

Electrical Force Transducers – Model 302



- Capacities: 1kN bis 10kN
- For compression
- Stainless steel
- Small dimensions
- Sensitivity: 2mV/V
- High accuracy
- For dynamic applications
- Optional: TEDS module ¹⁾

The electrical force transducers of the model series 302 are space-saving and due to their low construction height they also fit into small

installation spaces. They are made of stainless steel and are exclusively applicable for compressive forces. The installation of a TEDS

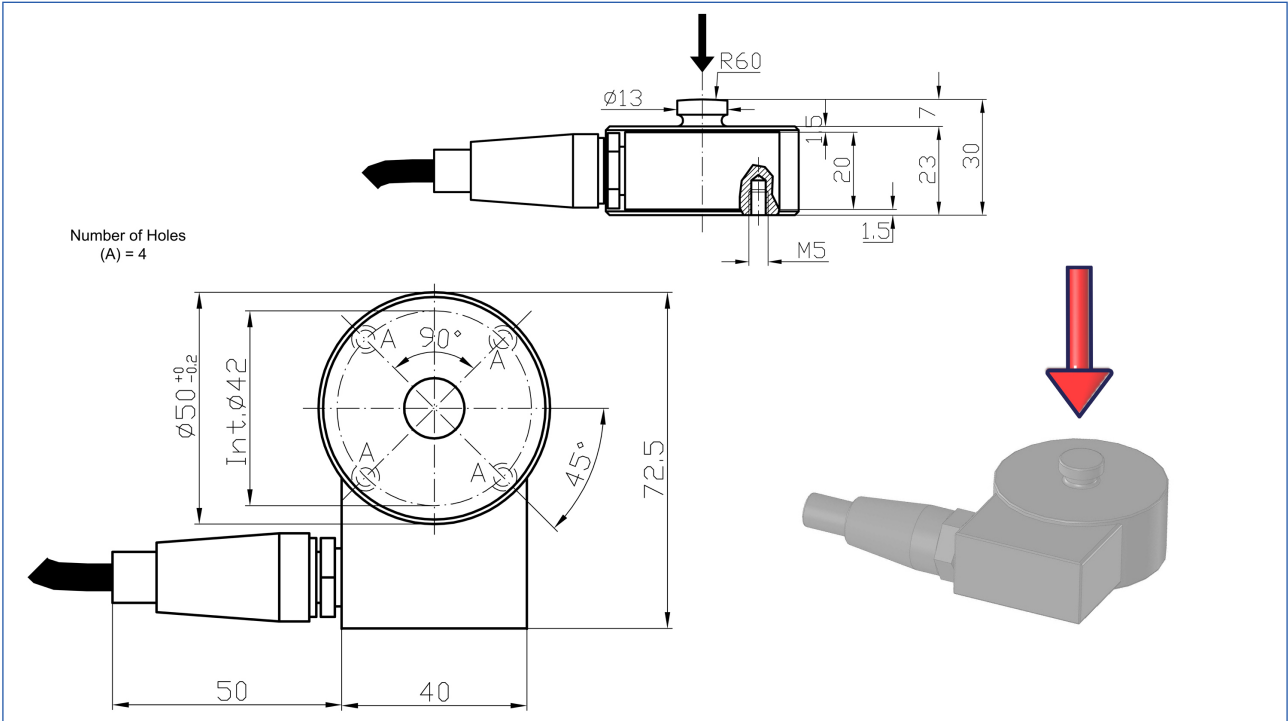
module inside the plug is possible on demand so that the prerequisites for an automatic sensor recognition are set.

Model 302			
>> Technical data according to VDI / VDE directive 2638			
	Symbol	Unit	Standard
Zero signal when removed	S_0	mV/V	0,02
Rated characteristic value	C_{nom}	mV/V	2
Relative error of characteristic value	d_c	%	$\leq \pm 0,1$
Relative linearity error	d_{lin}	%	$\leq \pm 0,06$
Relative repeatability error in unchanged mounting position	b_{rg}	%	$\leq \pm 0,02$
Combined error	F_{comb}	%	$\leq \pm 0,1$
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	$K_{0,5}$	%	$\leq \pm 0,06$
Relative creep after 8 h	K_8	%	$\leq \pm 0,018$
Temperature effect on characteristic value per 10K	TK_C	%	$\leq \pm 0,05$
Temperature effect on zero signal per 10K	TK_0	%	$\leq \pm 0,05$
Input resistance	R_e	Ω	750 ± 25
Output resistance	R_a	Ω	700 ± 2
Insulation resistance	R_{is}	G Ω	> 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. permissible dynamic load ²⁾	L_{dy}	%	≤ 75
Degree of protection acc. to DIN 60529			IP67

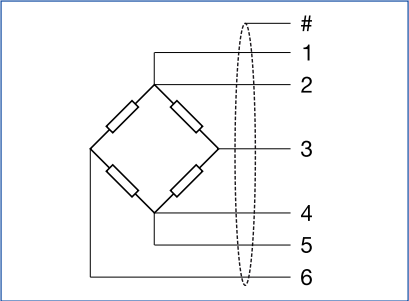
¹⁾ TEDS = Transducer Electronic Data Sheet acc. to IEEE 1451.4

²⁾ Oscillation amplitude acc. to DIN 50100

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Capacities				
Model 302	1kN	2kN	5kN	10kN



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