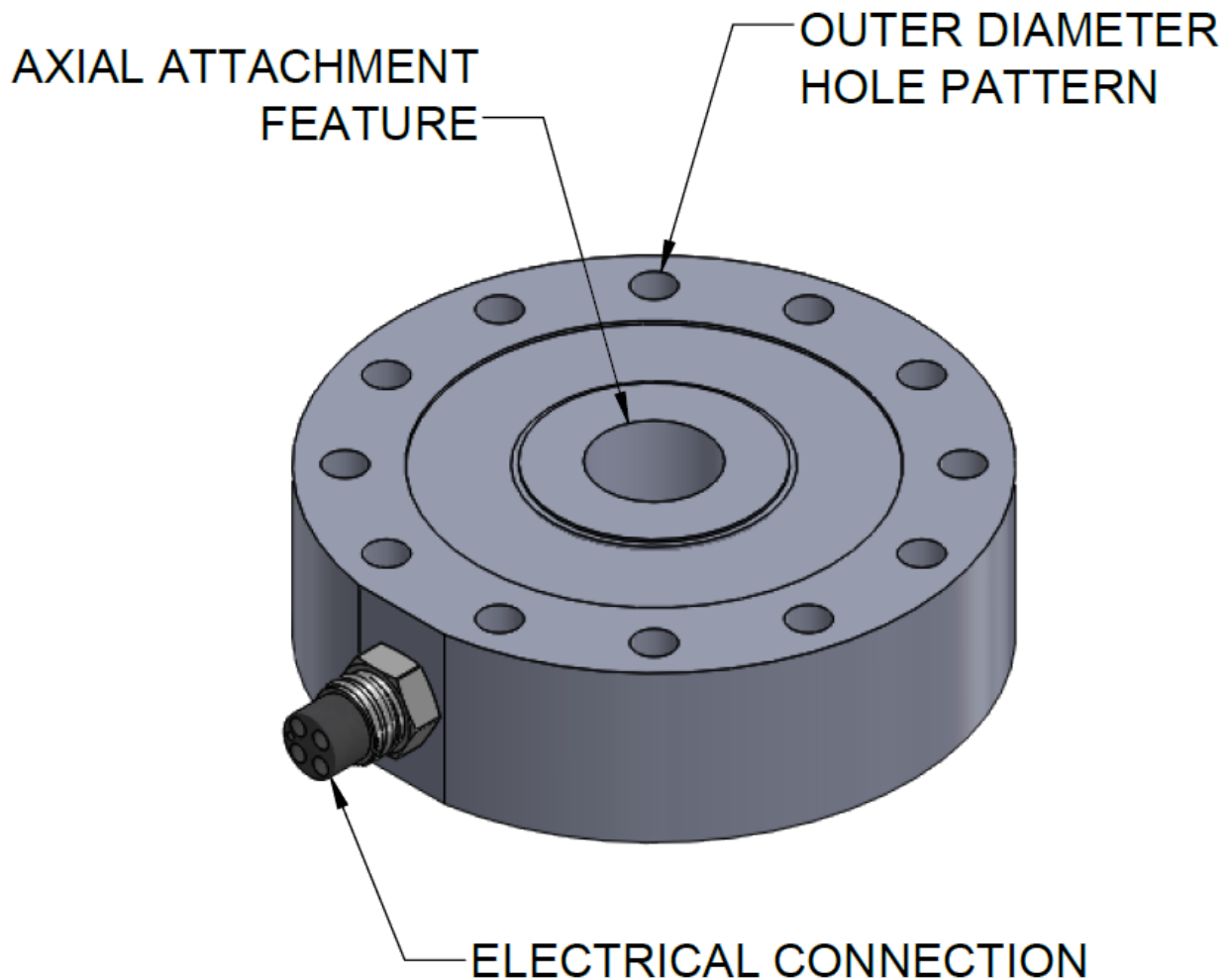




SUBMERSIBLE PANCAKE LOAD CELLS

Sensing Systems manufactures submersible pancake style load cells designed to measure compression/tension forces at depths ranging from a few feet underwater all the way to 23,000 feet submerged. Standard designs exist for 1,000 lbf up to 200,000 lbf. For capacities beyond 200,000 lbf, please contact Sensing Systems directly with your request and general requirements. An applications engineer will provide a design specific to your application. Sensing Systems has the capacity to design, manufacture, and test submersible load cells up to 5,000,000 lbf capacity.



APPLICATIONS

- Measure in-line anchor or mooring tension forces
- Monitor submersible equipment attachment forces

**SUBMERSIBLE PANCAKE LOAD CELLS**
Standard Product Specifications

| | |
|--|--|
| Full Scale Capacity (FS) | 1,000 to 200,000+ lbf |
| Material ¹ | 17-4 PH Stainless Steel |
| Nominal Output Signal at Capacity (FS) | 2.0 mV/V |
| Optional Amplified Output ² | 0 to 5 VDC, 0 to 10 VDC, 4 to 20 mA |
| Combined Error | ≤ 0.25% of FS |
| Zero Balance Signal | ≤ 1.00% of FS |
| Input & Output Resistance ³ | 350 Ω Nominal |
| Excitation Voltage | 2 to 24 V |
| Insulation to Ground | > 5 GΩ |
| Safe Overload | 150% of FS |
| Ultimate Overload | 300% of FS |
| Operating Depth | Customer Specified |
| Sensor Material | 17-4 Stainless Steel |
| Electrical Connection ⁴ | MCBH-4F Bulkhead Wet Mate Connector |
| Calibration | NIST Traceable per ASTM E4, Certificate Provided |

¹ Titanium, Aluminum, and others available

² Requires additional internal or external signal conditioning amplifier

³ Options ranging from 120 Ω to 10,000 Ω available

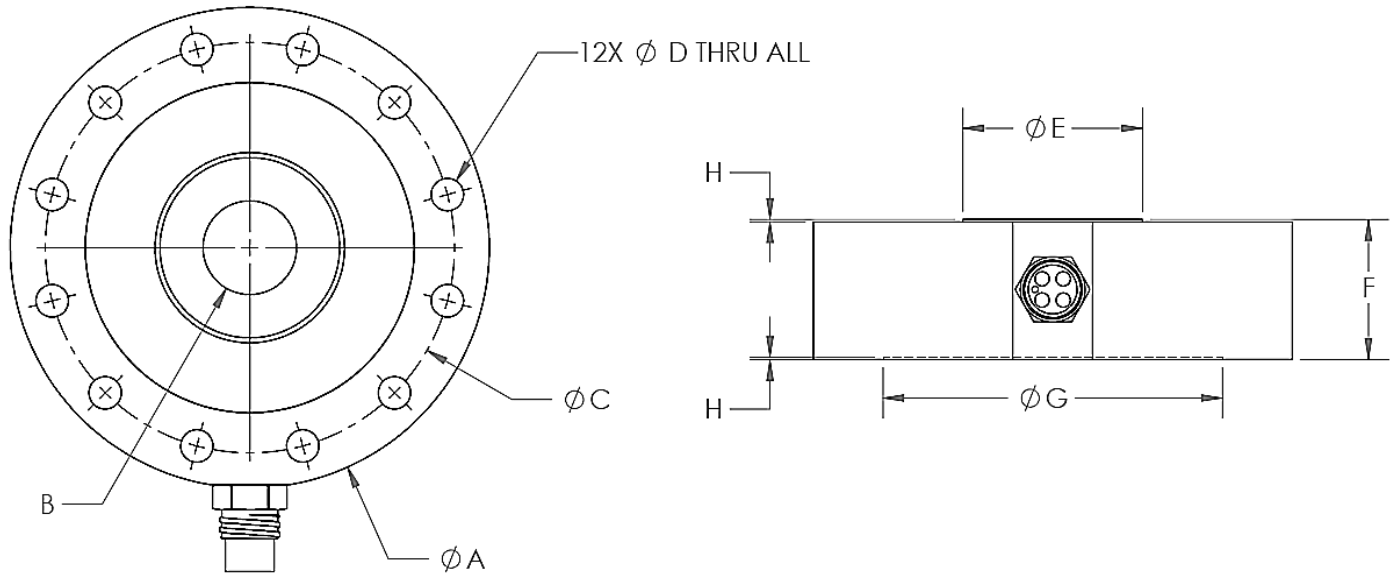
⁴ Optional custom connector or integral cable available

Sensing Systems manufactures all submersible load cells to order and can customize almost all aspects of the product to meet the exact requirements of a specific application. If you are interested in discussing your application with an applications engineer, please contact us directly at info@sensing-systems.com or (508) 992-0872.



SUBMERSIBLE PANCAKE LOAD CELLS

Standard Product Outline Geometry - 1,000 lbf to 200,000 lbf



| Dimensions (inch) | Full Scale Capacity (lbf) | | | | | |
|-------------------------------|---------------------------|-----------|-------------|-------------|-------------|------------|
| | 1 to 2K | 5 to 10K | 25 to 50K | 70K | 100K | 200K |
| A - Overall Dia. | 4.00 | 4.50 | 6.00 | 6.5 | 8.00 | 11.00 |
| B - Axial Thread | 5/8" - 18 | 3/4" - 12 | 1-1/4" - 12 | 1-1/2" - 12 | 1-3/4" - 12 | 2-3/4" - 8 |
| C - Mounting Hole Circle Dia. | 3.75 | 3.75 | 5.13 | 5.38 | 6.50 | 9.00 |
| D - Mounting Hole Dia. | 0.28 | 0.28 | 0.41 | 0.41 | 0.53 | 0.78 |
| E - Axial Hub Dia. | 1.25 | 1.25 | 2.25 | 2.75 | 3.00 | 4.50 |
| F - Overall Height | 1.40 | 1.70 | 1.75 | 2.50 | 2.50 | 3.00 |
| G - Outerring Support Dia. | 3.50 | 3.00 | 4.25 | 4.38 | 5.00 | 7.00 |
| H - Loading Clearance Height | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |