AP8 low profile force sensor

product description

The model AP8 is a very low capacity, compact force transducer ideal for a range of measurement tasks.

The low profile, compact design ensures measurement tasks are straightforward even in confined spaces within assembly machinery or test equipment. Perform highly accurate measurements of compression forces with ease by utilising the simple mounting arrangement and the central load introduction facility.

Full-bridge, bonded foil strain gauge technology provides excellent long-term stability and ensures high performance even in applications requiring over 1 million load cycles.

Available with a range of cable types, cable lengths and connectors. As an additional aid to system integrators, the AP8 can be supplied as a TEDS (transducer electronic data sheet) enabled smart transducer. This feature provides an on board memory chip storing manufacturing and calibration data.

accessories + options

Available with a range of cable lengths and connector options

Comprehensive range of electronic modules available

TEDS IEEE 1451.4 memory chip

Alternative mounting holes available on enquiry

key features

High accuracy ± 0.05%

Low profile design

Very low capacity

Lightweight

Simple 4 point mounting system

Compression force measurement

Aluminium construction

Compensated temp -15°C to + 71°C

Environmental protection to IP40

applications

Test & measurement tasks

Calibration of assembly machinery

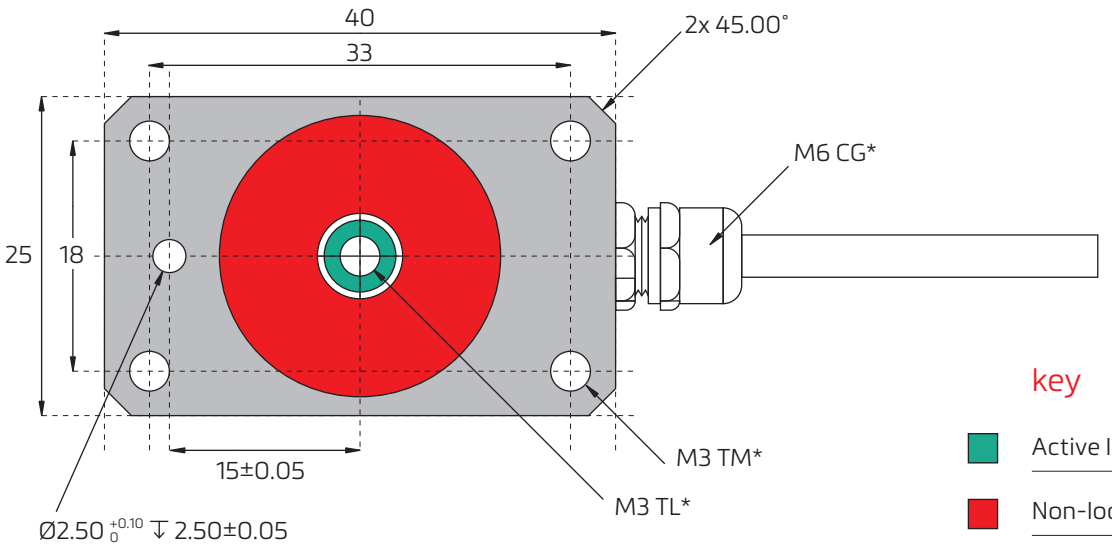
CE RoHS compliant IP40

flintec quality + precision

specifications

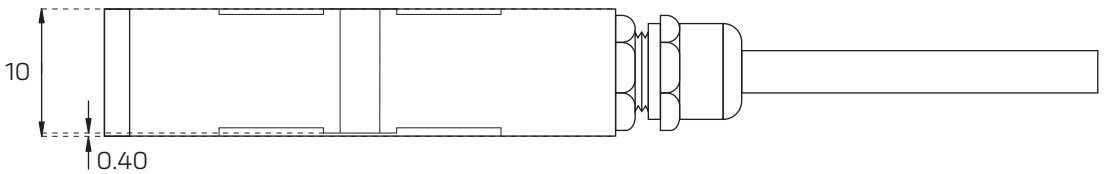
Rated capacity	kg	1
Rated output (RO)	mV/V	1 nominal
Safe overload	% of R.O.	150
No load offset (Zero balance)	% of R.O.	±2
Excitation	VDC or VAC	10 max, 5 recommended
Input impedance	Ω	350
Output impedance	Ω	350
Non-linearity	% of R.O	±0.05
Hysteresis	% of R.O	±0.05
Non repeatability	% of R.O.	±0.01
Creep (30 mins)	% of R.O.	<=0.1
Temp shift zero	% of R.O./°C	0.01
Temp shift span	% of LOAD/°C	0.02
Compensated temp	°C	-15 to 71
Operating temp	°C	-40 to 93
Weight (approx)	g	40 (0.09lb)
Material	-	Aluminium (stainless steel covers)
Deflection	mm	0.1 (0.0004") nominal.
Natural frequency	Hz	2800
IP Rating	-	IP40
Calibration test excitation	VDC	5
Calibration (STD)	-	5 pt. COMPRESSION (tension calibration optional)
Connector	-	None (default) M8 Male connector mounted on the load cell (optional) DB9 cable mounted connector, Male or Female (optional)
Compliance	-	Restriction of Hazardous Substances Directive (RoHS)

product dimensions (mm)



key

- Active loading surface
- Non-loading surface
- Fixed mounting surface



M6 CG* - M6 cable gland

M3 TL* - Central M3 threaded thru-hole for load introduction

M3 TM* - M3 threaded thru-holes for mounting (4x)

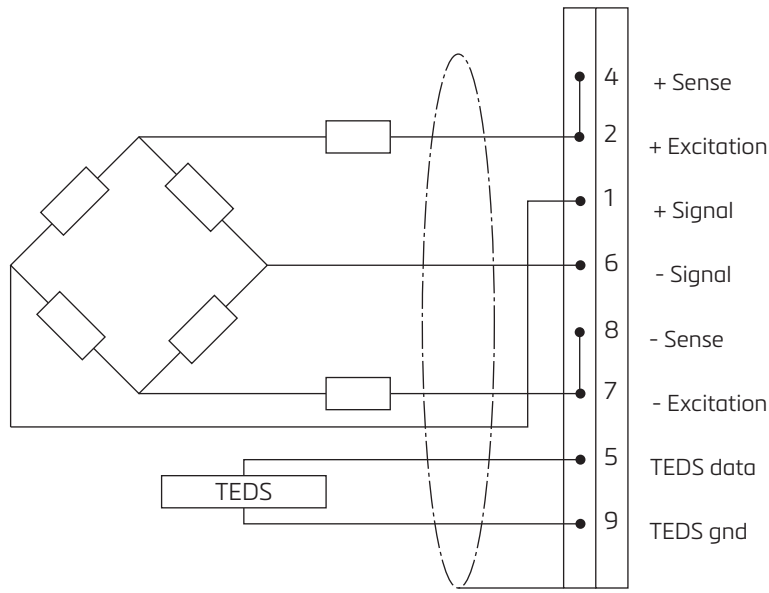
Note: Do not contact the non-loading surface on either side

wiring

The load cell is provided with a #28 AWG 4-conductor braided shielded cable with outer jacket, 3mm (0.12") diameter, 0.6m (2ft) long, with no connection between the shield and the sensor body.

Optional DB9 cable mounted connector pin configuration as shown here.

M8 load cell mounted connector also available – contact factory for pinout details.



D89 male/female

Specifications and dimensions are subject to change without notice.