Sep. 2021

Obsolete product

High-spec type
Weighing indicator
F820

Recommended substitute product

Weighing indicator
FC1000

■ Obsolete date: End of September 2021

■ Difference to recommended substitute product

Product appearance	Outside dimension	Mounting dimension	Product performance	Setting method
☆	☆	☆	☆	☆

◎ : Full compatible, ↑ : Performance improved, ○ : Almost no change, ☆ : Large change, ― : Not compatible

■ Product appearance

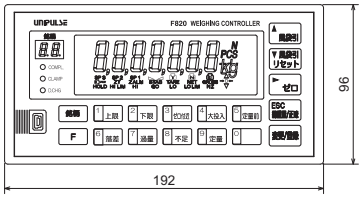
Obsolete product: F820	Recommended substitute product: FC1000
	

■ Outside dimension

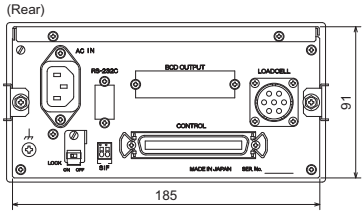
Obsolete product: F820

Unit: mm

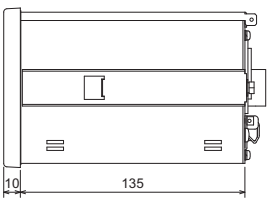
(Front)



(Rear)



(Side)

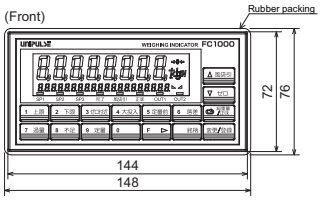


Panel cutout size 186^{+2}_{-0} × 92^{+1}_{-0}
Panel thickness 1.6 to 3.2mm

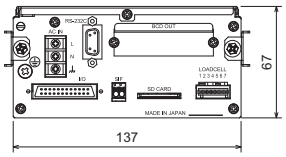
Recommended substitute product: FC1000

Unit: mm

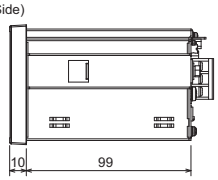
(Front)



(Rear)



(Side)



Panel cutout size 138^{+2}_{-0} × 68^{+1}_{-0}
Panel thickness 1.6 to 3.2mm

■ Specification		< Differences >
	Obsolete product: F820	**Recommended substitute product: FC1000**
Analog section		
Signal input range	-0.5 to 3.0mV/V	-2.5 to +5.1mV/V
Zero adjustment range	-0.2 to 2.0mV/V	-2.5 to +2.0mV/V
Gain adjustment range	0.3 to 3.0mV/V	0.02 to +3.0mV/V
Accuracy	Zero drift: 0.025μV/℃ RTI typ.	Zero drift: 0.0002%FS/℃ typ.
Low-pass filter	When A/D conversion rate is 1200 times/sec: 6, 8, 10, 12, 16, or 20Hz (selectable) When A/D conversion rate is 300 times/sec: 1.5, 2, 2.5, 3, 4, 5Hz (selectable)	0.1 to 300.0 Hz (changeable)
Min. display resolution	1/10000	—
Theoretical calibration	Equivalent input calibration	—
Display section		
Display unit	Main display: Fluorescent display tube Character height 18mm, 7-digit Code display: 7-segment green LED Character height 8mm, 2-digit	Main display: 7-segment LCD display Character height 14.4mm, 8-digit Sub display: 7-segment LCD display Character height 4.3mm, 20-digit
Display frequency	1, 2, 5, 10 and 20 times/sec (selectable)	1, 3, 6, 13 and 25 times/sec (selectable)
Scale capacity	5-digit numerical values	—
Minimum scale division/ increment	1 to 50 (selectable)	—
Over scale display	LOAD: A/D converter input over OFL1: Net weight > Net over set value OFL2: Gross weight > Capacity +9 scale divisions OFL3: Gross weight > Gross over set value	LOAD: A/D converter input over -LOAD: A/D converter input minus over OFL1: Net weight > Net over set value OFL3: Gross weight > Gross over set value
Center zero	Display true zero point or the center of each value	—
Status display	CLAMP / SP3 / SP2 / SP1 / HOLD / COMPL. / ZT / ZALM / STAB / TARE / NET / GROSS / NZ / D.CHG / HI / GO / LO / HI LIM / LO LIM / LOCK	SP1 / SP2 / SP3 / COMPLETE / TARE ON / NET / OUT1 / OUT2
External signal		
Compatible connector	Manufactured by DDK 57-30500 or equivalent	Manufactured by Fujitsu Component Connector: FCN-361J024-AU Cover: FCN-360C024-B or equivalent
External output signal	16 points	12 points
External input signal	22 points	8 points
Interface	<Standard equipment> USB: USB interface SIF: 2-wire serial interface <Options> 232: RS-232C interface BCO: BCD parallel data output interface DAC: D/A converter interface 485: RS-485 interface Number of installable options: 2 ([232] + (select any one from [BCO], [DAC] and [485]))	<Standard equipment> SIF: 2-wire serial interface SD card slot 232 or 485: Select either RS-232C or RS-485 interface when making order <Options> BCO: BCD parallel data output interface DAC: D/A converter interface CCL: CC-Link interface Number of installable options: 1 (select any one from [BCO], [DAC] and [CCL])

■ Specification		< Differences >
	Obsolete product: F820	**Recommended substitute product: FC1000**
Setting section		
Setting method	By operating the membrane keys or through interface (USB, RS-232C, RS-485)	By operating the membrane keys or through interface
Setting value memory	Parameter, calibration and part of other settings are stored on NOV.RAM (non-volatile memory), and all other settings are stored on F.RAM (another non-volatile memory).	Default settings: stored in NOV.RAM (non-volatile RAM) Time: backed up by lithium battery Other setting values: stored in F-RAM (non-volatile RAM)
Setting value protection	Overwrite protection by “LOCK” switch	Settings can be protected with the software LOCK
Setting items	- 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 / Auto Free Fall Compensation Regulation / Weighing Function 1 / Weighing Function 2 / Tare Setting / Tare Display - Digital Low Pass Filter / Moving Average Filter / Sample Speed / Motion Detection (Period-Range) / Zero Tracking (Period) / Zero Tracking (Range) - Weighing Function 3 / Key Invalid • Lock / Error Output Selection / Password - Bag Clamp Output Time / Discharging Time / Weighing Start Time / AZ Times / Judging Times / Sequence Mode 1 / Sequence Mode 2 - Extended Function Selection 1 / Extended Function Selection 2 / I/O Input Check / I/O Output Check / BCD Input Check / BCD Output Check / RS-485 Check - Balance Weight Value / Capacity / Min Scale Division / DZ Regulation Value / Display Selection / Gravitational Acceleration / Net Over / Gross Over - RS-485 I/F Setting / RS-485 Communication Type / RS-485 ID / RS-232C I/F Setting / RS-232C Communication Type / D/A Output Mode / D/A Zero Output Weight / D/A Full Scale Value / BCD Data Update Rate - Zero Calibration / Span Calibration / Equivalent Calibration / Output Monitor Display / Option Display	- Upper Limit / Lower Limit / Near Zero / Set Point 1 / Set Point 2 / Compensation / Over / Under / Final - Comparison Inhibit Time 1 / Judging Time / Complete Output Time / Compensation Feeding Time / AZ Times / Judging Times / Auto Free Fall Compensation Limit / Comparison Inhibit Time 2 / Tare Weight - Weighing Function 1 / Weighing Function 2 / Weighing Function 3 / Sequence Mode / Lock Function Keys / Discharge Time / Motion Detection(Time & Range) / Zero Tracking Time / Zero Tracking Range - Balance Weight Value / Minimum Scale Division / Net Over / Gross Over / DZ Regulation / Function Selection / Gravitational Acceleration / Sampling Speed / Sub display Selection - D/A Output Mode / D/A Zero Output Weight / D/A Full Scale / RS-232C / RS-485 Setting / ID Number / Delay Time / CC-Link Number / CC-Link Station / Level Signal Priority - Input Selection 1 / Input Selection 2 / Output Selection 1 / Output Selection 2 / Output Selection 3 / Status Display Selection / Automatic Filter Adjustment / Digital Low Pass Filter / Moving Average Filter - Batch Count / SP0 / Total Weight Comparison Selection / Target Total Weight (Upper 4 digit) / Target Total Weight (Lower 5 digit) / Total Weight Set Point (Upper 4 digit) / Total Weight Set Point (Lower 5 digit) - Read Settings from the SD Card / Write the Settings on the SD Card / Protect Settings / Extended Function Selection 1 / Extended Function Selection2 / Total weight control function - Average Weight / Max. Value / General Standard Deviation / Data Count / Latest Data / Max.-Min. / Option Board Confirmation - Span Calibration / Equivalent Input Span Calibration / Equivalent Input Zero Calibration / Linearize Calibration1 / Linearization Calibration2 / Linearization Calibration3 / Linearization Calibration ON/ OFF / Calibration Point Confirmation / Password / Zero Calibration

■ Specification < Differences >

	Obsolete product: F820	Recommended substitute product: FC1000
General performance		
Power consumption	Approx. 18W	5W
Operating conditions	Operation temperature range: -10 to +40 ℃ Storage temperature range: -20 to +85 ℃	Operation temperature range: -10 to +50 ℃ Storage temperature range: -20 to +60 ℃
Dimensions	192 (W) ×96 (H) ×145 (D) mm (Projections excluded)	144 (W) ×72 (H) ×109 (D) mm (Projections excluded)
Panel cutout size	186 (+2-0) ×92 (+1-0) mm	138 (+2-0) ×68 (+1-0) mm
Weight	Approx. 1.7kg	Approx. 850g
Attachments (Not including options)	AC input cord (nominal rating 125V) 2m ... 1 Load cell connector (JR connector) ..... 1 Connector rubber for load cells ..... 1 57 series connector for external input/output..... 1 Mini screwdriver ..... 1 Operation manual..... 1	AC input cord (nominal rating 125V) 3m ... 1 FCN series I/O connector (with cover) ..... 1 Load cell input connector..... 1 Operating tool ..... 1 Jumper cable ..... 2 SD card (1GB)..... 1 Rubber seal for dust & drop-proof protection ..... 1 Quick manual..... 1