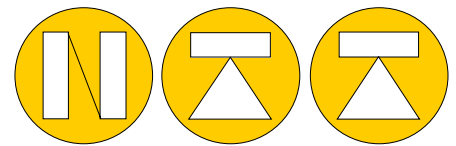


TC4 0.05% in ton model or with EN ISO 376 Clas 1 as ref.



NORDIC TRANSDUCER

from 0.5t/
5kN

to 500t/
5000kN



- Capacities from 0.5t/5kN to 500t/5 MN for use in:
- High accuracy test systems
 - Other force measuring applications
 - reference standards : EN ISO376 or ASTM E74
 - EN ISO376 Class 1 from 5kN to 5000kN

The TC4 is a low profile hermetically sealed load cell made in stainless steel with IP67 protection . Their compact size makes them ideally suited for applications where space also is limited & where high side forces or dynamic loads are present. They can together with our high accuracy instruments be used as reference load cells for many types of factory verification.

SPECIFICATION TC4

NOMINAL LOAD in KN	5-10-25-50-100-200-300-500-750-1000-2000-3000-5000		
Ref. EN ISO376 Class 1	RELATIVE ERROR (on reading) from 10% -100% of Max.*		
Repeatability (0° - 120° - 240°)	< +/- 0.145%*2		
Interpolation (2° equation)	< +/- 0.090%*2		
Zero	< +/- 0.030%*2		
Reversitivity	< +/- 0.240%*2		
Non linearity F.S.	< +/- 0.05%		
Hysteresis F.S.	< +/- 0.05%		
Temp. effect on zero per 10°C	< +/- 0.028 %		
Temp. effect on span per 10°C	< +/- 0.024 %		
NOMINAL SENSITIVITY +/-0.1%	2mV/Volt *3		
Input/Output resistance	800/700 Ohm	DISPLACEMENT N.LOAD mm	0.06, 0.09, 0.17, 0.23, 0.21, 0.21
Resistance for 750- 5000kN	430/352 Ohm	NOMINAL TEMP. RANGE	-10/+40 °C
Zero balance	0.5% F.S	SERVICE TEMP. RANGE	-20/+70 °C
Supply voltage nominal 10V	2 - 15 Volt	STORAGE TEMP. RANGE	-20/+80 °C
MECHANICAL VALUES RELATED TO NOMINAL LOAD		PROTECTION CLASS	IP67
a) minimum load	0%	WEIGHT	1.60- 2.45-5.80-6.80-16.5-35-63 kg
b) service load	120%	CELL MATERIAL	Stainless IP67
c) max. permissible load	150%	CABLE LENGTH	5/10 meter or Connector
d) breaking load	>300%	FIXING SCREWS class 12.9	
e) max. side load	100%	Diameter M	M8- M10 - M16 -M24-M24-M27
f) max. dynamic load *4	75%	Tightening torque	40 70 368 460 1500 Nm

Gravity acceleration $g = 9.804537 \text{ m/s}^2$

*2 data related to EN ISO376 model

*3 Test and calibration performed in Compression with load cell mounted on a bearing support with correctly tightened clamping bolts

*4 The Dynamic load must be applied to the load cell central thread and not to the external fixing ring

All specifications subject to change without notice

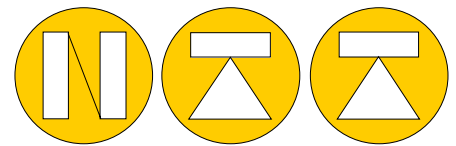
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TC4

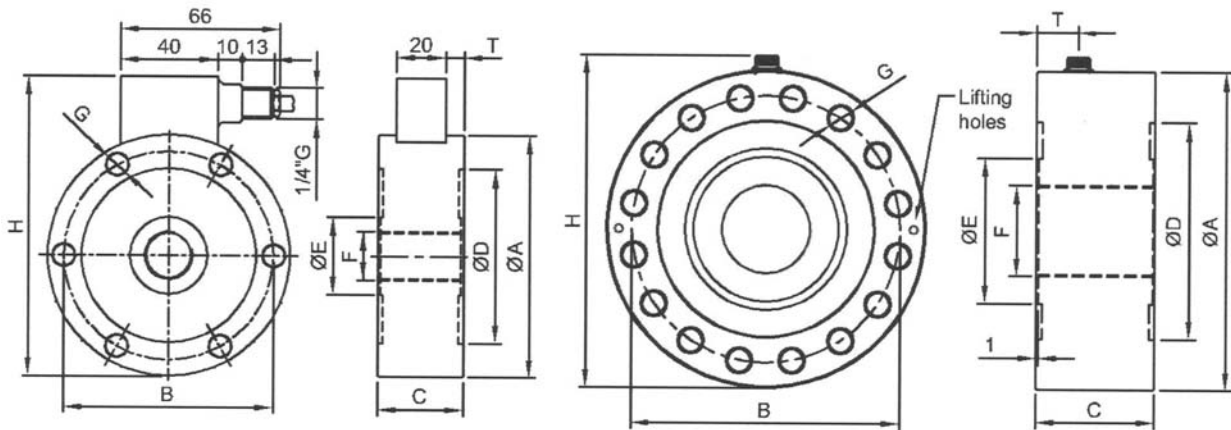
Dimensions in mm.

From 5kN to 2MN

From 3MN to 5MN



NORDIC TRANSDUCER



Precision class EN ISO 376 class 1 in kN

CODE	LOADS	øA	øB	C	øD	øE	øF	øG	Holes	H	T	kHz ⁽²⁾
CTC41005KNI15	5kN	100	86	35	72	32	M20x1.5	9.0	6	124	7.5	2.25
CTC410010KNI15	10kN	100	86	35	72	32	M20x1.5	9.0	6	124	7.5	2.25
CTC410025KNI15	25kN	100	86	35	72	32	M20x1.5	9.0	6	124	7.5	4.72
CTC412750KNI15	50kN	127	110	35	92	47	M30x2	10.5	8	152	7.5	3.72
CTC4127100KNI15	100kN	127	110	35	92	47	M30x2	10.5	8	152	7.5	5.80
CTC4165200KNI15	200kN	165	138	50	108	62	M42x3	17.0	12	190	15	5.70
CTC4165300KNI15	300kN	165	138	50	108	62	M42x3	17.0	12	190	15	7.30
CTC4165500KNI15	500kN	165	138	60	108	62	M42x3	17.0	12	190	20	10.0
CTC4230750KNI15	750kN	230	185	80	145	98	M60x3	26.0	12	254	30	18.2
CTC42301MNI15	1000kN	230	185	80	145	98	M60x3	26.0	12	254	30	18.2
CTC43002MNI15	2000kN	300	250	100	198	132	M100x3	26.0	16	323	40	18.0
CTC43503MNI15	3000kN ⁽³⁾	350	294	120	238	160	M100x3	28.0	16	367	50	15.7
CTC43505MNI15	5000kN ⁽³⁾	350	294	130	238	160	M100x3	28.0	16	367	50	15.7

Ton model

CODE	LOADS	øA	øB	C	øD	øE	øF	øG	Holes	H	T	kHz ⁽²⁾
CTC4100500K5	0.5t	100	86	35	72	32	M20x1.5	9.0	6	124	7.5	2.25
CTC41001T5	1t	100	86	35	72	32	M20x1.5	9.0	6	124	7.5	2.25
CTC41002T55	2.5t	100	86	35	72	32	M20x1.5	9.0	6	124	7.5	4.72
CTC41275T5	5t	127	110	35	92	47	M30x2	10.5	8	152	7.5	3.72
CTC412710T5	10t	127	110	35	92	47	M30x2	10.5	8	152	7.5	5.80
CTC416520T5	20t	165	138	50	108	62	M42x3	17.0	12	190	15	5.70
CTC416530T5	30t	165	138	50	108	62	M42x3	17.0	12	190	15	7.30
CTC416550T5	50t	165	138	60	108	62	M42x3	17.0	12	190	20	10.0
CTC423075T5	75t	230	185	80	145	98	M60x3	26.0	12	254	30	18.2
CTC4230T5	100t	230	185	80	145	98	M60x3	26.0	12	254	30	18.2
CTC4300200T5	200t	300	250	100	198	132	M100x3	26.0	16	323	40	18.0
CTC4350300T5	300t ⁽³⁾	350	294	120	241	171	M100x3	28.0	16	367	50	15.7
CTC4350500T5	500t ⁽³⁾	350	294	120	241	171	M100x3	28.0	16	367	50	15.7

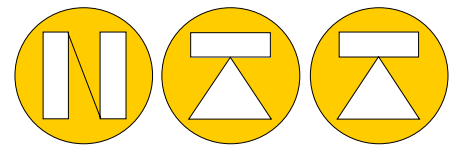
⁽³⁾ Up to 250ton / 2500kN in tension

⁽²⁾ Natural frequency

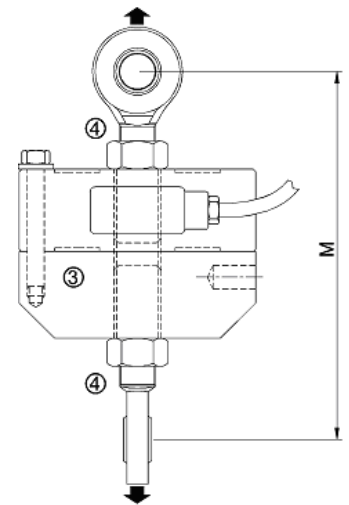
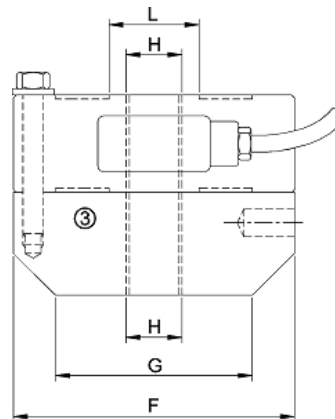
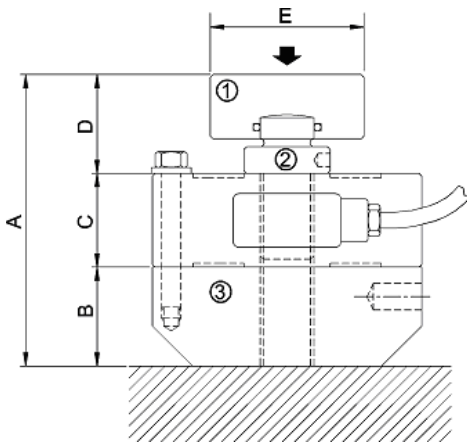
*4 The Dynamic load must be applied to the load cell central thread and not to the external fixing ring

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TC4 accessories



NORDIC TRANSDUCER



- 1) Loading head
- 2) Spherical loading head
- 3) Mounting base for compression and tension
- 4) Rod end bearings

TC4:	A	B	C	D	E	F	G	H	L	M
5, 10, 25 kN	109	37	35	37	∅ 57	∅ 100	∅ 70	M 20 X 1.5	∅ 32	~ 170
50, 100 kN	110	37	35	38	∅ 76	∅ 127	∅ 100	M 30 X 2	∅ 47	~ 200
200, 300kN	158	60	50	59	∅ 76	∅ 165	∅ 100	M 42 X 3	∅ 62	~ 224
500 kN	169	60	60	59	∅ 76	∅ 165	∅ 100	M 42 X 3	∅ 62	/
750, 1000 kN	253	85	80	88	∅ 126	∅ 230	∅ 180	M 60 X 3	∅ 98	/
2000 kN	324	100	100	124	∅ 126	∅ 300	∅ 250	M 100 X 3	∅ 132	/
3000, 5000kN	384	120	120	144	∅ 168	∅ 350	∅ 280	M 100 X 3	∅ 171	/

LOAD CELL WIRING 300t-500T/ 3MN-5MN 7 pole MIL connector

- INPUT+ C = Red
- SENSE+ F = Orange
- OUTPUT+ A = White
- INPUT- B = Black
- SENSE- G = Blue
- OUTPUT- D = Yellow

SHIELD: **CONNECTED TO LOAD CELL BODY**

Other options:

Internal excitation board for industrial outputs as 4-20mA, 0-5V or 0-10V can also be supplied.



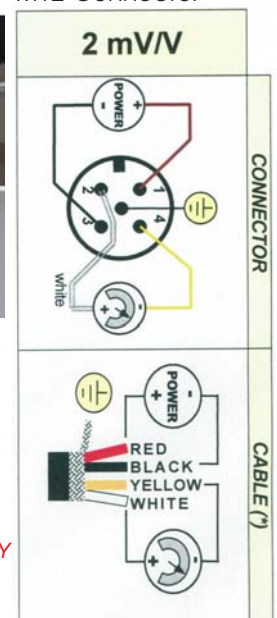
Mill connector



M12 Connector

LOAD CELL WIRING up to 200t/2MN

- INPUT+ RED
- INPUT- BLACK
- OUTPUT+ WHITE
- OUTPUT- YELLOW
- SHIELD: **CONNECTED TO LOAD CELL BODY**



Cable: PVC 105°C ∅5,2mm with 4 tinned conductors ∅ 0.35mm² and tinned shield

All specifications subject to change without notice

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