UNIPULSE

F741-C

WEIGHING INDICATOR for PROFIBUS



DIN 144×72 CE RoHS

PROFIBUS

The F741-C is a high-noise-resistant weighing indicator by which stable indicated values can be obtained. Compatible with a fieldbus (PROFIBUS), and serial and analog outputs, it can be combined with a wide variety of plant devices.



REAL SIZE

High noise resistance and stable indicated values

High noise resistance is realized by use of control circuitry completely photo-coupler-isolated from the internal circuitry. Furthermore, the F741-C is provided with a low pass filter to eliminate mechanical vibrations and a digital filter to suppress fluctuations in indicated values, so that stable indicated values can be obtained.

Compatibility of fieldbus, serial and analog outputs

■PROFIBUS

The F741-C can be connected as a slave device to a PROFIBUS fieldbus.

■RS-232C

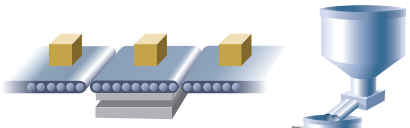
The F741-C comes with the RS-232C I/F enabling reading of indicated values and status, and reading and writing of setting values as standard.

■D/A converter

Indicated values can be output as current signals (4 – 20mA).

F741-C WEIGHING INDICATOR for PROFIBUS

Comparison modes convenient for checker and hopper scales



Checker scale

Hopper scale

Upper/lower limit comparison mode

Convenient for checkers. Weight values and upper/lower limit setting values are compared.

Over/under comparison mode

Over and under of weight values can be judged by setting a target value.

Discharging control mode

A fixed amount can be accurately discharged from a tank like a hopper.

Simple operation by bright LED and large keys

Through the adoption of a 7-segment LED having a long life, high brightness, and high resistance to vibration and impact, setting operation can be performed efficiently with setting keys that are functionally arranged on the main body.



Equivalent input calibration

Calibration can be performed by simply key-inputting a weight value corresponding to the output value of the loadcell. This is useful in such a case that actual load cannot be applied structurally.

High-speed sampling and high resolution

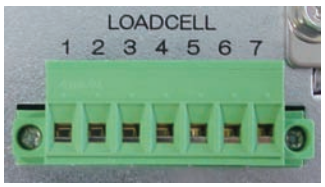
With the capacity of high-speed A/D conversion of 100 times/sec. (internal sampling: 3200 times/sec.) and high-speed digital processing, a display resolution of 1/10000 is assured across an entire input range.

Free power

100V to 240V AC is supportable without switching.

Removable two-piece terminal block

For loadcell connection, a space-saving screw type terminal block is adopted. It is a two-piece type removable from the main body.

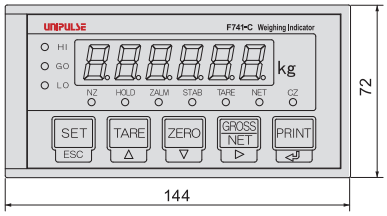


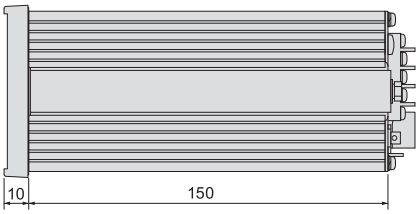
Specification

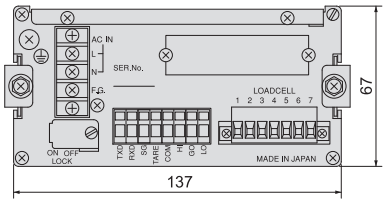
Analog section	Excitation voltage	DC10V±5% Output current: within 120mA Remote sense type (Up to four 350Ω load cells can be connected in parallel.)
	Signal input range	−0.2 ~ 2.2mV/V
	Zero adjustment range	0 ~ 2.0mV/V Automatic adjustment by digital operation
	Span adjustment range	0.3 ~ 2.0mV/V Automatic adjustment by digital operation
	Minimum input sensitivity	0.3μV/count
	Accuracy	Non-linearity: within 0.01%/FS Zero drift: within 0.2μV/℃ RTI Gain drift: within 15ppm/℃
	Analog filter	Bessel type low-pass filter (-12dB/oct) Cutoff frequency 2Hz
	A/D converter	Conversion rate: 100 times/sec. (Internal sampling 3200 times/sec.) Conversion resolution: 24bit (binary) Effective resolution: 320000 or more (With respect to -0.2 ~ 2.2mV/V)
	Minimum indication resolution	1/10000
	Secondary calibration	Equivalent input calibration Minimum indication resolution for secondary calibration :1/1000 (ordinary temperature)
Display section	Display	Numerical display tube; 14mm in character height Numerical display by 7-segment green LED (6 digits)
	Indicated value	6-digit, sign: negative display at the highest digit
	Display frequency	Select from 3, 6, 13 or 25 times/sec. (The system speed is 100 times/sec.)
	Unit	g, kg, t, lb, N, oz, and kN selectable (kg printed: Others are changed by the attached label.)
	Capacity	5 digit
	Min. Scale Division	Setting allowable in the range of 1 ~ 100.
	Decimal point	Select from 0, 0.0, 0.00 or 0.000 (Zero blanking display by decimal point position)
	Over display	LOAD: A/D converter input over, OFL1: Net Over, OFL2: Capacity + 9 scale division, OFL3: Gross Over
	Center zero	A true zero point or the center of each value is displayed.
	Status display	NZ / HOLD / ZALM / STAB / TARE / NET / CZ / HI / GO / LO (COMPL / SP2 / SP1)
Setting section	Setting method	Settings are made by operating the membrane keys. Also, settings can be made from a host computer through the RS-232C interface.
	Memory of set values	NOV RAM (nonvolatile RAM)
	Setting item	• Upper/lower Limit Comparison mode: Upper Limit / Lower Limit / Hold time / Near Zero / Tare setting / Tare display • Over/Under Comparison Mode: Target value / Over / Under / Hold time / Near Zero / Tare setting / Tare display • Discharging control Mode: Final / Compensation / Set point 1 /Comparison Inhibit Time / Judging Time / Complete Output Time / Near Zero / Tare setting / Tare display • Password / Digital Filter / Motion Detection (Period) / Motion Detection (Range) / Zero Tracking (Period) / Zero Tracking (Range) / Weighing Function 1 / Weighing Function 2 / Function key invalid • LOCK • Balance Weight Value / Capacity / Min. Scale Division / DZ Regulation Value / Display Selection / Gravitational Acceleration / Equivalent input calibration / Zero Calibration / Span Calibration • RS-232C I/F / D/A Output Mode / D/A zero Output / D/A Full Scale / PROFIBUS I/F / PROFIBUS Baud rate / Station No.
External input/output	Output signals(3points)	HI / GO / LO (Can be changed to COMPL / SP2 / SP1) With short-circuit current limiting function by external power source. Transistor open collector output (Emitter = COM terminal) Output LO with transistor ON.
	Input signals(1point)	TARE ON when shorted with COM terminals by contact (relay, switch, etc.) or non-voltage-contact (transistor,TTL open-collector output, etc.)
Interface	• 232: RS-232C communication interface • DAC: D/A converter (option) Current output 4 ~ 20mA • PRF: PROFIBUS interface (option) PROFIBUS-DP V0 Only 1 option can be installed	
General performance	Power supply voltage	AC100 ~ 240V (+10%−15%) (free power source 50/60Hz)
	Power consumption	Approx. 12W
	Rush current	18A, 1.5mSec...100V AC mean load state (ordinary temperature, at cold-start time) 42A, 1.6mSec...240V AC mean load state(ordinary temperature, at cold-start time)
	Operating conditions	Temperature Operation: −10 ~ +40℃ Storage: −20 ~ +85℃ Humidity 85%RH or less (non-condensing)
	Dimension	144 (W) × 72 (H) × 160 (D) mm (Projections excluded)
	Weight	Approx. 1.0kg
Attachment	AC input cord *3m ---- 1 Unit and status indication label ---- 1 Mini screwdriver for terminal block connection ---- 1 * The attached power cable is for 100V AC power in Japan.	Jumper line ---- 2 Connector for D/A converter (with D/A converter option) ---- 1 Operation manual ---- 1
Optional accessories	CAAC2P-B3: AC input cord 3m CAAC3P-CEE7/7-B2: AC input cord (voltage resistance 250V) 2m CN70: Connector for D/A converter CN80: Loadcell input connector terminal	

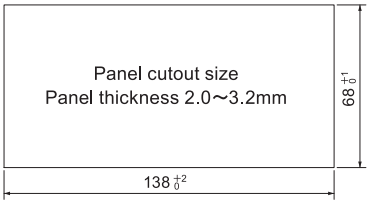
Dimensions

Unit:mm









* Be aware that the specifications and design described in this catalog are subject to change without notice due to product improvements.

http://www.unipulse.co.jp E-mail: sales@unipulse.com

Unipulse Corporation

International Sales Department
9-11 Nihonbashi Hisamatsucho,
Chuo-ku, Tokyo 103-0005
Tel: +81-3-3639-6121
Fax: +81-3-3639-6130

Head Office: 9-11 Nihonbashi Hisamatsucho, Chuo-ku, Tokyo 103-0005
Technical Center: 1-3 Sengendainishi, Koshigaya, Saitama 343-0041
Nagoya Sales Office: CK16 Fushimi Bldg 1-24-25 Sakae, Naka-ku, Nagoya 460-0008
Osaka Sales Office: Sumitomo Seimei Shin Osaka Kita Bldg 4-1-14 Miyahara, Yodogawa-ku, Osaka 532-0003
Hiroshima Sales Office: Funairi Reiku Bldg 9-20 Funairihonmachi, Hiroshima 730-0843
Fukuoka Sales Office: Tada Bldg 1-16 Tsunaba-cho, Hakata-ku, Fukuoka 812-0024

Rev.1.00 2008 JUL.