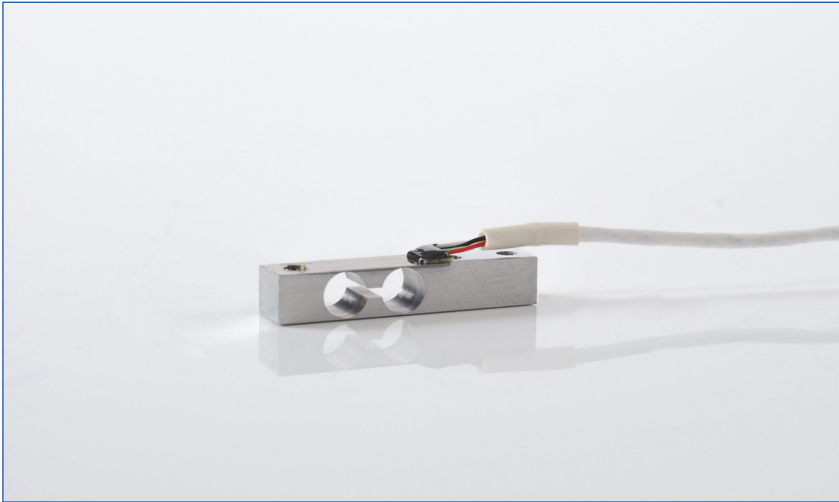


Electrical Force Transducers – Model 342



- Capacities: 1N to 100N
- Very small dimensions
- For compression and tension
- Modern technology
- Sputtered strain gauges
- High accuracy
- Sensitivity: 2mV/V
- TEDS module available ¹⁾
(Installation inside plug)

The electrical force transducers of the model series 342 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-

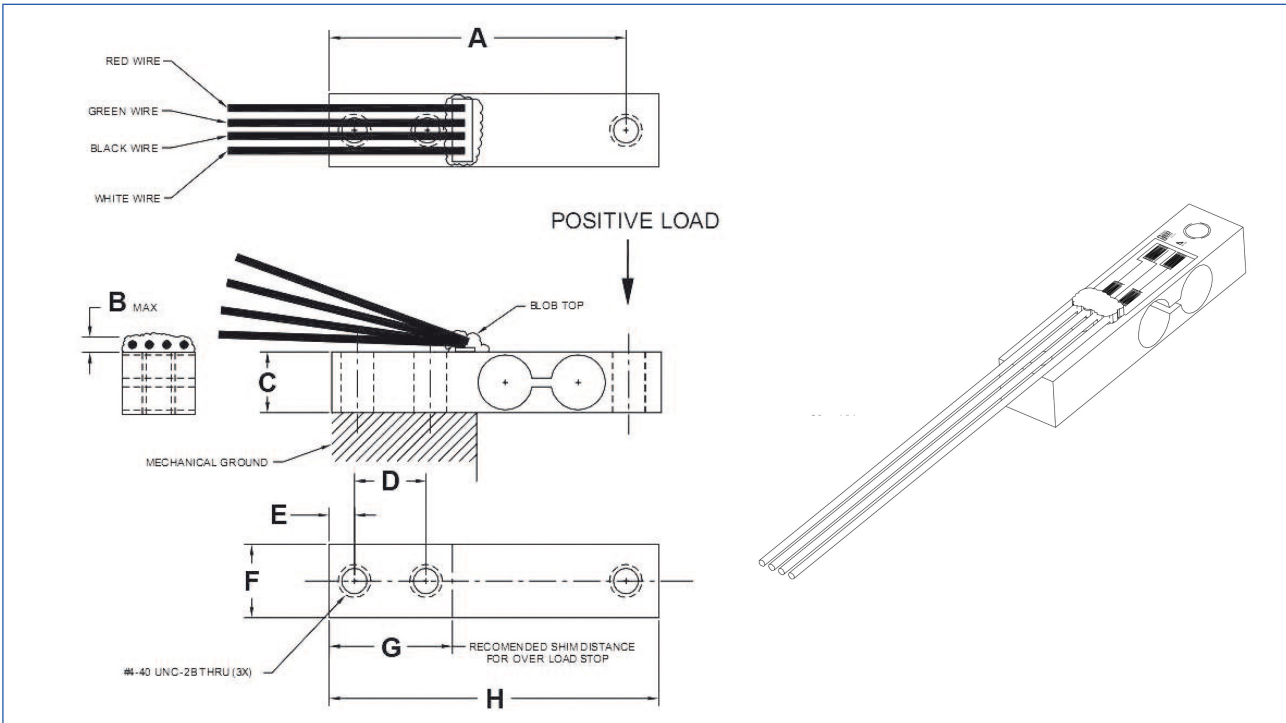
mensions, as well as by their high long term zero point stability and their low hysteresis. The highly sophisticated force transducers are excellently suitable for tensile and compressive measurements

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

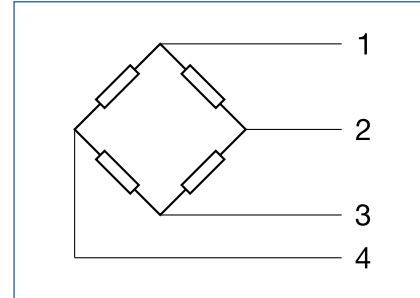
Model 342			
	Symbol	Unit	Standard
Hysteresis	H	%	0,03
Long term stability	SL	%/ Jahr	0,1
Zero signal when removed	So	mV/V	0,3
Rated characteristic value	C _{nom}	mV/V	2
Relative linearity error	d _{lin}	%	≤ 0,03
Nonrepeatability	b _{rg}	%	≤ 0,01
Combined error	F _{comb}	%	≤ 0,042
Rated temperatur range	B _{T, nom}	°C	-40...+125
Operating temperature range	B _{T, G}	°C	-40...+150
Relative creep after 20 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	FB	%	≥ 300

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

Electrical Force Transducers – Model 342



Dimensions in mm				
Model 342				
	1N	20N	50N	100N
	3N			
	5N			
	10N			
A	25,7	25,7	25,7	25,7
B	1,2	1,2	1,2	1,2
C	5,3	5,5	6,1	6,6
D	7,2	7,2	7,2	7,2
E	2,9	2,9	2,9	2,9
F	6,0	6,0	6,0	6,0
G	10,6	10,6	10,6	10,6
H	28,7	28,7	28,7	28,7
Deflection	0,114	0,114	0,165	0,165



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