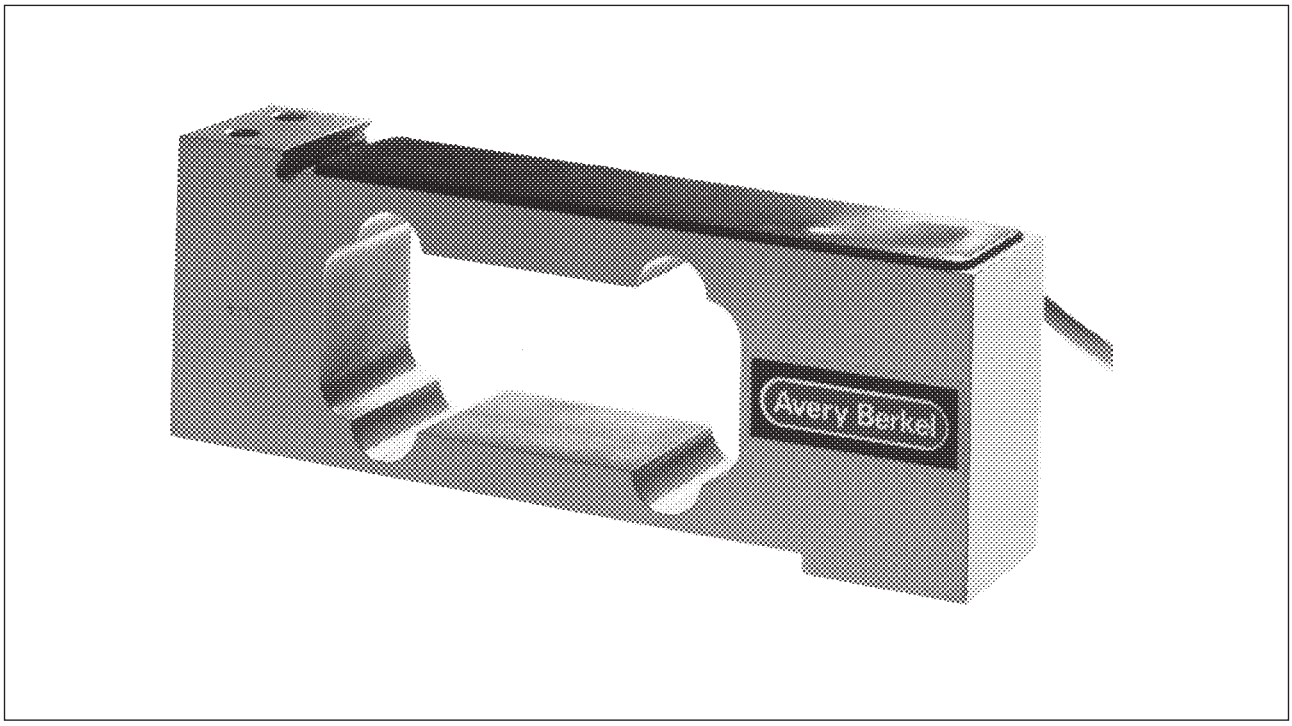
T109
super-precision load cell



Description

A precision corrosion resistant anodised aluminium alloy strain gauge load cell capable of directly supporting a weigh pan without flexure restraints.

Accuracy
3000d OIML R60.

Capacities (E_{max})
6 kg, 15 kg and 30 kg.

Each cell has an additional dead load capacity:

Capacity	Maximum Dead Load
6 kg	2 kg
15 kg	4 kg
30 kg	6 kg

Approvals
OIML R60 Certificate No. R60/1991-GB.99.05
Accuracy class C3.
$V_{min} = E_{max}/3529$

Applications

- Industrial scales.
- Conveyor weighing.

Special Features

- Exceptional accuracy.
- Excellent repeatability.
- Minimal creep and hysteresis error.
- Excellent performance on eccentrically placed loads.
- Low profile.
- Special version approved for use in hazardous areas to CENELEC standards.

Specification

Resistance to Dirt & Moisture

Sealed to BS EN 60529:1992 Classification IP65 and IP67.

Sealing
Encapsulated strain gauges and circuitry sealed with neoprene rubber cover.

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Specification

Excitation Electrical (Recommended)	10v, AC or DC
Excitation Electrical (Maximum)	17v, AC or DC
Terminal Resistance Input at 20°C	405 ohms Nominal
Terminal Resistance Output at 20°C	350 ohms Nominal
Rated Output	1 .6mV/V±10%
Zero Balance	± 5% of Rated Output
Combined Error*	± 0.02% of Rated Output
Repeatability	0.010% of Rated Output
30 min Creep and Zero return (OIML R60)	± 0.017% of Rated Output
Temperature Effect on Rated Output (-10°C to +40°)	± 0.001%/°C
Temperature Effect on Zero Load Output (-10°C to +40°C)	± 0.004%/°C
Overload Rating (without affecting Performance)	150% of Rated Output
Eccentric Load Error (1/3 Capacity 125 mm from Cell Centre Line)	± 0.017% of Rated Output
Maximum Platform Size (15 and 30 kg)	400 mm x 300 mm
Maximum Platform Size (6 kg)	300 mm x 300 mm
Insulation Resistance (Minimum)	5,000 megohms
Compensated Temperature Range	-10°C to +40°C
Deflection at Rated Load	0.5 mm Nominal

* *The combined error is the maximum deviation from the true value (straight line drawn from zero to full load) when either applying or removing the load.*

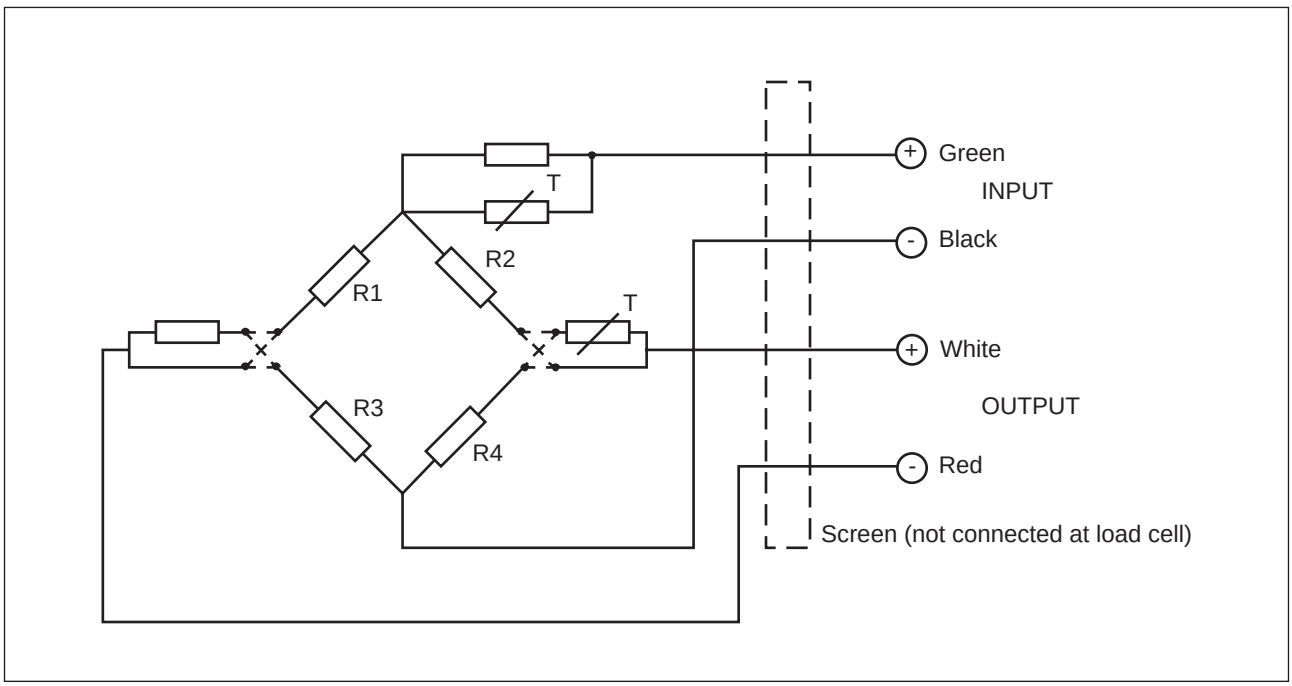
Electrical Terminatlon
4 core 7 x 0.2 mm screened cable with standard length of 1.5 metres.
Input: black -ve green +ve
Output: red -ve white +ve
Screen: Orange (not connected at load cell).

Hazardous Area Version

Special version approved for use in hazardous areas to CENELEC standards.

SCS certificate Ex92C2037.
EEx ia IIC T4.

$U_{max\ in}$	24 V
$I_{max\ in}$	447 mA
$W_{max\ in}$	1.3 W
L_{eq}	0
C_{eq}	0

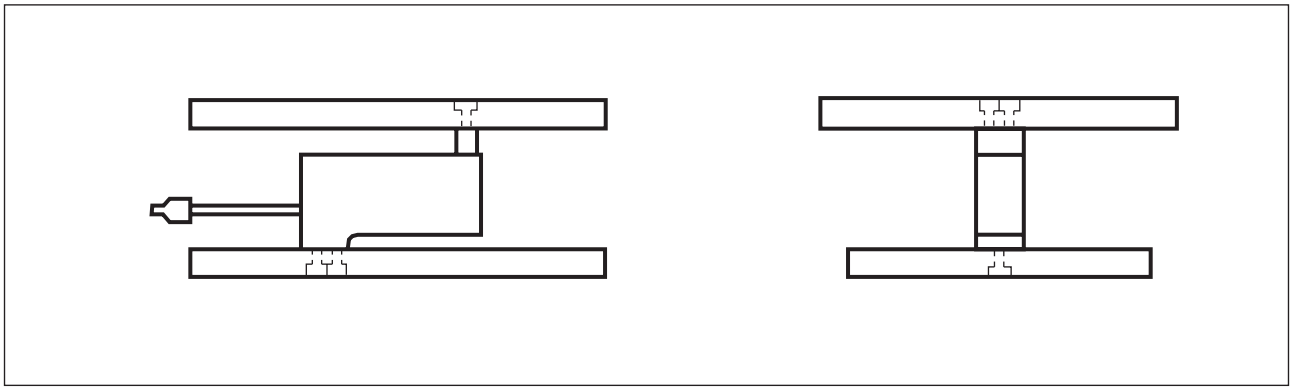


Circuit Diagram.

Applications

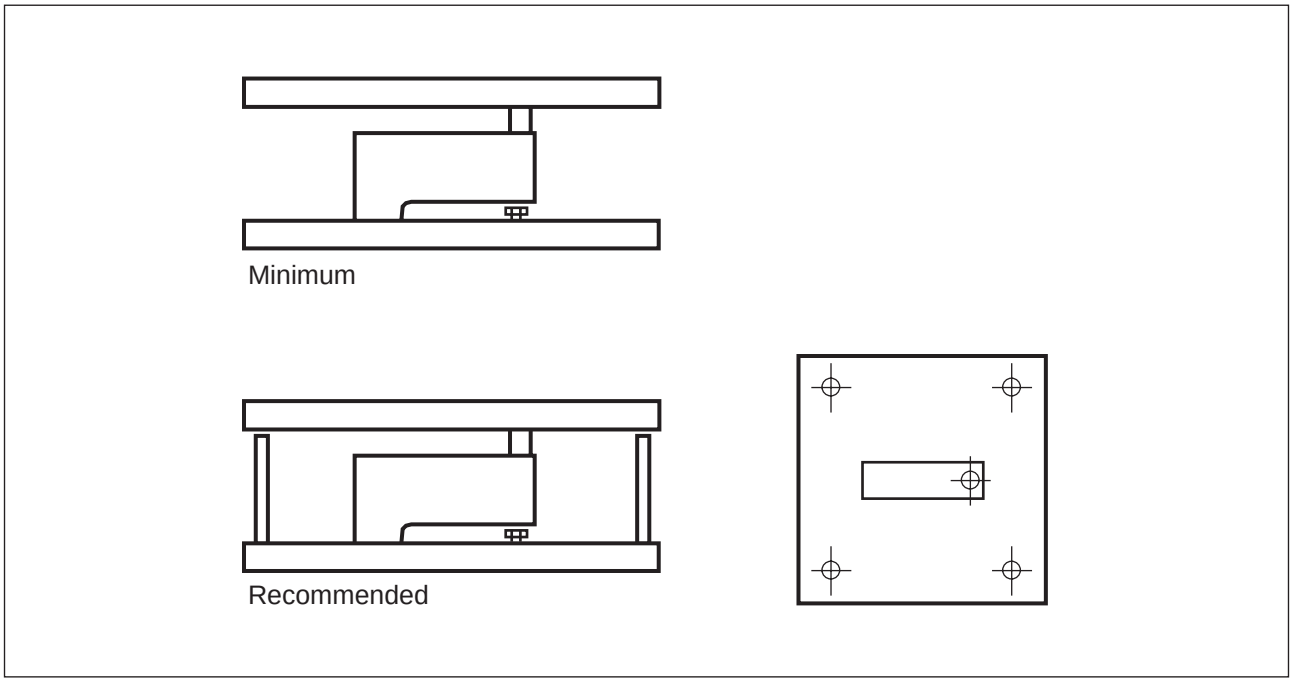
This load cell is designed to operate with the weigh pan mounted directly to it.
The base and weigh pan should be sufficiently rigid to prevent undue deflection when subjected to eccentric loads.

High tensile cap head screws are recommended for load cell mounting, with a minimum of 15 mm thread engagement and tightened to a torque of 10Nm.

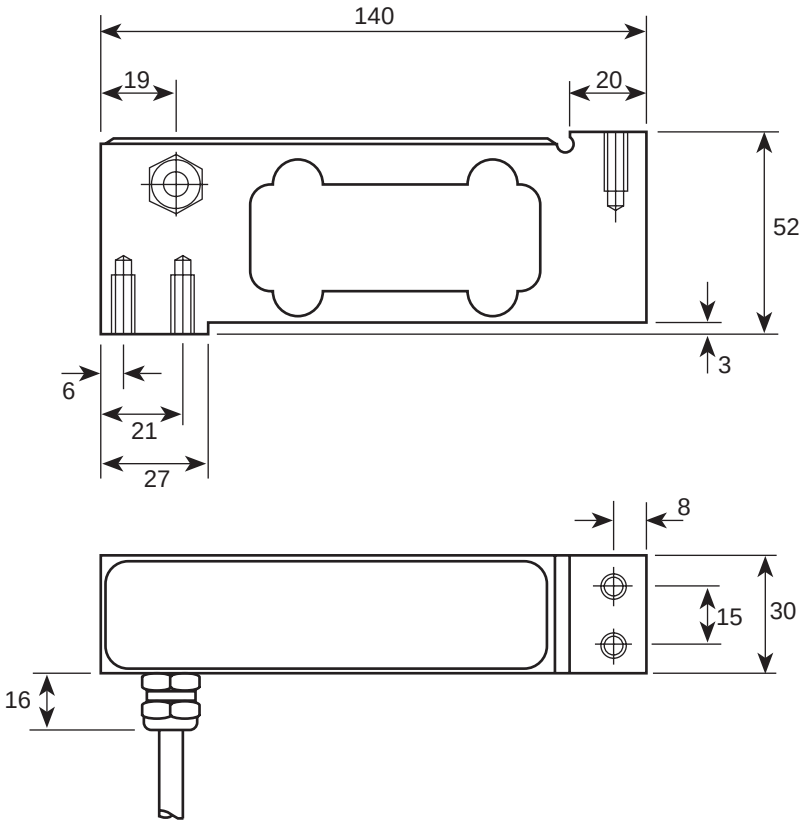


Overload Protection

To give the load cell overload protection, five stops are recommended. A single centre stop may be suitable in less demanding applications.



Dimensions



All threads : M6 x 20 deep

Your local distributor:

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