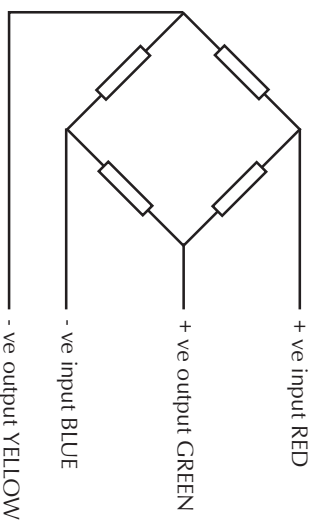


MasterMount® load cell weighing assembly

Specifications

	Load Cell Specifications	Units
Standard Load Ranges	5, 10, 15, 20	tonnes
Full Load Output	2.0 (±0.25%)	mV/V
Excitation (recommended)	10	V
Excitation (maximum)	18	V
Safe Service Load	150	%
Ultimate Load	300	%
Side Load (without accuracy degradation)	30	%
Maximum Operating Side Load	100	%
Combined Error	≤±0.05	%
Repeatability	≤±0.02	%
Output at Zero Load	≤±2.0	%
Input Resistance	785±20	Ω
Output Resistance	700±5	Ω
Operational Temperature Range	-25 to +80	°C
Compensated Temperature Range	-10 to +40	°C
Temperature Coefficient on Zero	≤±0.005	%/°C
Temperature Coefficient on Span	≤±0.003	%/°C
Insulation	>500 at 100 Vdc	M Ω
Environmental Protection	IP68	

All percentages are related to Full Rated Load



+ve input RED

+ve output GREEN

-ve input BLUE

-ve output YELLOW

Construction

Sensor element : High strength stainless steel type 17-4PH.

Mounting assembly: Alloy steel, auto-phoretic toughened surface.

Stainless steel is available as an option. Shafts: Corrosion resisting steel, Type 431 S29.

Electrical Connections

4-Core 16/0.2 mm, screened polyurethane cable.

Cable length 10 m up to 15,000 kg
20 m for 20,000 kg.

Screen not connected to load cell body.

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Avery Weigh-Tronix

MasterMount/11.05/Issue 1

MasterMount®

a unique, patented load cell assembly
for silo, tank & vessel weighing

- ◆ Load cell installation/removal under full load without jacks or dummies

- ◆ Major savings on installation time & cost

- ◆ Substantial lift-off prevention

- ◆ Allows for vessel expansion & contraction

- ◆ Low profile, stable design

- ◆ Stainless steel load cell available in ATEX approved versions

- ◆ Fully welded load cell construction to IP68

- ◆ Resistant to off-axis loading

- ◆ Auto-phoretic coated, toughened mount surface



Capacities 5 t to 20 t

The new MasterMount® builds on the unique, patented LeverMount® concept and extends this up to a capacity of 20 tonnes.

The MasterMount® has primarily been designed for easy, safe, simple installation and removal of the load cell without the aid of specialist tools, jacks or other equipment.

The special design also avoids the need to use dummy cells whilst any welding or other work is being undertaken on the vessel. The high specification, double-ended, stainless steel shear beam load cell incorporated in the MasterMount® is the same model used in the popular VC3500 'traditional' mount arrangement.

The load cell can also be specified with ATEX dust and gas certification for use in intrinsically safe areas.

Avery Weigh-Tronix



MasterMount®

a unique, patented load cell assembly for silo, tank & vessel weighing

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Uniqueness & Simplicity

A patented lever and cam mechanism enables the top plate of the loading assembly to be raised and lowered with a 180 degree turn, which can be accomplished easily, even at the maximum 20 tonne capacity, with just an M30 socket spanner and T-bar.

The stainless steel load cell is retained within the assembly by simple captivated pins, avoiding the use of fiddly retaining clips. Lift-off protection is provided through the mount itself, rather than the traditional design of through the load cell, which protects the load cell from reverse shock loading.

The MasterMount® assembly is manufactured from high strength, cast steel and has an 'auto-phoretic' corrosion resistant paint finish.

Once the MasterMount® loading assembly has been fitted under the vessel, installation and removal of the load cell can be accomplished in minutes, resulting in large savings in installation costs.

The MasterMount® is just one product in an extensive range of innovative Avery Weigh-Tronix load cell and mount arrangements with capacities from 20 kg up to 600 tonnes weighing and materials storage applications.

Features

- ◆ Purpose designed steel cast mount and stainless steel load cell
- ◆ Simple, robust two part casting supplied locked in position via transit bolts
- ◆ Stainless steel IP68, fully welded, double-ended shear beam load cell
- ◆ Special cam design raises and lowers the top plate and vessel
- ◆ Vessel can be raised or lowered under load
- ◆ No jacking screws or support pillars
- ◆ Substantial anti-lift facility through mount, not load cell
- ◆ Minimal difference between the working height and the installed height
- ◆ One design cover the range from 5,000 kg to 20,000 kg
- ◆ Load cell can be easily removed under load in situ

Benefits

- ◆ Ideal for process weighing applications that require an accurate, safe and cost effective solution
- ◆ Aesthetically pleasing design
- ◆ Suitable for use in the harshest of industrial environments
- ◆ No need for alternative lifting devices such as pad jacks
- ◆ Easier, quicker and safer than alternative mount arrangement
- ◆ No stripped threads or top plate interference
- ◆ Increased safety, with no potential damage to the load cell
- ◆ Reduces the need to adjust for pipe work without flexible connections
- ◆ Covers the majority of process weighing applications
- ◆ Much less down-time and reduced cost when compared to conventional mounts

Installation Details

