Electrical Force Transducer – Model 304

- Capacities: 1kN bis 50kN
- For compression and tension
- Stainless steel
- Very small dimensions
- Sensitivity: 1mV/V
- High accuracy
- For dynamic applications
- Optional: TEDS Module available 1)

The electrical force transducers of the model series 304 are preferentially used where installation space is scarce and other possibilities for larger devices are not available. If the miniature force transducers that are made of stainless steel have been adapted accurately they convince with a long product life as well as precise measurements. On demand you receive the model 304 also with a TEDS module.

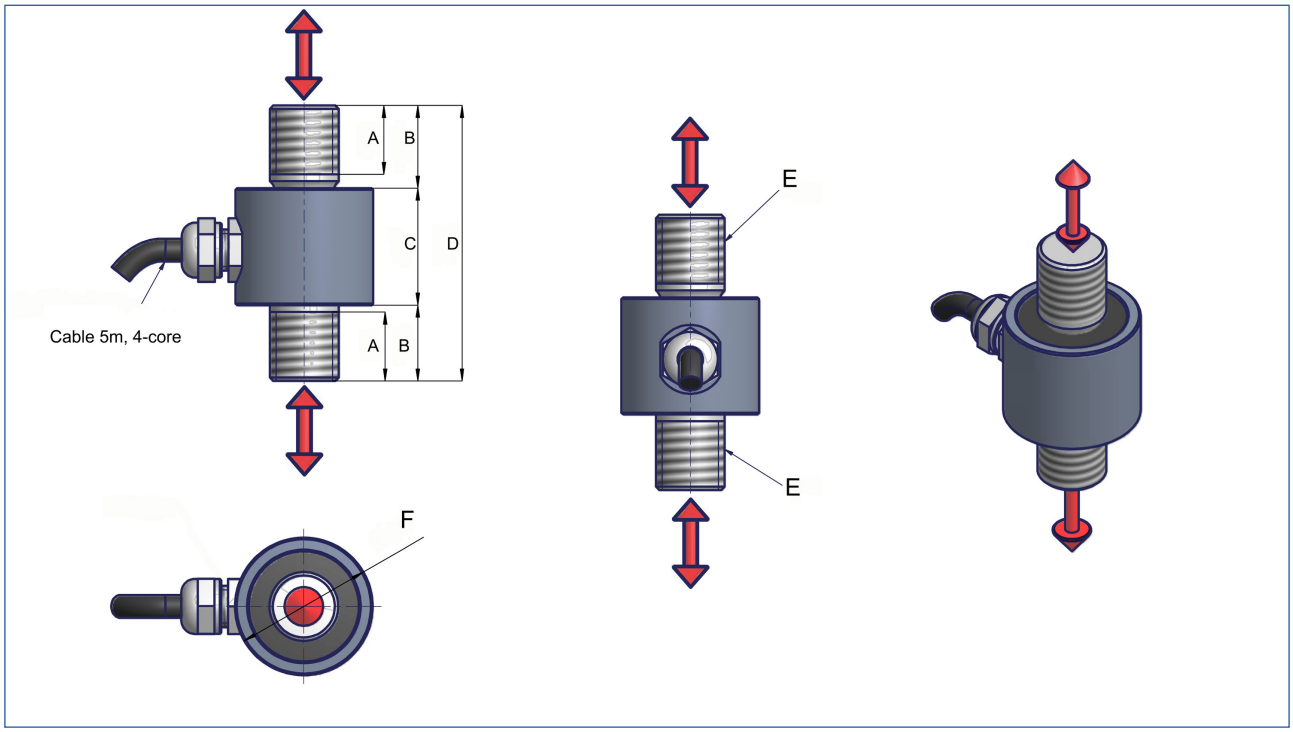
Model 304			
>> Technical data according to VDI / VDE directive 2638	Symbol	Unit	Standard
Zero signal when removed	S_o	mV/V	0,01
Rated characteristic value	C_{nom}	mV/V	1
Relative error of characteristic value	d_C	%	≤ ± 0,3
Relative linearity error	d_{lin}	%	≤ ± 0,1
Relative repeatability error in unchanged mounting position	b_{rg}	%	≤ ± 0,04
Combined error	F_{comb}	%	≤ ± 0,5
Reference temperature	T_{ref}	°C	21
Rated temperature range	$B_{T, nom}$	°C	0...+50
Operating temperature range	$B_{T, G}$	°C	-15...+60
Storage temperature range	$B_{T, S}$	°C	-20...+70
Relative creep after 30 min	$K_{0,5}$	%	≤ ± 0,08
Relative creep after 8 h	K_8	%	≤ ± 0,024
Temperature effect on characteristic value per 10K	TK_C	%	≤ ± 0,1
Temperature effect on zero signal per 10K	TK_o	%	≤ ± 0,1
Input resistance	R_e	Ω	375 ± 25
Output resistance	R_a	Ω	350 ± 2
Insulation resistance	R_{is}	GΩ	> 2
Max. excitation voltage	U	V	12
Rated range of excitation voltage	$B_{U, nom}$	V	5...10
Limit force	F_L	%	≤ 150
Breaking force	F_B	%	≥ 300
Max. permissable dynamic load 2)	L_{dy}	%	≤ 50
Degree of protection acc. to DIN 60529			IP67

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

2) Oscillation amplitude acc. to DIN 50100

TesT Deutschland: Helena-Rubinstein-Straße 4 | 40699 Erkrath | Fon: +49 211 2099030 | Fax: +49 211 209903201 | test@test-gmbh.com | www.test-gmbh.com
TesT Schweiz: Bösch 63 | 6331 Hünenberg | Fon: +41 41 7856010 | Fax: +41 41 7856015 | test@test-ag.ch | www.test-ag.ch

Electrical Force Transducers – Model 304

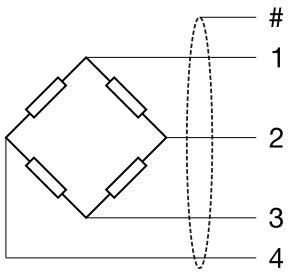


Dimensions in mm					
Model 304					
	1kN 2kN	5kN	10kN	20kN	50kN
A	8	8	10	12	16
B	8	9	12	13	17
C	19	17	17	19	16
D	35	35	40	45	50
E	M8 x1,25	M8 x1,25	M10 x1,5	M12 x1,75	M16 x2
F	Ø18	Ø20	Ø20	Ø24	Ø32

Advice for tensile force measurements:

For force transmission please pay attention to an installation that is free of lateral forces, if neccessary use rotating intermediate parts or joint heads with shackles.

For safety reasons you should use arresting cables, straps or chains when other mechanical protection is not existing.



Connection Drawing		
1	blue	Excitation +
2	white	Output +
3	black	Excitation -
4	red	Output -
#		Shield

D_304.01.01_GB

TesT Deutschland: Helena-Rubinstein-Straße 4 | 40699 Erkrath | Fon: +49 211 2099030 | Fax: +49 211 209903201 | test@test-gmbh.com | www.test-gmbh.com
TesT Schweiz: Bösch 63 | 6331 Hünenberg | Fon: +41 41 7856010 | Fax: +41 41 7856015 | test@test-ag.ch | www.test-ag.ch