

KUS Force Transducer

Applications

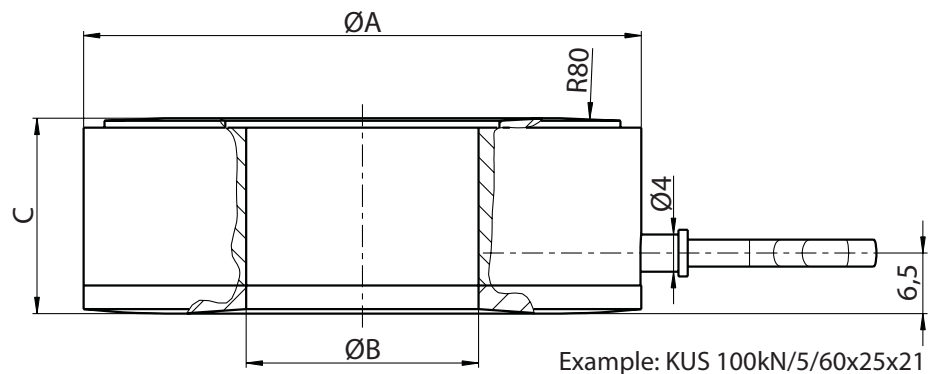
- For measuring of forces on screw
- Force measuring washer
- Overload- detection for cranes

Features

- Wide load range of 100kN to 6MN
- Made of stainless steel
- Adjustment and dimensions according to customer request possible



Dimensions (mm)



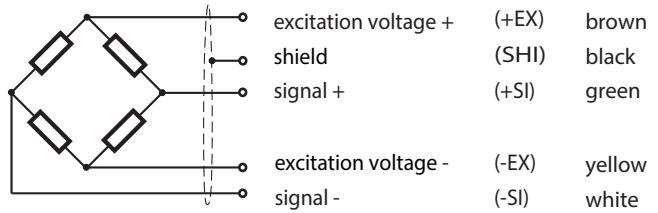
Examples of ring force transducer - other dimensions on request

Type Number	Type Code	Rated Load	Rated Characteristic Value	A	B	C
3572004	KUS/100kN/2	100 kN	ca. 1 mV/V	126	101	40
3577946	KUS/100kN/2	100 kN	ca. 1 mV/V	120	85	40
3571706	KUS/100kN/5	100 kN	2 mV/V ± 0,5	60	25	21
3571972	KUS/100kN/5	100 kN	1.5 mV/V ± 0,5	37	21	10.5
3575125	KUS/100kN/5	100 kN	ca. 2 mV/V	90	60	21
3578042	KUS/100kN/5	100 kN	2 mV/V ± 0,5	85	48	21
3576225	KUS/120kN/2	120 kN	0.6 mV/V	120	85	40
3572735	KUS/150kN/2	150 kN	ca. 1 mV/V	168	108	40
3571973	KUS/150kN/5	150 kN	2 mV/V ± 0,5	37	21	10,5
3574975	KUS/150kN/5	150 kN	ca. 1 mV/V	116	85.5	24
3575436	KUS/160kN/1	160 kN	2 mV/V	90	50 ^{H7}	40
3577862	KUS/200kN/1	200 kN	ca. 2 mV/V	49	16,5	60
3574679	KUS/200kN/2	200 kN	ca. 1 mV/V	150	120	45

Type Number	Type Code	Rated Load	ated Characteristic Value	A	B	C
3576224	KUS/200kN/2	200 kN	1 mV/V	120	85	40
3572916	KUS/200kN/5	200 kN	ca. 1.5 mV/V	68	31	21
3573487	KUS/200kN/5	200 kN	ca. 1 mV/V	47	21	21
3577601	KUS/200kN/5	200 kN	ca. 2 mV/V	45	28	21
3577960	KUS/260kN/5	260 kN	1 mV/V	90	37	25
3574923	KUS/300kN/2	300 kN	1 mV/V	169	100	80
3575275	KUS/300kN/2	300 kN	1 mV/V	169	120	80
3577117	KUS/300kN/2	300 kN	2 mV/V	90	50 ^{H7}	40
3571650	KUS/300kN/5	300 kN	2 mV/V ± 0,5	68	31	21
3573766	KUS/300kN/5	300 kN	ca. 2 mV/V	90	60	21
3576289	KUS/300kN/5	300 kN	1 mV/V	254	225	26.5
3573071	KUS/350kN/2	350 kN	ca. 1 mV/V	270	206	66
3575211	KUS/400kN/2	400 kN	1 mV/V	120	85	40
3575244	KUS/400kN/2	400 kN	1 mV/V	116	80	40
3577961	KUS/410kN/5	410 kN	1 mV/V	105	40	25
3576645	KUS/500kN/0.5	500 kN	2 mV/V	80	30	51
3575927	KUS/500kN/1	500 kN	2 mV/V	80	21	80
3577377	KUS/500kN/1	500 kN	2 mV/V	90	55	25
3578020	KUS/500kN/1/Lemo	500 kN	2 mV/V	85	45	50
3576642	KUS/500kN/2	500 kN	1 mV/V	116	80	40
3570705.01	KUS/500kN/5	500 kN	ca. 2 mV/V	90	60	21
3570705.02	KUS/500kN/5	500 kN	2 mV/V ± 0,5	80	38	21
3573756	KUS/500kN/5	500 kN	ca. 1,5 mV/V	99,9	68	21
3576178	KUS/500kN/5	500 kN	2 mV/V ± 0,5	80	38	21
3578043	KUS/600kN/5	600 kN	ca. 1.5 mV/V	196	120	66
3577699	KUS/1MN/1/Lemo	1 MN	2 mV/V	88	45	50
3574616	KUS/1MN/2	1 MN	ca. 1 mV/V	196	150	70
3577192	KUS/1MN/2	1 MN	1 mV/V	100	25	50
3577605	KUS/1MN/2/M12	1 MN	2 mV/V	88	45	50
3572054	KUS/1MN/5	1 MN	ca. 2 mV/V	196	120	66
3573765	KUS/1.5MN/5	1,5 MN	ca. 2 mV/V	196	120	66
3578000	KUS/1.5MN/5	1,5 MN	ca. 2 mV/V	170	105	66
3575349	KUS/2MN/2	2 MN	1 mV/V	360	200	66
3575167	KUS/2MN/5	2 MN	2 mV/V ± 0,5	196	120	66
3570637	KUS/3MN/5	3 MN	2 mV/V ± 0,5	196	120	66
3572417	KUS/4MN/5	4 MN	2 mV/V ± 0,5	244	172	100
3575168	KUS/4MN/5	4 MN	2 mV/V ± 0,5	196	120	66
3574793	KUS/5MN/5	5 MN	2 mV/V ± 0,5	196	120	66

Wiring Code

Cable length 3m



Specifications

Accuracy Class	% F _{nom}	< 5
Rated load (F _{nom})	kN	100 ... 6000
Maximum operating force (F _G)	% F _{nom}	150
Breaking force (F _B)	% F _{nom}	> 500 (1mV/V)/ >400 (1,5mV/V)/ >300 (2mV/V)
Rated characteristic value (C _{nom})	mV/V	see previous table
Relative deviation of zero signal	%	3
Reference excitation voltage (U _{ref})	VDC	10
Operating range of excitation voltage (B _{UG})	VDC	0,5 ... 12
Input resistance (R _e)*	Ω	760 ± 60
Output resistance (R _a)*	Ω	710 ± 10
Insulation resistance (R _{is})	Ω	> 5 x 10 ⁹
Reproducibility		
- at invariably fitting position	%	≤ 1.0
- at changed fitting position	%	≤ 5.0
Temperature effect on zero signal (TK ₀)	%/ 0K	≤ 1.0
Temperature effect on characteristic value (TK _c)	%/ 0K	≤ 0.5
Relative creep over 30 minutes (d _{cr, F+E})	%	≤ 2.0
Reference temperature (T _{ref})	°C	+23
Rated temperature range (B _{T, nom})	°C	-20 ... +60
Operating temperature range (B _{T, G})	°C	-30 ... +70
Storage temperature range (B _{T, S})	°C	-40 ... +70
Environmental protection (EN 60529)		IP 65

All data according to VDI/VDE/DKD 2638

* Type with 700Ω-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)

