Electrical Force Transducers – Model 344

- Capacities: 2kN to 500kN
- For tensile forces
- Stainless steel
- Hermetically sealed
- High accuracy
- Sensitivity: 2mV/V
- For dynamic applications
- For rough environments
- TEDS module available 1)

The electrical force transducers of the model series 344 are used for compressive measurements between 2kN and 500kN. They are suitable for applications under rough conditions because they are made of stainless steel as well as hermetically sealed. Due to their convex compression piece a precise force transmisson is ensured to achieve excellent measurement results. On demand you receive model 344 also with TEDS module inside the plug.

Model 344			
>> Technical data according to VDI / VDE directive 2638	Symbol	Unit	Standard
Zero signal when removed	S_o	mV/V	0,02
Rated characteristic value	C_{nom}	mV/V	2
Relative error of characteristic value	d_C	%	≤ ± 0,1
Relative linearity error	d_{lin}	%	≤ ± 0,05
Relative repeatability error in unchanged mounting position	b_{rg}	%	≤ ± 0,08
Combined error	F_{comb}	%	≤ ± 0,08
Reference temperature	T_{ref}	°C	21
Rated temperature range	$B_{T, nom}$	°C	-10...+40
Operating temperature range	$B_{T, G}$	°C	-15...+60
Storage temperature range	$B_{T, S}$	°C	-20...+70
Relative creep after 30 min	$K_{o,5}$	%	≤ ± 0,04
Relative creep after 8 h	K_8	%	≤ ± 0,012
Temperature effect on characteristic value per 10K	TK_C	%	≤ ± 0,02
Temperature effect on zero signal per 10K	TK_o	%	≤ ± 0,04
Input resistance	R_e	Ω	750 ± 25
Output resistance	R_a	Ω	700 ± 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 force	F_L	%	≤ 150
Breaking force	F_B	%	≥ 300
Max. permissable dynamic load 2)	L_{dy}	%	≤ 70
Degree of protection acc. to DIN 60529			IP68

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

2) Oscillation amplitude acc. to DIN 50100

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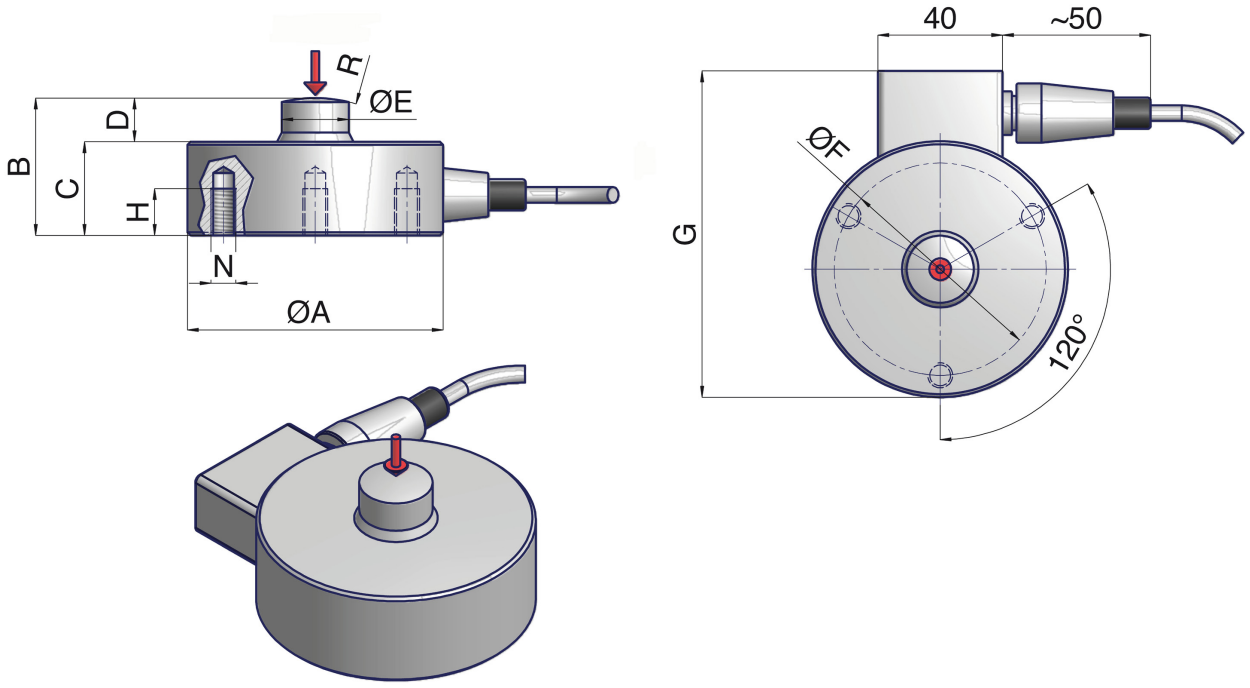
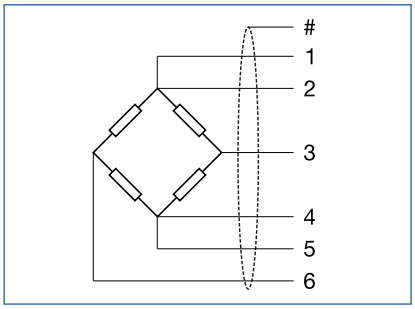


Dimensions in mm				
Model 344				
	2kN	75kN	350kN	500kN
	5kN	100kN		
	10kN	200kN		
	25kN			
	50kN			
A	82	100	114	124
B	44	48	48	58
C	30	35	35	45
D	14	13	13	13
E	21,5	25	26	35
F	68	80	86	95
G	104,5	122,5	136,5	146,5
H	15	15	20	20
N	M8 x1,25	M10 x 1,5	M12 x1,75	M12 x1,75
R	50	50	50	160



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

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