

# 650 SINGLE POINT LOAD CELL



## DESCRIPTION:

The 650 is an aluminium, single point load cell.

Single point load cells eliminate the need for flexures and levers thus greatly simplifying scale design and reducing cost.

The 650 load cell is suitable for use in a wide range of medium capacity platform scales, packaging machinery and general process weighing applications.

Full sealing ensures this product can be used in a variety of industrial applications.

This product meets the stringent Weights and Measures requirements throughout Europe.

## FEATURES:

- Certified to OIML R60, **3000d**
- Industry standard mounting configuration
- Platform size to 400x500 mm
- **CAPACITIES: 50 → 250kg**

# 650: SPECIFICATIONS

Capacity	$E_{max}$	kg	50, 100, 150, 200, 250	
Accuracy Class According to OIML R60 <sup>3</sup>				C3
Maximum Number of Verification Intervals	$n_{ic}$			3000
Minimum Verification Interval ( $v_{min} = E_{max}/Y$ )	$v_{min}$			$E_{max}/6000$
Minimum Verification Interval, <b>Type MR</b>	$v_{min}$			$E_{max}/10000$
Accuracy Class According to Type Designation <sup>1</sup>			CC	C3
Combined Error		%S	$\leq \pm 0.050$	$\leq \pm 0.023$
Hysteresis		%S	$\leq \pm 0.050$	$\leq \pm 0.017$
Non-Repeatability	$E_R$	%S	$\leq \pm 0.070$	$\leq \pm 0.035$
Creep Error (30 Minutes)		%S	$\leq \pm 0.060$	$\leq \pm 0.025$
Creep Error (20-30 Minutes)		%S	$\leq \pm 0.0200$	$\leq \pm 0.0053$
Minimum Dead Load Output Return	MDLOR	%S	$\leq \pm 0.050$	$\leq \pm 0.017$
Temperature Effect on Minimum Dead Load Output	$TC_o$	% $S_{nom}/5^{\circ}C$	$\leq \pm 0.0250$	$\leq \pm 0.0117$
Temperature Effect on Minimum Dead Load Output, <b>Type MR</b>	$TC_o$	% $S_{nom}/5^{\circ}C$		$\leq \pm 0.0070$
Temperature Effect on Sensitivity	$TC_s$	% $S/5^{\circ}C$	$\leq \pm 0.0250$	$\leq \pm 0.0088$
Eccentric Load Error <sup>2</sup> (Up to 160mm)		%Load/mm	$\leq \pm 0.00074$	$\leq \pm 0.00057$
Maximum Platform Size		mm	400x500	
Minimum Dead Load	$E_{min}$	% $E_{max}$	0	
Safe Load Limit	$E_{lim}$	% $E_{max}$	150	
Ultimate Load	$E_{ult}$	% $E_{max}$	300	
Maximum Safe Side Load		% $E_{max}$	100	
Deflection at $E_{max}$		mm	....	
Excitation Voltage		V	5 ... 15	
Maximum Excitation Voltage		V	18	
Rated Output	$S_{nom}$	mV/V	$2 \pm 0.2$	
Zero Balance		% $S_{nom}$	$\leq \pm 4$	
Input Resistance	$R_{in}$	$\Omega$	$400 \pm 20$	
Output Resistance	$R_{out}$	$\Omega$	$350 \pm 3.5$	
Insulation Resistance	$R_{ins}$	M $\Omega$	$\geq 5000$	
Compensated Temperature Range	$T_{cps}$	$^{\circ}C$	-10 ... +40	
Operating Temperature Range	$T_{opr}$	$^{\circ}C$	-30 ... +65	
Storage Temperature Range	$T_{srg}$	$^{\circ}C$	-40 ... +70	
Element Material			Aluminium	
Sealing (DIN 40.050 / EN 60.529)			IP63	
Recommended Torque on Fixation Bolts		Nm	....	

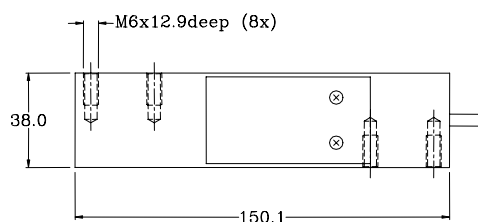
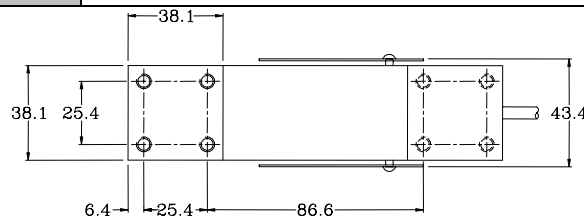
- 1 The specified accuracies apply for the compensated temperature range.
- 2 According to OIML R76:  $E = 1/3 E_{max}$  at 160mm from central load axis.

Correct mounting of the load cell is essential to ensure optimum performance. The maximum platform sizes given are those recommended to ensure that (a) the system meets Weights and Measures requirements and (b) damage is not done to the load cell through excessive torque. Overload stops should be set with loads placed **within the recommended** platform size. Further information is available on request

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### Cable specifications:

Cable length 1m  
 Excitation + Green  
 Excitation - Black  
 Output + Red  
 Output - White  
 Sense + Blue  
 Sense - Brown  
 Shield Transparent  
 Shield is not connected to the load cell body.

### Attention:

Dimensions in [mm] and inches  
 All dimension tolerances according to ISO 2768m, unless otherwise specified.

All specifications subject to change without notice.