

Ring Torsion Load Cell



FEATURES

- Capacity range: 250kg to 60 ton
- Low profile, stainless steel construction
- Hermetically sealed, IP66/68
- Meets OIML R-60, 6000d
- Outputs are matched to ensure easy and accurate parallel connection of multiple load cells

OPTIONAL FEATURES

- ATEX certified versions are available for use in potentially explosive atmospheres
- Multi-interval and multiple-range versions are available

DESCRIPTION

The RLC is a low profile, high performance stainless steel ring torsion type load cell.

The fully welded construction and glass-to-metal cable-entry ensure that this product can be used successfully in harsh environments found in the food, chemical and allied process industries.

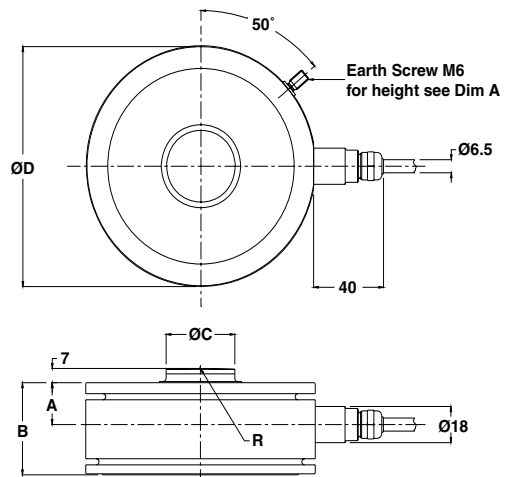
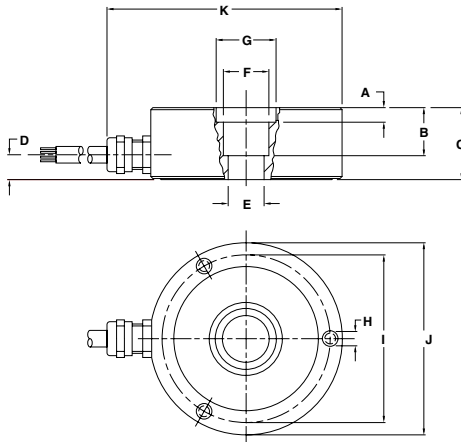
This product is suitable for small and medium platform scales, hoppers and process weighing.

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

APPLICATIONS

- Platform scales
- Belt scales
- Silo hopper weighing

OUTLINE DIMENSIONS in millimeters



| Capacity (t) | 0.25, 0.5, 1 | 2, 3.5, 5 | 10 |
|--------------|--------------------|-----------|-------|
| A | 1.0 | 6.0 | - |
| B | 15.0 | 20.0 | 14.8 |
| C | 25.0 | 30.0 | 35.0 |
| D | 9.5 | 8.5 | 10.0 |
| E | M10 | 15 H7 | Ø24.9 |
| F | Ø19 | Ø19 | Ø29.1 |
| G | Ø25 | Ø25 | - |
| H | M6 (3X120°) 8 Deep | | |
| I | Ø70 | Ø70 | Ø83 |
| J | Ø80 | Ø80 | Ø95 |
| K | 97.5 | 97.5 | 112.5 |

Cable specifications:

Cable length 3m for 0.25 - 1t, 5m for 3 - 10t, 10m for 28t, 15m for 60t

Excitation + Pink
 Excitation - Grey
 Output + Brown
 Output - White

| Capacity (t) | 28 | 60 |
|--------------|------|------|
| A | 21 | 28 |
| B | 46 | 62 |
| C | 35.9 | 47.9 |
| D | 120 | 140 |
| R | 400 | 600 |

Cable screen is connected to load cell body. For capacities 28 & 60 ton cable screen is not connected to body.



SPECIFICATIONS

| PARAMETER | VALUE | | | | UNIT |
|---|--|----------|-------------------|-----------------|-----------------|
| Standard capacities (E_{max}) | 0.25, 0.5, 1, 2, 3.5, 5, 10, 28, 60 | | | | ton |
| Accuracy class according to OIML / NTEP | NTEP IIII | D3 | C3*** | C6** | |
| Maximum no. of verification intervals (n_{ic}) | 10000 | | 3000 | 6000 | |
| Minimum verification interval ($V_{min}=E_{max}/Y$) | | | $E_{max}/10000$ | $E_{max}/15000$ | |
| Minimum verification interval type MR | | | $E_{max}/20000^*$ | $E_{max}/28000$ | |
| Rated output (=S) | 2 (1.75 for 0.25t, 2.05 for 10t) | | | | mV/V |
| Output accuracy for multiple LC systems | 0.02 | | | | ±%mV/V |
| Zero balance | 1.0 | | | | ±% FSO |
| Combined error | 0.0200 | 0.0300 | 0.0230 | 0.0115 | ±% FSO |
| Creep error (30 minutes) | | | 0.0245 | 0.0123 | ±% FSO |
| Temperature effect on zero | (0.0010) | (0.0010) | 0.0070 | 0.0045 | ±% FSO/5°C (°F) |
| Temperature effect on sensitivity (output) | (0.0008) | (0.0008) | 0.0050 | 0.0025 | ±% FSO/5°C (°F) |
| Minimum dead load | 0 | | | | % E_{max} |
| Maximum safe over load | 150 | | | | % E_{max} |
| Ultimate over load | 300 | | | | % E_{max} |
| Maximum safe side load | 100% up to 10 ton 50% for 28 & 60 ton | | | | % E_{max} |
| Deflection at E_{max} | 0.12 - 0.20 | | | | mm |
| Excitation voltage | 5 to 15 | | | | V |
| Maximum excitation voltage | 30 | | | | V |
| Input resistance | 1110±50 (1100±50 for 0.25t & 10t) 1075±100 for 28t 1350±100 for 60t | | | | Ω |
| Output resistance | 1025±25 (1025±50 for 0.25t & 10t) 930±0.5 for 28t 1175±0.5 for 60t | | | | Ω |
| Insulation resistance | ≥5000 (20 for 28 & 60 ton) | | | | MΩ |
| Compensated temperature range | -10 to +40 | | | | °C |
| Operating temperature range | -30 to +70 | | | | °C |
| Storage temperature range | -50 to +80 | | | | °C |
| Element material (DIN) | Stainless steel 1.4542 | | | | |
| Sealing (DIN 40.050 / EN60.529) | IP66 and IP68 | | | | |
| Recommended torque on fixation bolts | 12 to 14 | | | | N*m |
| ATEX opt. for potent. explosive atmospheres | II2G EEx ib IIC T4/T6, II2D, IIID T70 II3G nA II T4/T6 | | | | |

* Capacities of 28 & 60 ton $E_{max}/15,000$

** 250kg and 10 ton capacities are approved to OIML C3 only
Maximum application range for 0.5t is $0.75 \cdot E_{max}$

*** The following accuracy classes are available (from 0.5t to 10t): C3MI6 and C3MI7.5
Minimum dead load output return is $\square E_{max}/6000$ & $\square E_{max}/7500$ respectively.

FSO-Full Scale Output

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