

GC005-V2 thru GC600-V2

Wireless Load Cell

Features

- Standard single part line pull sizes ranging from 5,000 to 600,000 lb.
- All stainless frame and hardware
- Heavy duty construction from 17-4PH1150 stainless steel (17-4PH1025 on models 250,000lb and up)
- Accuracy of $\pm 1\%$ on a single part of line
- Option available with CSA Class 1 division 1 certification.
- Ships calibrated
- Stock and custom bushings for most applications.
- Radio range with line of sight: 4000 ft. (1300 m)
- Operates with one 'D' cell battery lithium 3.6V or alkaline 1.5V.
- 2 years battery life for typical applications
- ISM license free radio: wavelength and modulation optimized for radio communication in industrial environments.
- Temperature range: -40°C to 85°C (-40°F to 185°F)
- Temperature compensated
- Potted electronics for increased water protection
- Rugged field-replaceable antenna (TA011)
- Custom sizes on request
- 2-year warranty
- Designed with a safety factor of 5:1 on the safe working load.
- All load bearing bodies have been tested by ultrasounds, die-penetrant and proof loaded to 150% of capacity.



Wireless Load Cell

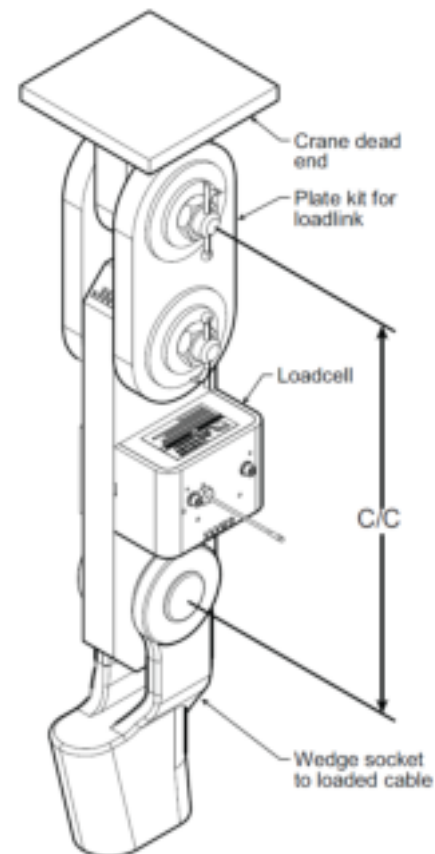


Figure: Typical installation on a crane

Applications

Designed for all applications in the lifting industry, including offshore, that do not require the load cell to be submerged (due to radio communications). Installation above a ball, odd parted on the block, or even parted on the boom tip.

General Description

The load cell is installed in-line with the wire-rope. This load creates minute deformations of the load cell and electronics convert it into a load value, which is transmitted to the receiving unit.

The transmitter box mounted to the load cell houses the battery, radio transmitter, and load converter.

GC005-V2 thru GC600-V2

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Ordering Information

Model	Description
GCxxx-V2	Load Cell. The three 'X' digits are working load limit (WLL) in thousands of pounds. For example, GC060-V2 is for a 60,000-lb WLL or 27215-kg WLL. Load cell is FCC approved.
GCxxx-CSA-V2	Load cell certified Class 1 Division 1, suitable for Div 1 and Div 2
GCxxx-xx-CE-V2	Load cell CE certified, with radio frequency suitable for Europe, most of Asia and Middle East
LC6XX-XX	Appropriate adapter plate kit for load cell (see table page 6).
LC6XX-5X	Appropriate 90° adapter plate kit for load cell (see table page 8).

Examples:

GC170-V2: is a 170,000 lbs load cell with FCC certification.

GC005-V2 thru GC600-V2

Specifications

Parameter	Test Condition	Min	Typ	Max	Unit
Load Tension Measurement					
Resolution	+/-	0.025	0.075	0.2	% of SWL
Accuracy	+/-	0.5	1	2	% of SWL
Radio Power					
	GCXXX-V2		0.0054 7		W dBm
Radio Frequency					
North American version	GCXXX-V2	903		927	MHz
European version	GCXXX-CE-V2	868		870	MHz
Battery life					
	'D' cell lithium	12	24	28	Month
	'D' cell alkaline	8	12	16	Month

Absolute Maximum Ratings

Parameter	Test Condition	Min	Typ	Max	Unit
Ambient temperature range	Operating	-40		+60	°C
		-40		+140	°F
	Storage	-40		+85	°C
		-40		+185	°F

Certifications

FCC/IC/CE certification : FCC Part 15 Subpart C 15.247,15.205, 15.207 & 15.209
ETSI EN 300 220 (AA)

EMI/C - EN 61000-4-3, EN 301 489-1 - Clause 8.2

CSA Certificate Number - 80130757

CSA C22.2 No. 60079-0:19, 60079-11:14 (R2018), 61010-1-12, Update 1&2, Amd1:2018
UL 60079-0-2020, UL 60079-11-2018, UL 61010-1-2018

Class I, Division 1, Group A, B, C & D T4
Ex ia IIC T4 Ga
Class I, Zone 0, AEx ia IIC T4 Ga

Ambient Temperature: -20°C to 40°C.

GC005-V2 thru GC600-V2



WARNING: Only use Tadiran TL-5930 3.6V or Saft LS33600 cell 3.6V text.
l'avertissement: Utilisez uniquement du texte Tadiran TL-5930 3,6 V ou Saft LS33600 3,6 V.

Specifications by Model and Options

Load Cell model	Max load		Weight	
	(lb)	(kg)	(lb)	(kg)
GC005-V2	5000	2270	5	2.3
GC012-V2	12000	5440	9.00	4.08
GC018-V2	18000	8160	10.00	4.54
GC035-V2	35000	15880	16.00	7.26
GC060-V2	60000	27215	29.00	13.15
GC100-V2	100000	45360	46.00	20.87
GC170-V2	170000	77000	94.00	42.64
GC250-V2	250000	113400	106.00	48.08
GC300-V2	300000	136100	122.00	55.34
GC400-V2	400000	181000	199.00	90.26
GC600-V2	600000	227000	288.00	130.63

Materials

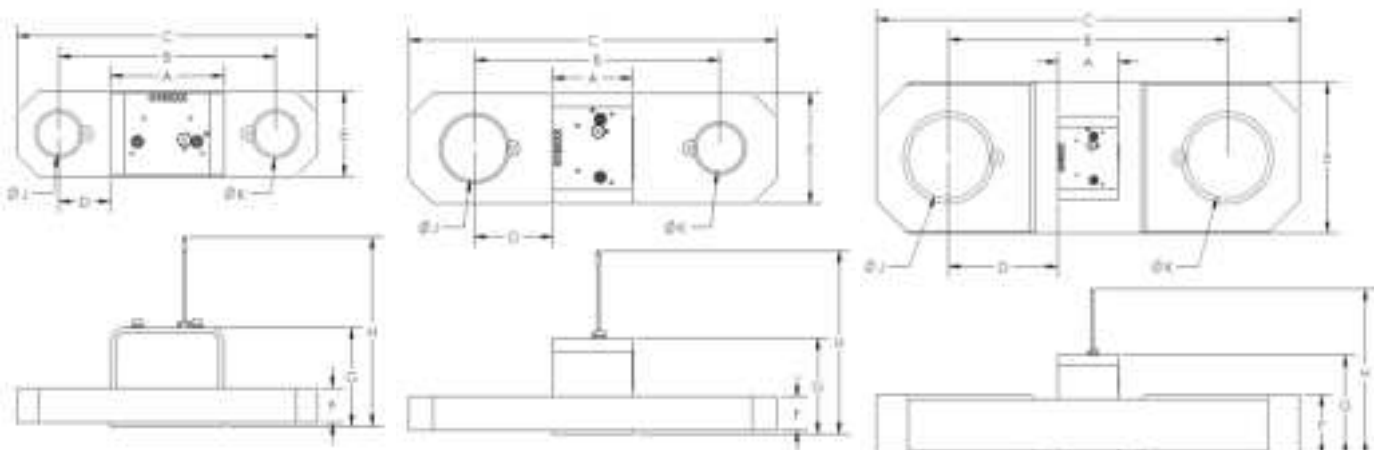
The load cell and hardware are made of stainless steel, AISI 304 and 17-4PH1150 (up to GC170) or 17-4PH1025 (GC250 and over). The bushings are made from 1045 steel.

Dimensions *(Not to Scale)*

GC005-V2 - GC018-V2

GC035-V2 - GC100-V2

GC170-V2 - GC600-V2



GC005-V2 thru GC600-V2

Load Cell		DIMENSIONS									
		A	B	C	D	E	F	G	H	Ø for Pin	ØK for Pin
GC005-V2	(in)	3.93	6.20	8.30	1.14	2.95	0.65	3.00	6.12	7/8	7/8
	(mm)	99.8	157.5	210.8	28.9	74.9	16.5	76.2	155.4	22	22
GC012-V2	(in)	3.93	7.50	10.40	1.79	2.95	0.95	3.17	6.28	1-1/4	1-1/4
	(mm)	99.8	190.5	264.2	45.4	74.9	24.1	80.4	159.6	32	32
GC018-V2	(in)	3.93	7.50	10.40	1.79	2.95	1.20	3.44	6.55	1-3/8	1-3/8
	(mm)	99.8	190.5	264.2	45.4	74.9	30.5	87.2	166.4	35	35
GC035-V2	(in)	2.86	8.75	13.15	2.79	3.95	1.20	3.42	6.54	2-1/4	1-5/8
	(mm)	72.5	222.3	334.0	70.9	100.3	30.5	86.7	166.0	57	41
GC060-V2	(in)	2.86	9.00	14.58	3.32	4.95	1.65	3.92	7.04	2-1/2	2-1/2
	(mm)	72.5	228.6	370.33	84.3	125.7	41.9	99.5	178.7	63	63
GC100-V2	(in)	2.86	11.60	18.90	4.37	6.00	2.00	4.22	7.34	3	3
	(mm)	72.5	294.6	480.1	111.0	152.4	50.8	107.1	186.3	76	76
GC170-V2	(in)	2.86	13.00	21.20	5.07	7.00	3.00	4.98	8.10	3-1/8	3-1/8
	(mm)	72.5	330.2	538.5	128.8	177.8	76.2	126.5	205.7	80	80
GC250-V2	(in)	2.86	14.50	23.56	5.82	7.10	2.88	4.76	7.87	3-3/4	3-3/4
	(mm)	72.5	368.3	598.4	147.9	180.3	73.2	120.8	200.0	95	95
GC300-V2	(in)	2.86	14.00	23.688	5.57	7.44	3.38	5.04	8.15	4-1/4	4-1/4
	(mm)	72.5	355.6	601.5	141.5	189.0	85.7	127.9	207.1	108	108
GC400-V2	(in)	2.86	17.50	28.78	7.32	8.67	3.88	5.32	8.44	5	5
	(mm)	72.5	444.5	731.0	186.0	220.2	98.4	135.1	214.3	127	127
GC600-V2	(in)	2.86	19.00	32.08	8.07	10.70	3.88	5.44	8.55	5-1/4	5-1/4
	(mm)	72.5	482.6	814.8	205.0	271.8	98.4	138.0	217.2	133	133

GC005-V2 thru GC600-V2

Standard Bushings

Load Cell	Bushing	ADAPTS TO PIN ϕ	
		(in)	(mm)
GC012-V2	PC401	1	25
GC018-V2	PC118	1-1/4	32
GC035-V2	PC424	1-1/2	38
	PC425	1-5/8	41
	PC426	1-3/4	44
	PC427	1-7/8	48
	PC428	2	50
	PC429*	1-1/4	32
GC060-V2	PC114	2-1/4	57
	PC115	2	51
GC100-V2	PC416	2-1/2	64
	PC419	2-3/4	70
	PC431	2	51
GC170-V2	PC448	2-1/4	57
	PC449	2-1/2	64
GC250-V2	PC443	2-1/4	57
	PC444	2-3/4	70
	PC445	3-1/4	83
GC300-V2	PC446	3-3/4	96
	PC447	4-1/8	105
GC400-V2	PC453	4-1/8	105
	PC454	4-1/4	108
	PC455	4-3/4	121
GC600-V2	PC456	5	127

Standard included bushings are in **bold** and depends on adapter plate kit when load cell and adapter plate kit are ordered together.

*Fits in the 1-5/8 hole, the other bushings for the GC035 fit in the 2-1/4 hole.