

HIRCDM Advantage® Dynamic Rocker Load Points

HIRCDM Mounts with HIRCH04 Sensors



HIRCDM Dynamic Mounts are rocker load point systems specially designed for hopper and tank weighing. Easy to install by bolting or welding, they have a low profile, and provide lift off protection. Each rocker load point consists of either alloy or stainless steel mounting hardware and a stainless steel mV/V & mV/V/ohm matched load cell sensor with true hermetic sealing, Hardy's exclusive C2[®] calibration, a ¹/₄ NPT conduit adapter and 30 feet of cable.

Each assembly provides built-in checking with check links, lift off protection and is specifically designed to eliminate the effects of unwanted forces to provide exceptional accuracy. A grounding strap, fixed color code wiring label and installation manual are provided with each load point. The HIRCH04 ADVANTAGE[®] load cell sensor has an IP rating of IP68/IP69K and comes in the following standard capacities: 16.5, 33, and 50Klbs. The HIRCH03 sensor is certified to NTEP Class III and is available in 66 and 88Klbs capacities.

Accuracy

- Self-centering rocker design maintains alignment under shear forces
- Precision sensor (combined error 0.02%-0.05% rated output) up to 88Klbs

Safety

- Integral checklinks provide safety against sheer forces even with substantial vibration
- True glass-to-metal hermetic sealing delivers the ultimate protection to sensors during washdown (IP68/IP69K)
- C2® calibration reduces the risk of accidents or contamination from test weights

Easy Maintainence

- Replace load cells with minimal tank jacking. Removable load cups enable sensors to slide in and out
- Matched mV/V/ohm load cells are easy to replace without recalibration
- C2[®] calibration is quicker and easier than traditional load cell calibration

Key Features

- Mounts are available in stainless or alloy steel to deliver the best combination of price and performance
- FM Certified load cell for intrinsically safe applications

All information and drawings on these pages are subject to change without notice. Consult website for latest specifications.

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HIRCH04/03 ADVANTAGE® Load Sensors

| SPECIFICATIONS | Units | HI RCH04 (16.5 to 50 Kibs)/HI RCH03 (66 to 88Kibs) |
|---|----------|--|
| Maximum Capacity (Emax) | klbs | 16.5 / 33 / 50 / 66 / 88 |
| Max number verification intervals | nmax | 3000 |
| Min load cell verification interval | vmin | Emax / 15000 |
| Combined Error | %R0 | ± 0.0200 |
| Non-Linearity | %R0 | ± 0.0166 |
| Hysteresis | %R0 | ± 0.0166 |
| Creep error (30 Minutes) / DR | %R0 | ± 0.0166 |
| Temperature effect on min dead load ouput | %R0/10°C | ± 0.0093 |
| Temperature effect on sensitivity | %R0/10°C | ± 0.0100 |
| Non-Repeatability | %R0 | Not Specified |
| Rated Output (RO) | mV/V | 2 ± 0.1% |
| Calibration in mV/V/ Ω | | Matched |
| Zero Balance | %RO | ± 5 |
| Exictation Voltage | ٧ | 5-15 |
| Input Resistance | Ω | 1150 ± 50 |
| Output Resistance | Ω | 1100 ± 2 |
| Insulation resistance (100VDC) | MΩ | ≥ 5000 |
| Load Cell Safe Load Limit | %Emax | 200 |
| Load Cell Ultimate Load Limit | %Emax | 300 |
| Load Cell Safe Side Load | %Emax | N/A |
| Compensated Temperature Range | °C | -10±40 |
| Operating Temperature Range | °C | -40±80 |
| Load Cell Material | | Stainless Steel 17-4PH (1.4548) |
| Sealing | | Complete Hermetic Sealing - Glass to Metal Header |
| Protection according to EN 60 529 | | IP68 (up to 2 m water depth)/IP69k |
| Cable Length | ft | 30 ft |
| Hazardous Certification | | IS Class 1,2,3 Div 1, NI Class 1,2,3 Div 2 |
| Legal For Trade | | NTEP (HIRCH03 only) |
| Warranty | Years | Тwo |

HIRCDM Mount and HIRCH04/03 Ordering Information

| Capacity | | Mount Model # | Model# | | | |
|----------|-----|------------------------|---------------|--|--|--|
| lbs | mt | FIXED Assy | Load Sensor | | | |
| 16.5K | 7.5 | HIRDCMS-16.5KLB-50KLB* | HIRCH04-16.5K | | | |
| 33K | 15 | HIRDCMS-16.5KLB-50KLB* | HIRCH04-33K | | | |
| 50K | 23 | HIRDCMS-16.5KLB-50KLB* | HIRCH04-50K | | | |
| 66K | 30 | HIRDCMS-66KLB* | HIRCH03-66K | | | |
| 88K | 40 | HIRDCMS-88KLB* | HIRCH03-88K | | | |

Mounts and Load Sensors Sold Separately

* _ AS for Alloy Steel and SS for Stainless Steel

C2 WIRE COLOR CODE FLAG LABEL IS FOUND APPROX. 10 IN. FROM END OF SENSOR'S CABLE

| EXCITATION + | RED |
|--------------|--------|
| EXCITATION – | BLACK |
| SIGNAL + | GREEN |
| SIGNAL – | WHITE |
| C2+ | GRAY |
| C2 – | VIOLET |
| SHIELD | YELLOW |

WARNING: NEVER cut load sensor cable CABLE LENGTH: 30 FEET OF CABLE



HIRCDM Mounts

HRCDM 16.5-50Klbs





4.13[105.00]

HI RCH04 Series ADVANTAGE® Load Sensor





HI RCH04 Series 16.5 - 50Klbs

HI RCH03 Series

66 - 88Klbs

HI RCH03 ADVANTAGE® Load Sensor

DIMENSIONS- INCHES [MM]

| MODEL | CAPACITY | 111 | 112 | 112 | 114 | 115 | 116 | 117 | 110 | | ana | C | | CABLE LENGTH |
|--------------|-------------|-------|-------|-------|-------|------|--------|-------|-------|-------|-------|--------|-----------|---------------|
| NUMBER | LBS [T] | | пг | ΠĴ | Π4 | пэ | по | п/ | по | וטש | ØDZ | S MAX* | | FT [M] |
| HI RCH03-66K | 66KLB [30T] | 5.512 | 2.756 | 1.024 | 1.102 | .512 | .256 | 1.535 | 3.307 | 1.535 | 3.189 | .413 | 7,644 LBS | 2057 (0.114) |
| | | [140] | [70] | [26] | [28] | [13] | [6.5] | [39] | [84] | [39] | [81] | [10.5] | [34KN] | 50FT [9.1W] |
| HI RCH03-88K | 88KLB [40T] | 5.906 | 2.953 | 1.220 | 1.299 | .512 | .461 | 1.535 | 3.307 | 1.535 | 3.189 | .394 | 8,318 LBS | 2057 [0 114] |
| | | [150] | [75] | [31] | [33] | [13] | [11.7] | [39] | [84] | [39] | [81] | [10] | [37KN] | 50FT [9.11VI] |

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(*) S MAX = MAXIMUM LATERAL DISPLACEMENT OF LOAD INTRODUCTION. RECOMMENDED GAP 0.118 TO 0.197 [3.0 TO 5.0]. (**) RF = RESTORING FORCE AT S MAX AND E MAX.







TOLERANCES: +0.015 [0.4] UNLESS OTHERWISE STATED

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