

# ED Series Crane Scales Specifications

# DILLON

## EDxtreme & EDjunior Crane Scales

Force Measurement Equipment

### EDxtreme - Capacity x Resolution

Unit Capacity lb. (kg)	Capacity x Resolution (normal/enhanced)			Overload <sup>1</sup>	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 NEMA4X/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 capacities are anodized.  
Alloy steel capacities are electroless-nickel plated.

**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 inches (7mm) 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.

#### 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 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.

#### 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.

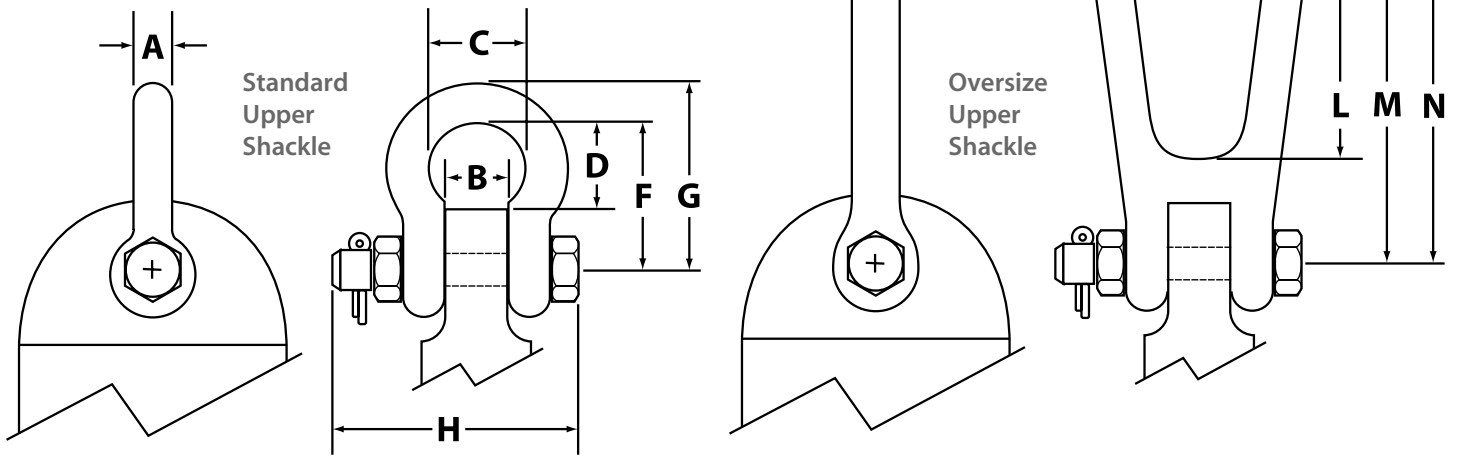
**Antenna:** Integral antenna.

**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 Scales

## Instrument & Hardware Dimensions



### EDxtreme 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 (700)	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)

### EDjunior 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)

### EDxtreme 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)

### Dxtreme Oversize Upper Shackle — not available on 2500 lb model.

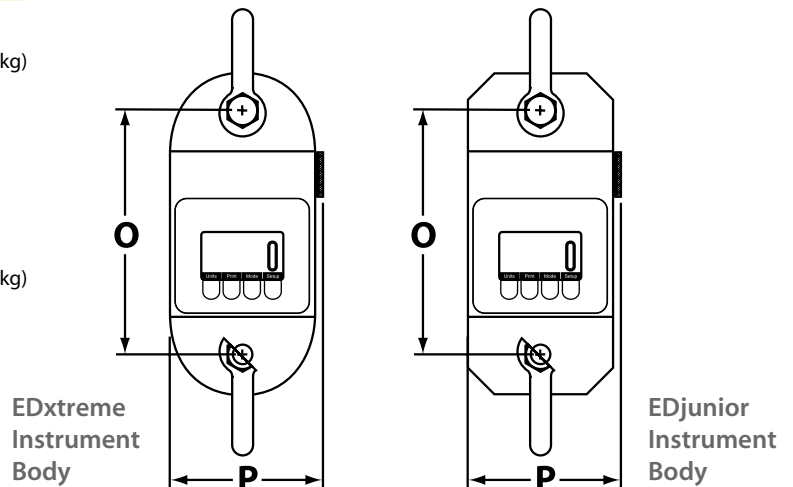
Unit Capacity lb. (kg)	I in. (mm)	J in. (mm)	K in. (mm)	L in. (mm)	M in. (mm)	N in. (mm)	Weight lb. (kg)
5,000 (2000)	0.94 (24)	4.88 (124)	2.76 (70)	4.49 (114)	6.98 (177)	8.64 (219)	6.4 (2.9)
10,000 (5000)	0.94 (24)	4.88 (124)	2.76 (70)	4.49 (114)	6.73 (171)	8.39 (213)	6.4 (2.9)

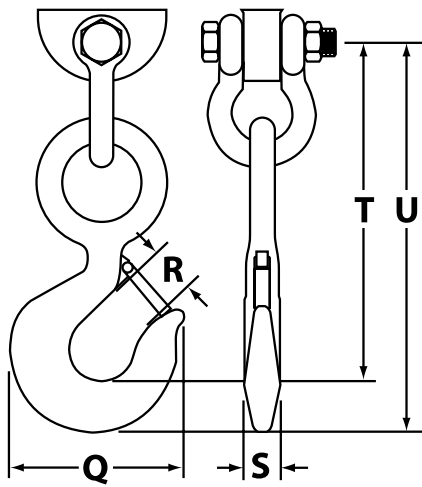
### EDxtreme Instrument Body

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)

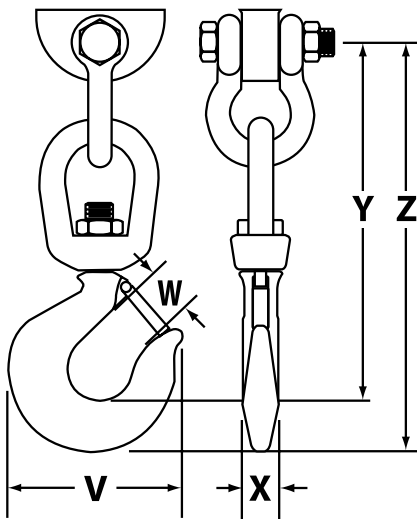
### EDjunior Instrument Body

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)

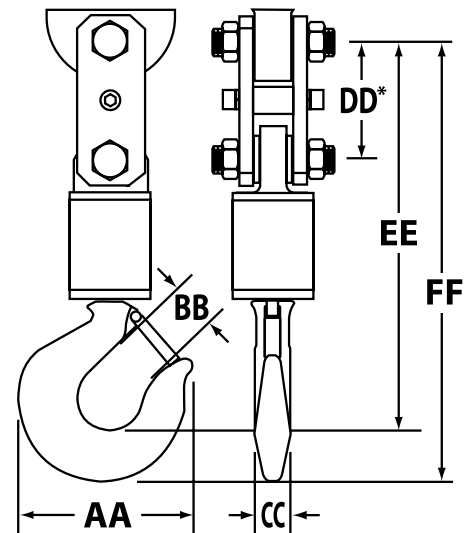




Non-Swivel Hook



Basic Swivel Hook



Bearing Swivel Hook

**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 Scales

## EDjunior - Capacity x Resolution

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

1. Ultimate overload protection

### EDjunior Crane Scale Specifications

**Enclosure:** Designed to NEMA4X/IP55. Suitable for continuous outdoor use.

**Accuracy:** 0.2% of capacity.

**Repeatability:** 0.2% of capacity.

**Ultimate overload:** 700%

**Safe overload:** 200%

**Display:** 128 x 64 dot-graphic LCD display shows all 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.

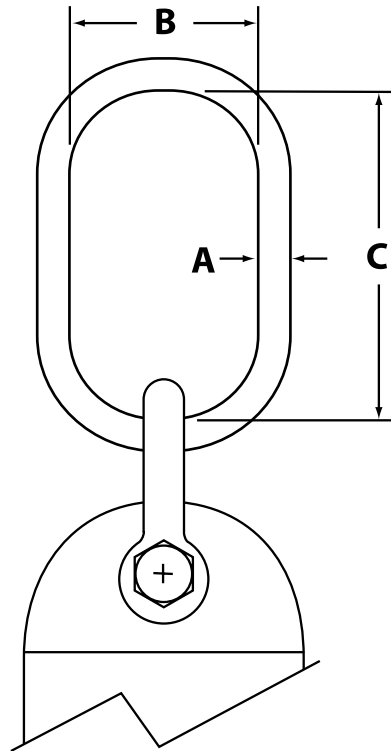
**Optional accessories:** Shipping / storage crate.

## 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)	17.1 (7.8)



### 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.

Please call us or visit  
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