

KAM-Z Force transducer

Application

- Measurement of tensile and compressive forces
- Automation technology

Features

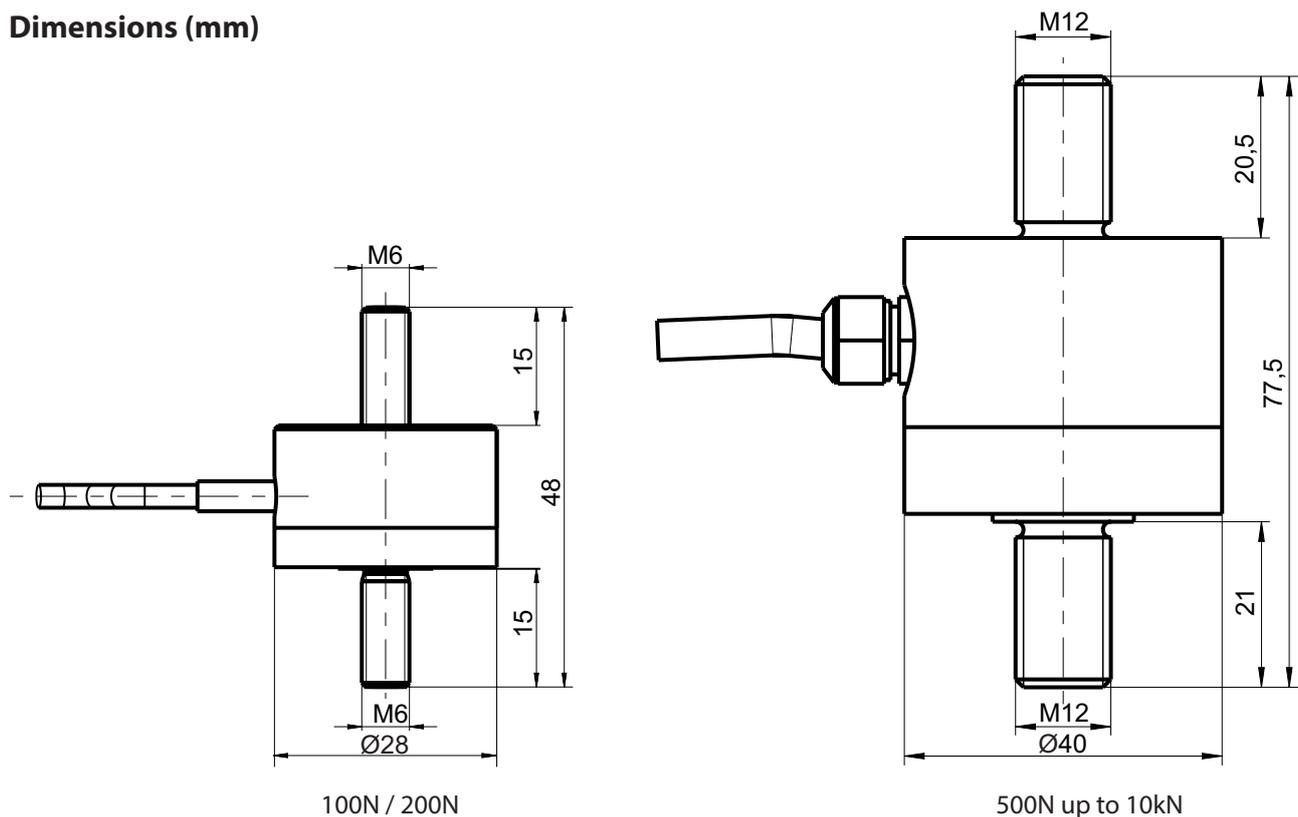
- 100 N up to 10kN
- Made from stainless steel
- IP 65

Options

- Integrated amplifier with standard signal (from 500N)

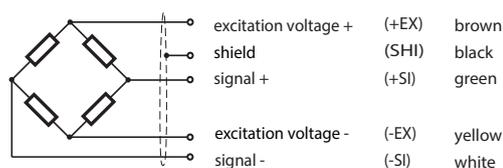


Dimensions (mm)

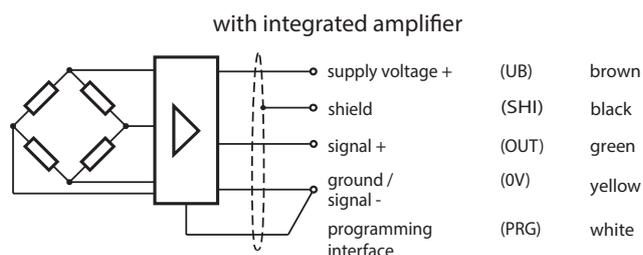


Wiring Code

Cable length 1.5m



(Illustration of force direction tension)



(0V and PRG to be connected by the customer)

Specifications

Accuracy Class	% F _{nom}	0.1	0.2 with integrated amplifier
Rated load (F _{nom})	kN	0.1/ 0.2/ 0.5/ 1/ 2/ 5/ 10	0.5/ 1/ 2/ 5/ 10
Maximum operating force (F _G)	% F _{nom}	150	150
Breaking force (F _B)	% F _{nom}	> 300	> 300
Lateral force limit (F _Q)	% F _{nom}	50	50
Rated characteristic value (C _{nom})	mV/V	1.000 ± 0.005	
Relative deviation of zero signal	%	≤ 3	
Reference excitation voltage (U _{ref})	VDC	5	
Range of supply voltage	VDC	10	
Input resistance (R _e)	Ω	350 + 100	
Output resistance (R _a)	Ω	352 ± 2	
Insulation resistance (R _{is})	Ω	> 5 × 10 ⁹	
Relative linearity error (d _{lin})	%	≤ 0.1	0.2
Relative reversibility error (v)	%	≤ 0.1	
Temperature effect on zero signal (TK ₀)	%/10K	≤ 0.1	0.2
Temperature effect on character. value (TK _C)	%/10K	≤ 0.1	
TK of output signal under load	%/10K		0.2
Relative creep over 30 minutes (d _{cr, F+E})	%	≤ 0.1	0.2
Tolerance of output signal	%		0.2
Tolerance of zero signal	%		≤ 3
Reference temperature (T _{ref})	°C	+23	+23
Rated temperature range (B _{T, nom})	°C	-20 ... +50	-20 ... +50
Operating temperature range (B _{T, G})	°C	-30 ... +70	-30 ... +70
Storage temperature range (B _{T, S})	°C	-40 ... +70	-40 ... +70
Environmental protection (EN 60529)		IP 65	IP 65
Supply voltage	VDC		19 ... 28
Input current	mA		35 (at 24V)
Output signal for compression load (0...F _N)			11 ... 15
Alternatively:			20 (at 12V)
- Voltage output (max. load: 5mA)	V		0 ... 10
- Current output	mA		4 ... 20
- Maximum resistance	Ω		300
			100

All data according to VDI/VDE/DKD 2638

Order Example

Type Code	Description
KAM-Z-E/5kN/0.2/±10V	Force transducer 5kN with 0.2% accuracy and integrated amplifier
	Output signal
	Accuracy class
	Rated load
	E = Integrated amplifier
	Model

Accessoires/ Options

Type code	Description
GKI 12	Rod end bearing(male thread) with lock nut for 500N to 10kN