

KUS Force Transducer

Applications

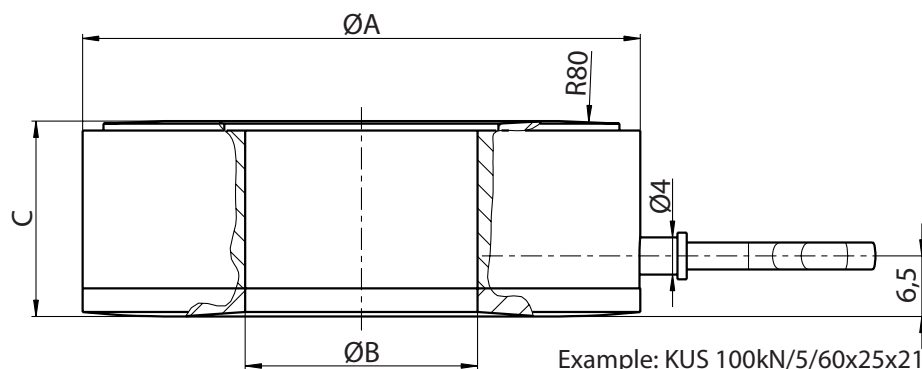
- For measuring of forces on screw
- Force measuring washer
- Overload- detection for cranes



Features

- Wide load range of 100kN to 3MN
- Made of stainless steel
- Adjustment and dimensions according to customer request possible

Dimensions (mm)



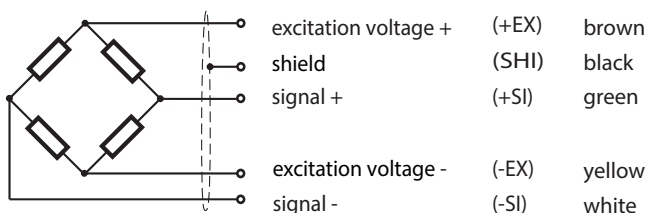
Example: KUS 100kN/5/60x25x21

Examples of ring force transducer - other dimensions on request

Type Number	Type Code	Rated Load	Rated Characteristic Value	A	B	C
3572004	KUS/100kN/2	100kN	appr. 1mV/V	126	101	40
3571706	KUS/100kN/5	100kN	2mV/V $\pm$ 0.5	60	25	21
3571972	KUS/100kN/5	100kN	1,5mV/V $\pm$ 0.5	37	21	10.5
3572735	KUS/150kN/2	150kN	appr. 1mV/V	168	108	40
3571973	KUS/150kN/5	150kN	2mV/V $\pm$ 0.5	37	21	10.5
3573487	KUS/200kN/5	200kN	appr. 1mV/V	47	21	21
3573766	KUS/300kN/5	300kN	appr. 2mV/V	90	60	21
3571650	KUS/300kN/5	300kN	2mV/V $\pm$ 0.5	68	31	21
3573071	KUS/350kN/2	350kN	appr. 1mV/V	270	206	66
3570705.01	KUS/500kN/5	500kN	appr. 2mV/V	90	60	21
3570705.02	KUS/500kN/5	500kN	2mV/V $\pm$ 0.5	80	38	21
3573756	KUS/500kN/5	500kN	appr. 1.5mV/V	99.9	68	21
3572054	KUS/1000kN/5	1000kN	appr. 2mV/V	196	120	66
3573765	KUS/1500kN/5	1500kN	appr. 2mV/V	196	120	66
3570637	KUS/3000kN/5	3000kN	2mV/V $\pm$ 0.5	196	120	66

Wiring Code

Cable length 3m



Specifications

Accuracy Class	% F_{nom}	< 5
Rated load (F_{nom})	kN	100 ... 3000
Maximum operating force (F_G)	% F_{nom}	150
Breaking force (F_B)	% F_{nom}	> 500
Rated characteristic value (C_{nom})	mV/V	see previous table
Relative deviation of zero signal	%	3
Reference excitation voltage (U_{ref})	VDC	20
Input resistance (R_e)*	Ω	380 ± 30
Output resistance (R_a)*	Ω	352 ± 30
Insulation resistance (R_{is})	Ω	$> 5 \times 10^9$
Reproducibility		
- at invariably fitting position	%	≤ 1.0
- at changed fitting position	%	≤ 5.0
Temperature effect on zero signal (TK_0)	% / 10K	≤ 1.0
Temperature effect on characteristic value (TK_c)	% / 10K	≤ 0.5
Relative creep over 30 minutes ($d_{cr, F+E}$)	%	≤ 2.0
Reference temperature (T_{ref})	$^{\circ}C$	+23
Rated temperature range ($B_{T, nom}$)	$^{\circ}C$	-20 ... +60
Operating temperature range ($B_{T, G}$)	$^{\circ}C$	-30 ... +70
Storage temperature range ($B_{T, S}$)	$^{\circ}C$	-40 ... +70
Environmental protection (EN 60529)		IP 65

All data according to VDI/VDE/DKD 2638

* Type with 700 Ω -bridge on request

Order Example

Type Code	Description
KUS/100kN/5/60x25x21	Force transducer 100kN with 5% accuracy
	Dimension
	Accuracy class
	Rated load
	Model

Recommended Electronics

Spherical washers (according to DIN 6319)
Conical seats (according to DIN 6319)
Flat washers (according to DIN 6340)

