

F377A

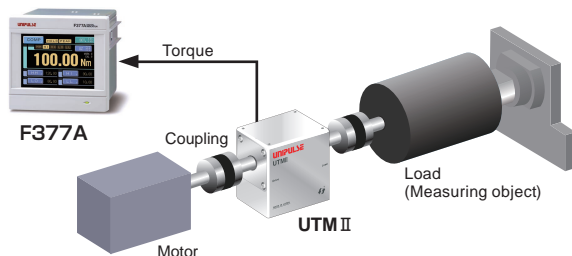
GRAPHIC DISPLAY/TOUCH PANEL TYPE DIGITAL INDICATOR FOR VOLTAGE & CURRENT OUTPUT SENSOR



- Can be directly connected to voltage or current output sensor (Voltage: $\pm 10V$; Current: $\pm 20mA$)
- 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.
At voltage input: Approx. 0.6V per 1V
At current input: Approx. 0.3V per 1mA
- A variety of interfaces
RS-232C/BCD output/D/A output/DeviceNet/CC-Link
- I/O input: minus common
I/O output: selectable between sink and source type

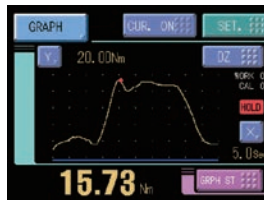
- Multi calibration function
Stores calibration values (types of analog output sensors/zero calibration/actual load calibration/equivalent input calibration etc.) for 4ch portions and can be selected via touch panel or external signal
- Alarm function
Monitors if the measured value is abnormal
 - Hi/Lo limit for alarm in comparison setting
 - A/D input range
 - Overflow
 - Digital zero regulation value
- Storing of measured data and setting values

Example of use combined with torque meter UTM II



Waveform display

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



The Hold point is marked in red

Work selection (multi hold)

This function compares the required points in the waveform with the Hi/Lo limits. F377A 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)

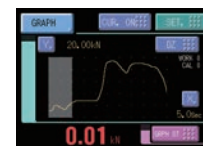
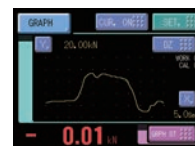
Extended functions

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.
- **Auto reset selection**
2 selection from below.
 - Hold reset is automatically performed at the start of each Hold Section.
 - Hold value is maintained until the T/H signal is input.

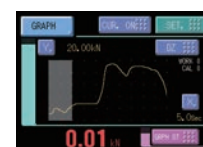
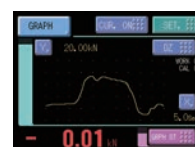
● Pre trigger display function

Graph is plotted by tracking back the time by the percentage set for Pre Trigger Display.



● Filter characteristic selection

You can select CR characteristic digital filter from LPF or HPF. (On you can select conventional digital filtering by the moving-average method)



Specifications

ANALOG	Voltage input	-10 to +10V Input impedance: 1MΩ or more	
	Current input	-20 to +20mA Input resistance: Approx. 250Ω	
	Zero/Gain adjustment range	Automatic adjustment by digital processing	
	Equiv. input calibration range	-10.00 to -2.00V, +2.00 to +10.00V or -20.00 to -4.00mA, +4.00 to +20.00mA	
	Equiv. input calibration error	Within ±0.1%/FS	
	Accuracy	Non-linearity Within 0.02%/FS ±1digit (at 10V or 20mA input) Zero drift 0.2mV/°C RTI or within 0.4μA/°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 (binary) approx. 1/30000 at 10v or 20mA input	
	Analog monitor output	Output level: Approx. 0.6V per 1V input or approx. 0.3V per 1mA input; Load resistance: 2kΩ or more	
	DISPLAY	Display unit	TFT color LCD
Display area		71 (W) x 53 (H) mm	
Dot structure		320x240 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 = 30mA (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 (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	4W typ	
	Inrush current (Typ)	55A, 1 msec (cold start at room temperature)	
	Operation condition	Temperature	Operation temperature -10 to +40°C Storage temperature -20 to +60°C
		Humidity	: 85% RH or lower (non-condensing)
	External dimension	96 (W) x 96 (H) x 138 (D) mm (not including projections)	
	Weight	Approx. 1.0kg	

ATTACHMENTS	FCN series I/O connector (with cover).....	1
	Jumper wire	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	CA372-I/O: Cable with FCN connector at one-end 3m	
ACCESSORIES	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	
	CN80: Analog I/O connector terminal	
	CND01: DeviceNet connector	
	DTC2: Special case	
	GMP96x96: Rubber packing	

Structure of product code

F377A □ □
① ② ③

① Standard unit

② I/O output

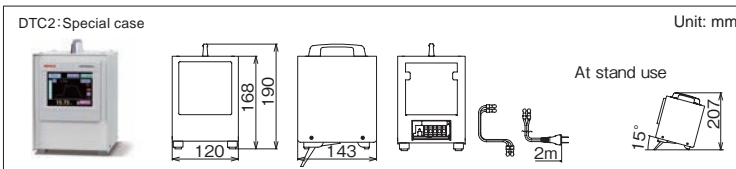
Sign	Output type
Standard	Sink type(NPN output)
ISC	Source type(PNP output)

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)
DAV	D/A converter(Voltage output)
DAI	D/A converter(Current output)
ODN	DeviceNet
CCL	CC-Link



External dimension

