

## Features

- Capacities 10KG – 10,000KG.
- Linearity 0.02%.
- IP68 sealing.

## Applications

- Test machines.
- Process control.
- Static or dynamic testing.



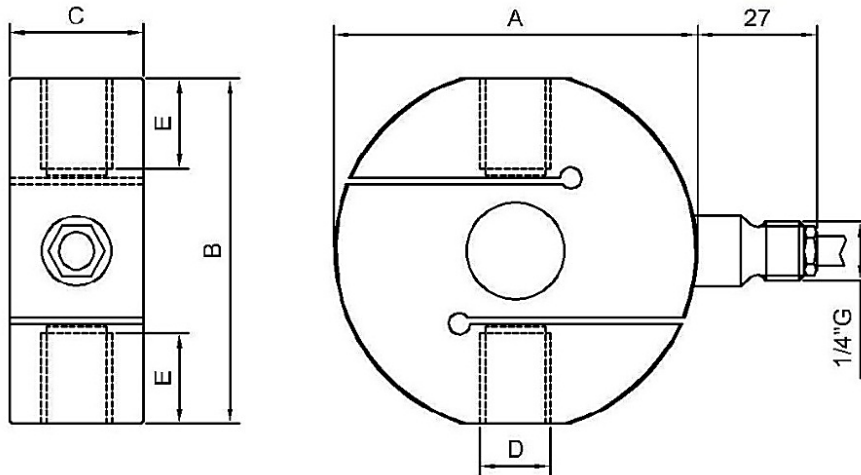
## Description

The BD-ST-TS is a low-profile S-Type design load cell for tension and compression measurement. Suitable for static or dynamic loading. The TS is a standard load cell design suitable for use in a wide range of applications.

## Typical Specification

PARAMETER	VALUE	UNITS
Capacities Range	10, 25, 50, 100, 200, 300, 500	KG
	1, 2, 2.5, 5, 7.5, 10	tf
Legal Divisions	2000	-
Minimum Verification Interval ( $V_{MIN}$ )	$E_{MAX}/10000$	-
Combined Error	$\leq 0.023$	$\pm\%$ of Rated Output
Non-Repeatability	$\leq 0.015$	$\pm\%$ of Rated Output
Zero Return AFTER 30 MINUTES	$\leq 0.025$	$\pm\%$ of Rated Output
Creep at Nominal Load AFTER 30 MINUTES	$\leq 0.025$	$\pm\%$ of Rated Output
Creep at Nominal Load AFTER 20 & 30 MINUTES	$\leq 0.005$	$\pm\%$ of Rated Output
Nominal Sensitivity	2	mV/V
Sensitivity Tolerance	$\leq 0.1$	$\pm\%$ of Rated Output
Temperature Effect (10°C) ON ZERO	$\leq 0.028$	$\pm\%$ of Rated Output/°C
Temperature Effect (10°C) ON OUTPUT	$\leq 0.012$	$\pm\%$ of Rated Output/°C
Input Impedance	420 $\pm$ 20	$\Omega$
Output Impedance	350 $\pm$ 2	$\Omega$
Insulation Resistance	>5	G $\Omega$
Excitation: Recommended	10	Volts AC or DC
Excitation: Nominal	1-15	Volts AC or DC
Excitation: Maximum	18	Volts AC or DC
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 MAXIMUM TRANSVERSE LOAD	100	% of Rated Output
Mechanical Limit MAXIMUM DYNAMIC LOAD	50	% of Rated Output
Displacement at Nominal Load	$\sim 0.2$	mm
Temperature Range OPERATING	-20 to +70	°C
Temperature Range STORAGE	-20 to +80	°C
Cable Length	5	m
Sensor Construction Material	Stainless Steel	-
Environmental Protection	IP65 (10, 25, 50KG) / IP68	-

**Outline Dimensions** in millimetres



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

**Ordering Codes**

CAPACITY	ORDERING CODE	ØA	B	C	D	E	NATURAL FREQUENCY (kHz)	WEIGHT (KG)
10KG	CTS6310KC25	63.5	59.5	22	M12x1.75	12	~0.35	~0.6
25KG	CTS6325KC25						~0.65	
50KG	CTS6350KC25						~1.05	
100KG	CTS63100KC25						~1.25	
200KG	CTS63200KC25						~1.75	
300KG	CTS63300KC25						~1.75	
500KG	CTS82500KC25	82	78	30	M16x2	20	~2.20	~1.2
1tf	CTS821TC25						~2.50	
2tf	CTS822TC25						~2.50	
2.5tf	CTS822T5C25	82	78	30	M20x1.5	20	~3.25	~2.6
5tf	CTS1025TC25						~3.20	
7.5tf	CTS1027T5C25	102	90	45	M24x2	21.5	~3.00	~2.6
10tf	CTS12710TC25						~3.25	
		127	120	50	M30x2	29	~3.25	~4.4

**Electrical Connections**

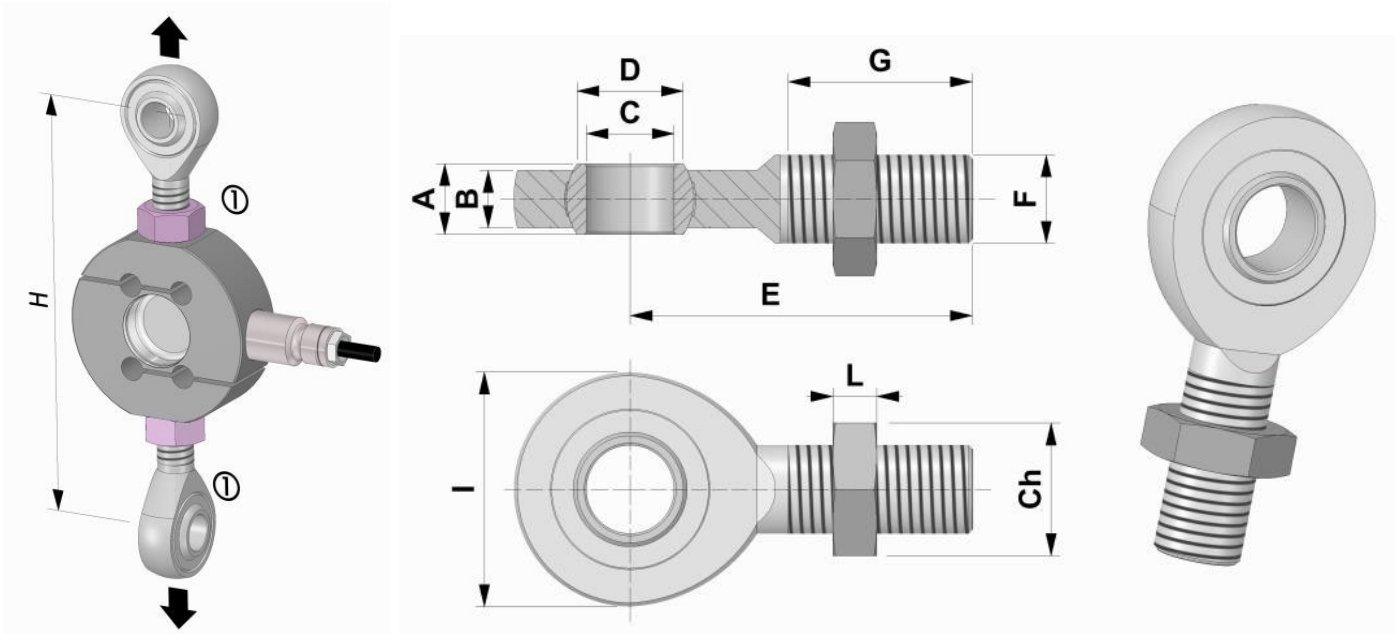
LOAD CELL	OUTPUT	CABLE <sup>(1)</sup>	OPTION: M12 <sup>(2)</sup>
	EXCITATION +	Red	1
	EXCITATION -	Black	3
	OUTPUT +	White	2
	OUTPUT -	Yellow	4
	-----	Shield <sup>(3)</sup>	5

<sup>(1)</sup> PVC 105°C shielded cable, 5.2mm Ø with 4x 0.35mm<sup>2</sup> Ø tinned conductors.

<sup>(2)</sup> Female 5 poles straight M12x1 connector complete with 3m shielded moulded PVC cable.

<sup>(3)</sup> Connected to the transducer body.

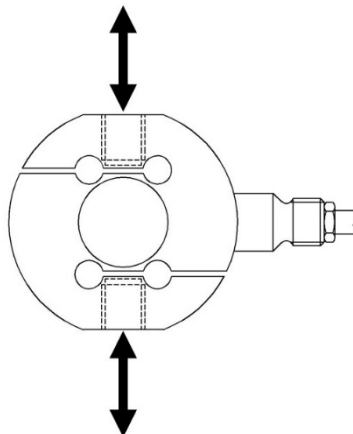
**Accessories**



ORDERING CODE	A	B	C	D	E	F	G	I	L	Ch	H
CACCEM12	10	8	12	14.9	54	M12	28	34	7	19	~134
CACCEM16	14	11	17	20.7	69	M16	36	46	8	24	~170
CACCEM20	16	13	20	24.1	78	M20x1.5	43	53	9	30	~102
CACCEM25	20	17	25	29.3	94	M24x2	53	64	10	36	~235
CACCEM30	22	19	30	34.5	110	M30x2	65	73	12	46	~280

*Dimensions according to ISO 12240-4 Series E.*

**Loading Mode**



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