

KAM-S

Force Transducer in Small Dimensions

Applications

- Force measurement in machines and systems
- Mounting and fitting
- Industrial automation

Features

- 100N up to 50kN
- Small dimensions
- Made of stainless steel or aluminium (<2kN)
- Rugged design
- Environmental protection IP 65

Options

- ATEX Certificate - KAM-S-EX 100N ... 20kN

Dimensions (mm)

Rated Force	Weight
100N ... 1kN	approx. 25g
2kN ... 20kN	approx. 55g
50kN	approx. 230g



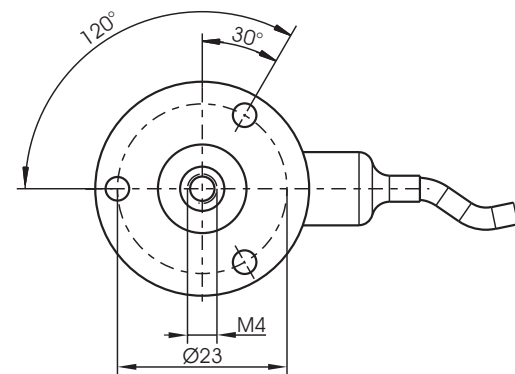
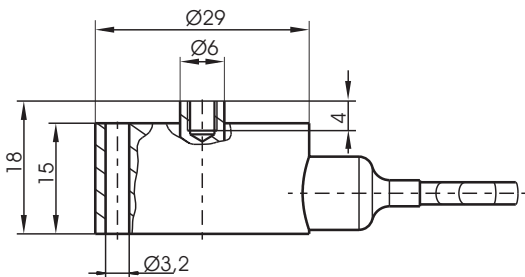
KAM-S
100N to 1kN



KAM-S 2kN to 20kN

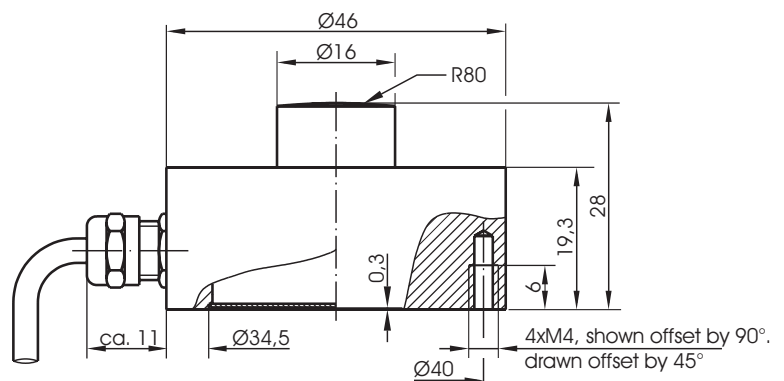
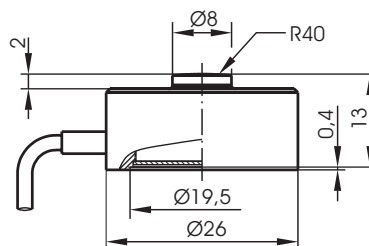


KAM-S 50kN



KAM-S 100N to 1kN (aluminium)

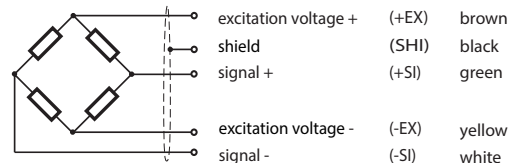
KAM-S 2kN to 20kN (stainless steel)



KAM-S 50kN (stainless steel)

Wiring Code

Cable length 1.5m



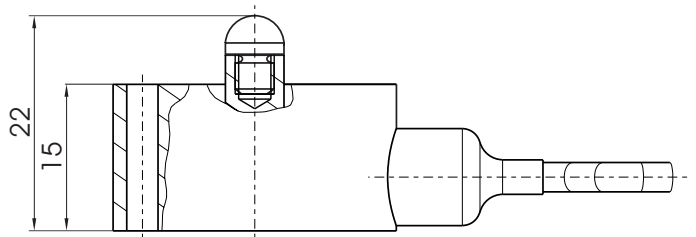
Specifications

Accuracy Class	% F _{nom}	0.5	1	
Rated force (F _{nom})	N kN	100/ 200/ 500 1/ 2/ 5	10/ 20	50
Maximum operating force (F _G)	% F _{nom}		150	
Breaking force (F _B)	% F _{nom}		> 300	
Lateral force limit (F _Q)	% F _{nom}		20	
Rated characteristic value (C _{nom})	mV/ V		1.00 ± 0.01	
Relative deviation of zero signal	%		≤ 3	
Reference excitation voltage (U _{ref})	VDC		10	
Input resistance (typ.) (R _e)	Ω	380 ± 30	380 ± 30	760 ± 60
Output resistance (R _a)	Ω	352 ± 1.5	352 ± 1.5	710 ± 10
Insulation resistance (R _{is})	Ω	> 5 x 10 ⁹	> 5 x 10 ⁹	> 5 x 10 ⁹
Reproducibility (not fix mounted)	%	≤ 1	≤ 2	≤ 2
Reproducibility (fix mounted)	%	≤ 0.5	≤ 1	≤ 1
Relative linearity error (d _{lin})	%	≤ 0.5	≤ 1	≤ 1
Relative reversibility error (v)	%	≤ 0.5	≤ 1	≤ 1
Temperature effect on zero signal (TK ₀)	%/10K	≤ 0.5	≤ 0.5	≤ 0.5
Temperature effect on characteristic value (TK _c)	%/10K	≤ 0.5	≤ 0.5	≤ 0.5
Relative creep over 30 minutes (d _{cr, F+E})	%	≤ 0.5	≤ 0.5	≤ 0.5
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		-30 ... +70	
Environmental protection (EN 60529)			IP 65	

All data according to VDI/VDE/DKD 2638

Appliances for Installation and Mounting

KAM-S 100N to 1kN with load button



Order Example

Type Code	Description
KAM-S/100N/0.5	Force transducer 100N with 0.5% accuracy
	Accuracy class
	Rated force
	Model

Accessoires/ Options

	Type Code	Description
Load button	XKM 062	K4-3 for KAM-S 100N to 1kN
Plug and cable	XKC 041	6 pin plug, connected to sensor cable
	XKC 042	Cable extension
	XKC 071	6 pin plug incl. TEDS function, connected to sensor cable
	XKC 072	6 pin plug incl. TEDS-M function (multi point calibration)
ATEX Certificate	KAM-S-EX	for KAM-S 100N ... 20kN. Please note ATEX data sheet.