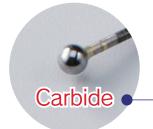


Stems are available in three types of material: stainless-steel (standard), shape-memory alloy, and wire-rope. The balls are all made from tungsten carbide, thus less prone to wear out by friction!



Note: the image above is for illustrative purpose only.

## **ZENSEI Ball Gauge LINE UP**

## **□STAINLESS-STEEL STEM (SUS)**

## **□SHAPE-MEMORY ALLOY STEM**

# **□WIRE-ROPE STEM**

Wire-rope stem

Standard ball gauge.
Corrosion-resistant.

Minimum bending radius: 40mm

Caution:
bending back and forth repeatedly
may cause stem fracture.

Stays in bent shape and straightens when heated.

Minimum bending radius: 25mm

Use any of the three types according to your needs.

Highly flexible and ideal for complex and deep gaps.

Minimum bending radius: 5mm

## Shape-memory alloy stem

## Easily bends to fit any round surface.

Material made specifically to be bent. Easy to bend and corrosion resistant. Endurance tests proved that it bends more than 1,000 times before rupturing.

### Deeper, more specific measurement possible with shape-memory alloy stems.

Shape-memory alloy bends to fit any shape you need to measure. Once bent, the stem stays in the same shape. Highly useful for measuring automobile parts/precision equipment.

### Easily recover its original shape.

Just dip in warm water (60 degrees Celsius or more), to recover its original shape.

Quickly use again for another test. Easy to store, too.

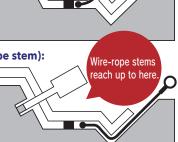
It was absolutely necessary to bore a hole in the panel, or deform the panel to make a measurement, which was not accurate.



Other products:

## With Zensei's Ball Gauge (wire-rope stem):

Measuring deep inside complex structures is easy and requires no holes.

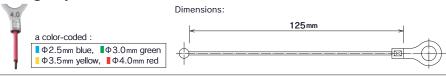




# Zensei's Ball Gauge

Choose from our extensive product line according to your needs.

Orders accepted by unit/fixed set orders. Bespoke ball sizes, stem length changes, and other custom orders are welcome!



### Stem: stainless-steel(SUS) / shape-memory alloy / wire-rope

Tolerance [±0.01]

Unit Ball Φ0.5mm - Φ8mm (per 0.1mm)

Ball Φ2.5mm - Φ3.5mm (per 0.1mm) Total 11 sizes Ball Φ2.1mm - Φ4.0mm (per 0.1mm) Total 20 sizes

Precision grade: Tolerance [±0.005] Stainless-steel stems only Unit Ball  $\Phi$ 0.5mm -  $\Phi$ 8mm (per 0.1mm)

Ball Φ2.5mm - Φ3.5mm (per 0.1mm) Total 11 sizes

Ball  $\Phi$ 2.1mm -  $\Phi$ 4.0mm (per 0.1mm) Total 20 sizes

## Product Codes: Calibration certificates available for a fee.

	Unit Set of 11 Set of 20 (ball material: tungsten carbide, per 0.1mm)			To order a unit item:  Use product code by unit and
Stem Material <grade> Tolerance</grade>	Ф0.5~Ф8.0	Ф2.5~Ф3.5	Ф2.1~Ф4.0	replace the blank box  with the ball diameter you need.  Example:  Unit item, stainless-steel stem, ball 00.8mm  BG-SA 008 S  Unit item, wire-rope stem, ball 04.0mm  BG-WA 040 S
Stainless-steel stem (SUS) < Standard grade > Tolerance[±0.01]	BG-SA⊡_S	BG-SS11A	BG-SS20B	
Stainless-steel stem (SUS) < Precision grade > Tolerance[±0.005]	BG-SA□□H	BG-SS11AH	BG-SS20BH	
Shape-memory alloy stem < Standard grade > Tolerance[±0.01]	BG-KACS	BG-KS11A	BG-KS20B	
Wire-rope stem (Standard grade > Tolerance[±0.01]	BG-WA□□S	BG-WS11A	BG-WS20B	

WARNINGS

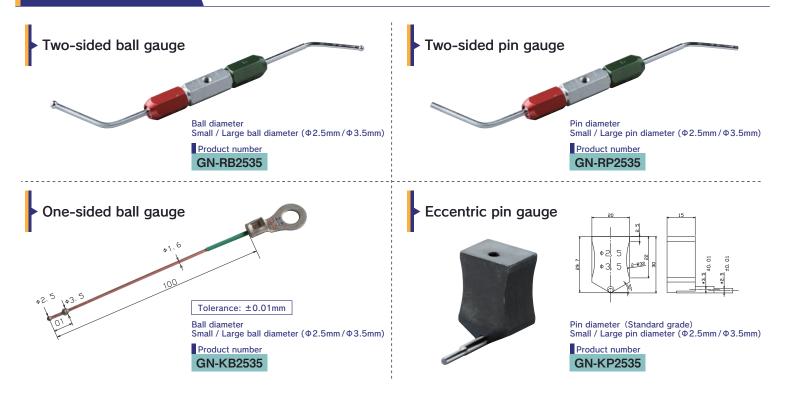
Do not use for unintended purposes. Excessive heat or force applied on junction will make the ball detach. Shape-memory alloy stem will become straight again when heated to 60 degrees Celsius or more. Beware of burns while using heat. Stems bent under its minimum bending radius might break



Pulling the ball too much when stuck will cause it to disjoint.

# Related products

## Go/No Go GAUGE



All photos in this catalogue are for illustrative purposes only. Specifications and appearance of our products, including those shown in this catalogue, are subject to change without prior notice.

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More details of our products available on our website. QR-code linked to: https://zensei-inc.com/product/





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