

# DILLON®

## FI-127 Digital Display

Display and data capture for force measurement

- > Easy to use
- > Multiple loadcell memory
- > Stainless steel enclosure and base



*The FI-127 is capable of handling an impressive range of chores. Its design integrates easily into almost any system.*

Programmable LED annunciators can react to a variety of conditions.

Bright green LED display is .8" high for easy readability, even in dim environments.

Choose from several units of measure, including torque and even custom, user-defined units.



Robust stainless steel enclosure is dust resistant and water resistant to NEMA 4X / IP 65, making the FI-127 suitable for any industrial environment, indoors or out.

Menu keys make software navigation easy.

Stand tilts to face operator and allows wall mounting.

## Configure the instrument for any loadcell

The FI-127 accepts input from a wide range of loadcells. The instrument's calibration process lets you define the loadcell type, including force and torque cells.

The FI-127 can display several units of measure including custom user-defined units. Easily cycle through the units and the display is automatically converted.

## Multiple loadcell calibration

The FI-127 Digital Display stores calibrations for up to six different loadcells. One instrument can do the job of several, moving easily from job to job. When you need to change applications, move the instrument to the new system and connect to the new loadcell. Recall the new loadcell calibration via the FI-127's front panel.

## Linearity adjustment

Another example of the versatility of the FI-127 Display is its ability to adjust to nonlinear loadcells. The instrument enhances the performance of loadcells by providing extra calibration points (up to ten) along the full range of the loadcell.

## Inputs/Outputs

Seven logic level inputs, individually configurable, can trigger events such as selection of display mode, printing, selecting units of measure, resetting the peak capture, starting and stopping the data capture function, etc. They prove especially useful for automating the data collection from a testing machine or providing an accessory switch, such as a floor switch, for instrument control.

The FI-127 has user configurable print and computer outputs. Select any data, arrange as desired and assign it as a print report.

The FI-127 instrument can even drive relay coils or send signals to other instruments, computers or PLCs, which can be triggered by any load level you select. Use them to activate alarms or warning lights or shut down a system approaching overload.



*Save time and improve accuracy. Seamlessly transfer data from the FI-127 into your spreadsheet, SPC package or other Windows™ applications.*

## Data capture

The FI-127 has a data capture and storage function that allows you to store a sequence of data. Configure the data logging rate anywhere from 60 times per second to a sample every 2.8 hours. A total of 4,000 data points can be captured. This allows you to take data at 60 times per second for more than a minute.

The data may be printed, downloaded to a PC, or viewed on the display. Automatically summarize the values and send a report showing average load, peak load, first peak load, data capture rate, and date/time of the data.

## Internal database

This acquired data can be fed to the instrument's built-in database. It can store test values for over 200 consecutive tests for print or download and includes data storage such as: record number, force value, peak and first peak force values, average force values, test or product label data, cell number, cell type, units, date/time values among others. Users can select database fields they wish to use, display and print.

## FI-127 Digital Display Technical Specifications

### Power requirements:

115 VAC, + 10% to -15% @ 0.3 Amp maximum  
230 VAC, + 10% to -15% @ 0.15 Amp maximum

### Operational Keys:

Zero, Peak Reset, Data Send, Units, Select, 0-9, Decimal Point, Clear, Enter, Escape, and three programmable function keys.

### Display:

Eight digits, 0.8-inch high, green, seven-segment LED with 8 decimal points

### LED Annunciators:

Display: Force, Peak, 1st Peak, Tension, Compress  
Default units of measure: lbf, kgf, N  
Status: Motion, Center of Zero, Data Send  
Configurable: Under, Accept, Over

### Programmable selections:

Zero range, peak, first peak, data capture, motion detection, 10-point linearization

### Analog input range: $\pm 0.2$ to $\pm 5$ mV/V

### Loadcell excitation: $\pm 5$ VDC at 343 mA

Supports up to twelve 350-ohm loadcells

### Analog to digital conversion rate: 60 times per second

**Linearity adjustment:** The instrument may be calibrated for up to six different load cells. Each loadcell may be calibrated at two to ten points, providing best fit linearization. 35 total calibration points available.

### Accuracy:

Linearity:  $\pm 0.005\%$  of capacity  
Span:  $\pm 5.0$  ppm/ $^{\circ}\text{C}$  (-40 to  $60^{\circ}\text{C}$ )  
Repeatability:  $\pm 0.005\%$  of capacity  
Hysteresis: 0.005% of capacity

### Display update rate:

Selectable (1, 2, 5, 10 times/second)

### Incremental selections:

Multiples and sub-multiples of 1, 2, 5

### Harmonizer™ digital filtering:

Fully programmable to ignore noise and vibration

### Serial output:

Hardware configurable for RS-232, RS-485/RS-422 or current loop. Includes round 4-pin watertight connector for quick access to serial port.

### Time and Date: Battery protected real-time clock

### Self diagnostics: Display, keys, I/O ports, voltages

### Operating temperature:

-40 to  $140^{\circ}\text{F}$  (-40 to  $60^{\circ}\text{C}$ ) at 100% relative humidity including washdown

### Enclosure: NEMA 4X stainless steel enclosure

### Dimensions:

12" W x 8" H x 4" D (without mounting bracket)  
12.3" W x 11.0" H x 5.3" D (with mounting bracket)

### Weight: 12.5 lb, 5.7 kg

### Common Options:

Additional serial cards  
Input/Output modules and relay boxes

## AUTHORIZED DISTRIBUTORS

**Ask the experts.** Dillon distributors offer complete service capabilities from application assistance to sales and product support. Their experienced representatives are the most knowledgeable experts that you will find in the force measurement industry. We recommend that you consult these capable specialists for all of your measuring needs.

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