

Features

- Capacities 0.5kN – 1000kN.
- Linearity $\pm 0.15\%$ RO.
- IP65 rating.
- Customisable design.
- Optional increased temperature range.
- Optional mounting accessories.

Applications

- Test machines.
- Mis-aligned loading applications.
- Restricted height constraints.
- Virtually all industries.



Description

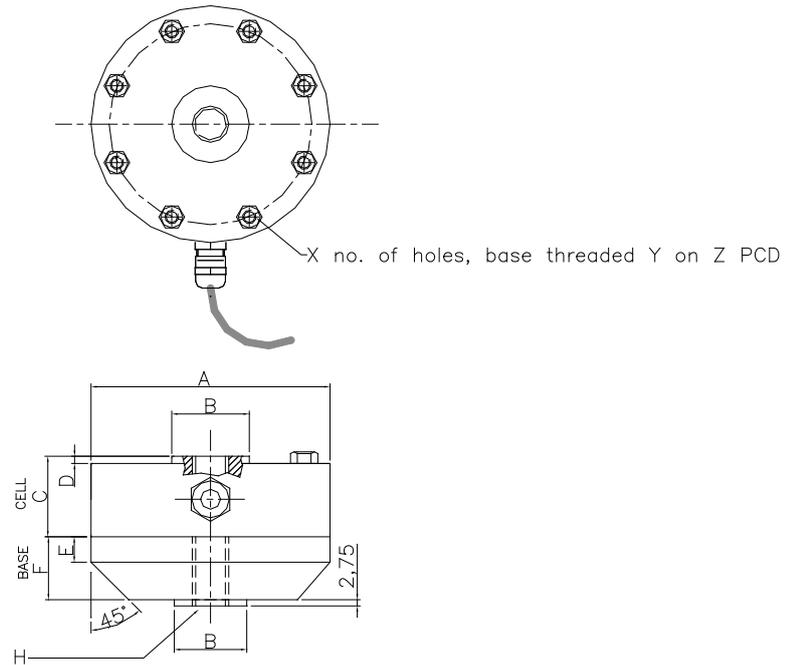
The BD-PLC is a bi-directional pancake load cell design suitable for tension and compression force measurement for static and dynamic applications. The PLC design is based on the shear web principle which allows for mis-aligned loading with minimal effect on load cell output.

The PLC is a custom build solution if the standard pancake load cell we offer, the BD-TC4, does not suit your application. There are several aspects of the PLC load cell design that can be modified to better suit your application, such as the operating temperature range, mounting accessories, connector output, etc. Contact us to discuss your requirement.

Typical Specification

PARAMETER	VALUE		UNITS
Capacities Range	0.5, 1, 2.5, 5	12.5, 25, 50, 100, 125, 250, 500, 1000	kN
Rated Output <small>NOMINAL</small>	2		mV/V
Linearity & Non-Repeatability	0.15		$\pm\%$ of Rated Output
Zero Balance	1		$\pm\%$ of Rated Output
Temperature Effect <small>ON ZERO</small>	0.02		$\pm\%$ of Rated Output/ $^{\circ}\text{C}$
Temperature Effect <small>ON OUTPUT</small>	0.1		$\pm\%$ of Rated Output/ $^{\circ}\text{C}$
Temperature Range <small>COMPENSATED</small>	Ambient to +70		$^{\circ}\text{C}$
Temperature Range <small>OPERATING</small>	-30 to +80		$^{\circ}\text{C}$
Input Resistance	780 <small>NOMINAL</small>		Ω
Output Resistance	700 <small>NOMINAL</small>		Ω
Insulation Resistance	>2		G Ω
Excitation <small>RECOMMENDED SUPPLY</small>	10		Volts AC or DC
Excitation <small>MAXIMUM SUPPLY</small>	20		Volts AC or DC
Mechanical Limit <small>SAFE OVERLOAD</small>	150		% of Rated Output
Mechanical Limit <small>ULTIMATE OVERLOAD</small>	300		% of Rated Output
Cable Length	5		m
Cable Type	4-wire, screened		-
Construction Material	Aluminium	Stainless Steel	-
Environmental Protection	IP65		-

Outline Dimensions in millimetres



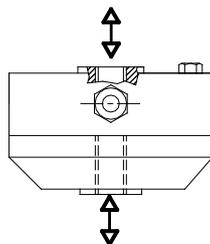
CAPACITY (kN)	ØA	ØB	C	D	E	F	H	X	Y	Z	BOLT TORQUE (Nm)
0.5, 1	65	18	17	2	10	20	M8x1.25	6	M4x0.7	54	4.6
2.5, 5	106	32	28	3	16	28	M16x1.5	8	M6x1.0	92	16
12.5, 25	106	32	36	3	16	29	M16x1.5	8	M6x1.0	92	16
50, 100	154	50	36	3	20	40	M30x2	8	M12x1.75	128	77
125, 250	194	93	64	6	26	60	M42x3	16	M12x1.75	165	135
500, 1000	240	125	75	8	45	75	M72x3	16	M16x1.5	206	330

If the dimensions or specification do not suit, PCM has an in-house design team that should be able to satisfy your requirements.

Wiring Details

SCHEMATIC DIAGRAM	OUTPUT	CABLE
	EXCITATION +	RED
	OUTPUT +	YELLOW
	EXCITATION -	BLUE
	OUTPUT -	GREEN
	SHIELD	-----

Loading Mode



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