

Dillon ED Series Crane Scales

Advanced Weighing

Guesswork is not acceptable. 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 standards for others to follow - Dillon ED Series Crane Scales.

Two ED Series models are available: The **high-end ED Xtreme** (also called EDX), and the **affordable ED junior**. Choose ED Xtreme for the most demanding applications; ED Xtreme is built with the best materials and designed with cutting-edge features like radio control. Where cost is a concern, and reliability is a requirement, choose ED junior - the perfect crane scale for simple jobs.

ED Xtreme - The ultimate in reliability & accuracy

Popular industry – standard shackles insure proper fit

Sturdy aircraft – quality aluminium (shown) or painted alloy steel case on high capacity models

Battery compartment – easy access without tools

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

Injection moulded, 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



All ED Xtreme Crane Scales include storage crate, instructions, and certificate of calibration.



Hook Choices

Reliable, high quality Crosby hooks are used on all EDX Crane Scales.

- **Non-Swivel Hook (left)** - Basic hook for low-cost, low-headroom weighing.
- **Basic Swivel Hook (center)** - Used to align rigging to the crane.
- **Bearing Swivel Hook (right)** - Used for precise positioning under load.

Capacities available from
2500 lbf to 50,000 lbf
(1000 kgf to 20000 kgf)

EDXtreme - Signature features

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 powder coated aircraft quality alloy steel. Lower capacity models are power coated aircraft quality aluminium.
- **5:1 factor of safety** – This measure of strength and safety is maintained at all capacities (*capacities of 75T and above are 4:1 USF*). Computer modelling 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 readability in any environment – in plant or out on the job site.
- **Warranty** – 2 years parts and labor

Xtreme Accuracy

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 capacity up to EDX-50T and 0.3% of capacity for EDX-75T and above. The enhanced resolution mode of 1 part in 5000 provides the level of readability needed for refined weighing.

Xtreme Ease

- **Exclusive SOFTKEY interface** – Eliminates confusing menus for faster setup and simple operation.
- **Local gravity correction** – Unit adjusts to local gravitational conditions, without recalibration.
- **Custom units of measure** – User-defined units of measure mean the instrument adapts to changing requirements.
- **Wide-angle, backlit LCD** – Provides improved readability over a wider viewing angle and has backlighting for low light conditions.
- **Battery operation** – Powered by two standard C-cell batteries. Batteries are easily accessible for fast replacement.

Expandable Scale Network

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 option with the EDXtreme.

Optional Remote Communicator, showing four crane scale readings and total of all.



Typical Configuration

1. Stand alone EDXtreme for simple, direct measurement applications.
2. Single network with one EDXtreme radio dynamometer and optional Communicator.
3. Single network with multiple EDXtreme radio dynamometers and one optional Communicator. The Communicator offers the ability to monitor the load at each link as well as a viewing the total weight of multiple dynamometers.
4. Multiple network with multiple EDXtreme radio dynamometers and Communicators.



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

KEY: plant airspace discrete radio channel

EDjunior - The market leader in accuracy & value

The EDjunior is all about value. Behind its simple design and easy operation, you will find the quality and performance not found elsewhere. With the EDjunior, Dillon proves that economy can go hand-in-hand with accuracy, long service life and, most importantly, worker safety – just compare the Dillon EDjunior to the competition. Nothing else comes close!

Measurement Capabilities

The EDjunior provides peak detection as well as live load readings. Selectable units of measure include lbf, kgf and Newtons.

Accuracy — The load element design and strain gauges chosen for the EDjunior produce an accuracy of 0.2 % (full scale). This level of precision offers flexibility for use in a broad range of applications. Capacities up to 10,000 lb (5000 kg) available.

Resolution — Readings are displayed with a resolution of 1 part in 1000 to ensure the level of readability required for critical lifting applications.

Control Interface

The exclusive Dillon SOFTKEY interface provides direct access to setup and display functions without the typical confusing menu structure. The 6-digit dot-matrix display features 1 inch (25 mm) high numerals for greater visibility.

High Strength, Low Weight

Heavy, cumbersome tools make tough jobs even harder. Through the use of aircraft quality materials, Dillon has made the EDjunior an easy-to-position, highly mobile instrument with exceptional strength. It offers an impressive factor of safety at all capacities.

All Environments

With its NEMA 4/IP55 design, the EDjunior is at home in virtually any environment and ideally-suited to outdoor job-site applications as well as in-plant use.



Hook Choices

Reliable, high quality Crosby hooks are used on all EDX Crane Scales.

- **Non-Swivel Hook (left)** - Basic hook for low-cost, low-headroom weighing.
- **Basic Swivel Hook (right)** - Used to align rigging to the crane.



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.



DILLON

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ED Series Crane Scales Specifications

DILLON

Force Measurement Equipment



EDXtreme & EDjunior Crane Scales

EDXtreme - Capacity x Resolution

Unit Capacity lb (kg)	Capacity x Resolution (normal/enhanced)			Overload ¹	Body Construction
2,500 (1000)	2500 lb x 2/0.5	1000 kg x 1/0.2	10000 N x 10/2	700 %	2024 Aircraft Aluminum
5,000 (2000)	5000 lb x 5/1	2000 kg x 2/0.5	20000 N x 20/5	700 %	2024 Aircraft Aluminum
10,000 (5000)	10000 lb x 10/2	5000 kg x 5/1	50000 N x 50/10	700 %	2024 Aircraft Aluminum
25,000 (10000)	25000 lb x 20/5	10000 kg x 10/2	100000 N x 100/20	500 %	E4340 Aircraft Alloy Steel
50,000 (20000)	50000 lb x 50/10	20000 kg x 20/5	200000 N x 200/50	500 %	E4340 Aircraft Alloy Steel

1. Ultimate overload protection

EDXtreme Crane Scale Specifications

Enclosure: Designed to NEMA 4X/IP55. Suitable for continuous outdoor use

Accuracy: 0.1% of capacity*

Repeatability: 0.1% of capacity* *Normal resolution mode.

Ultimate overload: See table above

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-10K. Precision machined shackles act as inner race.

Shackles: Forged industry standard anchor shackle bows, galvanized finish. Models up to EDx-10K use precision machined shackle pin. Higher capacities use forged 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" (7 mm) thick for unmatched readability.

Display Update Rate: 2 times per second

Connector: Recessed sealed connector may be used for direct 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: Shipping/storage crate(s), batteries, manual and certificate of calibration

Options: 2.4 GHz radio board. Display backlight

Approval: CE

Warranty: 2 years parts and labor

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" (228 mm x 117 mm x 45 mm)

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 crane scale

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.

Update Rate from Scale: 2 times per second

Approval: CE

Warranty: 2 years parts and labor

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 (20 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

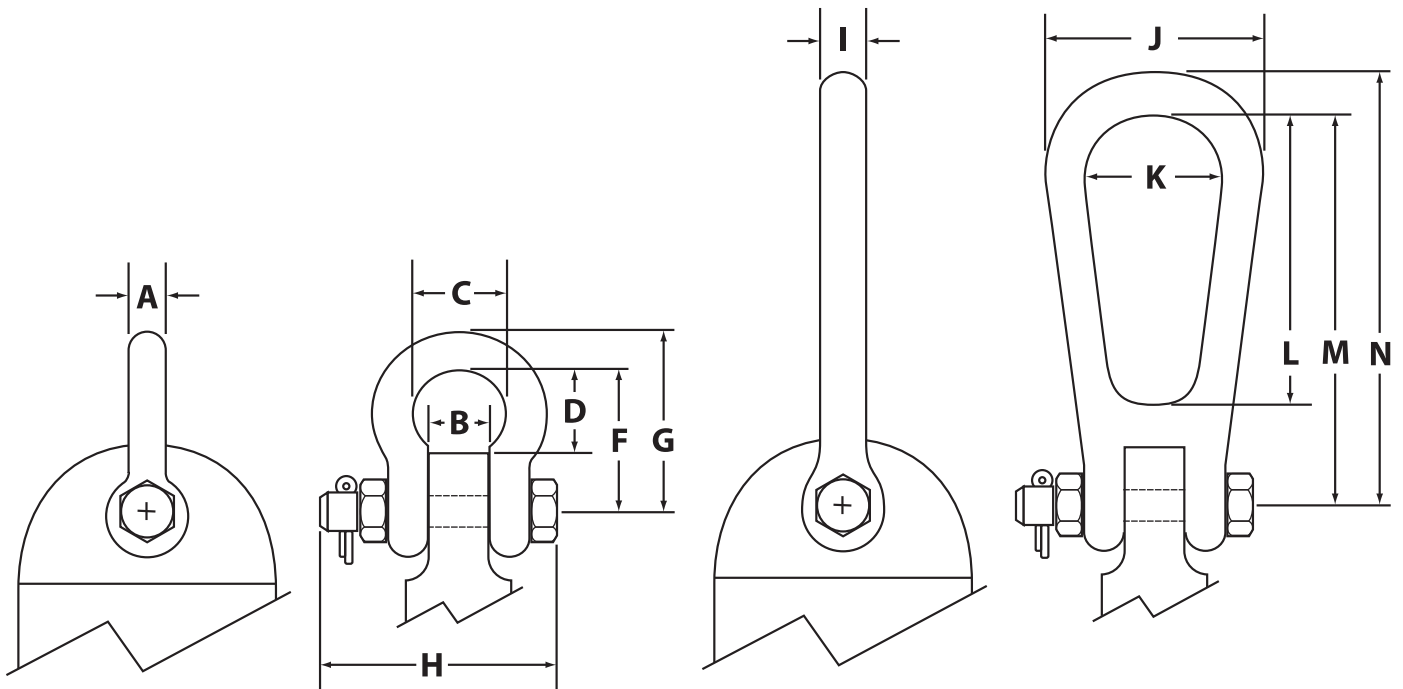
Configuration: Address and Network channels are front-panel configurable

Antenna: Integral antenna. Range: Open-air – Up to 300 feet, line-of-sight. Indoors – Dependent upon installation site with 150 feet common.

Approval: FCC ID: KQL-PKLR2400. CAN ID: CAN2268391158A

Dillon ED Series Crane Scale

Instrument & Hardware Dimensions



ED Xtreme Standard Upper Shackle

Unit Capacity lb (kg)	A in (mm)	B in (mm)	C in (mm)	D in (mm)	F in (mm)	G in (mm)	H in (mm)	Weight lb (kg)
2,500 (1000)	0.76 (19)	1.06 (26)	1.69 (42)	1.35 (34)	2.76 (70)	3.77 (96)	1.06 (26)	2.2 (1.0)
5,000 (2000)	0.76 (19)	1.06 (26)	1.69 (42)	1.35 (34)	2.76 (70)	3.77 (96)	1.06 (26)	2.2 (1.0)
10,000 (5000)	0.88 (23)	1.38 (35)	2.28 (57)	2.03 (51)	3.81 (97)	4.79 (122)	1.44 (36)	4.0 (1.8)
25,000 (10000)	1.25 (32)	1.97 (50)	3.25 (82)	3.60 (91)	5.38 (137)	6.77 (172)	2.03 (51)	12 (5.0)
50,000 (20000)	1.75 (45)	2.75 (70)	5.00 (127)	5.66 (143)	8.00 (203)	10.26 (261)	2.88 (73)	35 (16)

ED junior Standard Upper Shackle

Unit Capacity lb (kg)	A in (mm)	B in (mm)	C in (mm)	D in (mm)	F in (mm)	G in (mm)	H in (mm)	Weight lb (kg)
2,500 (1000)	0.44 (12)	0.75 (19)	1.16 (29)	1.18 (30)	1.94 (49)	2.39 (61)	0.75 (19)	0.5 (0.2)
5,000 (2000)	0.63 (16)	1.06 (27)	1.69 (42)	1.35 (34)	2.76 (70)	3.45 (88)	1.06 (26)	1.7 (0.8)
10,000 (5000)	0.88 (23)	1.38 (35)	2.28 (57)	2.17 (55)	3.81 (97)	4.79 (122)	1.44 (36)	4.0 (1.8)
25,000 (10000)	1.25 (32)	1.97 (50)	3.25 (82)	3.60 (91)	5.38 (137)	6.77 (172)	2.03 (51)	12 (5.0)

ED Xtreme Oversize Upper Shackle - not available on 25,000 lb and 50,000 lb models

Unit Capacity lb (kg)	I in (mm)	J in (mm)	K in (mm)	L in (mm)	M in (mm)	N in (mm)	Weight lb (kg)
2,500 (1000)	0.94 (24)	4.88 (124)	2.76 (70)	4.49 (114)	6.98 (177)	8.64 (219)	6.4 (2.9)
5,000 (2000)	0.94 (24)	4.88 (124)	2.76 (70)	4.49 (114)	6.98 (177)	8.64 (219)	6.4 (2.9)
10,000 (5000)	0.94 (24)	4.88 (124)	2.76 (70)	4.49 (114)	6.73 (171)	8.39 (213)	6.4 (2.9)

ED junior Oversize Upper Shackle - not available on 2,500 lb model

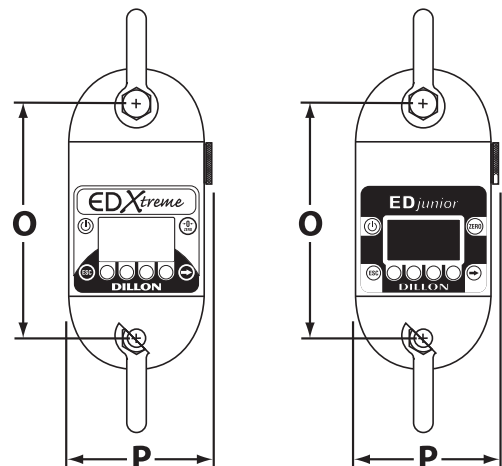
Unit Capacity lb (kg)	I in (mm)	J in (mm)	K in (mm)	L in (mm)	M in (mm)	N in (mm)	Weight lb (kg)
5,000 (2000)	0.94 (24)	4.88 (124)	2.76 (70)	4.49 (114)	6.98 (177)	8.64 (219)	6.4 (2.9)
10,000 (5000)	0.94 (24)	4.88 (124)	2.76 (70)	4.49 (114)	6.73 (171)	8.39 (213)	6.4 (2.9)

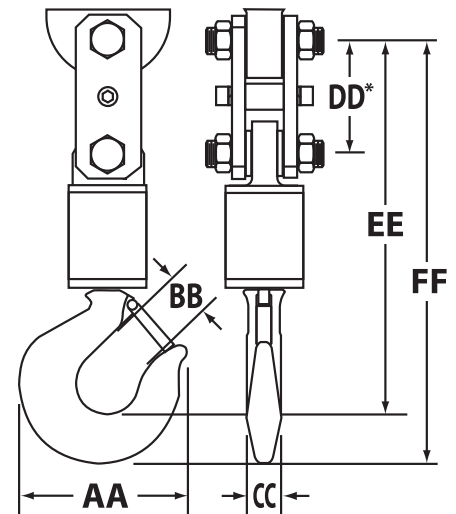
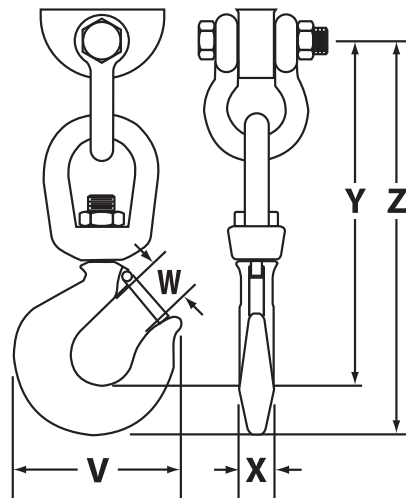
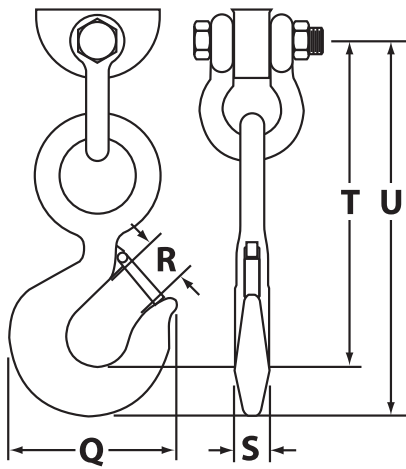
ED Xtreme Instrument Body

Unit Capacity lb (kg)	O in (mm)	P in (mm)	Weight lb (kg)
2,500 (1000)	7.79 (198)	5.01 (128)	4.3 (2.0)
5,000 (2000)	7.79 (198)	5.01 (128)	4.4 (2.0)
10,000 (5000)	8.10 (206)	5.34 (136)	5.6 (2.5)
25,000 (10000)	8.04 (204)	5.26 (134)	16 (7.3)
50,000 (20000)	9.18 (233)	5.98 (152)	25 (11)

ED junior Instrument Body

Unit Capacity lb (kg)	O in (mm)	P in (mm)	Weight lb (kg)
2,500 (1000)	6.89 (175)	4.98 (127)	2.9 (1.3)
5,000 (2000)	7.85 (199)	4.98 (127)	4.5 (2.0)
10,000 (5000)	8.17 (207)	5.34 (136)	6.4 (2.9)
25,000 (10000)	8.04 (204)	5.26 (134)	16 (7.3)





EDxtreme Non-Swivel Hook

Unit Capacity lb (kg)	Q in (mm)	R in (mm)	S in (mm)	T in (mm)	U in (mm)	Weight lb (kg)
2,500 (1000)	6.3 (160)	1.61 (40)	1.66 (43)	10.2 (258)	12.0 (304)	10 (4.7)
5,000 (2000)	6.3 (160)	1.61 (40)	1.66 (43)	10.2 (258)	12.0 (304)	10 (4.7)
10,000 (5000)	7.5 (190)	2.08 (52)	1.63 (42)	12.9 (328)	15.2 (385)	19 (9.0)
25,000 (10000)	10.4 (262)	3.02 (76)	2.38 (61)	18.0 (455)	21.0 (532)	51 (23)
50,000 (20000)	14.1 (358)	3.00 (76)	3.19 (82)	27.0 (686)	22.8 (578)	140 (63)

EDjunior Non-Swivel Hook

Unit Capacity lb (kg)	Q in (mm)	R in (mm)	S in (mm)	T in (mm)	U in (mm)	Weight lb (kg)
2,500 (1000)	4.0 (101)	1.09 (27)	0.94 (24)	6.4 (163)	7.6 (191)	2.6 (1.2)
5,000 (2000)	6.3 (160)	1.61 (40)	1.66 (43)	10.2 (258)	11.6 (294)	10 (4.5)
10,000 (5000)	7.5 (190)	2.08 (52)	1.63 (42)	12.9 (328)	14.7 (372)	19 (9.0)
25,000 (10000)	10.4 (262)	3.02 (76)	2.38 (61)	18.0 (455)	21.0 (532)	51 (23)

EDxtreme Basic Swivel Hook - not available on 50,000 lb model

Unit Capacity lb (kg)	V in (mm)	W in (mm)	X in (mm)	Y in (mm)	Z in (mm)	Weight lb (kg)
2,500 (1000)	4.8 (123)	1.14 (29)	1.36 (34)	10.3 (261)	11.8 (298)	7.1 (3.2)
5,000 (2000)	4.8 (123)	1.14 (29)	1.36 (34)	10.3 (261)	11.8 (298)	7.1 (3.2)
10,000 (5000)	6.3 (160)	1.39 (36)	1.61 (40)	13.5 (343)	15.3 (389)	14 (6.0)
25,000 (10000)	8.3 (212)	1.95 (50)	2.27 (57)	17.4 (442)	20.0 (508)	35 (16)

EDjunior Basic Swivel Hook

Unit Capacity lb (kg)	V in (mm)	W in (mm)	X in (mm)	Y in (mm)	Z in (mm)	Weight lb (kg)
2,500 (1000)	3.2 (81)	0.72 (19)	0.95 (24)	7.4 (186)	8.2 (208)	1.7 (0.8)
5,000 (2000)	4.8 (123)	1.14 (29)	1.36 (34)	10.3 (261)	11.7 (298)	6.6 (3.0)
10,000 (5000)	6.3 (160)	1.39 (36)	1.61 (40)	13.5 (343)	15.3 (389)	14 (6.0)
25,000 (10000)	8.3 (212)	1.95 (50)	2.27 (57)	17.4 (442)	20.0 (508)	35 (16)

EDxtreme Bearing Swivel Hook (swivel under load) - not available on EDjunior

Unit Capacity lb (kg)	AA in (mm)	BB in (mm)	CC in (mm)	DD* in (mm)	EE in (mm)	FF in (mm)	Weight lb (kg)
2,500 (1000)	4.9 (123)	1.14 (29)	1.41 (35)	4.01 (102)	12.7 (321)	14.1 (358)	11 (5.0)
5,000 (2000)	4.9 (123)	1.14 (29)	1.41 (35)	4.01 (102)	12.7 (321)	14.1 (358)	11 (5.0)
10,000 (5000)	6.3 (160)	1.45 (37)	1.69 (42)	4.51 (115)	15.3 (388)	17.1 (435)	21 (10)
25,000 (10000)	10.3 (263)	2.39 (61)	3.19 (81)	5.01 (128)	22.7 (576)	25.7 (652)	65 (30)
50,000 (20000)	13.6 (346)	3.01 (77)	3.25 (82)	not used	20.9 (531)	24.6 (623)	140 (64)

(Y) *May use clevis link or shackle depending upon capacity.

Selecting an ED Series Crane Scale is easy:

1. Choose EDxtreme or EDjunior unit
2. Select required capacity
3. Select upper shackle style
4. Select hook style
5. Obtain dimensional information from charts
6. Add radio remote and/or backlight options, if desired

Common Measurements:

1. Headroom: add dimensions (F or M) + O + (T or Y or EE)
2. Total Length: add dimensions (G or N) + O + (U or Z or FF)
3. Shackle Thickness: subtract dimensions (G or N) - (F or M)
4. Hook Thickness: subtract dimensions (V or Z or FF) - (T or Y or EE)

Dillon ED Series Crane Scale

EDjunior - Capacity x Resolution

Unit Capacity lb (kg)	Capacity x Resolution			Overload ¹	Body Construction
2,500 (1000)	2500 lbf x 2	1000 kg x 1	10000 N x 10	700 %	2024 Aircraft Aluminum
5,000 (2000)	5000 lb x 5	2000 kg x 2	20000 N x 20	700 %	2024 Aircraft Aluminum
10,000 (5000)	10000 lb x 10	5000 kg x 5	50000 N x 50	700 %	2024 Aircraft Aluminum
25,000 (10000)	25000 lb x 20	10000 kg x 10	100000 N x 100	500 %	E4340 Aircraft Alloy Steel 1. Ultimate overload protection

EDjunior Crane Scale Specifications

Enclosure: Designed to NEMA 4X/IP55. Suitable for continuous outdoor use

Accuracy: 0.2% of capacity

Repeatability: 0.2% of capacity

Ultimate Overload: 700% (500% on 25,000 lb)

Safe Overload: 200%

Display: 128 x 64 dot-graphic LCD display shows up to 6 digits 1.0" (26 mm) high plus annunciators and softkeys

Display Update Rate: 2 times per second

RS-232 Communication: Not available. See Dillon EDX Crane Scale

Calibration: Traceable to the National Institute of Standards and Technology. Calibration card included.

Battery Life: 320 hours typical use with two C-cell alkaline batteries.

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

Included with Instrument: Batteries, manual and calibration card

Optional Accessories: Shipping / storage crate

Approval: CE

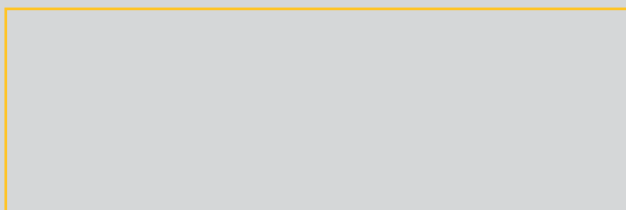
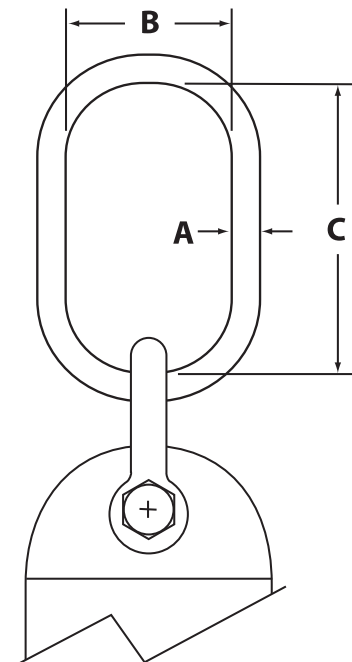
Warranty: 2 years parts and labor

Master-link Accessory

Master-link provides additional opening for oversize hooks when added to a standard anchor shackle. Headroom consumption will increase by dimension C.

Master-link

Unit Capacity lb (kg)	A in (mm)	B in (mm)	C in (mm)	Weight lb (kg)
2,500 (1000)	0.50 (13)	2.50 (64)	5.00 (127)	0.9 (0.4)
5,000 (2000)	0.50 (13)	2.50 (64)	5.00 (127)	0.9 (0.4)
10,000 (5000)	0.75 (19)	2.75 (70)	5.50 (140)	2.3 (1.0)
25,000 (10000)	1.25 (32)	4.38 (111)	8.75 (222)	9.8 (4.4)
50,000 (20000)	1.50 (38)	5.25 (133)	10.50 (267)	171 (7.8)



DILLON

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