AST Gruppe
Angewandte System Technik

KAM-B
Force Transducer

Applications

- Measuring of pressure forces in machinery and system
- "Load cookies"

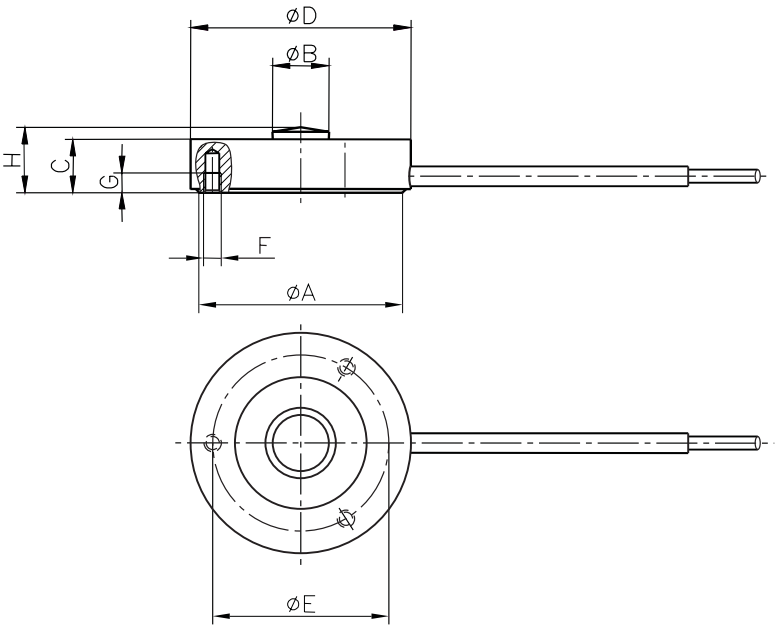
Features

- Membran force transducer
  1kN up to 100kN
- High accuracy class: 0.5 up to 2% F_{nom}
- Made from stainless steel
- Environmental protection IP 65

Options

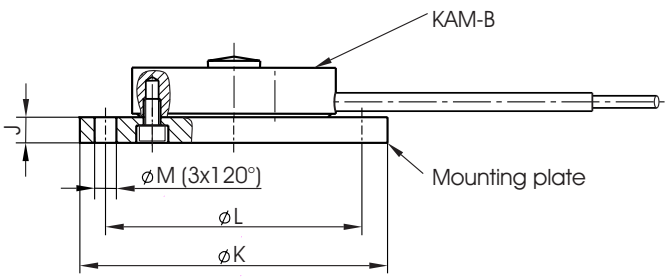
- ATEX Certificate for 1kN ... 10kN

Dimensions (mm)



Rated Force in kN	A	B	C	D	E	F	G	H	Weight
1 ... 10	29.4	8.1	8.1	31.8	25.4	M2.5	3	9.9	40g
20 ... 50	35.0	10.7	14.0	38.1	31.5	M2.5	3	16.0	50g
100	49.0	15.2	22.9	50.8	42.0	M4.0	6	25.4	300g

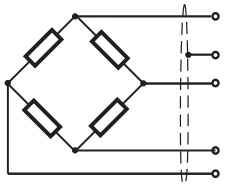
Appliances for Installation and Mounting



Rated Force in kN	J	K	L	M
1 ... 10	4	48	40	3.4
20 ... 50	7	58	47	4.1
100	14	78	64	5.8

Wiring Code

Cable length 1.5m



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

Shield to ground (housing)

Specifications

Accuracy Class	% F_{nom}	0.5	2
Rated force (F_{nom})	kN	1/ 2/ 5/ 10/ 20/ 50	100
Maximum operating force (F_G)	% F_{nom}	150	
Breaking force (F_B)	% F_{nom}	> 300	
Rated characteristic value (C_{nom})	mV/V	1.5 ± 0.05	
Relative deviation of zero signal	%	3	
Reference excitation voltage (Uref)	VDC	10	
Input resistance (R_e)	Ω	380 ± 30	
Output resistance (R_a)	Ω	352 ± 1.5	
Insulation resistance (R_{is})	Ω	> 5 x 10^9	
Relative linearity error (d_{lin})	%	≤ 0.5	≤ 1
Relative reversibility error (v)	%	≤ 0.5	≤ 1
Temperature effect on zero signal (TK_0)	%/10K	≤ 0.5	≤ 1
Temperature effect on characteristic value (TK_C)	%/10K	≤ 0.5	≤ 1
Reference temperature (T_{ref})	°C	+23	
Rated temperature range ($B_{T, nom}$)	°C	-15 ... +70	
Operating temperature range ($B_{T, G}$)	°C	-15 ... +70	
Storage temperature range ($B_{T, S}$)	°C	-20 ... +100	
Environmental protection (EN 60529)		IP 65	

All data according to VDI/VDE/DKD 2638

Order Example

Type Code	Description
KAM-B/10kN/0.5	Force transducer 10kN with 0.5% accuracy class
	Accuracy class
	Rated force
	Model

Accessoires / Options

	Type Code	Description
Mounting plate	XKM 290 XKM 291 XKM 292	for 1kN up to 10kN for 20kN up to 50kN for 100kN
Cable extension	XKC 042	cable extension (total length per unit: m)
ATEX	KAM-B-EX	for 1kN ... 10kN. Please note ATEX-datasheet!