

KMR Force Transducer

Applications

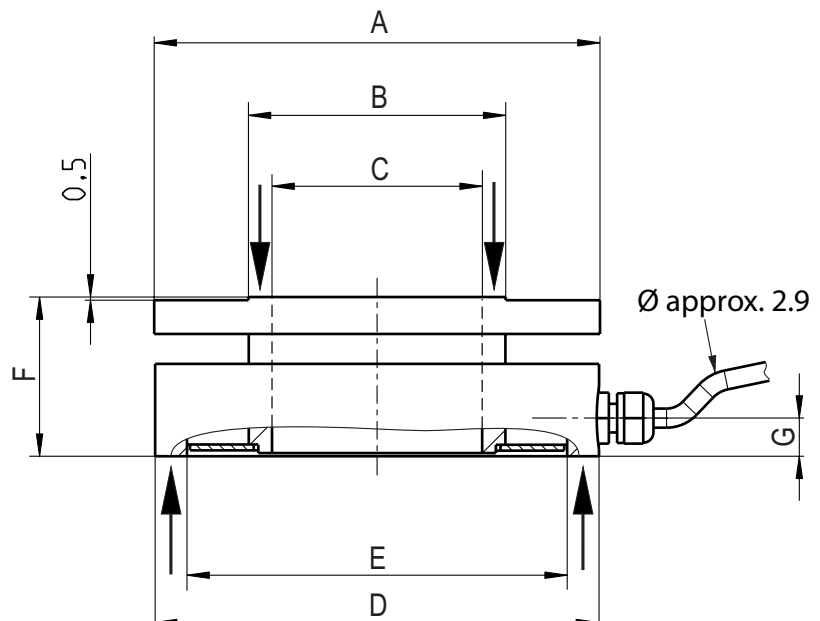
- Ring force transducer or measuring shim
- Joining processes and pressing operations
- Lifting equipment
- Spindle drives

Features

- 1kN to 300kN
- Accuracy class 0.5 %/ 1 %/ 2 %
- Made of stainless steel



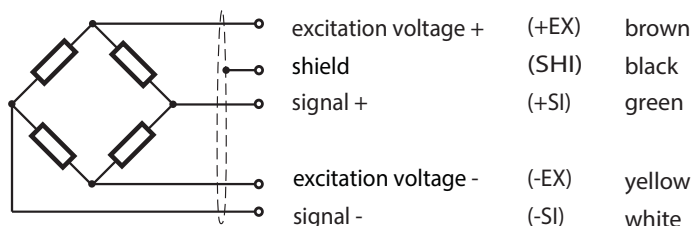
Dimensions (mm)



Rated Load (kN)	Ø A (mm)	Ø B (mm)	Ø C (mm)	Ø D (mm)	Ø E (mm)	Ø F (mm)	Ø G (mm)	Weight (kg)
1/ 2/ 3/ 6	65 ^{-0.03} _{-0.08}	37.6-0.1	30+0.2	64±0.2	56.4	23±0.1	4.5	approx. 0.3
10/ 20	70±0.05	40.4-0.1	33±0.1	69.7±0.2	59.7	25±0.1	6	approx. 0.4
30/ 50	112 ^{-0.03} _{-0.09}	80-0.1	70±0.1	111.5±0.2	100.5	35±0.1	6	approx. 1.2
50/ 100	120	84	51	120	84	50	12	approx. 3
300	168	78	60	168	102	21	8	approx. 3.2

Wiring Code

Cable length 3m



Specifications

Accuracy Class	% F_{nom}	0,5	1	2
Rated load (F_{nom})	kN	1/ 2/ 3/ 6/ 10/ 20/ 30/ 50	50/ 100	300
Maximum operating force (F_G)	% F_{nom}		150	
Breaking force (F_B)	% F_{nom}		> 300	
Rated characteristic value (C_{nom})	mV/V	1,000 ± 0,05	2,0	3,0
Relative deviation of zero signal	%		≤ 3	
Reference excitation voltage (U_{ref})	VDC		≤ 10	
Input resistance (R_e)	Ω		700 ± 30	
Output resistance (R_a)	Ω		700 ± 1,5	
Insulation resistance (R_{is})	Ω		> 5 × 10 ⁹	
Relative linearity error (d_{lin})	%	≤ 0,50	≤ 0,1	≤ 2
Relative reversibility error (v)	%	≤ 0,50	≤ 0,1	≤ 2
Temperature effect on zero signal (TK_0)	%/10K	≤ 0,10	≤ 0,5	≤ 1
Temperature effect on characteristic value (TK_C)	%/10K	≤ 0,10	≤ 0,5	≤ 1
Relative creep over 30 minutes ($d_{cr, F+E}$)	%	≤ 1	≤ 1	≤ 2
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 56	

All data according to VDI/VDE/DKD 2638

Order Example

Type Code	Description
<u>KMR/10kN/0.5</u>	Force transducer 10 kN with 0.5% accuracy
	Accuracy class
	Rated force
	Model