Jun. 2021

Obsolete product ▶ Recommended substitute product

Network Type
Weighing Indicator

F850

Weighing indicator

FC1000

■ Obsolete date: End of July 2016
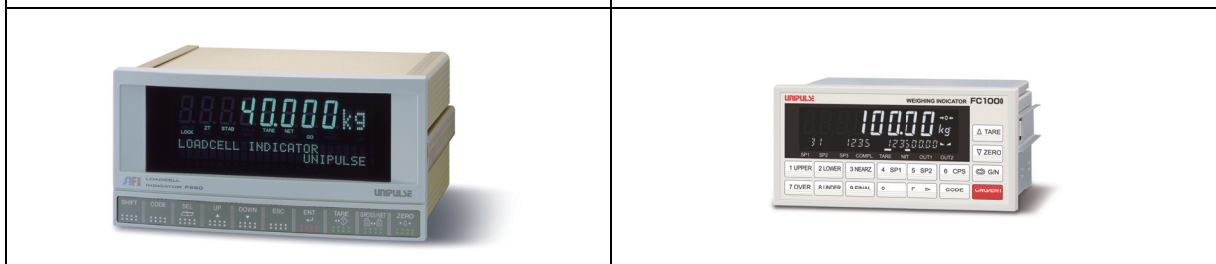
■ Difference to recommended substitute product

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: F850	Recommended substitute product: FC1000

■ Outside dimension

Obsolete product: F850	Recommended substitute product: FC1000

Unit: mm

(Front)
(Rear)
(Side)

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

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

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■ **Specification**		**Obsolete product: F850**	**< Differences >** **Recommended substitute product: FC1000**
RoHS2 Directive		Non-compliant	Compliant
Analog section	Excitation voltage	10V DC ±5%, Output current: within 120mA Remote sense type (Up to 4 350Ω load cells can be connected in parallel)	DC5V±5%, Output current: 90mA Remote sense type (Up to 6 350Ω load cells can be connected in parallel)
	Signal input range	—	-2.5 to +5.1mV/V
	Zero adjustment range	0 to approx. 2mV/V Rough adjustment: Digitally controlled by rough adjustment circuit Fine adjustment: Automatic adjustment by digital processing	-2.5 to +2.0mV/V Automatic adjustment by digital processing
	Gain adjustment range	0.3 to 2.0mV/V Rough adjustment: Digitally controlled by rough adjustment circuit Fine adjustment: Automatic adjustment by digital processing	+0.02 to +3.0mV/V Automatic adjustment by digital processing
	Min. input sensitivity	0.3µV/count	0.15µV/count
	Accuracy	Zero drift: within 0.1µV/ ℃ RTI Gain drift: within 15ppm/ ℃ Noise: within 0.1µVp-p RTI	Zero drift: 0.0002%FS/ ℃ typ. Gain drift: 1ppm/ ℃ typ.
	Filter	- Analog filter Bessel low-pass filter (-12dB/oct.) Selectable from 2, 4, 6, 8 Hz - Moving average filter Selectable from OFF, 2, 4, 8, 16, 32, 64, 128 times	- Digital low-pass filter 0.1 to 300.0 Hz (variable) - Moving average filter A/D converter_Speed 1200 times/sec.: OFF, 2 to 512 times A/D converter_Speed 300 times/sec.: 2 to 128 times
	A/D converter	Speed: 100 times/sec. Resolution: 16bit (binary)	Speed: Selectable from 1200, 300 times/sec. Resolution: 24bit (binary)
	Min. display resolution	1/10000	—
	Secondary calibration	Calibration can be carried out without an actual load by connecting a resistor to one of the bridges of a loadcell.	—
Display section	Display unit	Main display: fluorescent display character height: 17mm, 8 digits	Main display: 7-segment LCD display character height: 14.4mm. 8 digits Sub-display: 7-segment LCD display character height: 4.3mm、 20 digits
	Display frequency	Selectable from 3, 6, 13, 25 times/sec.	Selectable from 1, 3, 6, 13, 25 times/sec.
	Scale capacity	5 digits	—
	Min. scale division	1 to 100 selectable	—
	Over scale display	LOAD: A/D convert input over range OFL1: Net weight over OFL2: Scale capacity plus 9 counts OFL3: Gross weight over	LOAD: A/D converter input over -LOAD: A/D converter minus over OFL1: Net weight over OFL3: Gross weight over
	Center zero	True zero point (0±1/4 scale) or the center of each value is displayed.	—
	Status display	HOLD/ ZALM/ ZT/ STAB/ TARE/ NET/ GROSS/ CZ/ LOCK/ NZ/ SP1/ SP2/ SP3/ UNDER/ GO/ OVER/ LO/ HI	SP1/ SP2/ SP3/ COMPLETE/ TARE ON/ NET/ OUT1/ OUT2
	Dot matrix display	Messages that prompt operation in setting and calibration, display of setting values of constant feeding, numbers of measurement, accumulated value, error status	—

UNIPULSE

■ Specification   < Differences >

		Obsolete product: F850	Recommended substitute product: FC1000
Setting section	Setting method	By operating the membrance keys (up-down method) Also can be setup from RS-232 (option)	By operating the membrane keys or through interface

	Memory of set value	Default settings:
		  Stored in NOV.RAM(non-volatile RAM)
		Other setting values:
		  Stored in C-MOS RAM backed up by lithium battery
			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)

	Protection of set value	Settings can be protected with the LOCK (DIP switch)	Settings can be protected with the software LOCK
	Setting item	- CODE NO. (CODE) / FINAL / SP1 / SP2 / Compensation / Under / Over / Auto FF compensation regulation / compensation input timer - Unit display / decimal place / capacity / minimum scale / 1/4 scale display / gravitational acceleration compensation / zero calibration / balance weight / span calibration / display frequency - Clear, command (Digital Tare ON / accumulation clear etc.) - Control timer (start-measure timer / comparison inhibit timer etc.) - Control weight (tare / near zero etc.) - Comparison selection (near zero comparison weight /over / under comparison mode etc.) - Control mode (code assign / stable time etc.) - Control sequence (sequence mode / discharge gate control etc.) - Interface setting (RS-232C baud rate / SI/FII ID etc.) - Extended function selection (stable time filter / digital zero regulation etc.)	- 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 / Number of times for AZ / Number of times for judging / Auto free fall compensation regulation value / Comparison inhibit time 2 / Preset tare value - Weighing function 1 / Weighing function 2 / Weighing function 3 / Sequence mode / Key invalid-LOCK / Discharge time / Motion detection(Period - Range) / Zero tracking (Period) / Zero tracking (Range) - Balance weight value / Minimum scale division / NET weight over / GROSS weight over / DZ limitation value / Dispray selection / Gravitational acceleration / Sub-dispray mode / Sub-display selection - D/A output mode / D/A zero scale adjustment / D/A full scale adjustment / RS-232C/RS-485 setting / RS-232C/RS-485 ID / Transmission delay time / CC-Link I/F setting / CC-Link station number setting / Setting LOCK - Input selection 1 / Input election 2 / Input election 3 / Output election 1 / Output election 2 / Output election 3 / Output election 4 / Status display election / Sampling speed - Total count / SP0 / Total omparison mode / Target total weight (high 4) / Target total weight (under 5) / Total SP1 (high 4) / Total SP1 (under 5) - SD card command 1 / SD card command 2 / Time and Date / Auto adjustment filter / Digital low pass filter / Moving average filter / Extended function selection 1 / Extended function selection 2 / Total weight control function - Average weight value / Maxmum weight value / Minimum weight value / General standard deviation / Sample standard deviation / Number of data / Latest data / Maxmum-Minimum / Option dispray - Span calibration / Equivalent span calibration / Equivalent zero calibration / Linearize calibration 1 / Linearization calibration 2 / Linearization calibration 3 / Linearization Calibration / Calibration Point Confirmation / Password / Zero Calibration

■ Specification   < Differences >

		Obsolete product: F850	Recommended substitute product: FC1000
External signal	Applicable connector	Manufactured by DDK 57-30500 (accessory or an equivalent)	Manufactured by Fujitsu Components connector: FCN-361J024-AU cover: FCN-360C024-B (accessory or an equivalent)
	External output signal	16 points	12 points
	External input signal	23 points	8 points

Interface		<Standard>
		SIF: 2-wire type serial interface
		SI2: 2-wire high speed bidirection serial
		      interface
		
		<Option>
		232: RS-232C interface
			<Standard>
			SIF: 2-wire type serial interface
			SD card slot
			232 or 485:
			     Select either RS-232C or RS-485 interface
			
			<Option>
			BCO: BCD parallel data output interface
			DAC: D/A converter current output
			CCL: CC-Link interface
			
			Number of option that can be added: 1
			(BCO, DAC or CCL)

General performance	Power supply voltage	AC85 to 110V, 102 to 132V, 170 to 220V, 187 to 242V (Please specify when ordering)	AC100 to 240V (+10% -15%) (free power source)
	Power consumption	Approx. 15VA	5W
	Operating conditions	Operating temperature range: -10 to +40 ℃ Storage temperature range: -40 to +80 ℃	Operating temperature range: -10 to +50 ℃ Storage temperature range: -20 to +60 ℃
	Dimensions	192(W) × 96(H) × 154(D) mm (protruding parts not included)	144(W) × 72(H) × 109(D) mm (protruding parts not included)
	Panel cutout dimensions	186(+2-0) × 92(+1-0) mm	138(+2-0) × 68(+1-0) mm
	Weight	Approx. 2.2kg	Approx. 850g
Attachments (Not including options)		AC input cord (nominal rating 125V) 2m ....1 Mini-driver ....1 Loadcell connector (JR connector) ....1 Control signal connector ....1 Operation manual...1 Spare fuse (1A) 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