

Electrical Force Transducers – Model 343



- Capacities: 25N and 50N
- Very small dimensions
- For compression and tension
- Modern technology
- Sputtered strain gauges
- High accuracy
- Sensitivity: 2mV/V
- Optional: TEDS module ¹⁾
(Installation inside plug)

The electrical force transducers of the model series 343 work by using a sputtered strain gauge technology and thereby they reach a good accuracy. They are characterised by their flat design with very small di-

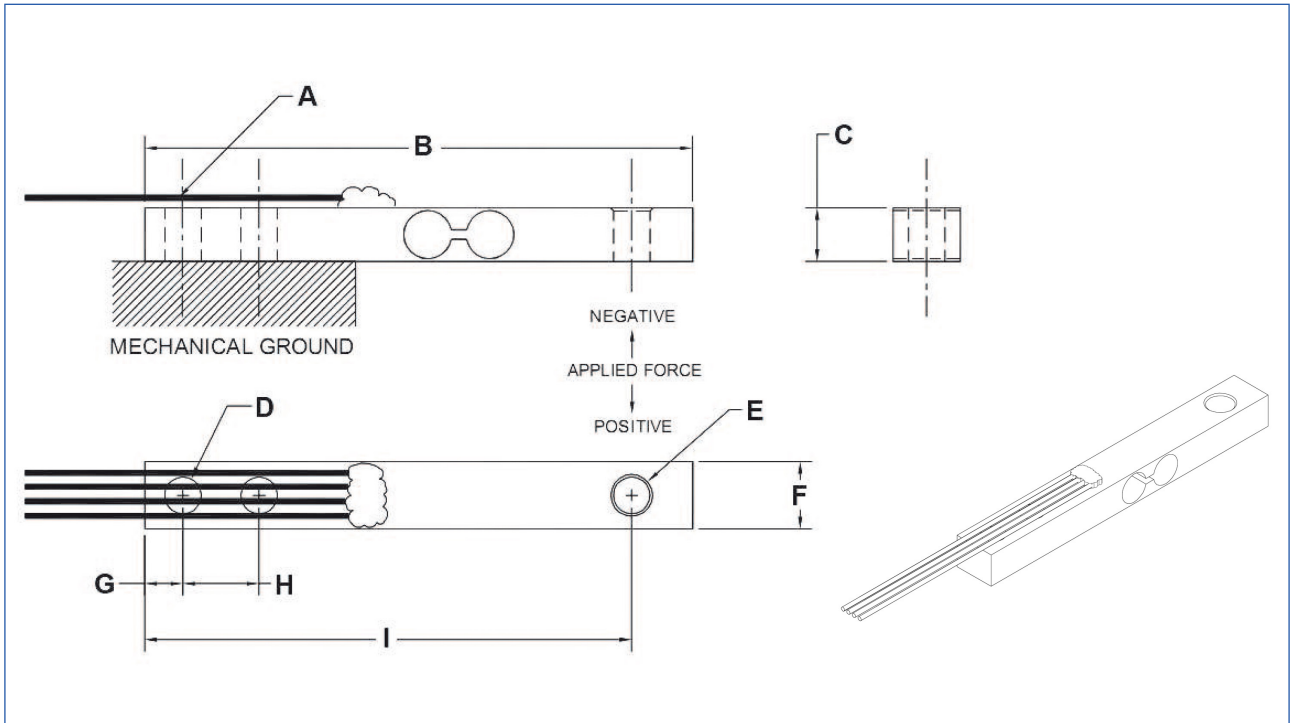
mensions, as well as by their high long term zero point stability and their low hysteresis. The highly sophisticated force transducers are excellently suitable for tensile and compressive measurements

in very small measuring ranges. Applications: Medical instrumentation, scales, laboratory use, force measurement, robotics.

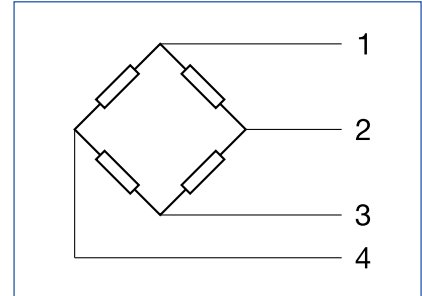
Model 343			
	Symbol	Unit	Standard
Hysteresis	H	%	0,03
Long term stability	SL	%/ Jahr	0,1
Zero signal when removed	So	mV/V	1
Rated characteristic value	C _{nom}	mV/V	2
Relative linearity error	d _{lin}	%	≤ 0,03
Nonrepeatability	b _{rg}	%	≤ 0,01
Combined error	F _{comb}	%	≤ 0,042
Rated temperature range	B _{T, nom}	°C	-40...+125
Operating temperature range	B _{T, G}	°C	-40...+150
Relative creep after 30 min	K _{0,5}	%	≤ 0,02
Temperature effect on characteristic value per 1K	TK _C	%	≤ 0,03
Temperature effect on zero signal per 1K	TK ₀	%	≤ 0,03
Input resistance	R _e	Ω	10.000
Output resistance	R _a	Ω	10.000
Insulation resistance	R _{is}	MΩ	> 1000
Max. excitation voltage	U	V	20
Recommended excitation voltage	U _E	V	10
Limit force	FL	%	≤ 150
Breaking force	F _B	%	≥ 300

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

Electrical Force Transducers – Model 343



Dimensions in mm	
Model 343	
	25N
	50N
A (Length of the wires)	140
B	57,2
C	5,6
D	3,8
E	4,3
F	7,0
G	4,0
H	8,0
I	50,8



Connection Drawings		
1	red	Excitation +
2	white	Output +
3	black	Excitation -
4	green	Output -