

TC4—Bi-Directional Pancake Load Cell



FEATURES

- Capacities 0.5—100T
- Sealed to IP67.
- Tension & Compression use.
- Accuracy 0.05% RO.

APPLICATIONS

- Test Machines.
- Process Control.
- Small Tanks & Silos.

DESCRIPTION

The BD-TC4 provides a simple low profile device for tension and compression measurement. The TC4 is produced from stainless steel and is a fully welded assembly.

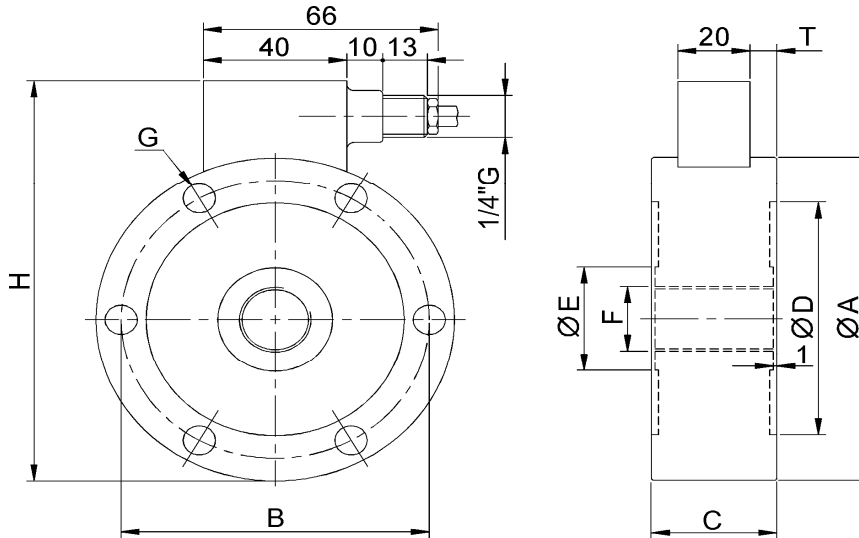
The TC4 load cell has been designed for test rig applications where static and dynamic measurement is required.

TYPICAL SPECIFICATION

PARAMETER	VALUE		UNITS
Capacities Range	0.. 0.5, 1, 2.5, 5, 10, 20, 30, 50,	75, 100, 200, 300, 500.	Te
Rated Output	2.0 ±0.002%		mV/V
Linearity & non repeatability	0.05		±% of Rated Output
Zero Return after 30 minutes	0.05		±% of Applied Load
Zero Balance	1.0		±% of Rated Output
Temperature Range: Operating	-10 to +70		°C
Temperature Range: Compensated	-10 to +40		
Temperature Effect: On Output	0.024		±% of Rated Output/°C
Temperature Effect: On zero	0.028		±% of Rated Load/°C
Safe Overload	150		% of Rated Capacity
Ultimate Overload	300		% of Rated Capacity
Excitation: Recommended	10		Volts AC or DC
Excitation: Maximum	18		
Input Impedance	800 nominal	430 nominal	ohm
Output Impedance	705 nominal	352 nominal	ohm
Insulation Resistance	>5		GΩ at 50VDC
Deflection at Rated Capacity	NA		mm
Weight (approximate) :	NA		kg
Construction	Stainless Steel		
Environmental Protection	IP67		
Cable	5m 4 core screened		

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OUTLINE DIMENSIONS in millimeters

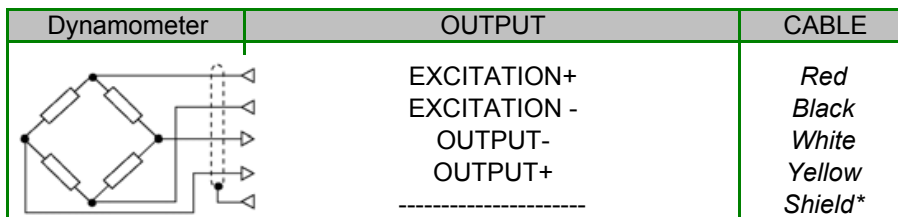


MODEL CODE	LOAD	MODEL CODE	LOAD	ØA	B	C	ØD	ØE	F	G	N°G	H	T	KHz
TC4100500K5	0.5Te	TC41005KNI15	5kN	100	86	35	72	32	M20x1.5	9	6	121	7.5	2.5
TC41001T5	1Te	TC410010KNI15	10kN											4.8
TC41002T55	2.5Te	TC410025KNI15	25kN											3.8
TC41275T5	5Te	TC412750KNI15	50kN	127	110	35	92	47	M30x2	10.5	8	149	7.5	5.8
TC412710T5	10Te	TC4127100KNI15	100kN											5.7
TC416520T5	20Te	TC4165200KNI15	200kN	165	138	50	108	62	M42x3	17	12	188	15	7.3
TC416530T5	30Te	TC4165300KNI15	300kN											9.8
TC416550T5	50Te	TC4165500KNI15	500kN			60							20	
TC423075T5	75Te	TC4230750KNI15	750kN	230	185	80	145	98	M60x3	26	12	254	30	18.2
TC4230100T5	100Te	TC4230100KNI15	1000kN											15.7
TC4300200T5	200Te	TC4300200KNI15	2000kN	300	250	100	198	132	M100x3	26	16	323	40	18.0
TC4350300T5	300Te	TC4350300KNI15	3000kN											9.8
TC4350500T5	500Te*	TC4350500KNI15	5000kN*										350	294

*500Te & 5000kN Go upto 300Te / 3000kN in Tension

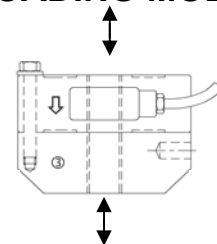
NOTE: If the dimensions or specification do not suit, PCM have an in-house design and build service that should satisfy your requirements.

WIRING DETAIL



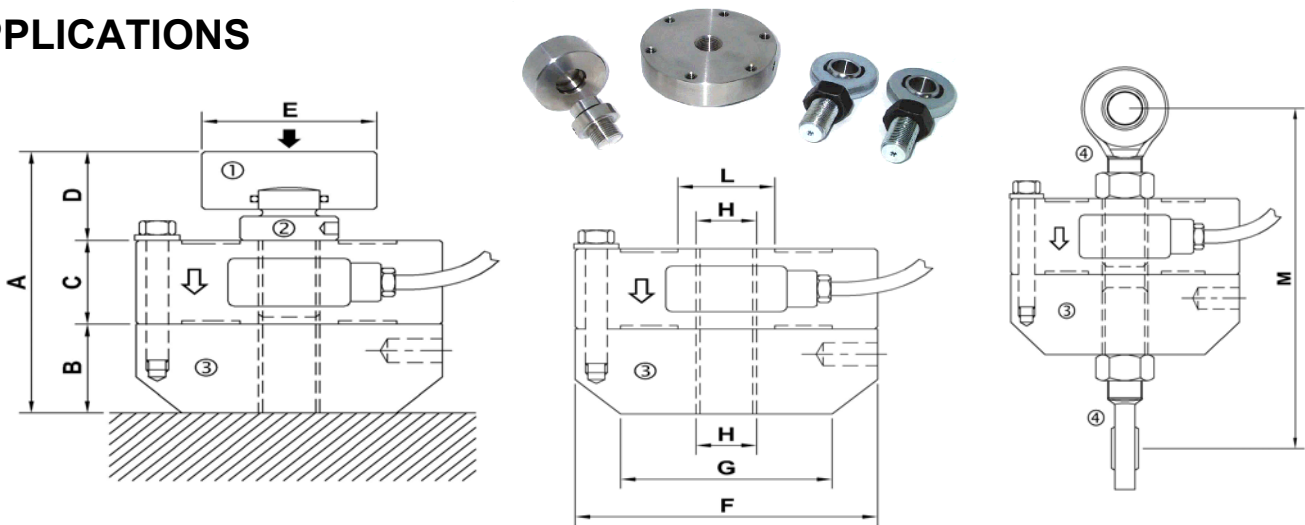
*Connected to the body of the load cell.

LOADING MODE



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APPLICATIONS



TC4 CAPACITY	A	B	D	E	F	G	H	L	M
5,10,25kN 0.5,1,2.5TE	109	37	37	Ø57	Ø100	Ø70	M20x1.5	Ø32	~170
50, 100kN 5, 10TE	110	37	38	Ø76	Ø127	Ø100	M30x2	Ø47	~200
200, 300kN 20, 30TE	159	60	59	Ø76	Ø165	Ø100	M42x3	Ø62	~224
500kN 50TE	169	60	59	Ø76	Ø165	Ø100	M42x3	Ø62	/
750, 1000kN 75, 100TE	253	85	88	Ø126	Ø230	Ø180	M60x3	Ø98	/
2000kN 200TE	324	100	124	Ø126	Ø300	Ø250	M100x3	Ø132	/
3000,5000kN 300,500TE	384	120	124	Ø126	Ø350	Ø280	M100x3	Ø171	/

TC4 CAPACITY	ITEM	ORDER CODE	ACCESSORIES DESCRIPTION
5,10,25kN 0.5,1,2.5Te	①	CTIC22	LOADING HEAD
	②	CTC425M20	SPHERICAL LOADING HEAD M20 x 1.5
	③	CPBTC4D100	MOUNTING PLATE Ø 100mm
	④	CACCEM20	KNUCKLE JOINTS
50, 100kN 5, 10TE	①	CTIC28	LOADING HEAD
	②	CTC445M30	SPHERICAL LOADING HEAD M30 x 2
	③	CPBTC4D127	MOUNTING PLATE Ø 127mm
	④	CACCEM30	KNUCKLE JOINTS
200, 300, 500kN 20, 30, 50TE	①	CTIC35	LOADING HEAD
	②	CTS62M42	SPHERICAL LOADING HEAD M42 x 3
	②	CTC450M42	SPHERICAL LOADING HEAD M42 x 3 (500kN)
	③	CPBTC4D165	MOUNTING PLATE Ø 165mm
750, 1000kN 75, 100TE	④	CACCEM42	KNUCKLE JOINTS. (MAX 200kN)
	①	CTIC60	LOADING HEAD
	②	CTS96M60	SPHERICAL LOADING HEAD M60 x 3
	③	CPBTC4D230	MOUNTING PLATE Ø 230mm
2000kN 200TE	①	CTIC106	LOADING HEAD
	②	TS160M100	SPHERICAL LOADING HEAD M100 x 3
	③	CPBTC4D300	MOUNTING PLATE Ø 300mm
3000, 5000kN 300, 500TE	①	CTIC140	LOADING HEAD
	②	CTS170M100	SPHERICAL LOADING HEAD M100 x 3
	③	CPBTC4D350	MOUNTING PLATE Ø 350mm