

## Electrical Force Transducers – Model 305



- Capacities: 500N bis 20kN
- For compression
- Stainless steel
- Very small dimensions
- Sensitivity: 1mV/V
- High accuracy
- For dynamic applications
- TEDS module available <sup>1)</sup>

The electrical force transducers of the model series 305 fit in minimal spaces because of their very small dimensions. The miniature force transducers that are made of stain-

less steel provide precise measurements as well as a long product life and should be adapted accurately before use. They are well suitable for compressive forces and on de-

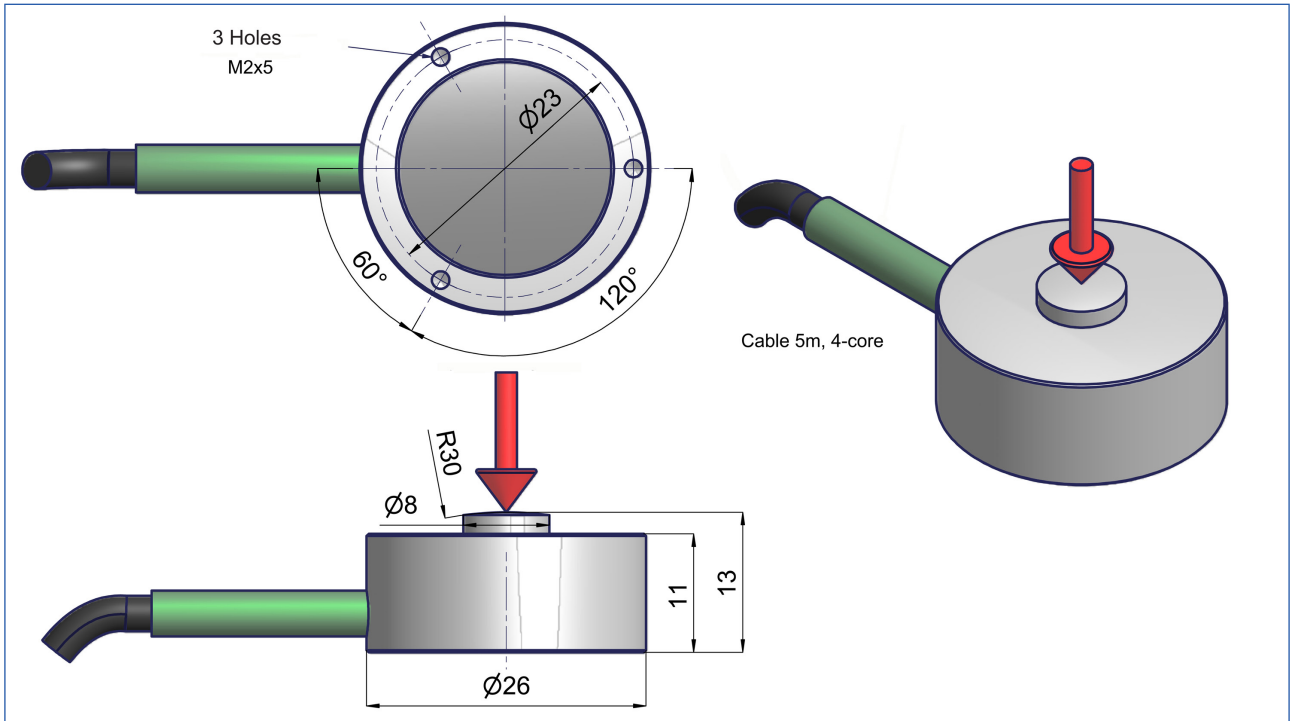
mand they are also available with a TEDS module for an automatic sensor recognition. In this case the TEDS module will be installed inside the plug.

Model 305			
>> Technical data according to VDI / VDE directive 2638			
	Symbol	Unit	Standard
Zero signal when removed	S <sub>0</sub>	mV/V	0,01
Rated characteristic value	C <sub>nom</sub>	mV/V	1
Relative error of characteristic value	d <sub>c</sub>	%	≤ ± 0,3
Relative linearity error	d <sub>lin</sub>	%	≤ ± 0,1
Relative repeatability error in unchanged mounting position	b <sub>rg</sub>	%	≤ ± 0,04
Combined error	F <sub>comb</sub>	%	≤ ± 0,5
Reference temperature	T <sub>ref</sub>	°C	21
Rated temperature range	B <sub>T, nom</sub>	°C	0...+50
Operating temperature range	B <sub>T, G</sub>	°C	-15...+60
Storage temperature range	B <sub>T, S</sub>	°C	-20...+70
Relative creep after 30 min	K <sub>0,5</sub>	%	≤ ± 0,08
Relative creep after 8 h	K <sub>8</sub>	%	≤ ± 0,024
Temperature effect on characteristic value per 10K	TK <sub>C</sub>	%	≤ ± 0,1
Temperature effect on zero signal per 10K	TK <sub>0</sub>	%	≤ ± 0,1
Input resistance	R <sub>e</sub>	Ω	375 ± 25
Output resistance	R <sub>a</sub>	Ω	350 ± 2
Insulation resistance	R <sub>is</sub>	GΩ	> 2
Max. excitation voltage	U	V	12
Rated range of excitation voltage	B <sub>U, nom</sub>	V	5...10
Limit force	F <sub>L</sub>	%	≤ 150
Breaking force	F <sub>B</sub>	%	≥ 300
Max. permissible dynamic load <sup>2)</sup>	L <sub>dy</sub>	%	≤ 50
Degree of protection acc. to DIN 60529			IP67

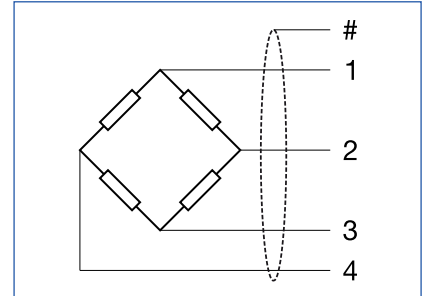
<sup>1)</sup> TEDS = Transducer Electronic Data Sheet acc. to IEEE 1451.4

<sup>2)</sup> Oscillation amplitude acc. to DIN 50100

# Electrical Force Transducers – Model 305



Capacities			
Model 305			
	500N	1kN	2kN
	5kN	10kN	20kN



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