

# UNIPULSE

# F741-C

WEIGHING INDICATOR for PROFIBUS



DIN 144x72 CE RoHS

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.

# PROFIBUS



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.

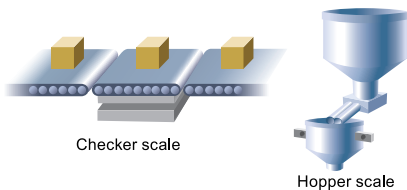
#### ■ RS-232C

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).

## Comparison modes convenient for checker and hopper scales



### 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

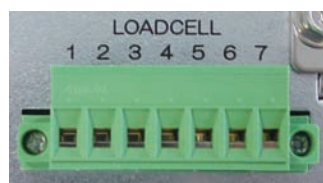
With the capacity of high-speed A/D conversion of 100 times/sec. (internal sampling: 3200 times/sec.) and high-speed digital processing, a display resolution of 1/10000 is assured across an entire input range.

## 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.

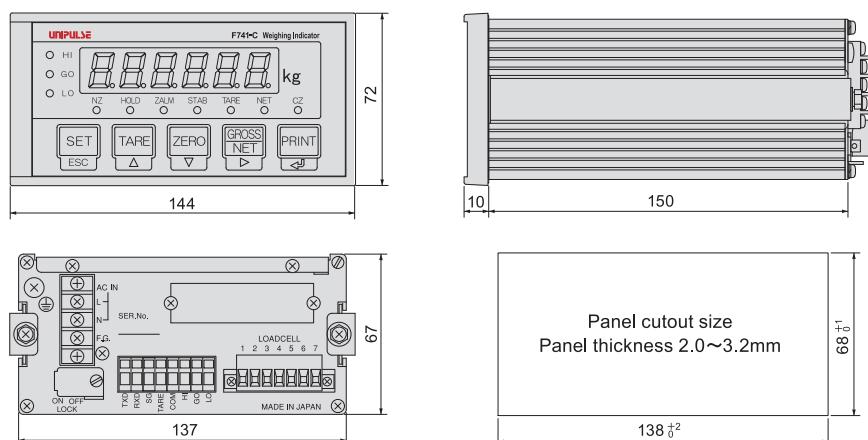


## Specification

Analog section	Excitation voltage Signal input range Zero adjustment range Span adjustment range Minimum input sensitivity Accuracy Analog filter A/D converter	DC10V±5% Output current: within 120mA Remote sense type (Up to four 350Ω load cells can be connected in parallel.) -0.2 ~ 2.2mV/V 0 ~ 2.0mV/V Automatic adjustment by digital operation 0.3 ~ 2.0mV/V Automatic adjustment by digital operation 0.3μV/count Non-linearity: within 0.01%/FS Zero drift: within 0.2μV/°C RTI Gain drift: within 15ppm/°C Bessel type low-pass filter (-12dB/oct) Cutoff frequency 2Hz 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) 1/10000 Equivalent input calibration Minimum indication resolution for secondary calibration: 1/10000 (ordinary temperature)
Display section	Display Indicated value Display frequency Unit Capacity Min. Scale Division Decimal point Over display Center zero Status display	Numerical display tube: 14mm in character height Numerical display by 7-segment green LED (6 digits) 6-digit, sign: negative display at the highest digit Select from 3, 6, 13 or 25 times/sec. (The system speed is 100 times/sec.) g, kg, t, lb, N, oz, and kN selectable (kg printed: Others are changed by the attached label.) 5 digit Setting allowable in the range of 1 ~ 100. Select from 0, 0.0, 0.00 or 0.000 (Zero blanking display by decimal point position) LOAD: A/D converter input over, OFL1: Net Over, OFL2: Capacity + 9 scale division, OFL3: Gross Over A true zero point or the center of each value is displayed. NZ / HOLD / ZALM / STAB / TARE / NET / CZ / HI / GO / LO (COMPL / SP2 / SP1)
Setting section	Setting method Memory of set values Setting item	Settings are made by operating the membrane keys. Also, settings can be made from a host computer through the RS-232C interface. NOV RAM (nonvolatile RAM) • 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) Input signals(1point)	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. TARE ON when shorted with COM terminals by contact (relay, switch, etc.) or non-voltage-contact (transistor, TTL open-collector output, etc.)
Interface		• 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 Power consumption Rush current Operating conditions Dimension Weight	AC100 ~ 240V (+10%~15%) (free power source 50/60Hz) Approx. 12W 18A, 1.5mSec., 100V AC mean load state (ordinary temperature, at cold-start time) 42A, 1.8mSec., 240V AC mean load state (ordinary temperature, at cold-start time) Temperature Operation: -10 ~ +40°C Storage: -20 ~ +85°C Humidity 85%RH or less (non-condensing) 144(W)×72(H)×160(D)mm (Projections excluded) Approx. 1.0kg
Attachment	AC input cord *3m Unit and status indication label Mini screwdriver for terminal block connection * 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.

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