

# Interface

# Global Standard

## Force Measurement



Interface Global Standard v1.0 06-09-2023



The World Leader in Force Measurement Solutions™



**Global Standard Force Measurement®**

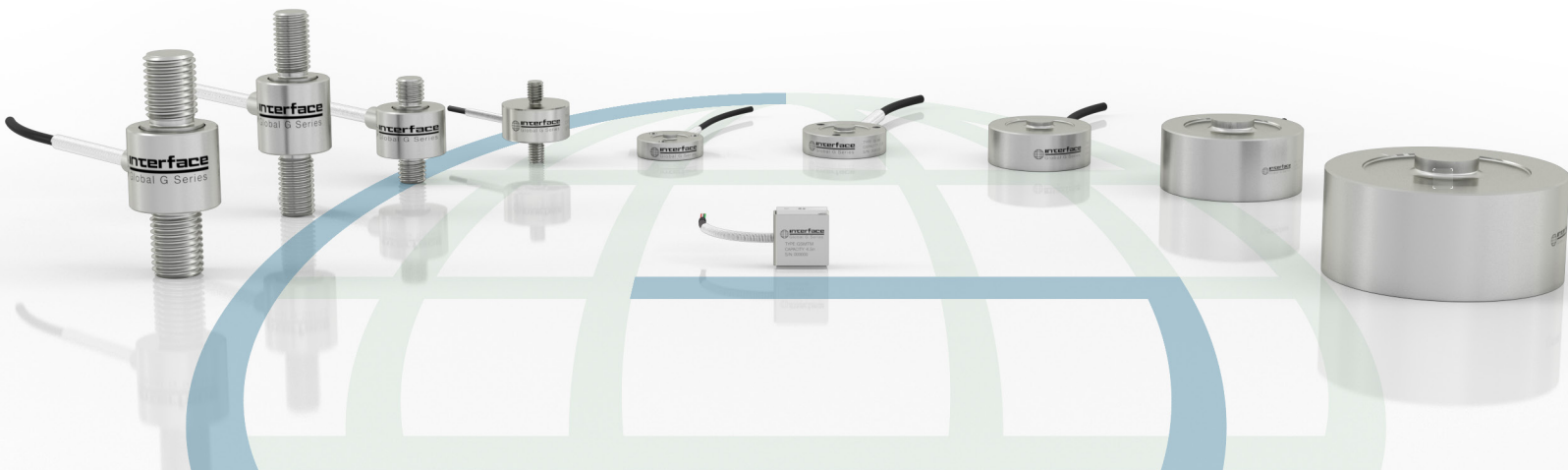
## Metric Design

Interface, Inc., is represented by a large network of distributors outside of the US. They have requested products that are designed and manufactured in metric, with the precision and accuracy of all Interface products. These products are designed for an international buyer and user. All specifications are in metric specs, a global standard for force measurement products.

## Manufacture Near Market

Distributors of Interface have direct competition in market for force measurement solutions. Competitors are manufacturing in regions outside of US, soaking up short-term demands.

Interface Global provides a benefit of near market production, shortening the time and cost to receive quality Interface products. Interface Global presents a new opportunity to brand solutions for a global audience.

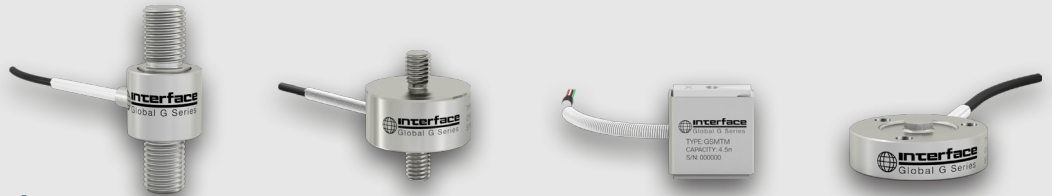


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# Series

GLOBAL STANDARD FORCE MEASUREMENT®



## GSMTM Series Sub-Miniature S-Type Load Cell

The GSMTM Miniature S-Type Load Cell is a bi-directional Aluminum strain gauge based transducer with high performance and built-in temperature compensation. This design provides better than  $\pm 0.1\%$  (full scale) non-linearity and includes overload protection in both tension and compression directions.

All GSMTM Series Sub-Miniature S-Type Load Cells are provided with a #32 AWG 4-conductor braided shielded cable with an outer jacket of 2.2 mm diameter, 2m long, with no connection between the shield and the sensor body. For additional protection, the cable is contained within a stainless steel spring for strain relief purposes for the first 25 mm.



**GSMTM Series**  
**Sub-Miniature S-Beam**  
4.5 N to 445 N

## GWMC Series Threaded In Line Load Cell 200N - 5000N

The GWMC Miniature Threaded In Line Load Cells are strain gauge based transducers with temperature compensation and excellent overall performance. This type measures tensile and compressive loads up to 5000N with better than  $\pm 0.25\%$  non-linearity.

All GWMC Series In Line Load Cell 200N - 5000N are provided with a #32 AWG 4-conductor braided shielded cable with an outer jacket of 2.2 mm diameter, 2m long, with no connection between the shield and the sensor body. For additional protection, the cable is contained within a stainless steel spring for strain relief purposes for the first 25 mm.



**GWMC Series**  
**Threaded In Line**  
200 N to 5000 N

## GWMC Series Threaded In Line Load Cell 10kN - 50kN

The GWMC Miniature Threaded In Line Load Cells are strain gauge based transducers with temperature compensation and excellent overall performance. This type measures tensile and compressive loads up to 50kN with better than  $\pm 0.5\%$  non-linearity.

All GWMC Series In Line Load Cell 10kN - 50kN are provided with 4x28 AWG wiring within a braided shielded cable (overall cable length 2m).



**GWMC Series**  
**Threaded In Line**  
10 kN

## GLBM Series Load Button Load Cell

The GLBM Load button load cells are strain gauge based transducers with temperature compensation and excellent overall performance. This type provides a range of capacities up to 200kN with better than  $\pm 0.5\%$  (full scale) non-linearity. Three tapped holes are provided on the underside for ease of mounting. Fully welded cover, amplified and digitized versions are available on request.

All GLBM Series Load Button Load Cells are provided with 4x28 AWG within a braided shielded cable (overall cable length 2m).



**GLBM Series**  
**Load Button**  
100 N to 500 N

# Interface's mini load cells are used for light touch, light weight, and less space.

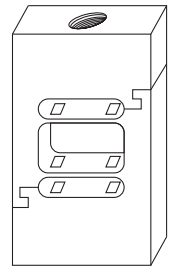
Our miniature load cells provide exceedingly accurate measurements similar to our LowProfile® load cells that have our proprietary alloy strain gages. All our miniature beam load cell, miniature sensor, load button, load washer, tension force load cells, S-type load cells, and sealed stainless steel load cells can all be ordered in different sizes. Capacities are available as low as 100 N and as high as 200 kN. A variety of our miniature load cells are designed for off the shelf applications.

## Overload Protected S-Type Load Cells

The incorporation of overload protection is a major innovation in S-Cell design. By removing the large gaps at the top and bottom, and replacing them with small clearance gaps and locking fingers, the whole cell can be made to "go solid" in either mode (tension or compression) before the deflection of the gaged area exceeds the allowed overload specification. The double-stepped shape of the gaps is necessary to ensure that overload protection operates in both modes.

The GSMTM Series is ideally suited for applications that may generate forces as high as eight times the rating of the load cell. The two loading holes are vertically aligned, which makes the cell easy to design into machines that apply reciprocating or linear motion, either from a rotating crank or from a pneumatic or hydraulic cylinder.

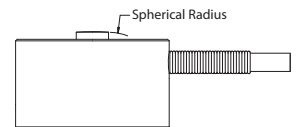
The covers provide physical protection for the flexure, but the cell is not sealed. The GSMTM Series is especially suited for use in laboratories or medical facilities where large loads could be applied accidentally by untrained or non-technical personnel.



## Load Button Load Cells

Many applications require the measurement of forces in a very confined space. The smaller GLBM can fulfill the need for force measurements at a very respectable precision level that is sufficient for most applications.

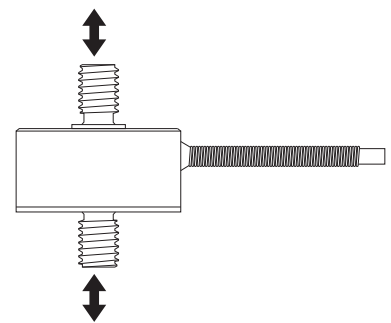
These miniature compression cells range in capacities from 100 N to 200 kN. Diameters range from 25.4 mm to 75.7 mm, with heights from 8.13 mm to 38.1 mm. The shaped load button has a spherical radius to help confine misaligned loads to the primary axis of the cell.



## Threaded In Line Load Cells

Threaded in line load cells are tension and compression load cells built for durability, pressure, and inline applications. The standard GWMC series tension and compression load cells have a very robust construction constructed of stainless steel, with male threads on both ends and a 2 m long #32 AWG 4-conductor braided shielded cable with an outer jacket of 2.2 mm diameter with no connection between the shield and the sensor body.

In line load cells are tension and compression load cells offer high accuracy and high stiffness. They have a nonlinearity of  $\pm 0.25\%$  and deflection of 0.05 nominal.



**GWMC Series**  
Threaded In Line  
20 kN



**GWMC Series**  
Threaded In Line  
50 kN



**GLBM Series**  
Load Button  
1 kN to 10 kN



**GLBM Series**  
Load Button  
15 kN to 50 kN



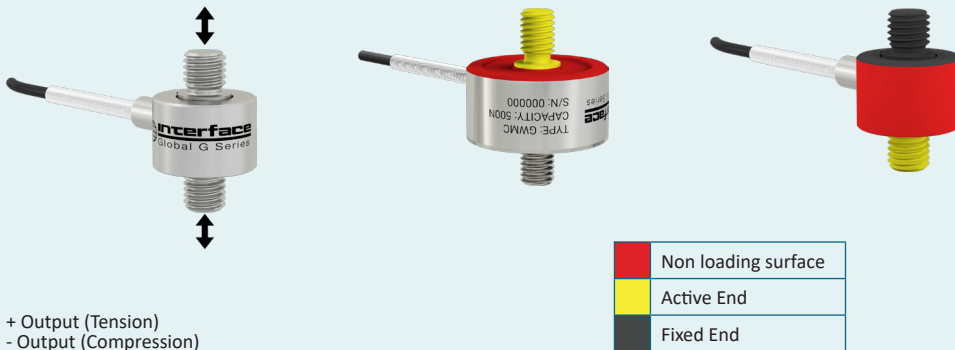
**GLBM Series**  
Load Button  
100 kN to 150 kN



**GLBM Series**  
Load Button  
200 kN

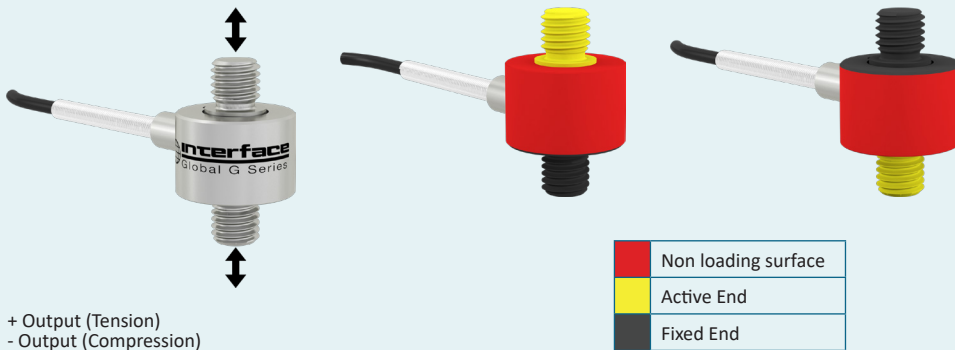
# GWMC Series Threaded In Line Load Cells Tension and Compression

## GWMC Series In Line Load Cell 200N - 5000N



+ Output (Tension)  
- Output (Compression)

## GWMC Series In Line Load Cell 10kN - 50kN

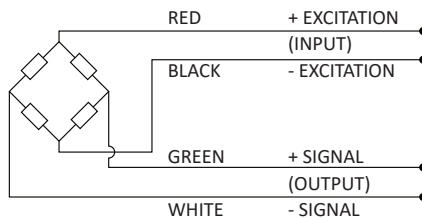


+ Output (Tension)  
- Output (Compression)

## G Series Electrical

The GWMC Series Threaded In Line 200N - 5000N and GSMTM Series Sub-Miniature S-Type sensors are provided with a #32 AWG 4-conductor braided shielded cable with an outer jacket of 2.2 mm diameter, 2m long, with no connection between the shield and the sensor body. For additional protection, the cable is contained within a stainless steel spring for strain relief purposes for the first 25 mm.

The GWMC Series Threaded In Line 10kN - 50kN and GLBM Series Load Button sensors are provided with 4x28 AWG wiring within a braided shielded cable with an overall length of 2m.



AS9100 and ISO 9001:2015 Certified

All calibrations are performed on standards with calibrations traceable to National Metrological Institutes.

# Interface Global Standard

- S-Type
- Load Button
- Threaded In line
- Compression Only
- Sealed
- Stainless Steel
- Overload Protected
- Tension & Compression
- Rod End

*Interface Global Standard force measurement load cells are available in many design configurations for project designs requiring the highest performance.*

**To learn more about the Interface products or force measurement solutions call 480-948-5555.**

**Interface is the world's trusted leader in technology, design and manufacturing of force measurement solutions.**

**Our clients include a "who's who" of the aerospace, automotive and vehicle, medical device, energy, industrial manufacturing, test and measurement industries.**

Interface engineers around the world are empowered to create high-level tools and solutions that deliver consistent, high quality performance. These products include load cells, torque transducers, multi-axis sensors, wireless telemetry, instrumentation and calibration equipment.

Interface, Inc., was founded in 1968 and is a US-based, woman-owned technology manufacturing company headquartered in Scottsdale, Arizona.



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