



# OptoForce - 3 Axis Square & Cylindrical Sensor Range

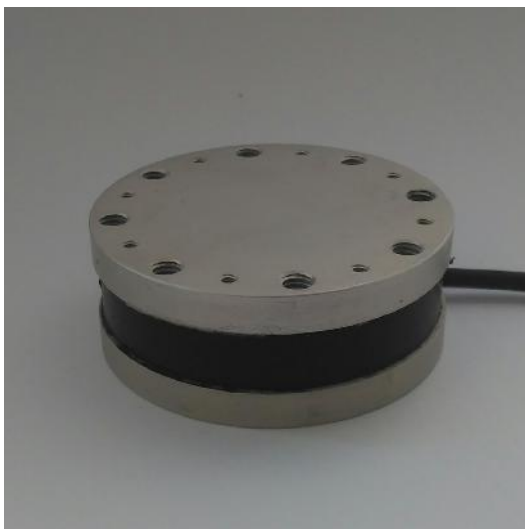
## Description

The 3 axis square and cylindrical sensors are built around a single 3D hemispherical sensor that is sandwiched between two plates of either a square or cylindrical format available in metal or ABS. The sensor is an optical based force sensing system, utilising four photodiodes to measure the amount of reflected light emitted by an LED, permitting measurement of the X,Y and Z forces acting upon the sensor. The hemispherical sensor is mounted to a PCB that is housed within a silicone dome which is completely void of air, providing superior protection to the sensor internals and subsequently allowing substantial overloading above and beyond the stated nominal capacities for each of the axis. The internal hemispherical sensor is mounted to the base plate and further layers of silicone are applied between the two plates, creating the visible external appearance.



*Square 3 Axis Sensor*

The technology is fully customisable with respect to size, material, shape and measurement range. More detailed technical data about the full standard product range is available in PDF format upon request.



*Cylindrical 3 Axis Sensor*

## Key Features

- Compression Force (Fz) Nominal Capacity Range = 100 N - 2000 N
- 25 mm or 32 mm square plates, or 46 mm diameter cylindrical plate.
- High percentage overloads ranging between 200% and 600% in the Fz axis.
- Operating temperatures ranging between -40° C to 85° C depending on the base material of the sensor.
- High Sensitivity and reliability.
- Dust proof, waterproof and robust.
- Fully customisable to suit the customers requirements