

## Features

- Capacities 1KG – 50KG.
- Linearity  $\pm 0.03\%$  RO.
- IP20 rating.

## Applications

- Test machines.
- Restrictive height constraints.
- Virtually all industries.



## Description

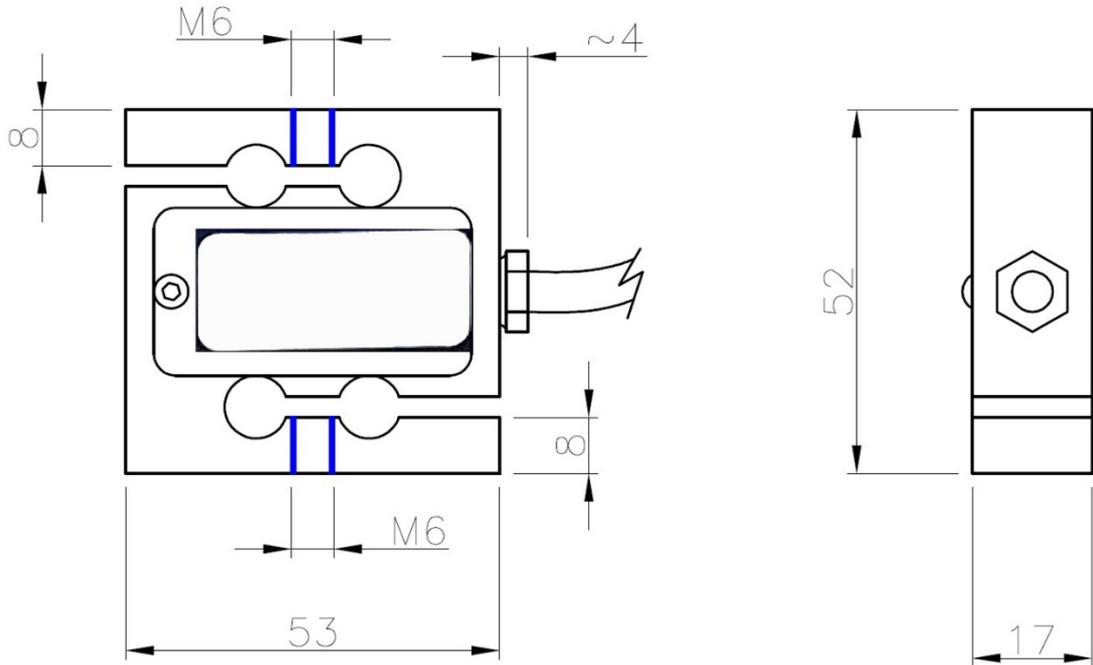
The BD-TCA is a standard design, low profile S-Type load cell produced from aluminium. Designed for use in both tension and compression applications, it can be used for static or dynamic applications.

## Typical Specification

PARAMETER	VALUE	UNITS
Capacities Range	1 <sup>(1)</sup> , 2 <sup>(1)</sup> , 5 <sup>(1)</sup> , 10, 25, 50	KG
Rated Output	2	mV/V
Nominal Sensitivity	0.1	$\pm\%$ of Rated Output
Linearity & Hysteresis	0.03	$\pm\%$ of Rated Output
Repeatability	0.01	$\pm\%$ of Rated Output
Temperature Effect ON ZERO	0.025	$\pm\%$ of Rated Output/ $^{\circ}$ C
Temperature Effect ON OUTPUT	0.021	$\pm\%$ of Rated Output/ $^{\circ}$ C
Input Resistance	440 $\pm$ 20	$\Omega$
Output Resistance	350 $\pm$ 2	$\Omega$
Insulation Resistance	>5	G $\Omega$
Zero Balance	1	$\pm\%$ of Rated Output
Excitation NOMINAL SUPPLY RANGE	1-15	Volts AC or DC
Excitation RECOMMENDED SUPPLY	10	Volts AC or DC
Excitation MAXIMUM SUPPLY	18	Volts AC or DC
Temperature Range COMPENSATED	-20 to +80	$^{\circ}$ C
Temperature Range OPERATING	-20 to +70	$^{\circ}$ C
Mechanical Limit SERVICE LOAD	120	% of Rated Output
Mechanical Limit SAFE OVERLOAD	150	% of Rated Output
Mechanical Limit ULTIMATE OVERLOAD	300	% of Rated Output
Mechanical Limit SAFE TRANSVERSE LOAD	50	% of Rated Output
Mechanical Limit SAFE DYNAMIC LOAD	50	% of Rated Output
Displacement at Nominal Load	$\sim$ 0.3	mm
Cable Length	3	m
Sensor Construction Material	Aluminium	-
Environmental Protection	IP20	-
Weight	0.3	$\sim$ KG

<sup>(1)</sup> Supplied with overload protection in tension and compression (Max. 500% RO).

**Ordering Codes & Outline Dimensions in millimetres**



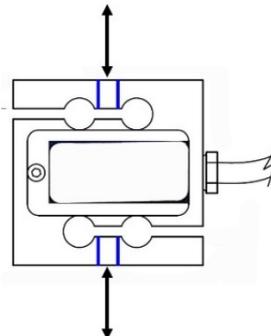
CAPACITY (KG)	ORDERING CODE	NATURAL FREQUENCY (kHz)
1	CTCA1K5	~0.22
2	CTCA2K5	~0.50
5	CTCA5K5	~0.75
10	CTCA10K5	~1.00
25	CTCA25K5	~1.50
50	CTCA50K5	~2.00

**Wiring Details**

LOAD CELL	OUTPUT	CABLE
	EXCITATION +	RED
	EXCITATION -	BLACK
	OUTPUT +	WHITE
	OUTPUT -	YELLOW
	-----	SHIELD

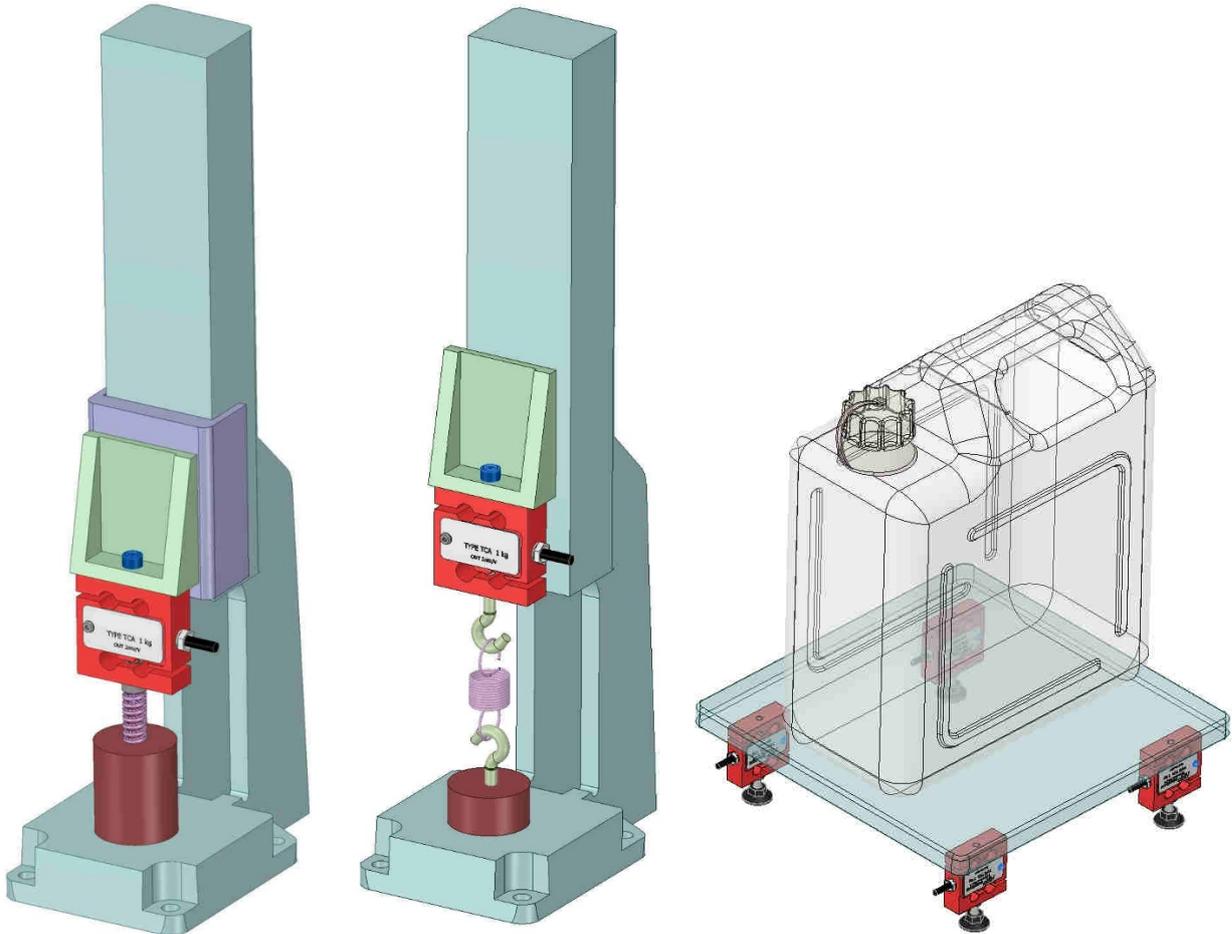
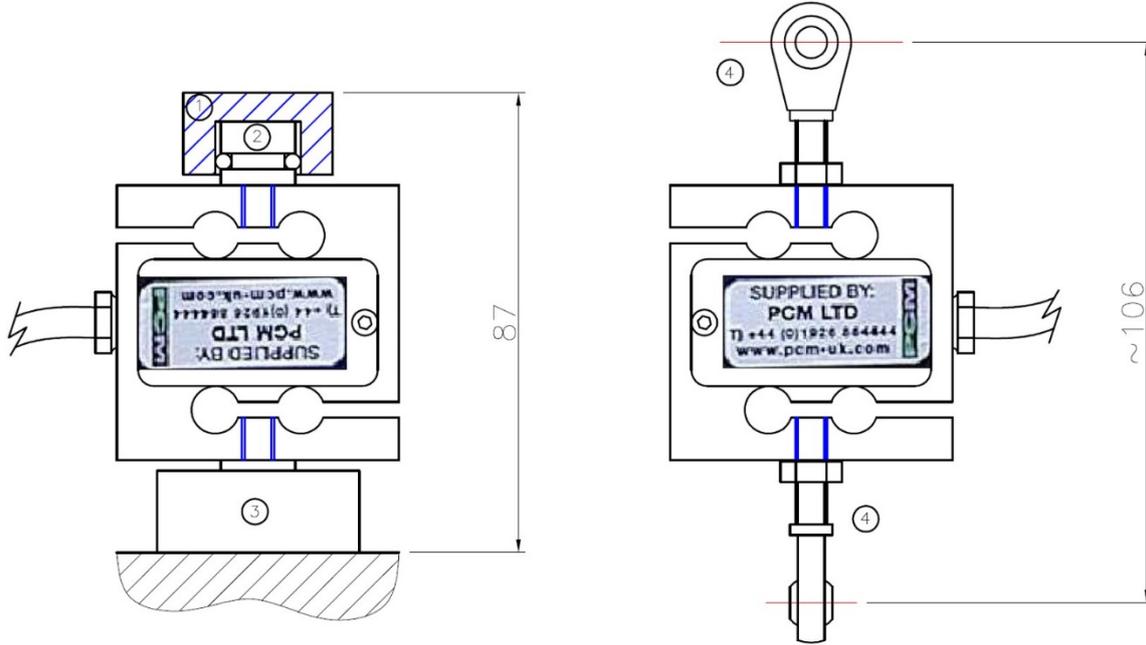
PVC 70°C shielded cable, Ø4.2mm with 4 tinned conductors. Shield connected to the body of the load cell.

**Loading Mode**



**Applications**

Make sure that the force generated when assembling any accessories does not exceed the rated load. The weight of the cable can affect the measurement, it is therefore advisable to place it in the fixed area, on the side opposite the load.



**Accessories**



⑤ **Includes:** hook for tension test, short threaded extension, long threaded extension, conical tip for compression test, notched tip for compression test, chisel tip for compression test, flat tip for compression test and a threaded sleeve.

ORDERING CODE	NUMBER	DESCRIPTION
CTIC13	①	Loading Head
CTS18M6	②	Spherical Loading Head
CBC32M6	③	Mounting Plate
CACCEM6	④	Knuckle Joints
KITCT	⑤	Accessory Kit

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