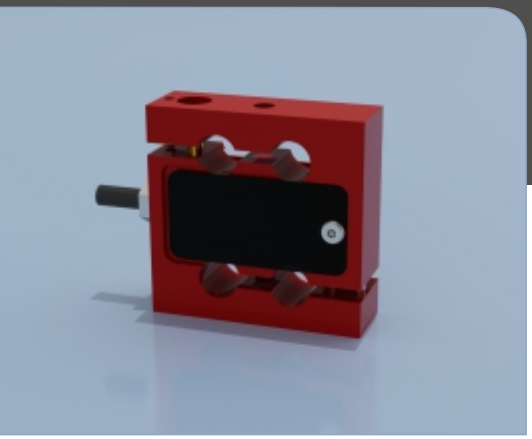
A United Kingdom company

**TYPE: STA-7**



# STA-7 Aluminium Alloy S Type Low Range Tension/Compression Load Cell

## Features

- Ranges: 1, 2, 5, 10, 25, 50kg
- High accuracy
- Aluminium alloy
- Weighs only 300g
- Integral overload stops on 1, 2 & 5kg versions

## Typical Applications

- Hanging scales
- Material test machines
- Engine/motor dynamometers
- Process weighing
- General force measurement

**AVAILABLE TO BUY ONLINE**
**Visit our website www.lcmsystems.com**
**(In-stock items usually ship within 48 hours)**

## Description

The STA-7 load cell series is ideal for measuring both tensile and compressive forces. The standard metric threads at each end of the load cell are designed to accept standard spherical seating rod-end bearings.

The STA-7 is suitable for many applications where a tension and compression load cell is required for high accuracy measurements, including material test machines, weighing and general force measurement. Tension and compression overload stops are supplied as standard on all ranges up to 5kg. This feature helps to protect the load cell against accidental damage up to 500% of the load cell range.

The STA-7 series can be supplied on its own or combined with our extensive range of instrumentation to provide a complete load monitoring system.

## Specification

| | |
|---|---|
| Rated load (kg/tonne) | 1, 2, 5, 10, 25, 50 |
| Nominal sensitivity | 2mV/V at rated load |
| Sensitivity tolerance | <±0.1% |
| Temperature effect on zero | ≤± 0.0025% per˚C |
| Temperature effect on sensitivity | ≤± 0.0021% per˚C |
| Linearity | <±0.03% of rated load |
| Hysteresis | <±0.03% of rated load |
| Repeatability | <±0.01% of rated load |
| Input resistance | 440Ω ±20Ω |
| Output resistance | 350Ω ±2Ω |
| Insulation resistance | >5GΩ @50VDC |
| Zero balance | ≤±1% of rated load |
| Recommended supply voltage | 10V (1-15V nominal, 18V maximum) |
| Service load | 120% |
| Maximum permissible load | 150% |
| Breaking load | >300% |
| Maximum transverse load | 50% |
| Maximum permissible dynamic load | 50% |
| Displacement at nominal load | ~0.3mm |
| Temperature nominal range | -10 to +40˚C |
| Service temperature | -20 to +70˚C |
| Storage temperature | -20 to +80˚C |
| Natural frequency | 1kg 220Hz; 2kg 500Hz; 5kg 750Hz; 10kg 1kHz; 25kg 1.5kHz; 50kg 2kHz |
| Environmental protection level | IP20 |
| Connection type | 3 metres PVC screened cable, via gland cable |
| Wiring connections | +supply: Red; -supply: Black; +signal: White; -signal: Yellow |

## Available Options

- Spherical seating rod end bearings
- Compression load button
- TEDS option (when used with TR150 handheld display)

LCM SYSTEMS
Solutions in Load Cell Technology

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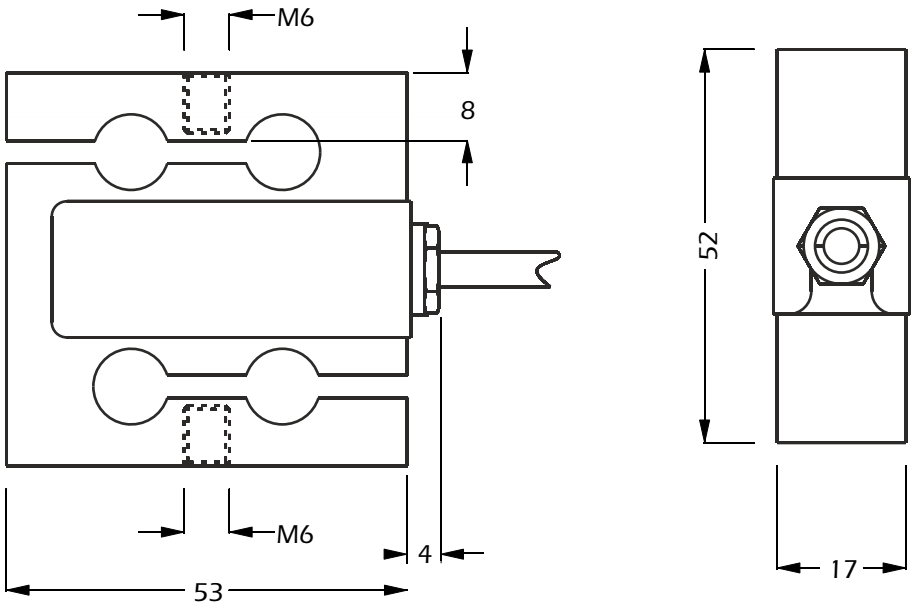
## Dimensions




All dimensions are in mm

| Rating (kgs) | Part Number | Weight (g) | Resolution (kgs) |
|---|---|---|---|
| 1 | STA-7-1 | 300 | 0.0002 |
| 2 | STA-7-2 | 300 | 0.0002 |
| 5 | STA-7-5 | 300 | 0.001 |
| 10 | STA-7-10 | 300 | 0.002 |
| 25 | STA-7-25 | 300 | 0.005 |
| 50 | STA-7-50 | 300 | 0.01 |

**Note: default calibration of these load cells will be in tension. If you require calibration in compression or both tension & compression, please state at time of order (additional charges will apply).**

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**Issue No. 3**
Issue date: 03/02/2021
APPROVED
(unapproved if printed)