

MHT1 button force sensor



product description

The MHT1 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 MHT1 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 1kg through to 200kg; the MHT1 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 aluminium (1kg -20kg) and stainless steel (50kg-200kg) and protected from moisture with an epoxy bonded cover.

The MHT1 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

Capacities from 1kg to 200kg

Aluminium or stainless-steel construction

Environmental protection to IP64

High accuracy $\pm 0.5\%$

Low profile, low weight design

Temperature compensated from -15°C to $+71^{\circ}\text{C}$

options

Alternative thread sizes

Range of cable lengths

Flying leads or cable connectors

TEDS IEEE 1451.4 memory chip

Multi-point calibration available



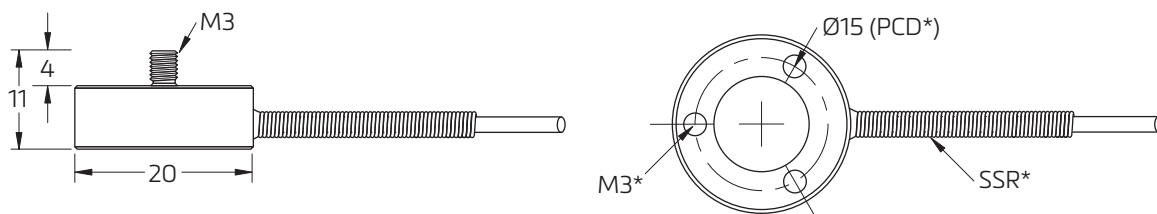
RoHS
compliant



specifications

Capacity	kg	1, 2, 5, 10, 20, 50, 100, 200
Capacity	lb	2, 5, 10, 20, 50, 100, 200, 500
Output	mV/V	1± 20% for 1kg - 20kg and 2lb - 50lb 1.5 ± 20% for 50kg - 200kg and 100lb - 500lb
Excitation voltage (vdc or vac)	V	5 (recommended), 10 (max)
Input impedance	Ω	350 ± 70 (1000 ± 150 for 1kg and 2kg models)
Output impedance	Ω	350 ± 70 (1000±150 for 1kg and 2kg models)
Allowable maximum load	% FS	150
Non-linearity	% FS max	± 0.5
Hysteresis	% FS max	± 0.3
Repeatability	% FS max	± 0.1
Total error	% FS max	± 0.8
Zero balance	% FS max	2
Zero temp coefficient	% FS / °C	0.01
Span temp coefficient	% FS / °C	0.02
Compensated temp range	°C	-15 to +70
Operating temp range	°C	-20 to +80
Material	-	Aluminium body (1-20kg) and stainless-steel cover Stainless steel body (50-200kg) and stainless-steel cover
IP Rating	-	IP64

product dimensions (mm)



key

PCD* - Pitch circle diameter

M3* - 3xM3 threaded thru-holes (7mm deep)

SSR* - Spring strain relief

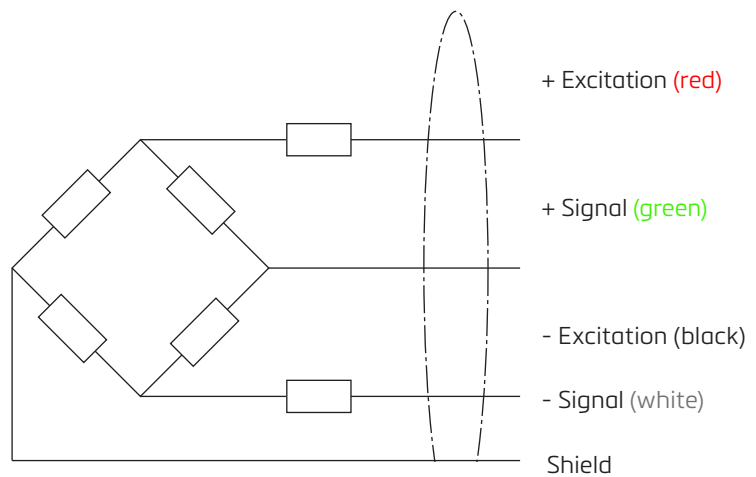
wiring

The load button is provided a #32 AWG
4-conductor braided shielded cable

Outer jacket diameter: 2.2 mm (0.086")

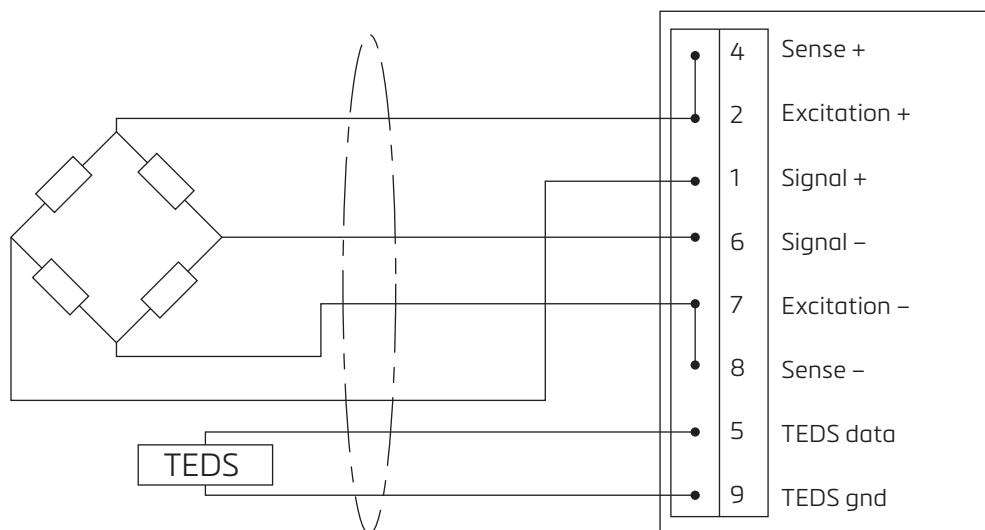
Standard cable length: 1m

Cable sheath material: Teflon



optional connector

The sensor can be supplied with an optional DB9 connector with integrated TEDS chip. Wiring configuration for the connector is shown below.



Specifications and dimensions are subject to change without notice.