

MK button force transducer



product description

The MK is a series of miniature force transducers designed for applications in general test and measurement as well as machine monitoring and control.

The low profile, small diameter design enables the MK to be easily embedded into machinery or test equipment – ideal for packaging machinery, assembly machinery or end-of-line test equipment. Available in a wide range of standard capacities from 100N through to 150kN or 25lbf to 30klbf; the MK is configured for compression force measurement. Full-bridge, bonded foil strain gauge technology provides excellent long-term stability and ensures high performance even in applications requiring in excess of 1 million load cycles. Constructed from stainless steel and protected from moisture with an epoxy bonded cover.

The MK can be supplied with standard cable configurations or with industry standard connectors. As an additional aid to system integrators, the MK can be supplied as a TEDS (Transducer Electronic Data Sheet) enabled smart transducer this provides an on-board memory chip storing manufacturing and calibration data.

Comprehensive range of electronic modules available

applications

General test and measurement as well as machine monitoring and control. Ideal for packaging machinery, assembly machinery or end-of-line test equipment.

key features

Capacity range of 100N to 150kN
or 25lbf to 30klbf

Stainless steel construction

Environmental protection to IP64

High accuracy $\pm 0.5\%$

Low profile, small diameter and
low weight design

Temperature compensated from
 -15°C to $+70^{\circ}\text{C}$

options

Range of cable lengths

Flying leads or cable connectors

TEDS IEEE 1451.4 memory chip

Multi-point calibration available



specifications

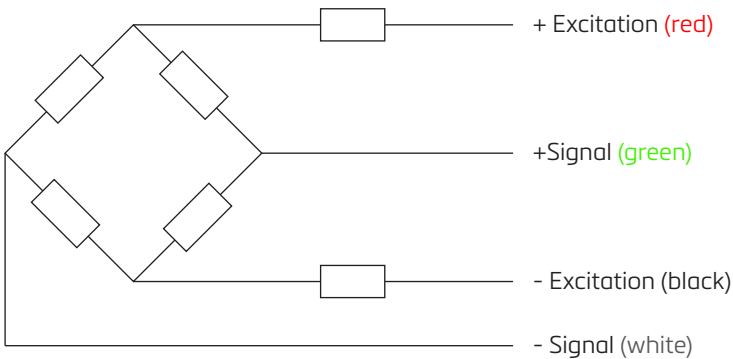
Capacity	N	100, 200, 500, 1,000, 2,000, 5k, 10k, 15k, 20k, 50k, 100k, 150k
	lb	25, 50,100, 250, 500, 1000, 2000, 3k, 4k, 5, 7.5k, 10k, 15k, 20k, 30k
Allowable maximum load	% full scale	150
Non-linearity	% FS Max	0.5
Repeatability	% FS Max	0.1
Total error	% FS Max	0.8
Zero balance	% FS Max	2
Input impedance (range)	Ω	350-450 (for 100-500N) 700-900 (for 1000N-150kN)
Output impedance (nominal $\pm 10\%$)	Ω	350 (for 100-500N) 700 (for 1000N-150kN)
Zero temp coefficient	% FS / $^{\circ}\text{C}$	0.01
Span temp coefficient	% of load / $^{\circ}\text{C}$	0.02
Compensated temp range	$^{\circ}\text{C}$	-15 to 70
Operating temp range	$^{\circ}\text{C}$	-20 to 80
Output	mV/V	2
Excitation voltage (VDC OR VAC)	V	5 (recommended), 10 (max)
IP Rating	-	IP64

wiring

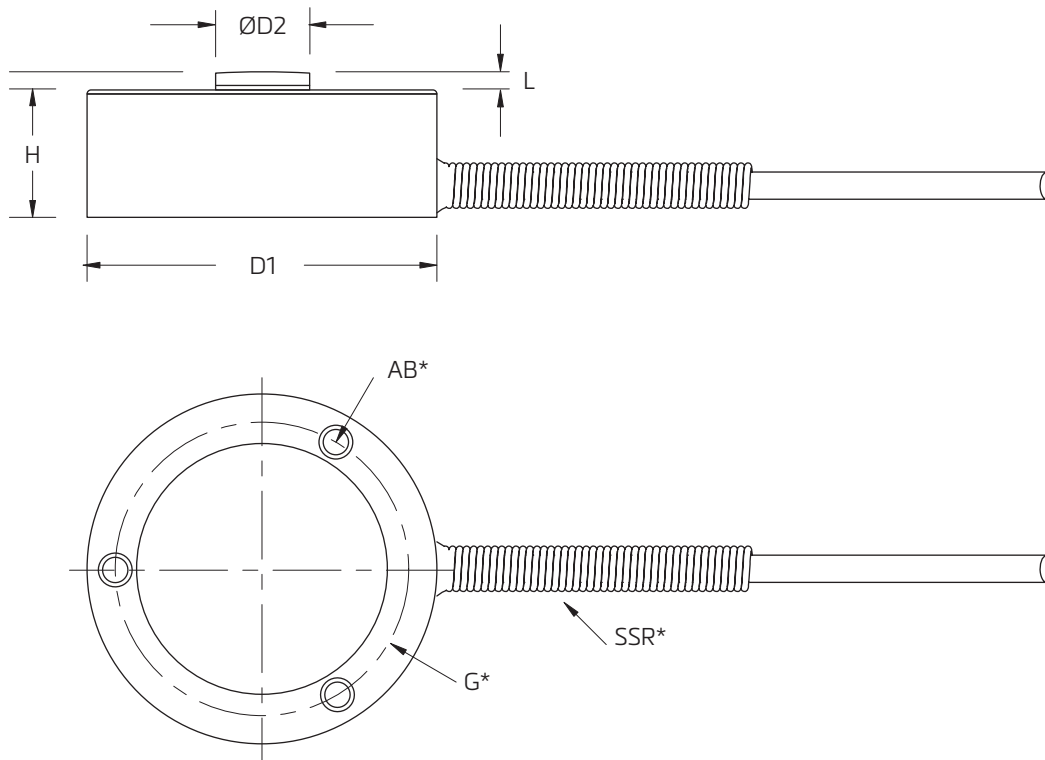
The sensor is provided with a 32AWG for 100N - 500N, 28AWG for 1kN - 150kN, 4-conductor braided shield

Cable jacket: PVC

Cable length: 2m



product dimensions (mm)



key

AB* - 3 mounting holes with 'A' threads and 'B' depth, as per the below table

G* - Pitch circle diameter

SSR* - Spring strain relief

Capacity	D1 mm [in]	D2 mm [in]	H mm [in]	L mm [in]	A	B mm [in]	G mm [in]
100N	24.9 [0.98]	5.33 [0.21]	8.13 [0.32]	1.27 [0.05]	M3	5.59 [0.22]	19.05 [0.750]
200N							
500N							
1kN	31.75 [1.25]	8.13 [0.32]	9.91 [0.39]	1.27 [0.05]	M4	6.35 [0.25]	25.4 [1.000]
2kN							
5kN							
10kN							
15kN	38.1 [1.50]	10.16 [0.40]	16.0 [0.63]	2.03 [0.08]	M4	6.35 [0.25]	31.75 [1.250]
20kN							
50kN							
100kN	50.3 [1.98]	15.24 [0.60]	25.4 [1.00]	3.05 [0.12]	M4	6.35 [0.25]	41.3 [1.625]
150kN							

Specifications and dimensions are subject to change without notice.