Electrical Torque Transducers – Model 411

- Capacities: 1Nm to 5000Nm
- For static reaction torque measurement
- Standard square connection 1)
- Suitable for permanent installation
- In testing machines and production facilities
- High stiffness
- Godd accuracy
- TEDS module integrated inside sensor 2)

The electrical torque transducers of the model series 411 with a standard square connection are excellently suitable for static reaction torque measurements. The sensors that are made of stainless steel have an aluminum housing and are characterised by their high stiffness and good accuracy. They are suitable for permanent installation. A TEDS module is already intergrated inside the device.

Model 411			
>> Technical data close to VDI / VDE directive 2638	Symbol	Unit	Standard
Zero signal when removed	S_o	mV/V	0,01
Rated characteristic value	C_{nom}	mV/V	1
Relative error of characteristic value	d_C	%	≤ ± 0,5
Relative linearity error	d_{lin}	%	≤ ± 0,2
Relative repeatability error in unchanged mounting position	b_{rg}	%	≤ ± 0,02
Combined error	F_{comb}	%	≤ ± 0,2
Reference temperature	T_{ref}	°C	21
Rated temperature range	$B_{T, nom}$	°C	-10...+40
Operating temperature range	$B_{T, G}$	°C	-15...+70
Storage temperature range	$B_{T, S}$	°C	-30...+80
Relative creep after 30 min	$K_{0,5}$	%	≤ ± 0,05
Relative creep after 8 h	K_8	%	≤ ± 0,07
Temperature effect on characteristic value per 10K	TK_C	%	≤ ± 0,002
Temperature effect on zero signal per 10K	TK_o	%	≤ ± 0,002
Input resistance	R_e	Ω	400 ± 25
Output resistance	R_a	Ω	350 ± 2
Insulation resistance	R_{is}	GΩ	> 5
Max. excitation voltage	U	V	15
Rated range of excitation voltage	$B_{U, nom}$	V	5...10
Limit torque	T_L	%	≤ 150
Breaking torque	T_B	%	≥ 300
Max. permissable dynamic load 3)	L_{dy}	%	≤ 70
Degree of protection acc. to DIN 60529			IP64

1) Standard square connection acc. to DIN 3121

2) TEDS = Transducer Electronic Data Sheet acc. to IEEE 1451.4

3) Oscillation amplitude acc. to DIN 50100

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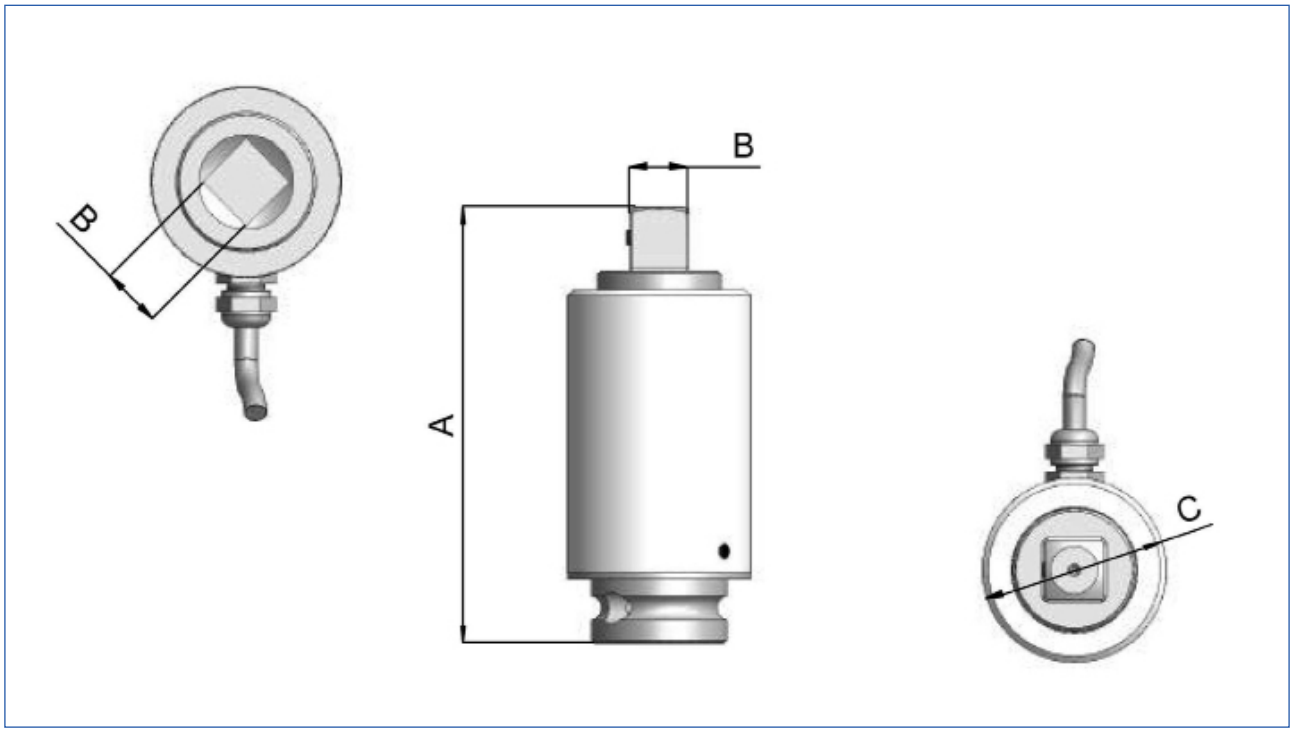
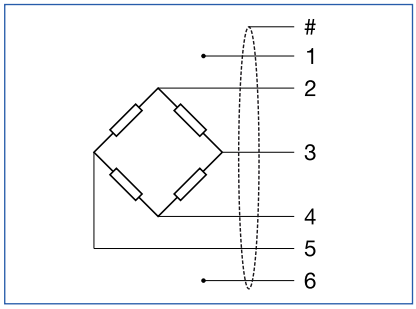


Dimensions in mm						
Model 411						
	1Nm	20Nm	100Nm	200Nm	1000Nm	2000Nm
	2Nm	50Nm		500Nm		5000Nm
	5Nm					
	10Nm					
A	64	71	76	100	132	250
B	1/4“	3/8“	1/2“	3/4“	1“	1 1/2“
C	19	30	30	49	64	100

Connection Drawing		
1	white	TEDS Data
2	red	Excitation +
3	yellow	Output +
4	blue	Excitation -
5	green	Output-
6	black	TEDS GND
#		Shield



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