AST Gruppe
Angewandte System Technik

KMR
Force Transducer

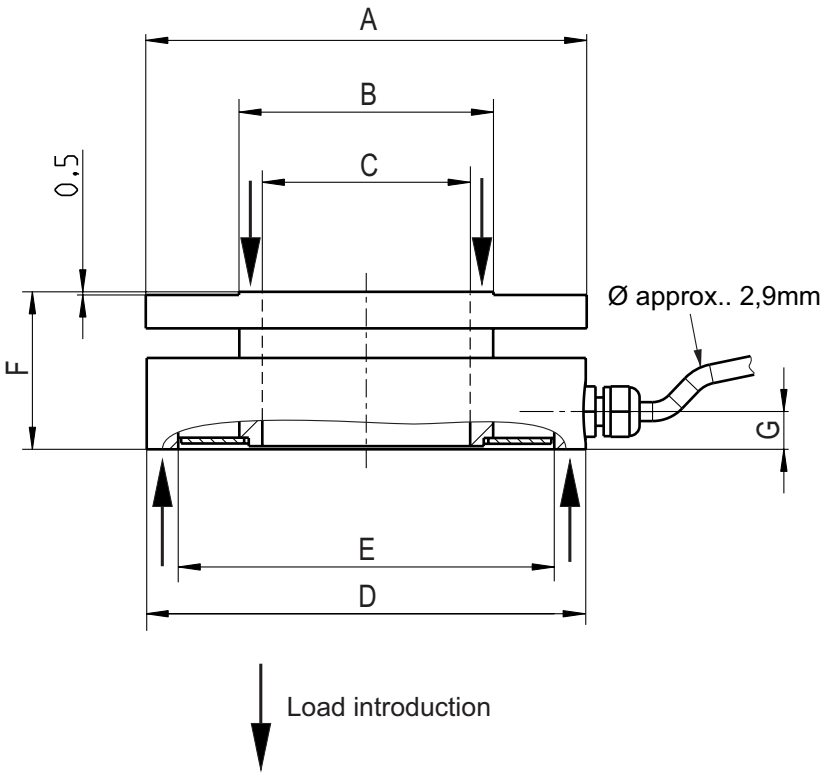
Applications

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

Features

- 1kN to 50kN
- Accuracy class 0.5 %
- Made of stainless steel

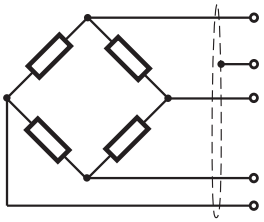
Dimensions (mm)



Rated Load (kN)	Ø A	Ø B	Ø C	Ø D	Ø E	Ø F	Ø G	Weight
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. 0.3kg
10/ 20	70±0.05	40.4-0.1	33±0.1	69.7±0.2	59.7	25±0.1	6	approx. 0.4kg
30/ 50	$112^{-0.03}_{-0.09}$	80-0.1	70±0.1	111.5±0.2	100.5	35±0.1	6	approx. 1.2kg

Wiring Code

Cable length 3m



excitation voltage +	(+EX)	brown
shield	(SHI)	black
signal +	(+SI)	green
excitation voltage -	(-EX)	yellow
signal -	(-SI)	white

Specifications

Accuracy Class	**% F_{nom}**	**0.5**
Rated load (F_{nom})	kN	1/ 2/ 3/ 6/ 10/ 20/ 30/ 50
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
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 x 10^9
Relative linearity error (d_{lin})	%	≤ 0.5
Relative reversibility error (v)	%	≤ 0.5
Temperature effect on zero signal (TK_0)	%/10K	≤ 0.1
Temperature effect on characteristic value (TK_C)	%/10K	≤ 0.05
Relative creep over 30 minutes ($d_{cr, F+E}$)	%	≤ 1
Reference temperature (T_{ref})	°C	+23
Rated temperature range ($B_{T, nom}$)	°C	+5 ... +70
Operating temperature range ($B_{T, G}$)	°C	-20 ... +80
Storage temperature range ($B_{T,S}$)	°C	-20 ... +80
Environmental protection (EN 60529)		IP 56

All data according to VDI/VDE/DKD 2638

Order Example

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