

For Pressure,  
Load and  
Torque  
Measurement



## The function-packed mini digital indicator

F340A is the digital indicator for various types of strain gauge type sensors that measure pressure, load and torque. While having a mini DIN96 size, it is built in with Super High Speed Peak Hold Function and 100 times/second digital processing Sample Hold Function and HI/LOW Limit Comparison Function. It is best used in the Pass/Fail acceptance judgment done by automated machines, sorters and also testers. It can be calibrated without having to use actual load by keying in only the sensor rated output via its Equivalent Input Calibration Function. This digital indicator has been made affordable while having all of these convenient functions at the same time:

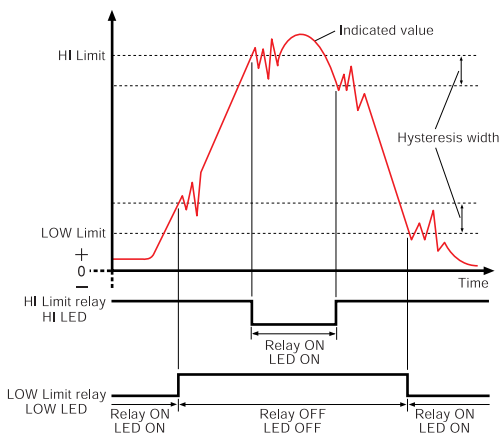
- High Speed Peak / Sample Hold
- HI/LOW Limit Comparison Function with Hysteresis
- Equivalent Input Calibration Function
- Analog Monitor Output
- Interface (Option)
  - BCD parallel data output
  - RS-232C
  - D/A converter



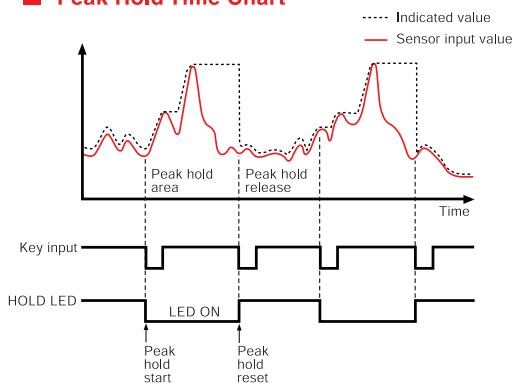
# DIGITAL INDICATOR F340A

- Through its Equivalent Input Calibration Function, calibration can be done by only keying in the sensor rated output without having to use actual load.
- Digital processing is performed within 1/100 second of sensor input signal and it is mounted with high speed A/D converter and high speed CPU output.
- With Peak / Sample Hold Function for high speed operation.
- With HI/LOW Limit Comparison Function with Hysteresis that prevents from chattering and speeds up the correct comparison output.
- Equipped with SI/F output, BCD parallel data output\*, RS-232C\*, D/A converter\* (※: Optional)
- With Digital Zero Function for one-touch zeroing of indicated value.
- Has analog/digital filter that minimizes flickering of indicated value for a stable display.
- Has a DIN96 mini size and is lightweight
- Has a Self-Check Function that detects abnormalities in CPU, ROM and internal circuits for improved reliability.

## HI/LOW Limit Relay Time Chart



## Peak Hold Time Chart



Please note that specifications or designs shown in this catalog may vary due to our continuous product improvement activities.

## [ Specifications ]

### ANALOG

Sensor applied voltage DC10/2.5V±10%; Output current: within 30mA  
 Signal input range -3.0 ~ +3.0 mV/V  
 Equiv. input calibration range +0.5 ~ +3.0 mV/V  
 Equiv. input calibration error Within 0.1% FS (at 0.5 mV/V input)  
 Actual load calibration range +0.5 ~ +3.0 mV/V  
 Zero adjustment range -2 ~ +2 mV/V  
 Min. input sensitivity 1 μV/count (1/10000 guaranteed at 1 mV/V input)  
 Accuracy Non-linearity: within 0.02% FS (at 3 mV/V input);  
 Zero drift: within 0.5 μV/°C; Gain drift: within 25 ppm/°C  
 Speed: 100 times/second; Resolution: 16 bit (binary)

A/D converter 4 / 10 / 100 / 3k Hz  
 Analog filter At 3 mV/V input; Performance response speed: approx. 1 kHz  
 Peak Hold Function (high speed analog hold method) (at sine wave input, analog filter 3 kHz)  
 Accuracy: 0.1% FS or less; Reset time: 50 μs or less  
 Voltage output Analog voltage proportional to sensor input;  
 SI/F output Output level: app. 2V per 1 mV/V input  
 Output data: Indicated value, status

### DISPLAY

Display unit 15 mm font height: 7-segment red LED numericals display (5 digits);  
 5-digits numericals: ± 8.8.8.8.8.; Indicated value: -19999 ~ 19999;  
 Decimal points: Selectable decimal point displaying position  
 Display items Status display: 5 red LED display for HI, OK, LOW, PEAK, HOLD;  
 Display times/second: Selectable at 3, 6, 13 and 25 times/sec

### SETTING

Setting item Calibration: Zero/Span calibration (Actual load/Equivalent Input Calibration)  
 HI limit, LOW limit, HI/LOW limit comparison mode, hysteresis,  
 digital offset, near zero, digital filter, analog filter, motion detect,  
 zero tracking, hold mode, auto print, hold value print, LOCK,  
 min scale, display frequency, excitation voltage, BCD data update rate,  
 RS-232C, D/A converter zero setting, D/A converter full scale setting

### EXTERNAL SIGNAL

HI limit relay output, LOW limit relay output,  
 (AC spec. : Rating is 250V AC and 0.5A, DC spec. : Rating is 30V DC and 0.5A)  
 digital zero signal input, hold signal input, analog voltage output

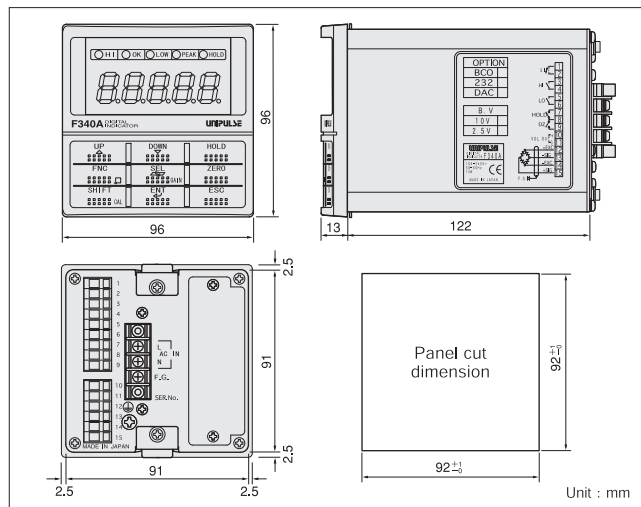
### INTERFACE

SI/F output, BCD parallel data output\*, RS-232C\*, D/A converter\*  
 (※ are optional; only 1 option can be installed)

### GENERAL SPECIFICATIONS

Power source voltage AC: 100-240 V+10%-15% (Flexible power source); 50/60 Hz;  
 DC: 12-24 V ( ± 15%) ※For DC requirement, please specify when ordering.  
 Power consumption AC: max 15 W; DC: max 15 W  
 Rush current (Typ) AC: 20A 1.0 msec: AC100V average load condition  
 (cold start at room temperature)  
 40A 1.0 msec: AC200V average load condition  
 (cold start at room temperature)  
 DC: 20A 0.5 msec: DC12V average load condition  
 (cold start at room temperature)  
 40A 0.5 msec: DC24V average load condition  
 (cold start at room temperature)  
 Operation conditions Temperature: Operation temperature range -10~+40°C  
 Storage temperature range -40~+80°C  
 Humidity: 85% RH or less (no dew condensation)  
 External dimension 96(W) x 96 (H) x 135(D) mm (protruding areas are not included);  
 App. 0.9 kg; Panel cut dimension 92 x 92+1-0 mm  
 CE-marked product EMC Directive EN61326-1 (CLASS A); Safety Standard EN61010-1

### EXTERNAL APPEARANCE



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