

F372A

GRAPHIC DISPLAY/ TOUCH PANEL TYPE DIGITAL INDICATOR



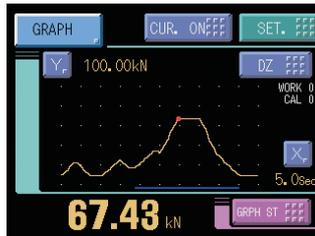
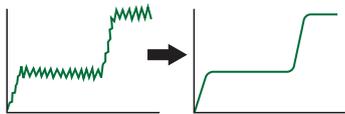
- CE marking certification
- RoHS-compliant product
- 2000 times/sec high-speed processing
- Analog monitor output
Voltage output is proportionate to the input signal making the recording on recorder convenient.
Approx. 2V per 1mV/V strain gauge input
- A variety of interfaces
RS-232C/BCD output(Sink type / Source type)/D/A output/
DeviceNet/CC-Link
- I/O input: minus common
I/O output: selectable between sink and source type

- 3.5 inch color LCD module & touch panel
Setting operation made easy via direct touch on the touch panel.
- Multi calibration function
Stores calibration values for 4 ch portions and can be selected via touch panel or external signal
- Alarm function
Monitors if the measured value is abnormal
 - Hi/Lo limit for in comparison setting
 - A/D input range
 - Overflow
 - Digital zero regulation value

Waveform display

Input signal from the sensor is displayed as real-time waveform display.

Greatly shortens the adjustment time during the machine's start-up.
Assuredly cancels vibration, noise and unwanted inputs. The filtering results can be confirmed from the waveform.



The Hold point is marked in red

Greatly improves the machine's reliability through its in-process operational check.

The machine's operation can be consistently monitored through the waveform and hold points in-process check.
Can also be used when investigating causes of the machine's trouble.

Work selection (multi hold)

This function compares the required points in the waveform with the Hi/Lo limits. F372A stores up to 16 types of settings (settings such as types of holds or Hi/Lo limits) which can be selected via external signals.

[Types of holds]

Sample, Peak, Bottom, P-P, Average, Inflection Point,
Relative Maximum, Relative Minimum, Relative Difference

[Setting of range]

Externally specified range (Peak, Bottom, P-P, Average)
Externally + time specified range (Peak, Bottom, P-P, Average)
Level + time specified range (Peak, Bottom, P-P, Average)
Level (Peak, Bottom)

Storing of measured data and setting values

Using the special communication software, the setting values can be edited and stored. The same special communication software can also create the CSV output of the measured data.

Extended functions

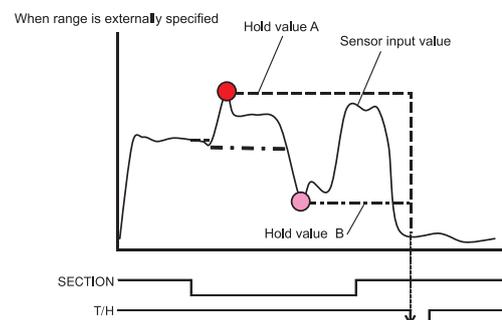
Extended functions through simple screen operation

- **Double hold**
2 types of Hold functions can be simultaneously performed.
- **Previous value comparison**
The difference generated after deducting the measured value held earlier can be compared with the Hi/Lo limit.
- **Relative value comparison (only during Double hold)**
The difference (relative difference) between hold value A and hold value B can be compared with the Hi/Lo limit.



Displayed in the special measuring screen for double hold

(Example) A: Peak hold B: Bottom hold
Holds maximum value and minimum value in the specified range. The values are held until the T/H signal is activated.



Specifications

ANALOG	Excitation voltage	DC10V, 2.5V ± 5% (depending on settings); Output current: within 120mA	
	Signal input range	-3.0 to +3.0mV/V	
	Accuracy	Non-linearity	Within 0.02%/FS ± 1 digit (at 3.0mV/V input)
		Zero drift	Within 0.5μV/°C RTI
		Gain drift	Within 0.01%/°C
Analog filter	Low pass filter (-6dB/oct); Selectable from 30, 100, 300, 1kHz		
A/D converter	Speed: 2000 times/sec; Resolution: 24 bit approx, 1/30000 at 3.0mV/V input		
Analog monitor output Output level: Approx. 2V per 1mV/V input ; Load resistance: 2kΩ or more			
DISPLAY	Display unit	TFT color LCD	
	Display area	71 (W) × 53 (H) mm	
	Dot structure	320 x 240 dot	
	Measured value	5 digits: -99999 to +99999 Sign: Minus sign on most significant digit	
HOLD	1) Sample; 2) Peak; 3) Bottom; 4) P-P; 5) Average; 6) Inflection Point; 7) Relative Maximum; 8) Relative Minimum; 9) Relative Difference; 10) Sample & Peak; 11) Sample & Bottom; 12) Sample & P-P; 13) Sample & Average; 14) Sample & Inflection Point; 15) Sample & Relative Maximum; 16) Sample & Relative Minimum; 17) Sample & Relative Difference; 18) Peak & Bottom; 19) Peak & P-P; 20) Bottom & P-P; 21) Average & Peak; 22) Average & Bottom; 23) Average & P-P; 24) Relative Maximum & Relative Minimum; 25) Relative Maximum & Relative Difference; 26) Relative Minimum & Relative Difference		
COMPARISON FUNCTION	Higher Hi (HH) limit setting, Lower Lo (LL) limit setting, High (HI) limit setting, Lower (LO) limit setting		
CALIBRATION VALUE SELECTION	Stores up to 4 types of calibration values that can be interchanged		
EXTERNAL SIGNAL	External output signal (8)	Hi/Lo comparison output (HH, HI, OK, LO, LL)/RUN output/ Hold end output/ Graph plotting end output Vce = 30 V (max), Ic = 30 mA (max)	
	External input signal (10)	Work selection input/ hold control input/ digital zero input (DZ)/ graph plotting control input/ calibration selection input Ic = 10 mA or less	
INTERFACE	SIF: 2-wire type serial interface 232: RS-232C communication interface BCO: BCD parallel data output interface (Sink type)(Option) BSC: BCD parallel data output interface (Source type)(Option) DAV: D/A converter voltage output (Option) DAI: D/A converter current output (Option) ODN: DeviceNet interface (Option) CCL: CC-Link interface (Option) (Only one option can be installed)		
OPTION	ISC: I/O Source board		
GENERAL SPECIFICATIONS	Power supply voltage	DC24V (±15%)	
	Power consumption	5W typ	
	Inrush current (Typ)	55 A, 1 msec (cold start at room temperature)	
	Operation condition	Temperature: Operation temperature	-10 to +40°C
		Storage temperature	-20 to +60°C
	Humidity	Humidity: 85% RH or less (non-condensing)	
External dimension	96 (W) x 96 (H) x 138 (D) mm (not including projections)		
Weight	Approx. 1.0 kg		

ATTACHMENTS	FCN series I/O connector (with cover).....	1
	Operation Manual.....	1
	BCD output connector (when BCD output option is selected).....	1
	Mini driver (when D/A converter option is selected).....	1
	DeviceNet connector (when DeviceNet option is selected).....	1
	CC-Link connector (when CC-Link option is selected).....	1
OPTIONAL ACCESSORIES	CA372-I/O: Cable with FCN connector at one-end 3m	
	CA600-BCDCNV: FCN connector 32p-57*36p cable 0.3m	
	CA81-232X: miniDIN-D-Sub9p cross cable 1.5m	
	CN50: FCN series I/O connector (with cover)	
	CN55: FCN series I/O connector (with diagonal cover)	
	CN60: Round DIN 8p connector for RS-232C	
	CN51: BCD output connector	
	CN71: CC-Link connector	
	CN72: Double row connector for CC-Link	
	CN80: Analog I/O connector terminal	
	CND01: DeviceNet connector	
	DTC: Special case	
	GMP96x96: Rubber packing	
TSU03: DC Lightning surge unit		
CE MARKING CERTIFICATION	EMC Directive EN61326-1	

Structure of product code

F372A □ □
① ② ③

① Standard unit

② I/O output

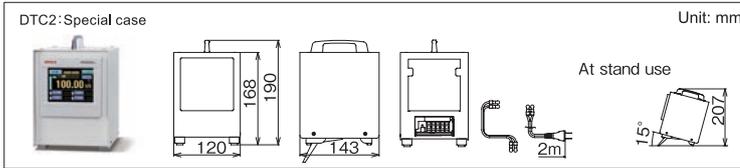
Sign	Output type
Standard	Sink type (NPN output)
ISC	Source type (PNP output)

③ Interface

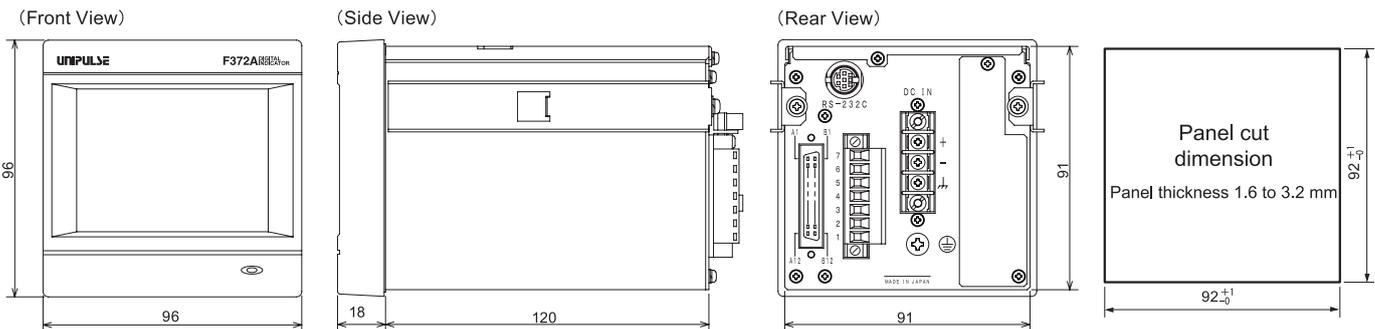
Sign	Interface
Standard	SI/F, RS-232C

↓ One optional interface can be added in addition the standard interface.

BCO	BCD output (Sink type)
BSC	BCD output (Source type)
DAV	D/A converter (Voltage output)
DAI	D/A converter (Current output)
ODN	DeviceNet
CCL	CC-Link



External dimension



Unit: mm



For F370 and F371 users

F372A is the replacement model for F370 and F371.

The setting method and functions of F372A have been made compatible with that of F370 and F371, even if the extended functions of F372A were not utilized.