

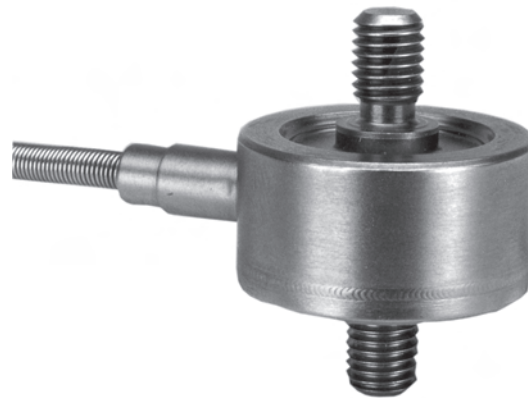
# Precision Load Cell Tension/Compression

**Model 8431**

**Model 8432 with overload stop**

Code:	8431 E
Manufacturer:	burster
Delivery:	ex stock/10 weeks
Warranty:	24 months

CAD data in 3D/2D available on  
**powerPARTS** by web2CAD  
Info: data sheet 80-CD-ROM-E



- Small dimensions
- Simple introduction of force via threaded pins
- Minimum lateral sensitivity
- Accuracy  $\leq 0.2\%$  F.S.
- Measuring ranges from 0 ... 2.5 N up 0 ... 40 kN
- Model 8432 with overload stop
- For tension and compression

## Application

Precise tension and compression force measurements can be done on limited space with the miniature load cells of series 8431 and 8432. High precision, various measuring ranges, comfortable load introduction via threaded pins with external winding and small dimensions offer a wide scope of applications in laboratory and production. The series is one of our most precise miniature load cells and at the same time quite non-sensitive to disturbances.

All options, typical only for larger load cells, are available with this miniature series such as hermetically sealed construction, overload protection and borings for pressure compensation when applied under vacuum.

The load cell is mounted firmly on the passive side to an even surface with the thread until stop, the active side is mounted up to the flange at the thread end.

The thread part of the active side is releasable for sensors up to measuring range  $\leq 0 \dots 500$  N. It should be screwed into the cylinder shaped body and fastened only by hand - do not use any tool to do so! This is valid also for the whole sensor mounting.

## Description

The force to be measured is introduced via the threaded pin on the active side and the bottom side of the cylinder shaped sensor body. The clinging to of the inner threading and the thread flange and bottom side should be assured. Two stabilizing membranes in the interior of the sensor reduce the disturbing influences of lateral force and torque to a minimum and guarantee a high long-term stability of the electrical and mechanical values.

The network for temperature compensation is positioned on a covered board as a thickened part of the connecting cable. The force limit is the greatest force in direction of the measurement axis that the sensor can endure if it features the overload protection. This protection is not suitable for using the sensor in the overload range oftentimes, neither for sudden loads. The load must be introduced to the center and in axial direction. Torsion and bending forces must be avoided.

