

Specifications

	S-Beam	Z-Cell	SGMT & SGMC
General			
Application	Tension and Compression	Tension or Compression	Tension SGMT Compression SGMC
Connector or Cable length	20 ft / 6 m **	side mount connector	side mount connector
Rated Output	3 ±0.01 mV/V	2 ±0.2 mV/V	2 ±0.2
Maximum excitation	15 VDC	15 VDC	15 VDC
Bridge resistance	350Ω ± 4Ω	350Ω ± 2Ω	350Ω ± 2Ω
Overload without zero shift (% FS)	150%	300%	300%
Minimum ultimate safety factor (% FS)	not rated	500%	500%
Suitable for critical suspended loads	No	Yes	Yes
Typical in-system accuracy			
Typical system accuracy FI-127* (% FS)	±0.1%	±0.1%	±0.25%
Typical system accuracy FI-90* (% FS)	±0.1%	±0.1%	±0.35%
Typical system accuracy FI-80* (% FS)	±0.1%	±0.1%	±0.5%
Specific performance accuracy			
Zero balance (% full scale capacity (FS))	<1%	<10%	<2%
Non-linearity (% FS)	±0.02%	±0.05%	±0.4%
Hysteresis (% FS)	±0.02%	±0.03%	±0.3%
Non-repeatability (% FS)	±0.01%	±0.02%	±0.1%
Creep (% FS in 20 min)	0.03%	0.03%	0.03%
Temperature specifications			
Zero (% FS/100°F)	±0.1%	±0.1%	±2.0%
Output (% load/100°F)	±0.2%	±0.2%	±2.0%
Temp. Comp Range	15 to 140°F	15 to 115°F	15 to 115°F
Operable Temp. Range	-20 to +200°F	-20 to +200°F	-20 to +200°F

* Typical applications consist of maximum indicator linearization correction of load cell. Increased loading with immediate measurement. No torsional or off-axis loads. Temperature of 65 to 75°F.

** Available with tinned leads or 7-pin connector

Capacity/Resolution

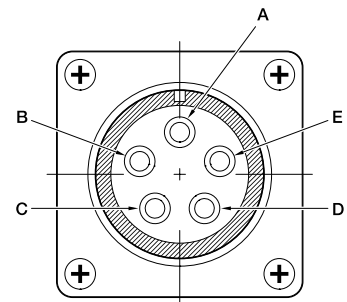
Capacity	Typical display increments (resolution)	Capacity	Typical display increments (resolution)
10 lb / kg	0.001 lb / kg	450 lb / kg	0.05 lb / kg
11 lb / kg	0.002 lb / kg	500 lb / kg	0.05 lb / kg
20 lb / kg	0.002 lb / kg	1000 lb / kg	0.1 lb / kg
22 lb / kg	0.005 lb / kg	2,000 lb / kg	0.2 lb / kg
45 lb / kg	0.005 lb / kg	5,000 lb / kg	0.5 lb / kg
50 lb / kg	0.005 lb / kg	10,000 lb / kg	1 lb / kg
90 lb / kg	0.01 lb / kg	20,000 lb / kg	2 lb / kg
100 lb / kg	0.01 lb / kg	40,000 lb / kg	5 lb / kg
200 lb / kg	0.02 lb / kg	50,000 lb / kg	5 lb / kg
220 lb / kg	0.05 lb / kg	100,000 lb/kg	10 lb / kg

Z-Cell/SGMT/SGMC connector

- A - Output
- B + Excitation
- C + Output
- D -Excitation
- E Shield

S-Beam tinned leads

- Red + Excitation
- Black -Excitation
- Green + Output
- White - Output
- Bare Shield

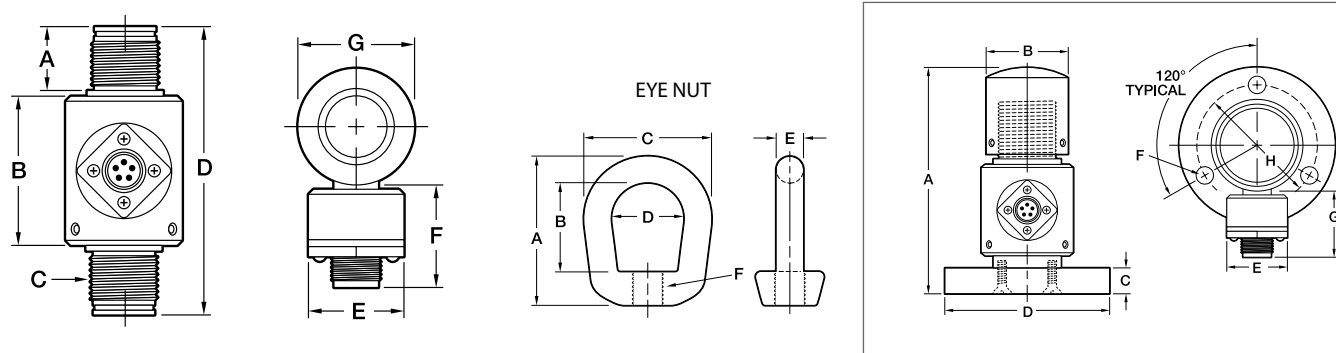


SGMT

Capacities	Part number	A in (mm)	B in (mm)	C in (class)	D in (mm)	E in (mm)	F in (mm)	G in (mm)	Weight lb (kg)
2,000 lb 5,000 lb 10,000 lb	31909-0064 31909-0155 31910-0038	1.13	2.63	1 3/16-12	4.88	1.50	1.75	1.97	2.0
20,000 lb	31911-0045	1.81	2.63	1 1/2-12	6.25	1.50	1.75	2.22	2.5
50,000 lb	31912-0036	2.53	2.84	2 1/4-12	7.91	1.50	1.75	3.00	5.5
100,000 lb	31912-0085	2.53	2.84	2 1/4-12	7.91	1.50	1.75	3.00	10

SGMT Eye Nut

Load cell ratings	Eye nut Part number	A in (mm)	B in (mm)	C in (mm)	D in (mm)	E in (mm)	F in	Weight lb (kg)
2,000 – 10,000 lb 1,000 – 5,000 kg	30270-0018	5.0 (127)	3.1 (78)	4.0 (102)	2.2 (57)	0.9 (23)	1 3/16 - 12	2.5 (1.1)
20,000 lb 10,000 kg	30560-0017	6.8 (172)	4.0 (102)	5.6 (142)	3.1 (79)	1.3 (32)	1 1/2 - 12	6.8 (3.1)
50,000 lb 20,000 kg	30561-0016	10.0 (254)	6.3 (159)	7.0 (178)	4.0 (102)	1.5 (38)	2 1/4 - 12	17 (7.6)

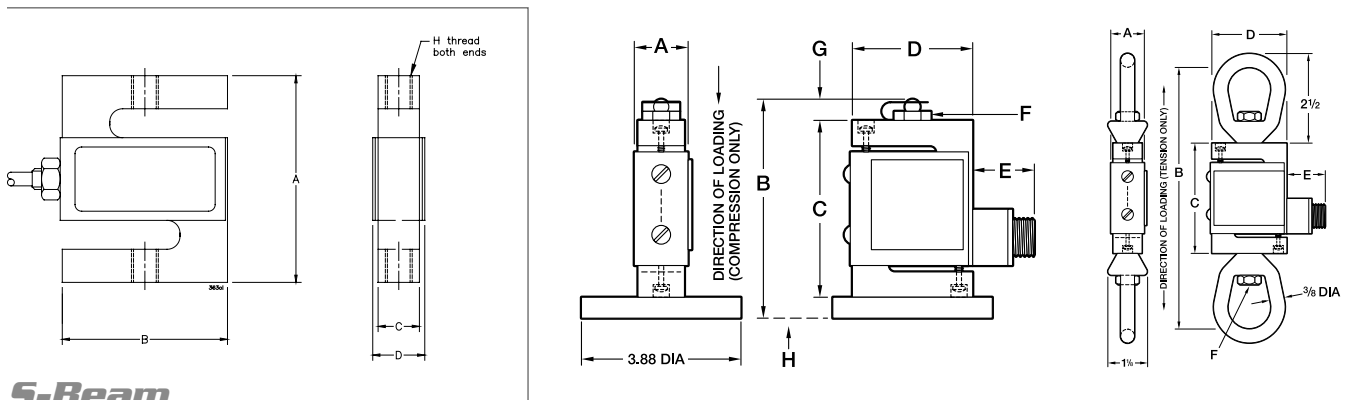


SGMC

Capacities	Part number	A in (mm)	B in (mm)	C in (mm)	D in (mm)	E in (mm)	F in (mm)	G in (mm)	H in (mm)	Weight lb (kg)
2,000 lb 5,000 lb 10,000 lb	31913-0068 31913-0159 31914-0034	4.91	1.63	0.50	3.88	1.50	.406	1.75	3.06	3.5
20,000 lb	31915-0041	5.88	1.97	0.63	4.00	1.50	0.531	1.75	3.125	12
50,000 lb	31916-0032	7.38	2.94	0.63	5.00	1.50	0.531	1.75	4.00	12
100,000 lb	31916-0081	7.38	2.94	0.63	5.00	1.50	0.531	1.75	4.00	15

Z-Cell

Capacity lb (kg)	Part number	A in (mm)	B in (mm)	C in (mm)	D in (mm)	E in (mm)	F in	G in (mm)	Weight lb (kg)
Tension load cells									
25 (10)	33565-0115	(22)	(184)	(76)	(51)	(38)			(1.4)
100 (45)	33565-0131								
500 (220)	33565-0164	1.13 (28)	7.5 (196)	3.25 (83)	2.50 (64)	1.5 (38)	½ - 20	n/a	3.0 (1.4)
1000 (450)	33565-0180	1.13 (28)	8.0 (203)	3.75 (95)	2.50 (64)	1.5 (38)	½ - 20	n/a	3.0 (1.4)
Compression load cells									
25 (10)	33365-0117	0.88	3.94	3.00	2.00	1.5	3/8 - 24	0.44	3.0
50 (22)	33365-0125	(22)	(100)	(76)	(51)	(38)		(11)	(1.4)
100 (45)	33365-0133								
500 (220)	33365-0166	1.13 (28)	4.19 (106)	3.25 (83)	2.50 (64)	1.5 (38)	½ - 20	0.44 (11)	3.0 (1.4)
1000 (450)	33365-0182	1.13 (28)	4.69 (119)	3.75 (95)	2.50 (64)	1.5 (38)	½ - 20	0.44 (11)	3.0 (1.4)

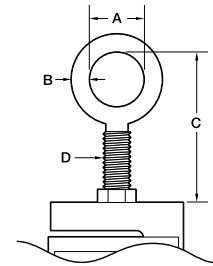


S-Beam

Capacity lb (kg)	Part number	A in (mm)	B in (mm)	C in (mm)	D in (mm)	E (class)	Weight lb (kg)
20 ft (6 m) cable with tinned leads							
50 (22)	AWT27-500020	2.50	2.00	0.50	0.7	¼ - 28 (2B)	1.1
100 (45)	AWT27-500021	(64)	(51)	(12)	(17)		(0.5)
200 (90)	AWT27-500022						
500 (220)	AWT27-500023	2.50	2.00	0.75	0.9	½ - 20 (2B)	1.5
1,000 (450)	AWT27-500024	(64)	(51)	(18)	(23)		(0.7)
2,000 (900)	AWT27-500025	2.50 (64)	2.00 (51)	1.00 (25)	1.2 (29)	½ - 20 (2B)	2.2 (1.0)
5,000 (2,200)	AWT27-500026	4.00	3.00	1.00	1.2	¾ - 16 (2B)	3.6
10,000 (4,500)	AWT27-500027	(99)	(76)	(31)	(29)		(1.6)
20,000 (9,000)	AWT27-500028	7.00 (178)	5.00 (113)	2.00 (43)	2.2 (48)	1 ¼ - 12 (2B)	20 (9.2)
20 ft (6 m) cable with 7-pin connector							
50 (22)	AWT27-500011	2.50	2.00	0.50	0.7	¼ - 28 (2B)	1.1
100 (45)	AWT27-500012	(61)	(51)	(12)	(17)		(0.5)
200 (90)	AWT27-500013						
500 (220)	AWT27-500014	2.50	2.00	0.75	0.9	½ - 20 (2B)	1.5
1,000 (450)	AWT27-500015	(61)	(51)	(18)	(23)		(0.7)
2,000 (900)	AWT27-500016	2.50 (61)	2.00 (51)	1.00 (25)	1.2 (29)	½ - 20 (2B)	2.2 (1.0)
5,000 (2,200)	AWT27-500017	4.00	3.00	1.00	1.2	¾ - 16 (2B)	3.6
10,000 (4,500)	AWT27-500018	(99)	(76)	(31)	(29)		(1.6)
20,000 (9,000)	AWT27-500019	7.00 (178)	5.00 (113)	2.00 (43)	2.2 (48)	1 ¼ - 12 (2B)	20 (9.2)

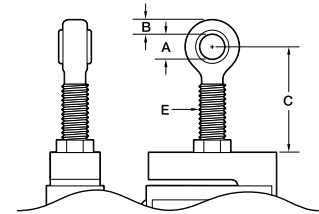
Forged Eyebolt (not for critical overhead use, see Z-cell and SGMAT)

S-Beam Load cell ratings	Eyebolt Part number	Breaking strength*	A in (mm)	B in (mm)	C in (mm)	D in	Weight lb (kg)
50–200 lb (22–90 kg)	52744-0218	2,500 lb	1.0 (25)	0.4 (10)	2.2 (55)	¼ - 28	0.14 (0.06)
500–2,000 lb (220–900 kg)	52744-0234	12,000 lb	1.1 (28)	0.5 (13)	2.7 (67)	½ - 20	0.36 (0.16)
5,000–10,000 lb (2,200–4,500 kg)	52744-0242	25,000 lb	1.5 (38)	0.7 (18)	3.4 (85)	¾ - 16	1.0 (0.45)



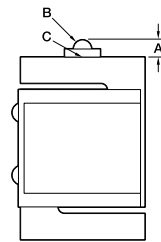
Rod End Bearing (not for critical overhead use, see Z-cell and SGMAT)

S-Beam Load Cell ratings	Rod end bearing Part number	Rating*	A in (mm)	B in (mm)	C in (mm)	D in (mm)	E in	Weight lb (kg)
50–200 lb (22–90 kg)	AWT15-500178	2,200 lb	0.25 (6)	0.25 (6)	1.3 (32)	0.38 (10)	¼ - 28	0.1 (0.0)
500–2,000 lb (220–900 kg)	AWT15-500179	8,300 lb	0.50 (13)	0.41 (11)	1.8 (47)	0.63 (16)	½ - 20	0.3 (0.1)
5,000–10,000 lb (2,200–4,500 kg)	AWT15-500180	14,000 lb	0.75 (19)	0.50 (13)	2.0 (50)	0.88 (22)	¾ - 16	0.7 (0.3)
20,000 lb 9,000 kg	AWT15-500181	44,000 lb	1.25 (32)	0.75 (19)	2.6 (67)	1.09 (28)	1 ¼ - 12	2.5 (1.1)



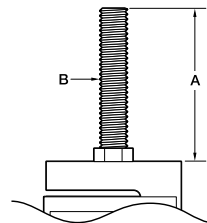
Load button

Load cell ratings	Rod end bearing Part number	A in (mm)	B radius in (mm)	C in	Weight lb (kg)
50–200 lb (22–90 kg)	AWT05-500228	0.25 (6)	0.50 (13)	¼ - 28	0.0 0.0
500–2,000 lb (220–900 kg)	AWT05-500230	0.50 (13)	3.00 (76)	½ - 20	0.0 0.0
5,000–10,000 lb (2,200–4,500 kg)	AWT05-500231	0.68 (17)	5.00 (129)	¾ - 16	0.1 0.1
20,000 lb 9,000 kg	AWT05-500233	1.17 (30)	15.0 (381)	1 ¼ - 12	0.5 0.3



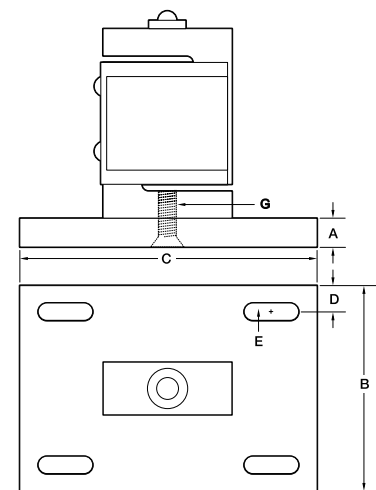
Threaded stud (not for critical overhead use, see Z-cell and SGMAT)

Load cell ratings	Rod end bearing Part number	A in (mm)	B in (mm)	Weight lb (kg)
50–200 lb (22–90 kg)	AWT15-500173	1.2 (30)	¼ - 28	0.0 0.0
500–2,000 lb (220–900 kg)	AWT15-500174	1.9 (48)	½ - 20	0.1 0.1
5,000–10,000 lb (2,200–4,500 kg)	AWT15-500175	2.1 (53)	¾ - 16	0.4 0.2
20,000 lb 9,000 kg	AWT15-500176	9.5 (241)	1 ¼ - 12	3.9 1.8



Compression plate (Not for tensile use!)

Load cell ratings	Rod end bearing Part number	A in (mm)	B in (mm)	C in (mm)	D in (mm)	E in (mm)	G in (mm)	Weight lb (kg)
50–200 lb (22–90 kg)	AWT15-500182	0.38 (10)	4.00 (102)	4.00 (102)	0.50 (13)	0.28 x 0.75	¼ - 28	1.8 (0.8)
500–2,000 lb (220–900 kg)	AWT15-500183	0.50 (13)	4.00 (102)	4.00 (102)	0.75 (19)	0.41 x 1.00	½ - 20	2.3 (1.1)
5,000–10,000 lb (2,200–4,500 kg)	AWT15-500184	0.75 (19)	5.00 (127)	5.00 (127)	1.00 (25)	0.53 x 1.00	¾ - 16	5.4 (2.5)
20,000 lb 9,000 kg	AWT15-500185	1.25 (32)	7.00 (178)	6.00 (178)	1.50 (38)	0.88 x 1.25	1 ¼ - 12	15.2 (6.9)



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