DILLON

Wizard

Programmable Force Indicator

Dillon's most flexible and advanced instrument is called the Wizard, and with good reason. It is the force indicator that will write its own legends for its flexibility, for the additional control it lends to testing procedures, for its ability to fit itself perfectly to each specific application.

The Dillon Wizard – every application a perfect fit

Programmability

What sets the Dillon Wizard apart from other instrumentation? First, it is completely programmable. *You* define its function. *You* shape it to your process. You work with your local Dillon Distributor to define the system and the tasks that you want from the Wizard. Your distributor's job is to provide the specific software that accomplishes your goals. When you load the new software into the Wizard, the result is a custom indicator that measures force and displacement, accumulates data, automates tasks or controls processes exactly to your specifications. When your needs change in the future, the Wizard grows with you. You can change its software program in minutes without removing the instrument from service.

Display

The indicator's display is a vacuum fluorescent, addressable dot matrix measuring 1 inch high by 4.3 inches wide. It can handle a great variety of display formats, from a single line of one-inch high digits of displayed weight to four lines of weight or text for multiple load cell applications. It will display graphic symbols or icons, bar graphs, over and under indication and operator messages.

Interface opportunities

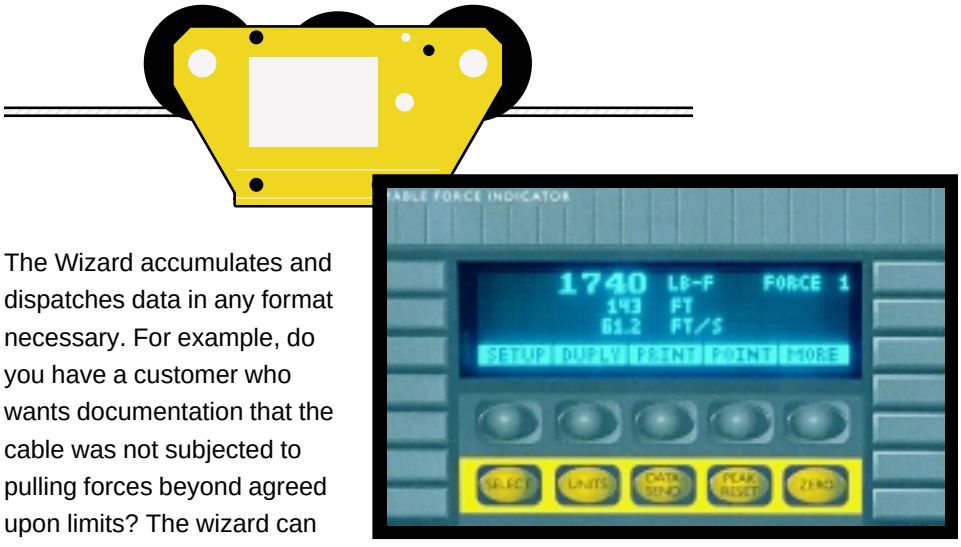
The standard instrument includes two bidirectional serial ports, links to intelligent peripheral equipment such as computers, programmable logic controllers, printers, alpha numeric keyboards or network installations.

Don't pull cable without the Wizard

In combination with a Dillon Tensiometer, the Wizard is a valuable tool for pulling underground cable because of the multiple tasks it performs.

Operators select the display mode they need.

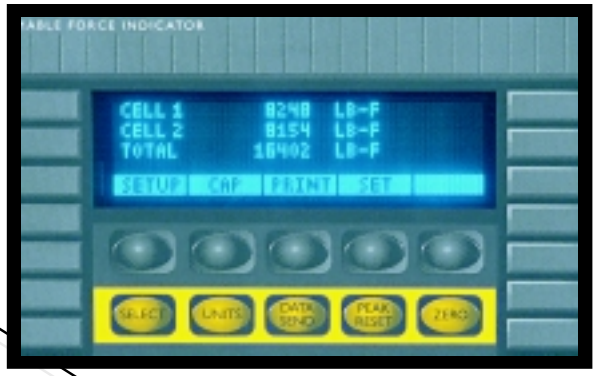
- Simultaneous display of force, distance and speed.
- A graphic display mode which uses the instrument's upper and lower cutoff values. The display signals approaching damage to sensitive cable.
- A graphic display of distance shows how close the job is to completion.



The Wizard accumulates and dispatches data in any format necessary. For example, do you have a customer who wants documentation that the cable was not subjected to pulling forces beyond agreed upon limits? The wizard can gather the data and send it to a printer. If you need periodic printed reports, the Wizard can automate the process. If you need to gather productivity data on process delays, the Wizard can be programmed to gather this information for you.

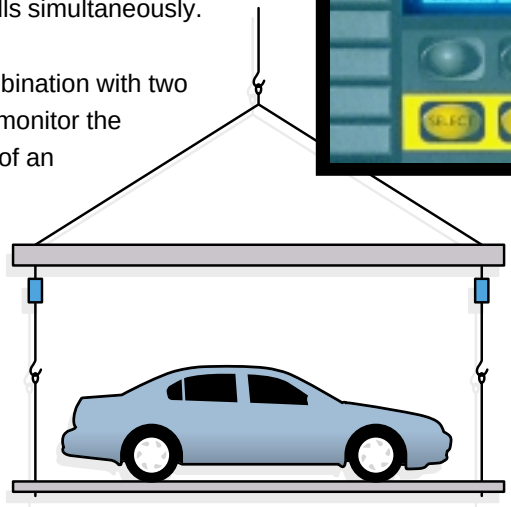
Load cell magic

Imagine just a few of the ways you can apply the totally programmable Wizard indicator in combination with load cells. The possibilities are endless because the Wizard will monitor up to eight load cells simultaneously.



Wizard can be programmed to let operators read total weight of two load cells. It can use the load cell output for system control; it can shut down an overloaded system. Or you may wish to monitor the two load cells and automatically register the difference between the two for an early warning of uneven loading.

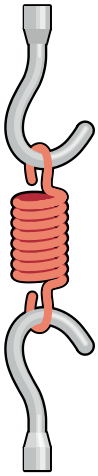
Use it in combination with two load cells to monitor the safe loading of an overhead device.



Imagine the Wizard applied with a series of load cells on a hydraulic press. You and your Dillon distributor can create a process program that lets operators enter the part number, the force needed and the correct dwell time. Then let the Wizard control the process, replacing the slower, less accurate operator control of pressure and timing.

Spring testing Wizardry

The flexibility of the Dillon Wizard makes it the ideal tool to control Dillon TC² and DTM testing systems that need to gather multiple values. Just one example would be a spring testing procedure to measure spring rates, or K-values, and hysteresis.



The Wizard's flash memory can take on a parts database so that operators can call up a spring by part number. Operators can create test parameters and save them for future testing: spring type (tension or compression), test speed, multiple displacement points, maximum k-value, minimum k-value, and maximum hysteresis.

Once the operator loads the sample, the system can automatically move to each of the displacement points and record the individual load values in its memory. Then as the test stand crosshead moves down it captures loads at the same displacement points it recorded on the way up.

When the test is complete, the system generates a customer-defined report.

The Wizard is unparalleled in the force control industry. Its flexible display, its ability to accept programming for any process or system, its capacity to interface with diverse equipment, its ability to control and automate hundreds of tasks—All of these things make it the instrument of choice for force measurement systems. See your local Dillon distributor about providing specific programming for your specialized applications.

Specifications

Power Input:
115 VAC, 500 mA 50/60 Hz single phase
230 VAC, 250 mA 50/60 Hz single phase
Optional 10-32 volts DC and AC above

Excitation:
10 volts DC or 10 volts AC square wave capable of driving up to twenty 350-ohm load cells.

Operational Keys:
Zero, Peak Reset, Send Data, Units, Select, 0-9, Decimal Point, Clear, Enter, Escape, and five Soft Keys labeled per the selected operational routine.

Display:
1 inch by 4.3 inch vacuum fluorescent graphic dot display (32 x 128 dot layout)

A/D Conversion Rate: 60 times per second

Units of measure:
Pound-force, ounce-force, Newton, kilogram-force, gram-force, and two selectable custom units.

Capacity Selections: Up to 10,000,000

Displayed Resolution: Up to 1 part in 100,000

Audio Output:
Audio tone for key contact assurance and operational alarms

Time and Date: Battery protected real-time clock

Internal Resolution: 1,000,000 counts

Load cell linearization: 10 points per load cell

Standard Input and Outputs:
Communication choices:
Com 1: RS232, RS485/422
Com 1: RS232, 20 mA current loop
Two setpoint I/O ports via OPTO 22 I/O modules

Available Options:

Multi-scale input card for a total of 8 inputs (five available external connectors)

10 to 32 VDC operation, 3.5 amp

OPTO 22 I/O modules

Alphanumeric, PC-style keyboard

Operating Temperature:
14° to 104°F (–10° to 40°C) at 10 to 90% relative humidity

Enclosure: Stainless steel NEMA 4 enclosure

Dimensions:
12.4 H x 12.8 W x 6.3 D
(31.4 cm x 32.5 cm x 16.0 cm)

Weight: 18 lb. (8 kg)

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