

BOLT SENSORS WITH MOUNTING WASHERS STANDARD AND METRIC MODELS

Compression

0-2000 lb to 0-100,000 lb

0-10,000 N to 0-500,000 N

1 Newton = 0.2248 lb

1 daNewton = 10 Newtons

1 lb = 454 g

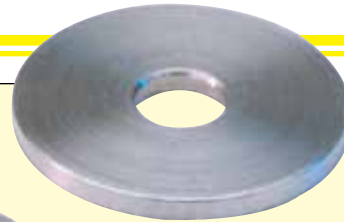
1 t = 1000 kgf = 2204 lb

LC900/LCM900 Series



Standard

LC901-1/4-5K shown larger than actual size.



Shown actual size.

OMEGA's LC900/LCM900 Series bolt force sensors are compression load cells designed to measure the clamping force of a bolt. With excellent long-term stability and all stainless steel construction, the LC900/LCM900 Series delivers high reliability in severe industrial environments. These units are designed to operate by mounting on a flat surface between 2 mounting washers (included).

SPECIFICATIONS

Excitation: 5 Vdc (10V max)

Output: 2 mV/V nominal

Accuracy: ±3.5% FSO linearity, hysteresis and repeatability combined

Zero Balance: ±4% FSO

Operation Temp Range: -54 to 93°C (-65 to 200°F)

Compensated Temp Range: 16 to 71°C (60 to 160°F)

Thermal Effects:

Zero: ±0.018% FSO/°C

Span: ±0.036% rdg/°C

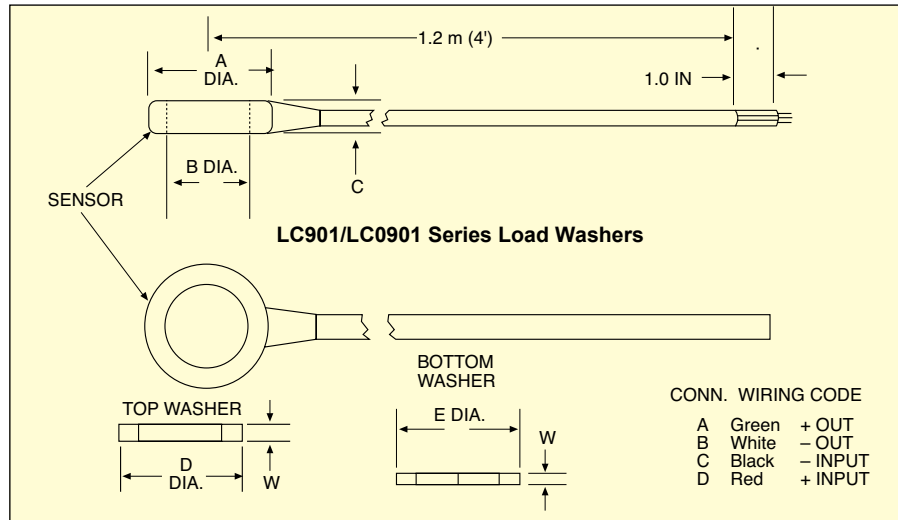
Safe Overload: 130% of capacity

Ultimate Overload: 150% of capacity

Bridge Resistance: 120 Ω nominal

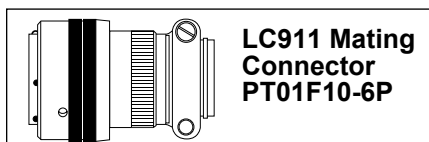
Construction: Stainless steel

Electrical Connection: 1.2 m (4') insulated shielded cable



Dimensions: mm (inch)

SIZE	CAPACITY	BOLT SENSOR			WASHERS		
		A	B	C	D	E	W
STANDARD MODELS							
1/4"	2000 lb	25.4 (1.000)	6.76 (0.266)	4.75 (0.187)	19.1 (0.750)	25.4 (1.000)	1.57 (0.062)
1/4"	5000 lb	25.4 (1.000)	6.76 (0.266)	4.75 (0.187)	19.1 (0.750)	25.4 (1.000)	1.57 (0.062)
3/8"	10,000 lb	19.1 (0.750)	10.1 (0.396)	4.75 (0.187)	16.7 (0.656)	19.1 (0.750)	1.57 (0.062)
1/2"	30,000 lb	25.4 (1.000)	13.1 (0.517)	6.35 (0.250)	21.4 (0.844)	25.4 (1.000)	1.98 (0.078)
5/8"	50,000 lb	28.6 (1.125)	16.4 (0.644)	6.35 (0.250)	24.6 (0.968)	28.6 (1.125)	1.98 (0.078)
3/4"	65,000 lb	38.1 (1.500)	19.6 (0.770)	9.53 (0.375)	30.9 (1.218)	38.1 (1.500)	2.36 (0.093)
1 1/2"	100,000 lb	66.7 (2.625)	38.9 (1.533)	22.2 (0.875)	63.5 (2.500)	66.7 (2.625)	3.18 (0.125)
METRIC MODELS							
6 mm	10,000 N	25.4 (1.000)	6.76 (0.266)	4.75 (0.187)	19.1 (0.750)	25.4 (1.000)	1.57 (0.062)
6 mm	20,000 N	25.4 (1.000)	6.76 (0.266)	4.75 (0.187)	19.1 (0.750)	25.4 (1.000)	1.57 (0.062)
10 mm	50,000 N	19.1 (0.75)	10.1 (0.396)	4.75 (0.187)	16.7 (0.656)	19.1 (0.750)	1.57 (0.062)
13 mm	130,000 N	25.4 (1.000)	13.1 (0.517)	6.35 (0.250)	21.4 (0.844)	25.4 (1.000)	1.98 (0.078)
16 mm	200,000 N	28.6 (1.125)	16.4 (0.644)	6.35 (0.250)	24.6 (0.968)	28.6 (1.125)	1.98 (0.078)
19 mm	300,000 N	38.1 (1.500)	19.6 (0.770)	9.53 (0.375)	30.9 (1.218)	38.1 (1.500)	2.36 (0.093)
38 mm	500,000 N	66.7 (2.625)	38.9 (1.533)	22.2 (0.875)	63.5 (2.500)	66.7 (2.625)	3.18 (0.125)



BOLT SENSORS WITH MOUNTING WASHERS

STANDARD AND METRIC MODELS

To Order

BOLT SIZE	CAPACITY		MODEL NO. STRIPPED ENDS	MODEL NO CONNECTOR END	COMPATIBLE METERS**
	LB	N			
STANDARD MODELS					
1/4"	2000	8897	LC901-1/4-2K	-	DP41-S, DP25B-S, DPiS
1/4"	5000	22,242	LC901-1/4-5K	-	DP41-S, DP25B-S, DPiS
3/8"	10,000	44,484	LC901-3/8-10K	-	DP41-S, DP25B-S, DPiS*
1/2"	30,000	133,452	LC901-1/2-30K	LC911-1/2-30K	DP41-S, DP25B-S, DPiS*
5/8"	50,000	222,420	LC901-5/8-50K	LC911-5/8-50K	DP41-S, DP25B-S, DPiS*
3/4"	65,000	289,146	LC901-3/4-65K	LC911-3/4-65K	DP41-S, DP25B-S, DPiS*
1 1/2"	100,000	444,840	LC901-1.5-100K	-	DP41-S, DP25B-S, DPiS*
METRIC MODELS					
6 mm	2248	10,000	LCM901-6-10Kn	-	DPiS, DP41-S, DP25B-S
6 mm	4496	20,000	LCM901-6-20Kn	-	DPiS, DP41-S, DP25B-S
10 mm	11,240	50,000	LCM901-10-50Kn	-	DPiS, DP41-S, DP25B-S
13 mm	29,225	130,000	LCM901-13-130Kn	LCM911-13-130KN	DPiS, DP41-S, DP25B-S
16 mm	44,962	200,000	LCM901-16-200Kn	LCM911-16-200KN	DPiS, DP41-S, DP25B-S
19 mm	67,443	300,000	LCM901-19-300Kn	LCM911-19-300KN	DPiS, DP41-S, DP25B-S*
38 mm	112,405	500,000	LCM901-38-500Kn	-	DPiS, DP41-S, DP25B-S*

ACCESSORY

MODEL NO.	DESCRIPTION
PT01F10-6P	Mating connector for LC911/LCM911 series load cells

Comes complete with 2-point NIST-traceable calibration and 59 kΩ shunt data. * 4-digit meter. ** Visit us online for compatible meters.

Ordering Examples: LC901-3/8-10K, 10,000 lb capacity bolt sensor for a 3/8" diameter bolt, with stripped ends on the leads.

LCM901-10-50KN, 50 kN capacity bolt sensor for 10 mm bolt, with stripped ends on the leads.

LC911-1/2-30K, 30,000 lb capacity bolt sensor for a 1/2" diameter bolt with a connector installed on the cable. PT01F10-6P, mating connector (sold separately).

LCM911-13-130KN, 130 kN capacity bolt sensor for 13 mm bolt with a connector installed on the cable. PT01F10-6P, mating connector (sold separately).

