

# ***ED*****Xtreme**

lifting the bar in electronic dynamometers



## **DILLON**

Overload Protection and Overhead Weighing Equipment

# Dillon EDxtreme

*For the toughest jobs you face*

- Guesswork is not acceptable – failure is not an option. When you have people working around high tension cables and massive loads, there is no room for error. You have to have complete confidence in the strength and the accuracy of your measurement tools.

Since 1937, Dillon Dynamometers have been chosen for the jobs where only the best will do. Now, Dillon has once again lifted the performance bar and set the standard for others to follow — Dillon EDxtreme.



## ***Uncompromising on Safety – adaptable to the need***

The EDxtreme exemplifies the trademark precision and rugged construction of Dillon dynamometers. Its highly refined design draws on the inherent strengths of premium-grade materials to achieve a 5:1 minimum factor of safety.

While the EDxtreme may be configured for something as simple as a digital hanging scale, it offers a higher level of intelligence. With user-defined functions and sophisticated communication options, the EDxtreme readily adapts to multi-tasking operations or multi-link systems capable of monitoring a series of critical stress points from a single location — *it is the definition of application versatility.*

*Popular industry-standard shackles insure proper fit*

*Battery compartment – easy access without tools*

*Sturdy aircraft-quality aluminum (shown) or plated alloy steel case on high-capacity models*

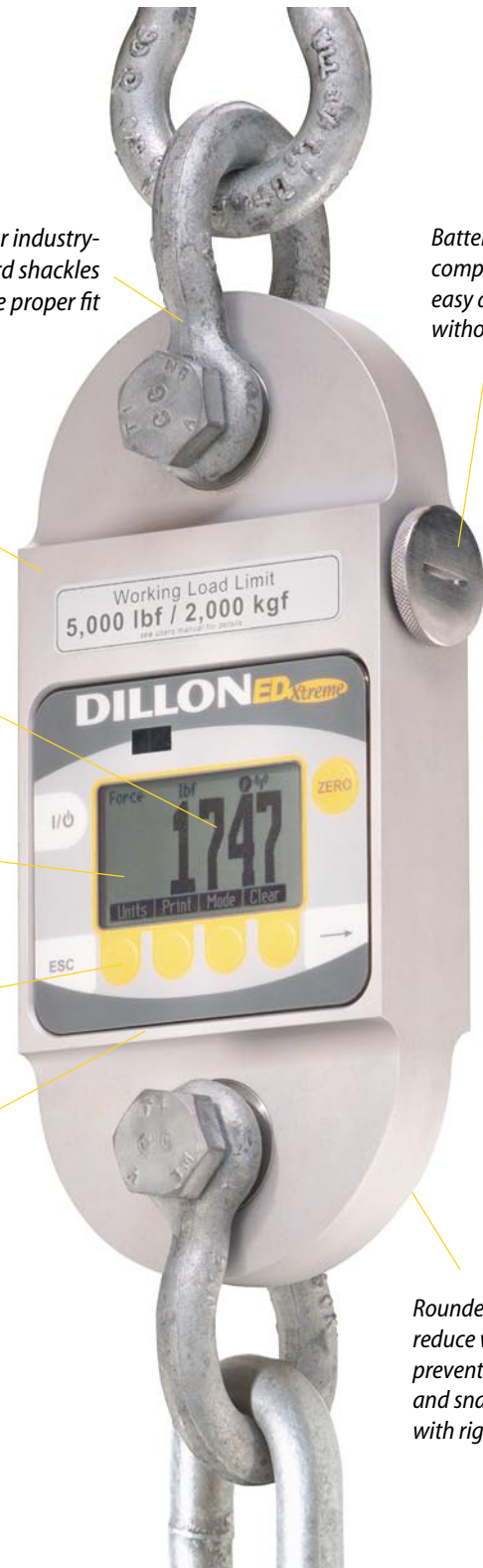
*High-resolution dot-matrix LCD display offers large numbers without confusing abbreviations or multipliers*

*Injection molded, thick Lexan panels offer superior impact protection*

*Softkey interface allows easy and intuitive operation and configuration*

*NEMA 4X / IP55 designed for weather and water resistance*

*Rounded ends reduce weight and prevent binding and snagging with rigging*



**Models available in capacities from 2500 to 550,000 lbf (1000 to 250,000 kgf).**

# Signature features of the EDxtreme

## Xtreme engineering

Building a precision instrument that can survive real-world punishment requires masterful engineering. This is where Dillon's experience shines through. The engineers assigned to the EDxtreme drew on a depth of industrial application knowledge and conducted exhaustive materials testing to achieve the highest structural integrity.

- **Superior strength and corrosion resistance** – High capacity models are constructed of electroless nickel-plated aircraft-quality alloy steel. Lower capacity models are anodized aircraft-quality aluminum.
- **5:1 factor of safety** – This measure of strength and safety is maintained at all capacities. Computer modeling confirms the low stress and long product life that is inherent in the EDxtreme design.
- **Retained hardware** – Allows permanent attachment of centering spacers, which eliminates fumbling during high capacity rigging.
- **NEMA 4X/IP55** – The EDxtreme is clearly the choice for reliability in any environment – in-plant or out on the job site.

## Xtreme accuracy: 0.1%

High resolution and accurate repeatable readings are essential to proper weighing. The higher standards set for the EDxtreme meant taking the time to ensure that material characteristics, load element design and strain gage meshed perfectly. The result of that effort is a typical accuracy of 0.1% of full scale capacity. The enhanced resolution mode of 1 part in 5000 provides the level of readability needed for refined weighing.

## Xtreme ease

- **Exclusive SOFTKEY interface** – Dillon has eliminated confusing menus for faster setup and simple operation. In addition to lbf, kgf and Newtons, programmable functions can correct for gravitational variations and allow the use of custom units of measurement.
- **Wide-angle LCD** – Provides improved readability over a wider viewing angle and is available with backlighting for low light conditions.
- **Battery operation** – The EDxtreme is powered by two standard C-cell batteries. Batteries are easily accessible for fast replacement.

## Configuration Options

A basic stand-alone model can be easily upgraded "in-the-field" to accommodate changing needs. Remote configuration, data acquisition and single point monitoring of multiple links are all possible with the hardwired or radio communication options available with the EDxtreme.

Optional Remote Communicator



## Typical Configurations

- 1 Stand-alone EDx for simple, direct measurement applications.
- 2 Single network with one EDx radio dynamometer and Communicator.
- 3 Single network with multiple EDx dynamometers and one Communicator. The Communicator monitors the load at each scale, plus the total weight.
- 4 Multiple networks with multiple EDx dynamometers and Communicators.



KEY: plant airspace discrete radio channel

An RS-232 interface is standard on both the EDxtreme and Communicator for connection to a host PC.

# Communications unlock the full potential of the EDxtreme

One of the foremost reasons for choosing an electronic dynamometer is added functionality. The radio or hardwired options available with the EDxtreme offer the convenience and safety of remote operation. Additionally, data from the dynamometer(s) can be downloaded to a PC via an RS-232 connection for compilation and analysis or to generate hard-copy printouts.

Remote control and radio communications are not new to the Dillon product line. In fact, it is the depth of Dillon's experience in this area that led to meaningful innovations in the design of the EDxtreme and its optional remote Communicator.

## Improved radio performance

Unlike the single-frequency products on the market today, the EDxtreme radio dynamometer utilizes leading-edge 2.4Ghz radio frequency technology to eliminate common interference. This technology will automatically "hop" from frequency to frequency to establish and maintain the strongest, most reliable communications.

## Dynamic monitoring and control

The optional Communicator is an extremely powerful handheld remote that can define the function and manage the operation of one or more EDxtreme dynamometers using wired or radio technologies. Through the programmable SOFTKEY interface, one Communicator can monitor multiple dynamometers within the same airspace. In multiple-link lifting arrays, the Communicator can display readings at any or all lift points and calculate the total load.

**Specifications and dimensional details** are available from an authorized Dillon Distributor or the website at [www.dillon-force.com](http://www.dillon-force.com).

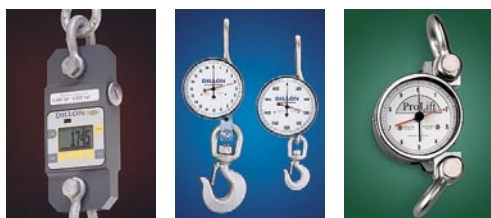
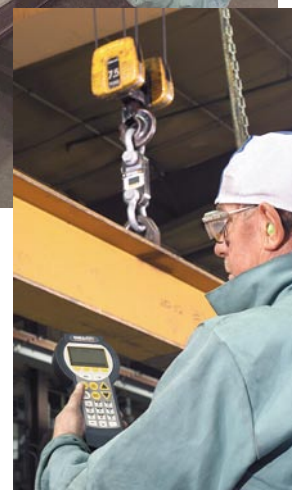


*Small details improve durability. The EDxtreme features a recessed connector and embedded antenna to help prevent damage from snags that commonly disable other instruments.*



## Standard Accessories

Cases for secure transportation and storage of instruments and shackles.



## Dillon on the job

Dillon force measurement equipment is the preferred choice of public utilities, nuclear facilities, tower erectors, armed services and material handlers throughout the world. In addition to the EDxtreme, Dillon's electronic line includes the EDjunior, an exceptional value for basic applications. Dillon also manufactures crane scales, high accuracy mechanical dynamometers and overload protection devices.

## 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.

## Distributor of Turkey:

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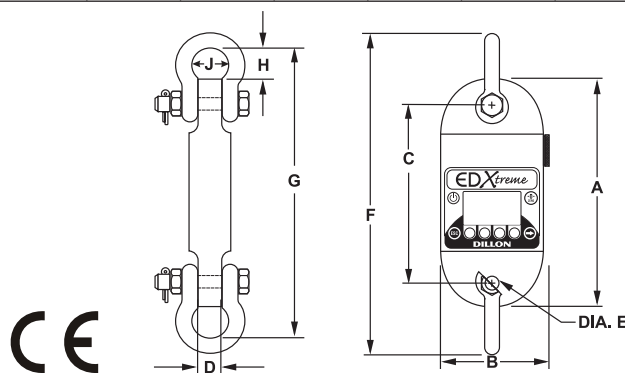
# EDxtreme Dynamometer Specifications

# DILLON

| Model                      | Capacity x Resolution (normal/enhanced) | Body Construction and Overload Design |                     |                                                                               |
|----------------------------|-----------------------------------------|---------------------------------------|---------------------|-------------------------------------------------------------------------------|
| <b>EDx-1T</b> (EDx-2.5K)   | 2,500 lbf x 2/0.5                       | 1,000 kgf x 1/0.2                     | 10,000 N x 10/2     | Aircraft quality<br>2024 Aluminum<br>700% Ultimate overload<br>protection     |
| <b>EDx-2T</b> (EDx-5K)     | 5,000 lbf x 5/1                         | 2,000 kgf x 2/0.5                     | 20,000 N x 20/5     |                                                                               |
| <b>EDx-5T</b> (EDx-10K)    | 10,000 lbf x 10/2                       | 5,000 kgf x 5/1                       | 50,000 N x 50/10    |                                                                               |
| <b>EDx-10T</b> (EDx-25K)   | 25,000 lbf x 20/5                       | 10,000 kgf x 10/2                     | 100,000 N x 100/20  | Aircraft quality<br>E4340 Alloy Steel<br>500% Ultimate overload<br>protection |
| <b>EDx-20T</b> (EDx-50K)   | 50,000 lbf x 50/10                      | 20,000 kgf x 20/5                     | 200,000 N x 200/50  |                                                                               |
| <b>EDx-50T</b> (EDx-100K)  | 100,000 lbf x 100/20                    | 50,000 kgf x 50/10                    | 500,000 N x 500/100 |                                                                               |
| <b>EDx-75T</b> (EDx-160K)  | 160,000 lbf x 100/50                    | 75,000 kgf x 50/20                    | -----               | Aircraft quality E4340<br>Alloy Steel<br>400% Ultimate overload<br>protection |
| <b>EDx-100T</b> (EDx-220K) | 220,000 lbf x 200/50                    | 100,000 kgf x 100/20                  | -----               |                                                                               |
| <b>EDx-150T</b> (EDx-330K) | 330,000 lbf x 200/100                   | 150,000 kgf x 100/50                  | -----               |                                                                               |
| <b>EDx-250T</b> (EDx-550K) | 550,000 lbf x 500/200                   | 250,000 kgf x 200/50                  | -----               |                                                                               |

Note: Model in parenthesis shows U.S. convention for describing capacities.

| Dimensions Dimensions shown are nominal and subject to tolerances |      |      |     |      |      |      |      |      |      |      |
|-------------------------------------------------------------------|------|------|-----|------|------|------|------|------|------|------|
| Model                                                             |      | A    | B   | C    | D    | E    | F    | G    | H    | J    |
| <b>EDx-1T</b>                                                     | inch | 10.6 | 5.0 | 7.8  | 1.06 | 0.75 | 15.3 | 13.4 | 1.36 | 1.69 |
|                                                                   | mm   | 269  | 127 | 198  | 26   | 19   | 389  | 340  | 34   | 43   |
| <b>EDx-2T</b>                                                     | inch | 10.6 | 5.0 | 7.8  | 1.06 | 0.75 | 15.3 | 13.4 | 1.36 | 1.69 |
|                                                                   | mm   | 269  | 127 | 198  | 26   | 19   | 389  | 340  | 34   | 43   |
| <b>EDx-5T</b>                                                     | inch | 11.4 | 5.3 | 8.1  | 1.38 | 1.00 | 17.8 | 15.8 | 2.17 | 2.28 |
|                                                                   | mm   | 289  | 135 | 206  | 35   | 25   | 451  | 402  | 56   | 58   |
| <b>EDx-10T</b>                                                    | inch | 11.5 | 5.3 | 7.9  | 1.97 | 1.38 | 21.6 | 18.8 | 3.67 | 3.25 |
|                                                                   | mm   | 291  | 133 | 201  | 50   | 35   | 548  | 478  | 93   | 83   |
| <b>EDx-20T</b>                                                    | inch | 13.7 | 6.0 | 9.0  | 2.75 | 2.0  | 29.7 | 25.2 | 5.7  | 5.0  |
|                                                                   | mm   | 348  | 152 | 229  | 70   | 51   | 754  | 640  | 146  | 127  |
| <b>EDx-50T</b>                                                    | inch | 15.8 | 6.8 | 10.3 | 3.88 | 2.75 | 40.5 | 34.3 | 9.3  | 7.3  |
|                                                                   | mm   | 400  | 172 | 262  | 99   | 70   | 1029 | 870  | 235  | 184  |
| <b>EDx-75T</b>                                                    | inch | 16.5 | 7.8 | 10.3 | 3.88 | 2.75 | 40.5 | 34.3 | 8.9  | 7.3  |
|                                                                   | mm   | 419  | 197 | 262  | 99   | 70   | 1030 | 870  | 225  | 184  |
| <b>EDx-100T</b>                                                   | inch | 18.0 | 7.8 | 11.0 | 5.00 | 3.25 | 47.7 | 40.5 | 11.2 | 7.8  |
|                                                                   | mm   | 457  | 197 | 280  | 127  | 83   | 1211 | 1027 | 284  | 200  |
| <b>EDx-150T</b>                                                   | inch | 21.0 | 8.8 | 12.6 | 5.25 | 3.75 | 53.9 | 45.6 | 12.3 | 9.0  |
|                                                                   | mm   | 533  | 222 | 321  | 133  | 95   | 1368 | 1159 | 313  | 229  |
| <b>EDx-250T</b>                                                   | inch | 27.0 | 9.8 | 17.5 | 8.5  | 5.00 | 75.8 | 62.8 | 17.9 | 13.0 |
|                                                                   | mm   | 686  | 248 | 445  | 216  | 127  | 1925 | 1595 | 454  | 330  |



# EDxtreme Electronic Dynamometer

## Dynamometer Specifications

**Enclosure:** Designed to NEMA4X/IP55.

Suitable for continuous outdoor use.

**Accuracy:** 0.1% of capacity up to EDx-50T.\*

0.3% of capacity for EDx-75T and above.\*

**Repeatability:** 0.1% of capacity up to EDx-50T.\*

0.3% of capacity for EDx-75T and above.\*

\* Normal resolution mode with Dillon provided shackles.

**Proof Load:** 150% of capacity up to EDx-75T.

110% of capacity EDx-100T and above.

**Ultimate Overload:** See table on reverse.

**Safe Overload:** 200% of capacity

**Body Protection:** Aluminum and alloy steel capacities are powder coated.

**Bearings:** Unmatched repeatability attained by needle bearings in shackle pin holes up to EDx-5T. Shackle pin acts as inner race.

**Shackles:** Forged industry standard anchor shackles. Models up to EDx-5T use precision machined shackle pin. Higher capacities use bar stock pin.

**Display:** 128 x 64 dot-graphic LCD display shows up to 6 digits 1.0" (26 mm) high plus annunciators and softkeys. Digits are .11 inches (3 mm) thick for unmatched readability.

**Display Update Rate:** 2 times per second.

**Connector:** Recessed sealed connector may be used for serial communications or connection to a Communicator remote.

**RS-232 / RS-485 Communication:** Print or extract data easily.

Continuous output can drive a scoreboard. Configurable poll character.

**Calibration:** Traceable to the National Institute of Standards and Technology. Certificate included with curve of readings. Passes only with three consecutive confirming runs, with all points in specification.

**Battery Life:** 320 hours typical use with two C-cell alkaline batteries. 40 hours typical with Radio Link system.

**Operating Temperature:** -4° F to 140° F (-20° to 60° C)

**Included with Instrument:** All include certificate of calibration, manual and batteries. Plastic carry case included for EDx-1T to EDx-50T. Higher capacities include rugged plywood storage crate. Instruments with shackles include centering spacers (EDx-20T & up) and shackle storage crate (EDx-20T to EDx-75T). Display backlight.

**Options:** Shackles. Radio communications.

**Approval:** CE

## Communicator Specifications

**Enclosure:** Designed to NEMA 3 / IP44 with optional sleeve.

Suitable for protected outdoor use.

**Instrument Size:** 9.0 x 4.6 x 1.8 inch (228 x 117 x 45mm).

**Accuracy:** Not applicable. Only sends and receives digital information.

**Display:** 128 x 64 dot-graphic LCD display can show full readings up to 5 instruments.

**Battery Life:** 40 hours radio or 45 wireline using four AA alkaline batteries under typical use.

**Operating Temperature:** -4° F to 140° F (-20° to 60° C)

**Connectors:** Sealed connectors may be used for serial communications and wired connection to an EDxtreme dynamometer.

**RS-232 Communication:** Print or extract data easily. Continuous output can drive a scoreboard. Configurable poll character.

**Included with Remote:** Carry case and batteries

**Accessories:** Rubberized case protector sleeve.

Remote wall mount bracket. Serial and remote cable assemblies.

**Approval:** CE

## Radio Specifications

**FCC Certified:** For unlicensed low power devices. No radio licensing or permits required for normal operation.\* (In the US and Canada. Check local ordinances in other countries.)

**Frequency:** 2.4 GHz spread-spectrum operates between 2.402 – 2.478 GHz. Continuously and automatically changes frequencies many times per second for consistent, reliable communications.

**Output Level:** 10 mW (10 dBm)

**Display Update Rate:** 2 times per second with single dynamometer.

Multi-instrument networks result in reduced updates.

**Number of Networks:** 63 remotes can operate independently in the same airspace with unique channels.

**Number of Links Remote Can Control:** Up to 15 addresses are available per network channel.

**Configuration:** Address and network channels are front-panel configurable.

**Antenna:** Integral antenna.

**Range:** Open-air – Up to 300 feet, line-of-sight.

Indoors – Dependent upon environment with 150 feet common.

Low power radio systems are dependent upon interference levels from other radio systems and environmental conditions. Radio devices are not suitable for all applications.

### Weights

| Model        | Unit Weight | Weight with Shackles | Approx. Shipping Weight |
|--------------|-------------|----------------------|-------------------------|
| EDx-1T       | lb          | 4.3                  | 13                      |
|              | kg          | 2.0                  | 6                       |
| EDx-2T       | lb          | 4.4                  | 13                      |
|              | kg          | 2.0                  | 6                       |
| EDx-5T       | lb          | 5.6                  | 22                      |
|              | kg          | 2.5                  | 10                      |
| EDx-10T      | lb          | 16                   | 46                      |
|              | kg          | 7.3                  | 21                      |
| EDx-20T      | lb          | 25                   | 125                     |
|              | kg          | 11                   | 56                      |
| EDx-50T      | lb          | 38                   | 296                     |
|              | kg          | 17                   | 134                     |
| EDx-75T      | lb          | 54                   | 325                     |
|              | kg          | 25                   | 145                     |
| EDx-100T     | lb          | 70                   | 480                     |
|              | kg          | 32                   | 218                     |
| EDx-150T     | lb          | 120                  | 750                     |
|              | kg          | 54                   | 340                     |
| EDx-250T     | lb          | 250                  | 1,600                   |
|              | kg          | 113                  | 725                     |
| Communicator | lb          | 1                    | 10                      |
|              | kg          | .5                   | 5                       |

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**DILLON**

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