

F701+

ENHANCED VERSION WEIGHING INDICATOR



**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

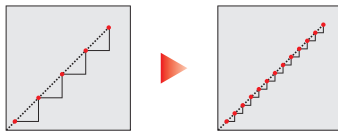


High sampling rate & resolution

High-Speed A/D conversion and powerful digital processing capability of 500 times/sec.

High resolution of 1/10000 in all input range.

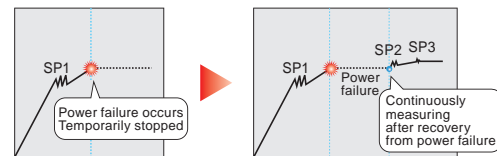
* It can be changed to 100 times/sec.



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

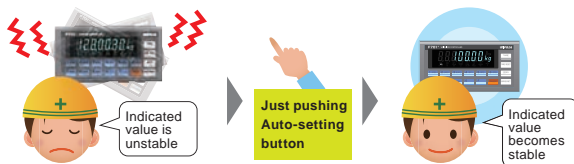
Recovery form temporary stop / power failure

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



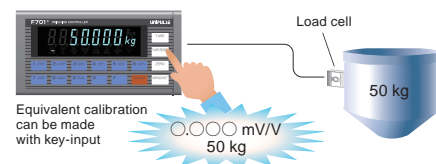
Auto filter adjustment

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



Equivalent calibration

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



Digital low pass filter

As it is resistant to vibration, measurement can be performed quickly and precisely.

* Conventional analog filter is also selectable

Connecting with printer by using RS-232C communication

Time data can be output for efficient data management.

Displaying accumulated value with one-touch

Accumulated value can be shown with one-touch

Various optional interface

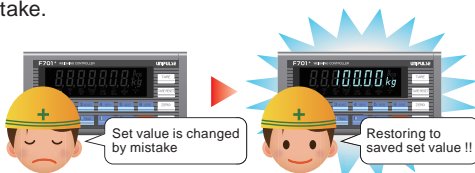
D/A converter, BCD output, RS-232C, RS485(Selectable from Modbus-RTU and UNI format), PROFIBUS-DP are available.

Set value restoration

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

Sink type / source type are available

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



Specifications

Analog	Excitation voltage	DC10 V±5% Output current: Within 120 mA Remote sense type (Up to 4 350 load cells can be connected in parallel)
	Signal input range	–0.5 to +3.0 mV/V Automatic adjustment by digital processing –0.5 to +2.0 mV/V Automatic adjustment by digital processing 0.3 to 3.0 mV/V Min. input sensitivity 0.3 µV/count Accuracy Non-linearity: Within 0.01% FS Zero drift: Within 0.2 µV/°C RTI Gain drift: Within 15 ppm/°C Speed: Selectable from 500 times/sec., 100 times/sec. Resolution: 24 bit (binary) 1/10000 Equivalent calibration Min. indicated resolution during secondary calibration: 1/1000 (room temperature)
Filter	Analog	Low-pass filter: Selectable from 2, 4, 6, 8 Hz (–12 dB/oct.)
	Digital	Low-pass filter: Selectable from OFF, 1, 1.5, 2, 2.5, 3, 4, 5 Hz
Display	Display unit	Character height 18.5 mm Numerical display (7 digits) by fluorescent display tube 5 digits. Sign: Minus sign displayed on most significant digit Display frequency Selectable from 3, 6, 13, 25 times/sec. Capacity 5 digits Can be set from 1 to 100 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 A true zero point or the center of each value is displayed. Selectable from kg/g/lb/N/None SP3/ SP2/ SP1/ LOCK/ ZT/ ZALM/ STAB/ TARE/ NET/ GROSS/ HI LIM/ HI/ GO/ LO/ LO LIM/ HOLD/ NZ/ CZ
	Center zero	
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 Calibration value: NOV.RAM (nonvolatile RAM) Other set values: F-RAM (nonvolatile RAM) Protect can be set by Lock switch and Lock parameter. 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
	Memory of set value	
Setting	Protect of set value	
	Setting item	
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. 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	
General specification	485: RS-485 communication interface (Selectable from Modbus-RTU, UNI format) (Option) *1	
	BCO: BCD parallel data output interface (Option) *2	
Attachment	DAC: D/A converter (Option) *2	
	PRF: PROFIBUS interface (Option) * PROFIBUS-DPV0 *2	
Accessories	2 optional interface can be added in addition to the standard interface.	
	With *1 (mark): only 1 option is available. With *2 (mark): only 1 option is available.	
Power supply voltage	AC 100 to 240 V (+10%–15%) (free power source 50/60 Hz)	
	Inrush current 1.5 A, 1 ms AC 100 V average load condition (cold start at room temperature)	
Power consumption	2.5 A, 1 ms AC 200 V average load condition (cold start at room temperature)	
	7 W typ.	
Operating conditions	Operation temperature: –10 to +40°C Storage temperature: –20 to +85°C	
	Humidity: 85% RH or less (non-condensing)	
Dimensions	192(W) × 96(H) × 160(D) mm (Projections excluded)	
	Weight Approx. 1.5 kg	
AC input cord (Nominal rating 125 V) 2 m x1, Load cell connector x1,	Mini-screwdriver x1, 57 series 24 p connector for external input/output x1,	
	Operation manual x1, BCD output connector x1 (with BCD output option),	
D/A converter connector x1 (with D/A converter option)		
CAAC2P-P2:	AC input cord 2 m	
	CAAC3P-CEE7/7-P1.5: AC input cord (Voltage resistance: 250 V) 1.5 m	
CA4131:	(6-wired) cable with JRC connector at one end 3 m	
	CA4230: JRC-PRC (6-wired) conversion relay cable 0.3 m	
CA4311:	JRC-PRC (6-wired) conversion relay cable (4-wired to 6-wired)	
	(for 520A use) 1 m	
CN3P-2P:	3P-2P converter plug for AC input cord	
	CN10: Loadcell connector (JRC connector)	
CN21:	57 series 36 p connector for BCD output	
	CN23: 57 series 24 p connector for external input/output	
CN34:	D-Sub 9 p connector for RS-232C	

* 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

F701+				
①	②	③		

① Standard unit

② I/O output

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

③ Interface

Sign	Interface
Standard	SIF

2 optional interface can be added in addition to 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

