IL Load Cell

Steel Single Point

Platform Size 1000x1000 mm



BLK=-EXC WHT=-SIG BRW=-SEN

GRN=+EXC RED=+SIG BLU=+SEN

Tank and Hoppers

IL provides the best weighing performance for smaller tanks and wall mounted hoppers. Due to its mounting schema it can be easily used for general bin weighing as well.

Off-Center Compensation

One load cell can be used to support a weighing platform and, due to the off-center load compensation, the IL will weigh within tolerance regardless of load application point.



IL Single Point Load Cell

The IL load cell features:

- OIML R60 C3 approved
- Off-center load compensated (R76)
- Up to 1000x1000 mm platform size
- IP67 protection class
- Nickel plated steel

The IL is the ideal solution for hopper and bin weighing due to high capacities and large possible platform sizes. The mounting schema allows for direct bolting to a wall. The variety of capacities allows for wide application range.



High Robustness

IL allows for 50% static overload without compromising the weighing performance. The nickel plated steel material provides good corrosion resistance suitable for most industrial applications.



IL Load Cell Specifications

| Parameter | | Unit of measure | Specification | | | | | |
|--|-----------------------|---------------------|---------------------------|-----------|----------------------|-------------|--------------------|--|
| Model No. | | | Ľ | | | | | |
| Rated capacity (R.C.) | | kg (lb, nominal) | 150 (331) | 250 (441) | 500 (1102) | 1000 (2204) | 2000 (4408) | |
| Rated output | | mV/V @R.C. | 2 ± 0.002 | | | | | |
| Zero load output | | %R.C. | | | ≤] | | | |
| Combined error 1), 2) | | %R.C. | | | ≤ 0.02 | | | |
| Repeatability error | | %A.L. ³⁾ | | | ≤ 0.01 | | | |
| Creep, 30 minute | | %A.L. | | | ≤ 0.02 | | | |
| Min. dead load output return (| DR), 30 min | %A.L. | | | ≤ 0.016 | | | |
| | Min. dead load output | %R.C./°C (/°F) | | | ≤ 0.002 (0.001) | | | |
| Temperature effect on | Sensitivity 2) | %A.L./°C (/°F) | | | ≤ 0.0009 (0.0005) | | | |
| | Compensated | °C (°F) | | -1 | 0 to +40 (+14 to +10 |)4) | | |
| Temperature range | Operating | °C (°F) | -40 to +65 (-40 to +150) | | | | | |
| | Safe storage | °C (°F) | -40 to +80 (-40 to +176) | | | | | |
| | OIML Cert. No. | 0(1) | R60/2000-NL-02.11 | | | | | |
| | European Cert. No. | | TC 6042 | | | | | |
| | Class | | C3 | | | | | |
| OIML / European approval 4) | nmax | | | | 3000 | | | |
| | Y | | 5000 | | | | | |
| | PLC | | | | 0.7 | | | |
| | Humidity symbol | | | | | | | |
| | | V AC/DC | None | | | | | |
| Excitation voltage | Recommended Max. | V AC/DC | 5~15 | | | | | |
| | - | | 20 | | | | | |
| Terminal resistance | Excitation | Ω | | | 387±4 | | | |
| | Output | Ω | 350±1 | | | | | |
| Insulation resistance @50VDC | | MΩ V AC | ≥ 5000 | | | | | |
| Breakdown voltage | 0.1.1.1 | V AC | | | > 500 | | | |
| | Spring element | | Nickel plated alloy steel | | | | | |
| Material | Enclosure | | None | | | | | |
| | Cable entry fitting | | 304 | | | | | |
| | Cable | | | | PVC | | | |
| Protection | Туре | | Potted | | | | | |
| | IP rating | | IP67 | | | | | |
| Load limit | Safe | %R.C. | | | 150 | | | |
| Ultimate | | %R.C. | 300 | | | | | |
| Safe dynamic load | | %R.C. | 70 | | | | | |
| Fatigue life | | cycles @R.C. | >1.000.000 | | | | | |
| Direction of loading | | | Compression | | | | | |
| Weight, nominal | | kg (lb) | 4.15 (9.2) | | | 5.4 (12) | | |
| Cable | Length | m (ff) | | | 5 (16.6) | | | |
| | Diameter | mm (in) | | | 5.8 (0.23) | | | |
| Barometric pressure effect on zero load output | | kg/kPa (lb/in.Hg) | None | | | | | |
| Safe side load | | %R.C. | 100 | | | | | |
| Overload protection | | | No | | | | | |
| | Grade | | | | 12.9 | | | |
| Mounting paraw | Size/thread | mm | | | M14 | | M16 | |
| Mounting screw | Engaged length | mm (in) | | | 25 ¹) | | | |
| | Torque, nominal | N.m (ff-lb) | 98 (72) 196 (| | | 196 (143) | | |
| Max. platter size | | cm x cm (in x in) | | | 80x80 (3.15x3.15) | | 100x100 (3.93x3.93 | |
| Off center load error @33%R.(| <u>).</u> | %A.L./cm (/in) | | | 0.0045 (0.011) | | 0.0035 (0.0087) | |

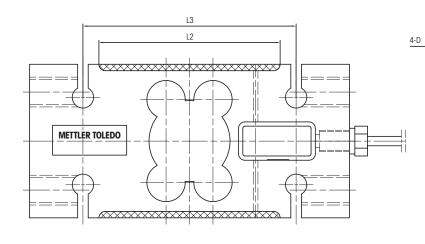
1) Error due to the combined effect of non-linearity and hysteresis

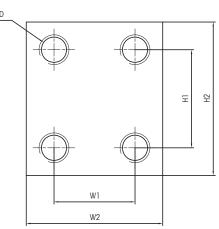
²⁾ Typical values only. The sum of errors due to combined error and temperature effect on sensitivity comply with the requirements of OIML R60 and NIST HB44. ³⁾ A.L. = Applied Load

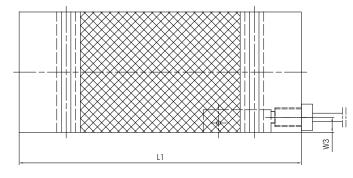
⁴⁾ See certificate for complete information



IL Load Cell Dimensional Drawings mm [inch]







| Capacity | Dimensions and locations | | | | | | | | | |
|--------------|--------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--|
| Capacity | D | H1 | H2 | 11 | L2 | L3 | W1 | W2 | W3 | |
| 150kg-1000kg | M14 | 46 | 72 | 15 0 | 85 | 100 | 38 | 64 | 8 | |
| [330-2204lb] | | [1.81] | [2.83] | [5.91] | [3.35] | [3.94] | [1.50] | [2.52] | [0.31] | |
| 2000kg | M16 | 55 | 80 | 150 | 85 | 100 | 42 | 72 | 8 | |
| [4409lb] | | [2.17] | [3.15] | [5.91] | [3.35] | [3.94] | [1.65] | [2.83] | [0.31] | |

IL Load Cell Order Information

| Description | Item No. |
|-----------------------------------|----------|
| Load cell, model no. IL-150kg-5M | 71209638 |
| Load cell, model no. IL-250kg-5M | 71209639 |
| Load cell, model no. IL-500kg-5M | 71209635 |
| Load cell, model no. IL-1000kg-5M | 71209640 |
| Load cell, model no. IL-2000kg-5M | 71209780 |

IL Load Cell Cable Colours

| Green | . Evoitation |
|---------------|--------------------------------|
| | + Excitation |
| Black | Excitation |
| White | + Signal |
| Red | — Signal |
| Yellow | + Sense |
| Blue | - Sense |
| Yellow (long) | Shield |

Full Connectivity

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