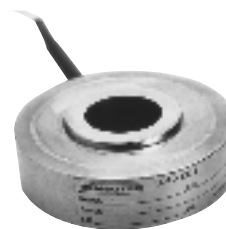


Donut Shaped Load Cells

Model D



Model D (Compression Only)

THRU-HOLE DESIGN

150 GMS - 30,000 LBS.

FLEXIBLE DESIGN

PERFORMANCE

The Model D Donut Shaped Load Cell features a smooth thru-hole design perfect for applications which require the load structure to pass directly through the cell. Such applications include bolt force measurements, clamping forces, and monitoring overloads. Load ranges as low as 150 grams and as great as 30,000 pounds can be measured within a maximum full scale non-linearity and hysteresis of $\pm 0.5\%$ F.S. These models are used in compression applications and are available in multiple hole sizes. For optimum performance, these cells must be mounted between load surfaces which are flat and parallel. The Model D miniature load cell is designed to have a minimum thickness.

Model D (Compression Only)

Load Ranges	150 gms to 30,000 lbs.
Non-linearity and Hysteresis (max)	$\pm 0.5\%$ F.S.
Non-repeatability (max)	$\pm 0.1\%$ F.S.
Output	20mV/V (gram units) 2mV/V (5 lb. and above)
Resolution	Infinite
Temperature, Operating	-65° F to 250° F
Temperature, Compensated	60° F to 160° F
Temperature Effect	
- Zero (max)005% F.S./° F (5 lb. and above); .01%/° F (gram units)
- Span (max)010% Rdg./° F (5 lb. and above); .02%/° F (gram units)
Strain Gage Type	Semi conductor (gram units) Bonded foil (5 lb. and above)
Excitation (calibration)	Semi conductor 5V Bonded foil 10V
Bridge Resistance	500 ohms (gram units) 350 ohms (5 lb. and above)
Wiring Code (std)	#1 (See Pg. AP-8)
Electrical Termination (std)	Teflon cable (5 ft.)
Overload, Safe	50% over capacity
Casing Material	Stainless Steel

ENVIRONMENTAL

ELECTRICAL

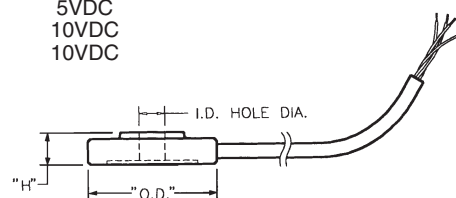
MECHANICAL

Dimensions

Model D (Order Code BL912)

Selection Guide—150 gms. to 100 lbs. units

Available Ranges	O.D."	I.D."	H"	Excitation
150; 250; 500; 1000 gms	.50	.10	.15	5VDC
5; 10 lbs.	1.00	.20	.28	10VDC
25; 50; 100 lbs.	1.00	.20	.28	10VDC



Options (See Appendix)

Temperature compensated 1b, 1c, 1f; Special calibration 9a, 9b

Premium Options: 1g (≥ 5 lb. only); 12b

Selection Instructions for Larger Capacity Units—30,000 lbs.

Shown below are three separate outline drawings for the Model D Load Cell. The frame size selection guide below indicates that with a single shell size (outside diameter), different “donut holes” are available. For example, in the small frame size (A) it is possible to select a 250 lb. load cell with a nominal hole size of 1/8" (P), 3/16" (Q), 1/4" (R), or 3/8" (S) diameter. We manufacture the actual hole dimensions to provide some clearance; for example the 1/8" (P) diameter dimension, the actual dimension is 0.128".

Frame Size Selection Guide

HOW TO ORDER: SPECIAL ORDER INSTRUCTIONS

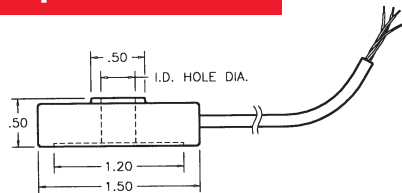
1. Specify the **order code** (See frame size A, B or C)
2. State the **load range** required in pounds and range code.
3. State the nominal **hole diameter** letter.

e.g. Model D: BL914CN R (1/4 inch) [250 lbs.]

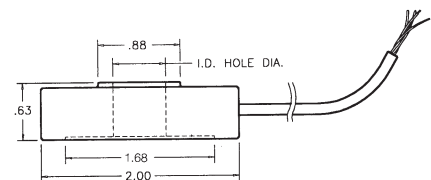
Hole Letters	P	Q	R	S	T	V	W	Y	Z
Nominal Hole Dia.	1/8"	3/16"	1/4"	3/8"	1/2"	5/8"	3/4"	1"	1 -1/4"
Actual Hole Dia.	.128"	.193"	.266"	.391"	.532"	.656"	.781"	1.032"	1.281"
100 lbs.	A	A	A	A					
250 lbs.	A or B	A or B	A or B	A or B	B	B			
500 lbs.	A or B	A or B	A or B	A or B	B	B			
1,000 lbs.	A or B	A or B	A or B	B	B	B			
2,000 lbs.	A, B or C	A, B or C	A, B or C	B or C	B or C	B or C	C	C	C
3,000 lbs.	B or C	B or C	B or C	B or C	B or C	C	C	C	C
5,000 lbs.	B or C	B or C	B or C	B or C	B or C	C	C	C	C
7,500 lbs.	B or C	B or C	B or C	B or C	B or C	C	C	C	C
10,000 lbs.	B or C	B or C	B or C	B or C	B or C	C	C	C	C
15,000 lbs.	C	C	C	C	C	C	C	C	C
20,000 lbs.	C	C	C	C	C	C	C	C	C
30,000 lbs.	C	C	C	C	C	C	C	C	C

LOAD
DONUT

Options

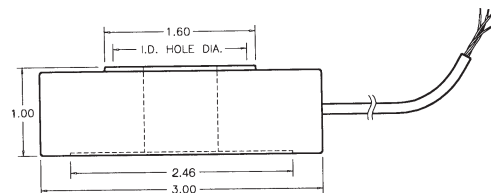


FRAME SIZE A
ORDER CODE BL913



FRAME SIZE B
ORDER CODE BL914

***Choose Hole Dia. from
Selection Guide above.**



FRAME SIZE C
ORDER CODE BL915