Avery Weigh-Tronix

Avery Weigh-Tronix **Technology**

T302X
high performance load cell

Technical Specification

DESCRIPTION

General

A hermetically sealed load bearing unit operating in compression to produce an analogue output which is proportional to the applied load. Construction is 100% stainless steel, natural finish.

- New improved compact design
- Built to last - robust design
- Quality assured
- IP69K ideal for harsh environments
- Outstanding accuracy & performance
- Built-in lightning protection
- Retrofitable design
- Affordable
- Accuracy 5000d as standard
- 100% stainless steel construction
- 20 metre cable length
- ATEX version available

Available Capacities

- 22.5 tonne
- 45 tonne

Special Features

4x50GΩ Surge arresters fitted internally to provide protection against lightning damage.

Supplied ready-assembled with gaiters and load buttons for simple installation.

Unlike other canister loadcells on the market today, all T302X loadcells are supplied as standard with pre-greased top and bottom load buttons. This helps protect the load cell from harsh environments and helps to reduce load cell rotation.

Custom designed to obtain the optimum electrical balance properties required for high accuracy weighing applications in industrial environments.

Backward comparable – Being smaller means the new T302X can be used to directly replace old T302/ T302i with the aid of a retrofit adaptor plate to take up the gap between the base location and the bottom of the canister loadcell.

The T302X is also fully compatible with the 8701.

OIML R60 approved to 5000d and available in 22.5 tonne and 45 tonne capacities.

Fitted with a 20 metre 4 wire 7 x 0.12mm core cable that has an electrically, mechanically and chemically tough polyurethane sheathed cable for added protection.

APPLICATIONS

This transducer is designed to operate with loads applied through the central axis of the cell. For high accuracy weighing applications, the load cell is protected from side forces and/or off centre loads by mounting it as a double pendle (strut) unit. The T302X allows the weighbridge to travel the same distance as the T302/ T302i making this an ideal replacement. Tie bars or bumper stops will be required to help restrict horizontal movement of the load platform when in use. Due to its anti-rotation design, the T302x can be used either way up.

Retrofit existing Load cells

Existing 8701/T302/T302i loadcells in most installations, can be replaced by adding loadcell mounting spacer plates.

T302x loadcell can also be used to replace other manufacturer's existing canister loadcells without making any major modifcations.

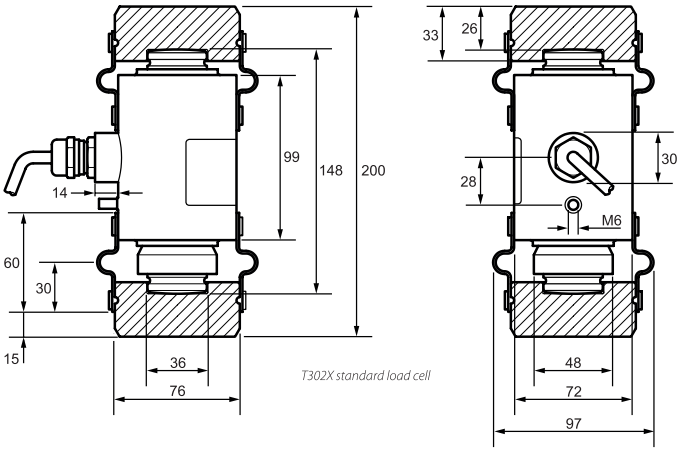
Hazardous Applications

A special version of the T302X is available for use within hazardous areas and comes standard with a 40 metre cable. This version is approved for use in gas and dust areas as listed below.

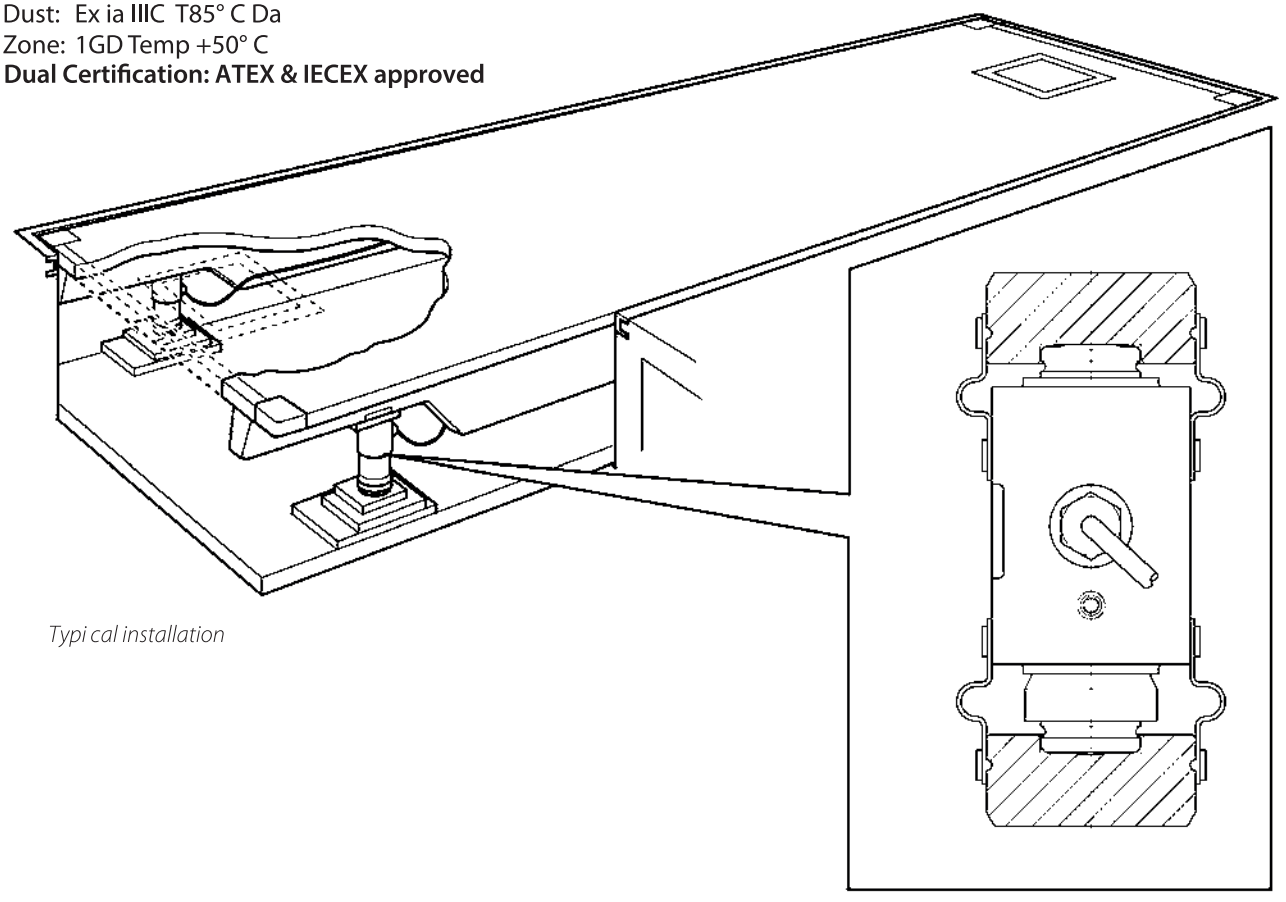
Classification:
Gas: Ex ia IIC T6 Ga -10° C ≤Ta≤ +50° C
Dust: Ex ia IIIC T85° C Da
Zone: 1GD Temp +50° C
Dual Certification: ATEX & IECEX approved

Typical Vehicle Weighing Applications
In the weighbridge application shown below, the loadcell assembly unit provides the cell with the optimum loading conditions needed for high accuracy vehicle weighing.

DIMENSIONS



T302X standard load cell



Typi cal installation

SPECIFICATIONS

Environment

Resistance to Dirt & Moisture
The load cell has been designed to exceed IP69K rating.

Electrical Disturbance
Immune to electrical disturbance, including RFI as detailed in EN45501:1992.

Storage Temperature Range
- 30° C to + 85° C

Operating Temperature Range
- 20° C to + 60° C

Calibrated Temperature Range
- 10° C to + 40° C

Approvals

OIML approval 5000d
Certificate number: R60/2000-GB1-09.10

Electrical

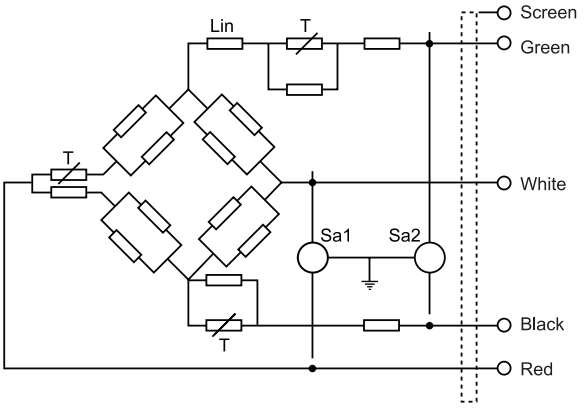
Electrical Termination
4 core 7 x 0.12 mm or equivalent.

Standard length, 20 metres. Hazardous area version, 40 metres.

Outer tinned copper sheath.

Input: Black - Green +

Out put: Red - White +



Hazardous Area Version

A special version approved for use in Hazardous areas to ATEX standards.

INTERTEK certificate number:
ITS 11 ATEX 7248X
IECEx ITS 11.0011X

Classification

Gas: Ex ia IIC T6 Ga -10° C ≤Ta≤ +50° C
Dust: Ex ia IIIC T85° C Da
Zone: 1GD Temp +50° C

Ui	24V
Ii	420 mA
Pi	1.3W (T1-T4)
Pi	1.25W (T5-T6)
Li	31µH
Ci	33nF

Excitation Electrical (Recommended)	10 - 12 v, AC or DC
Excitation Electrical (Maximum)	20 v, AC or DC
Terminal Resistance Input at 20° C	560 - 620
Terminal Resistance Output at 20° C	480 Nominal
Rated Output	1.75 mV/V 0.1% (at rated capacity)
Zero Balance	1% of Rated Output
Combined Error	0.013% of Rated Output
Repeatability	0.01% of Rated Output
30 min Creep and Zero Return (OIML R60)	0.01% of Rated Output
Temperature Effect on Rated Output (-10° C to + 40° C)	0.0008%/° C
Temperature Effect on Zero Balance (-10° C to + 40° C)	0.0009%/° C
Overload Rating (without affecting performance)	150% Rated Capacity
Overload Rating (Ultimate)	>225% Rated Capacity
Insulation Resistance (Minimum)	>5,000 M

AVERY

Accuracy The World Trusts

Avery India is a member of the Avery Weigh-Tronix family

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