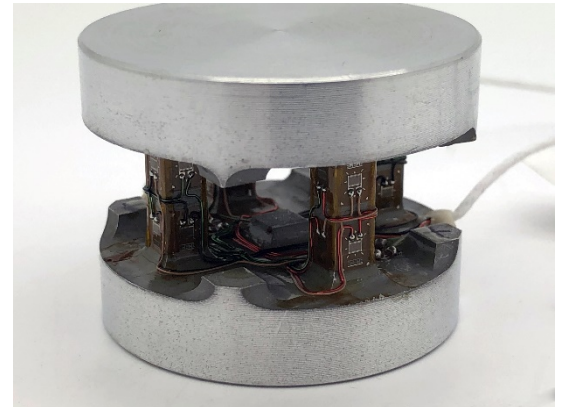


Features

- Measure multiple force planes simultaneously.
- Assess up to three axes of force and up to three axes of moment.
- Entirely custom design.

Applications

- Automotive.
- Aerospace.
- Destructive testing.
- Manufacturing.



Description

Multi-axis transducers are designed to measure up to 3 forces and 3 moments synchronously in a single package. Designed to customer requirements, from miniature to large industrial applications, with measurement capability from static, through quasi-static to high dynamic response. Extensively used in automotive and aerospace testing where complex kinematics exist, a fully populated transducer will permit the calculation of resultant force vectors.

Our design process covers all aspects of the transducer: force/moment ratings, package space, cable exits and types and connection requirements, and where required the instrumentation system including telemetry options.

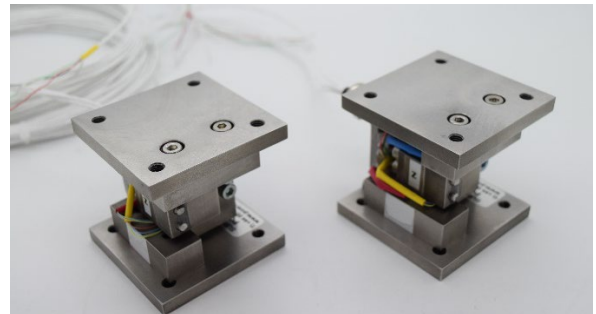
Cross talk is the main challenge/limitation that must be taken into consideration when designing a multi-axis load cell. Cross talk between axis is minimised by utilisation of precision machined measurement elements, further enhanced with compensation matrices where required.

Typical Specification MAL3

PARAMETER	VALUE	UNITS
Capacities Range	Custom – Fx, Fy, Fz	-
Rated Output	1.8 NOMINAL	mV/V/bridge
Non-Linearity	<1	±% of Rated Output
Cross Talk	<5	±% of Rated Output
Mechanical Limit SAFE OVERLOAD (STATIC)	150	% of Rated Output
Mechanical Limit ULTIMATE OVERLOAD (STATIC)	300	% of Rated Output
Excitation RECOMMENDED SUPPLY	10	Volts AC or DC
Excitation MAXIMUM SUPPLY	15	Volts AC or DC
Input Resistance NOMINAL LOAD	350 NOMINAL	Ω
Output Resistance NOMINAL LOAD	350 NOMINAL	Ω
Insulation Resistance	>1	MΩ
Construction Material	Stainless Steel	-
Cable	As required	-

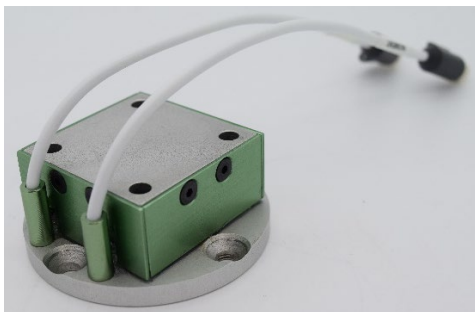
MAL3 Images

As its name suggests, the MAL3 is a load cell that offers tri-axial measurement, providing Fx, Fy and Fz axis readings.



MAL6 Images

The MAL6 is a load cell that offers six-axis measurement, providing Fx, Fy, Fz, Mx, My and Mz axis readings.



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