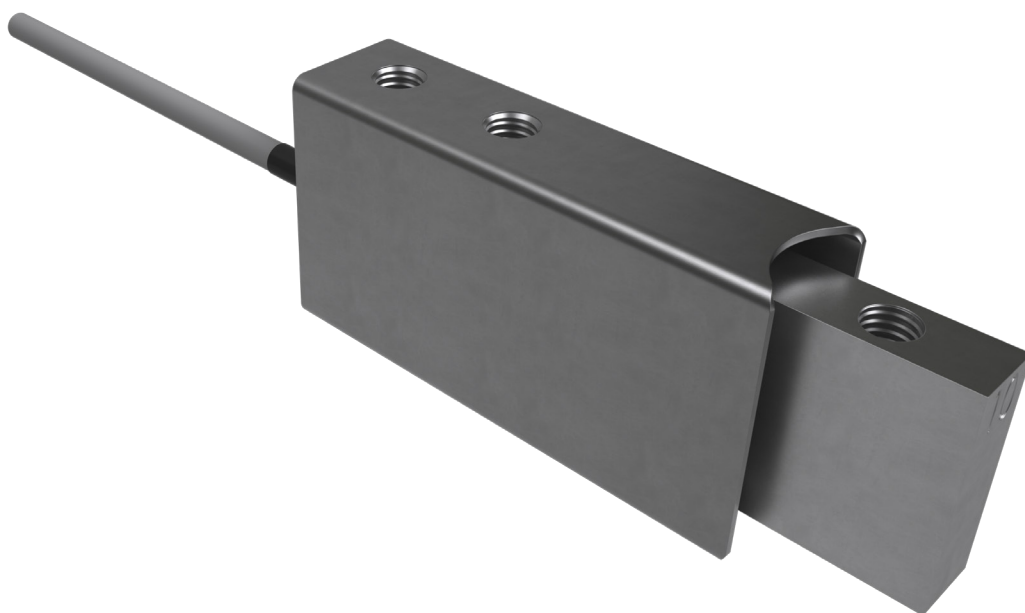


MC4 mini-beam load cell



product description

The MC4 is a high-performance, cost-effective miniature beam load cell designed for test and measurement applications where space is limited.

It features built-in overload protection via a machined physical stop in the sensor body's geometry. Available in 5lb and 10lb capacities, the MC4 offers accuracy within $\pm 0.03\%$ non-linearity of rated output. At rated output, it provides high-resolution performance with minimal deflection.

Constructed from aerospace-grade 2024 aluminium, all models incorporate Flintec-designed and manufactured strain gauges, ensuring higher output and superior thermal performance.

As an alternative to the MC4, the MC1 offers a wider range of capacities (5lb to 250lb) but without overload protection.

applications

Medical devices, test and measurement and general weighing applications.

accessories

A comprehensive range of electronic modules and accessories available

key features

Overload protection

Compact miniature beam design

High performance with $\pm 0.03\%$ non-linearity

High output of 3mV/V

Low profile with a height of 25.4mm (1 inch)

Cost effective solution

Durable protective cover

options

Range of cable lengths

Flying leads or cable connectors



RoHS
compliant



specifications

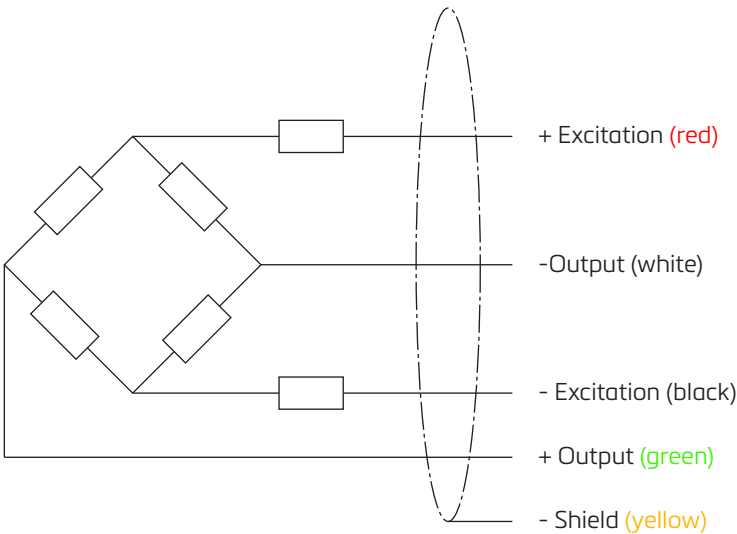
| | | | |
|--|--------------------|--------------------------------|------|
| Maximum capacity E _{max} | lb | 5 | 10 |
| Metric equivalents (1lb=0.45359kg) 2dp | kg | 2.27 | 4.54 |
| Non-linearity | %*RO | ±0.03 | |
| Hysteresis | %*RO | ±0.02 | |
| Non-repeatability | %*RO | ±0.01 | |
| Creep error (20 mins) | %*RO | ±0.025 | |
| Compensated temperature range | °C (°F) | -18 to 65 (0 to 150) | |
| Operating temperature range | °C (°F) | -54 to 93 (-65 to 200) | |
| Temperature effect on Output | %*RO / °C Max (°F) | ±0.00144 (±0.0008) | |
| Temperature effect on Zero | %*RO / °C Max (°F) | ±0.0027 (±0.0015) | |
| Rated output (Nominal) | mV/V | 3 | |
| Zero balace | %*RO | ±1 | |
| Bridge Resistance (Nominal) | Ω | 350 | |
| Excitation voltage | VDC or VAC Max | 15 | |
| Insulation resistance | MΩ | 5,000 | |
| Calibration | - | Compression | |
| Safe Overload | %*RO | ±1,000 | |
| Cable Length | m (ft) | 1.5 (5) | |
| Sensor Element | - | Aerospace-grade 2024 aluminium | |

wiring

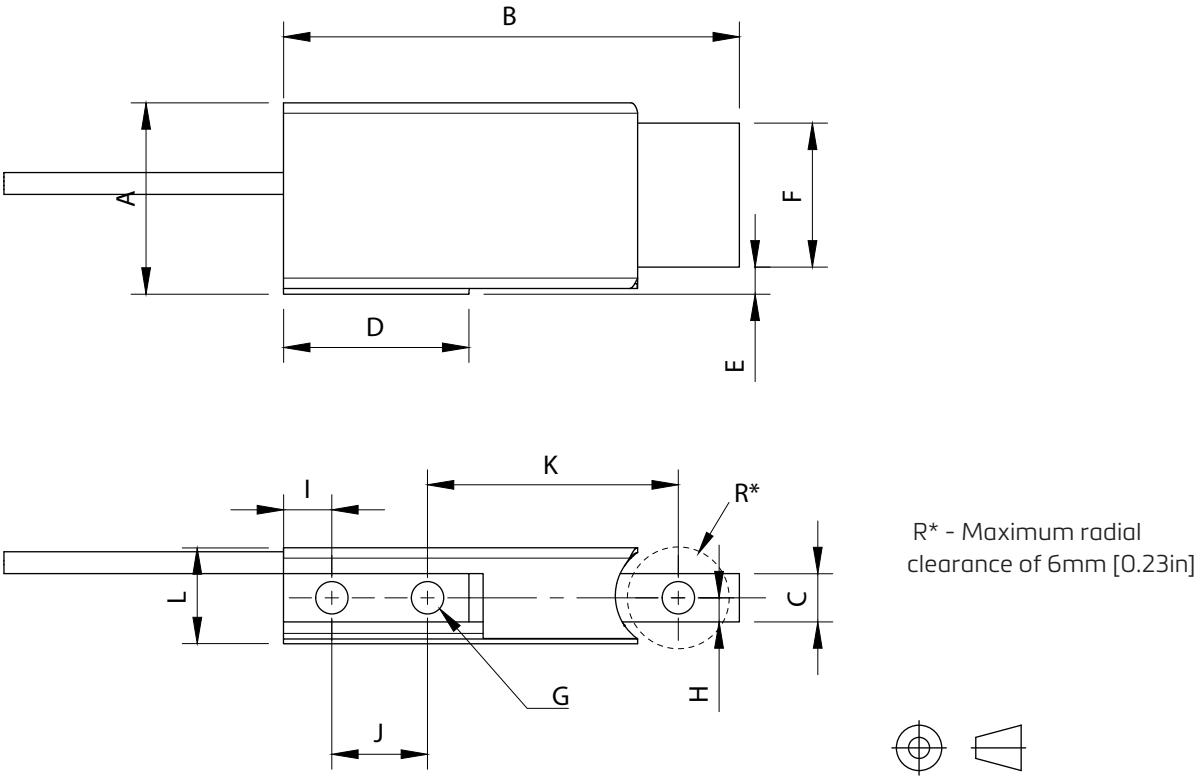
The sensor is provided with a 28AWG 4-conductor cable with a braided shield.

Standard cable jacket: PVC

Standard cable length: 1.5m (5ft)



product dimensions (mm)



dimensions table

| Model (lb) | Dimensions [mm (in)] | | | | | | | | | | | |
|---------------|----------------------|--------|--------|--------|--------|--------|----------|--------|--------|-------|--------|-------|
| | A | B | C | D | E | F | G (x3) | H | I | J | K | L |
| 5 | 25.40 | 60.50 | 6.4 | 24.6 | 3.6 | 19.1 | Ø 4.30 | 3.2 | 6.4 | 12.7 | 33.3 | 12.7 |
| 10 | (1.00) | (2.38) | (0.25) | (0.97) | (0.14) | (0.75) | (Ø 0.17) | (0.13) | (0.25) | (0.5) | (1.31) | (0.5) |

Specifications and dimensions are subject to change without notice.