2 PRF：PROFIBUS interface (Option) ＊PROFIBUS-DPV0 ＊2 * 2 optional interface can be added in addition the standard interface. With ＊1(mark): only 1 option is available. With ＊2(mark): only 1 option is available.
General specification	Power supply voltage　AC100 to 240V（+10%−15%）(free power source 50/60Hz) Inrush current　1.5A, 1ms　AC100V average load condition（cold start at room temperature） 2.5A, 1ms　AC200V average load condition（cold start at room temperature） Power consumption　7W typ. Operating conditions　Operation temperature：−10 to +40℃ Storage temperature：−20 to +85℃ Humidity：85%RH or less(non-condensing) Dimensions　192(W)×96(H)×160(D)mm(Projections excluded) Weight　Approx. 1.5kg
Attachment	AC input cord（Nominal rating 125V）2m ×1、Load cell connector ×1、 Mini-screwdriver ×1、57 series 24p connector for external input / output ×1、 Operation manual ×1、BCD output connector ×1（with BCD output option）、 D/A converter connector ×1（with D/A converter option）
Accessories	CAAC2P-P2:　AC input cord 2m CAAC3P-CEE7/7-P1.5：　AC input cord（Voltage resistance:250V）1.5m CA4131：　(6-wired) cable with JRC connector at one end 3m CA4230：　JRC-PRC　(6-wired) conversion relay cable 0.3m CA4311：　JRC-PRC　(6-wired) conversion relay cable　(4-wired to 6-wired) (for 520A use) 1m CN3P-2P：　3P-2P converter plug for AC input cord CN10：　Loadcell connector（JRC connector） CN21：　57 series 36p connector for BCD output CN23：　57 series 24p connector for external input / output CN34：　D-Sub 9p connector for RS-232C

Structure of product code

F701+ □ □□□
① ② ③

①Standard unit

②I/O output

Sign	Output type
Standard	Sink type(NPN)
ISC	Source type(PNP)

③Interface

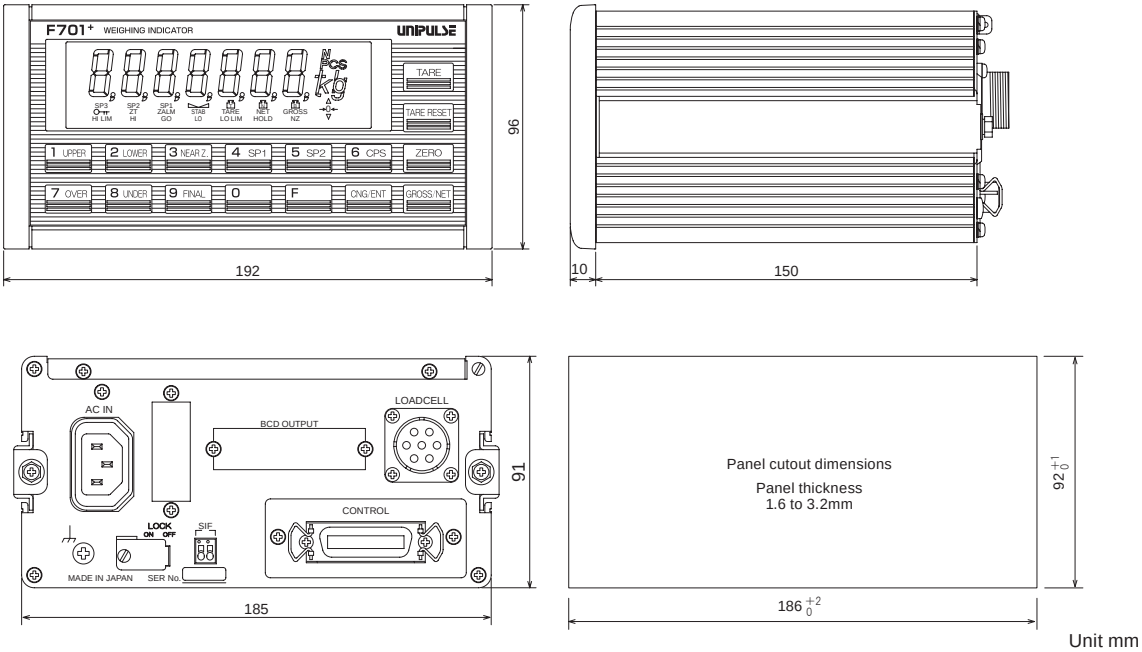
Sign	Interface
Standard	SIF

↓ 2 optional interface can be added in addition the standard interface.

232	RS-232C	＊1
485	RS-485 (Modbus-RTU / UNI-format)	＊1
BCO	BCD output (Sink type)	＊2
DAC	D/A converter	＊2
PRF	PROFIBUS	＊2

＊1(mark): only 1 option is available.
＊2(mark): only 1 option is available.

External dimension



Unit mm