

SECTION

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Cylinder Gauges

- Standard Cylinder Gauges
CC Series
CG Series
- Special Cylinder Gauges
S Series
- "R" Series

3

METROLOGY

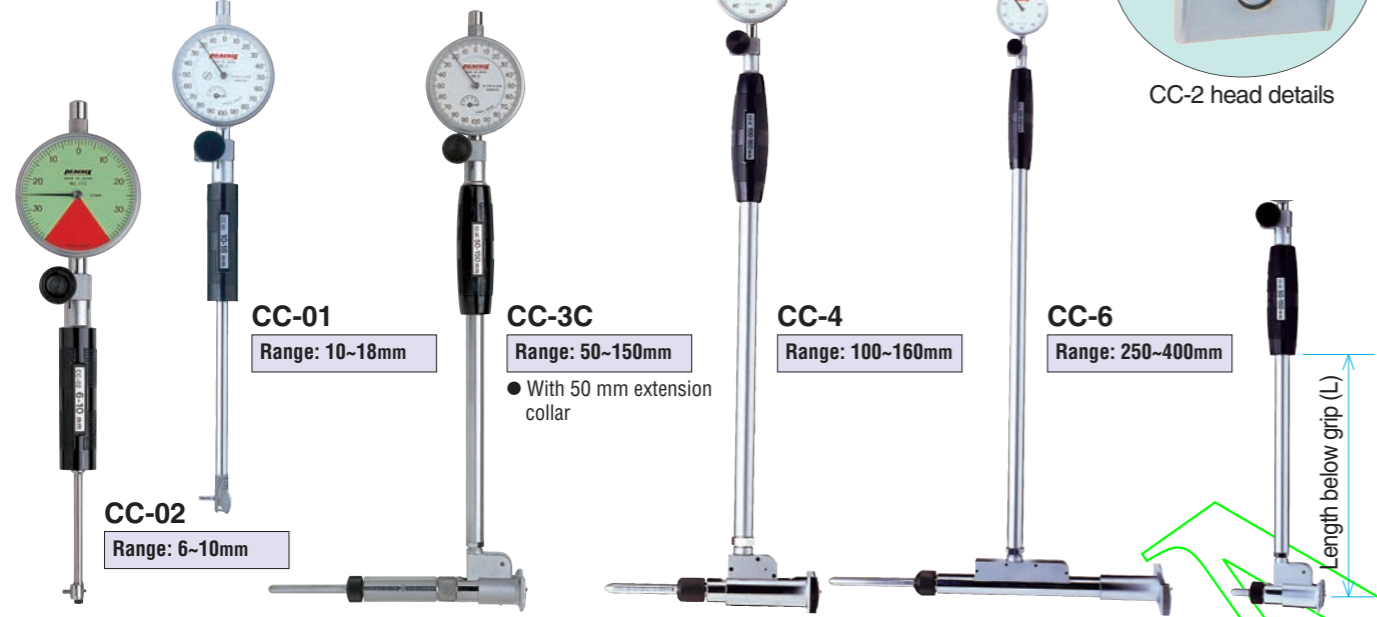
Standard Cylinder Gauges

JIS B 7515

CC series

Peacock offers a complete line of Dial Bore Gauges with interchangeable anvils and necessary accessories to perform close tolerance measurements of holes, taper and roundness.

- Dial gauge mounting knob is very simple and sure avoiding demerit of collet-system.
- The contact point is tungsten carbide ball.
- The standard ball tipped at the replacement rod is made of steel. The sintered hard-alloy ball is also available to tip.
- Wide range accuracy.....5 μm or less
Adjacent error.....2 μm or less
Repeated accuracy.....2 μm or less
- Effective measuring range is 0.5 mm (CC-02 CC-01)
- Effective measuring range is 1.2 mm (CC-1 to CC-6)



Specifications

| Model | Range (mm) | Length below grip (mm) | Number of Feelers (mm) | Thickness of Washers (mm) |
|-------|------------|------------------------|------------------------|---------------------------|
| CC-02 | 6 ~ 10 | 50 | Intervals 0.5 mm x 9 | — |
| CC-01 | 10 ~ 18 | 100 | Intervals 1 mm x 9 | 0.5 mm |
| CC-1 | 18 ~ 35 | 150 | Intervals 2 mm x 9 | 0.5, 1 mm each |
| CC-2 | 35 ~ 60 | 150 | Intervals 5 mm x 6 | 1,2,3 mm each |
| CC-3 | 50 ~ 100 | 150 | Intervals 5 mm x 11 | 1,2,3 mm each |
| CC-3C | 50 ~ 150 | 150 | Intervals 5 mm x 11 | 1,2,3 mm each |
| CC-4 | 100 ~ 160 | 250 | Intervals 10 mm x 7 | 1,2,3,4 mm each |
| CC-5 | 160 ~ 250 | 250 | Intervals 10 mm x 10 | 1,2,3,4 mm each |
| CC-6 | 250 ~ 400 | 400 | Intervals 10 mm x 16 | 1,2,3,4 mm each |

※Dial gauge is not furnished and supplied only on request. Suitable dial gauges are 17Z, 57B (0.01mm) and 15Z, 5F (0.001mm).

● List of special length below grip (available on request)

| | L=50 (mm) | L=100 (mm) | L=200 (mm) | L=300 (mm) | L=400 (mm) | L=500 (mm) | L=600 (mm) | L=700 (mm) | L=800 (mm) | L=900 (mm) | L=1000 (mm) | L=1500 (mm) | L=2000 (mm) |
|-------|-----------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|-------------|-------------|
| CC-01 | ● | standard | ● | ● | ● | ● | — | — | — | — | — | — | — |
| CC-1 | CC-1S | ● | ● | ● | ● | ● | — | — | — | — | — | — | — |
| CC-2 | CC-2S | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| CC-3 | CC-3S | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| CC-3C | CC-3CS | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| CC-4 | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| CC-5 | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| CC-6 | ● | ● | ● | ● | standard | ● | ● | ● | ● | ● | ● | ● | ● |

● More than L=600mm for CC-2 can not measure from 35 to 44mm and can measure from 45 to 60mm ID.

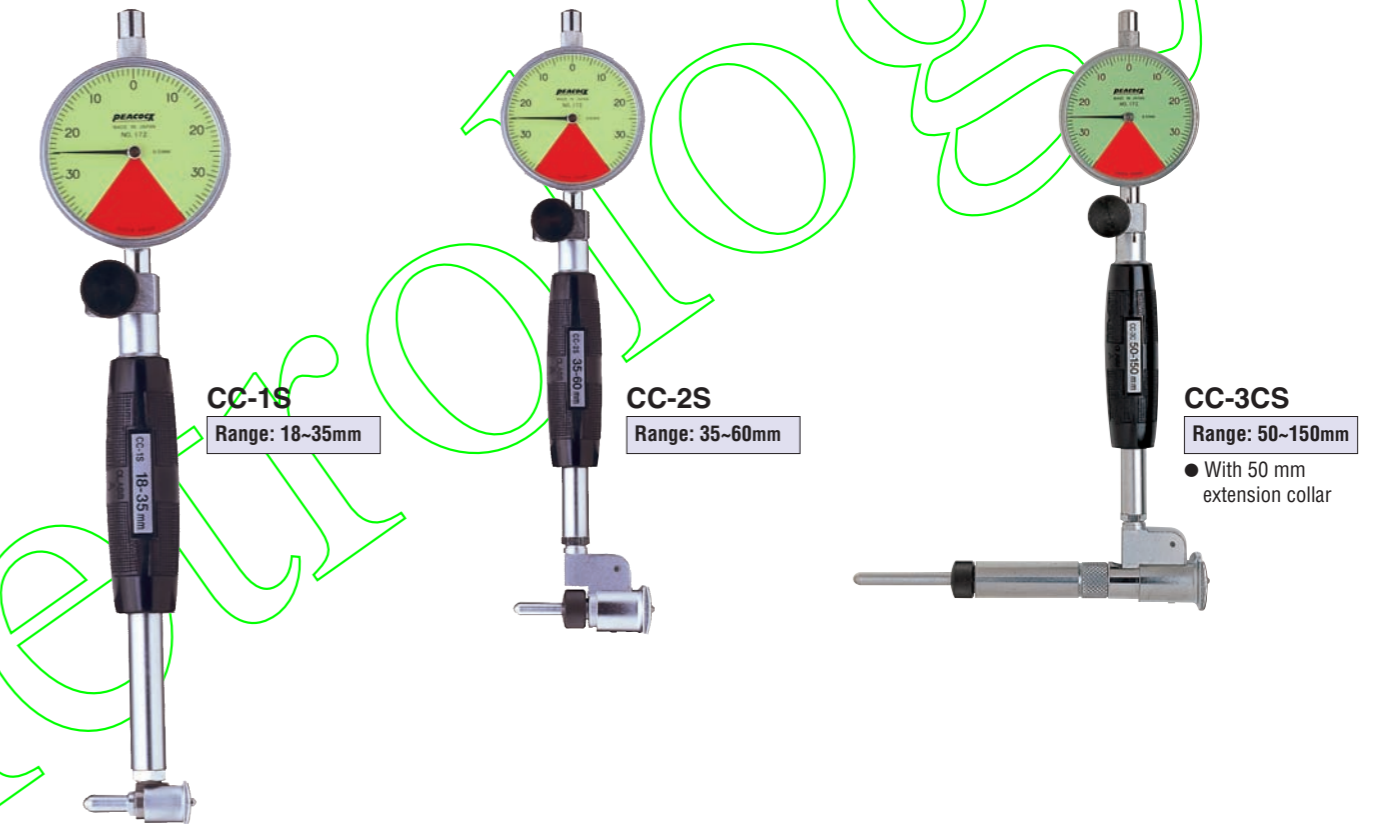


CC-2 complete set

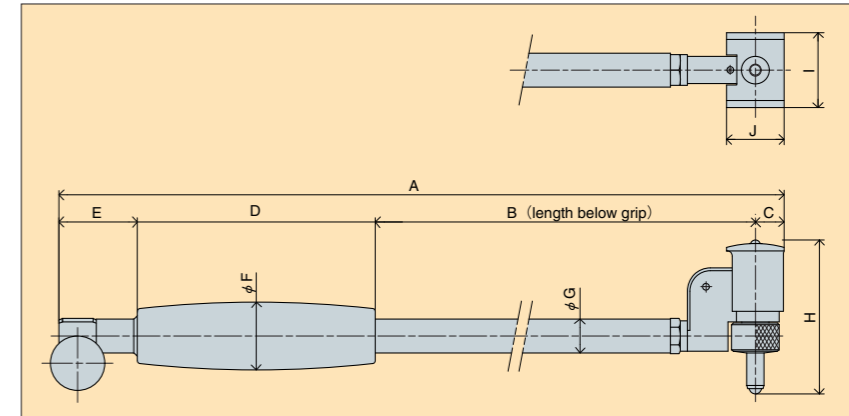
Short Size Cylinder Gauges

S series

This is a compact cylinder gauge with a length below grip of 50 mm. It is used when a standard item is too long to measure the object or a shorter length of below grip is required for conveniently. Specifications are same as standard model.



Outer Dimension



Dimension

| Model | A | B | C | D | E | F | G | H | I | J |
|--------|-------|-------|------|-----|----|----|----|---------|-----|------|
| CC-1 | 249 | 150 | 5.75 | 70 | 23 | 20 | 10 | 18~35 | 13 | 11.5 |
| CC-2 | 251.5 | 150 | 8.5 | 70 | 23 | 20 | 10 | 35~60 | 22 | 17 |
| CC-3 | 253 | 150 | 9 | 70 | 23 | 20 | 10 | 50~100 | 30 | 18 |
| CC-3C | 253 | 150 | 9 | 70 | 23 | 20 | 10 | 50~150 | 30 | 18 |
| CC-4 | 370 | 250 | 12 | 85 | 23 | 25 | 13 | 100~160 | 50 | 24 |
| CC-5 | 391.5 | 251.5 | 14 | 100 | 26 | 25 | 16 | 160~250 | 70 | 28 |
| CC-6 | 540 | 400 | 14 | 100 | 26 | 25 | 16 | 250~400 | 100 | 28 |
| CC-1S | 150 | 50 | 5.75 | 70 | 23 | 20 | 10 | 18~35 | 13 | 11.5 |
| CC-2S | 151.5 | 50 | 8.5 | 70 | 23 | 20 | 10 | 35~60 | 22 | 17 |
| CC-3S | 152 | 50 | 9 | 70 | 23 | 20 | 10 | 50~100 | 30 | 18 |
| CC-3CS | 152 | 50 | 9 | 70 | 23 | 20 | 10 | 50~150 | 30 | 18 |



Standard Cylinder Gauges



Short Size Cylinder Gauges

Cylinder Gauges (Blind Hole Type)

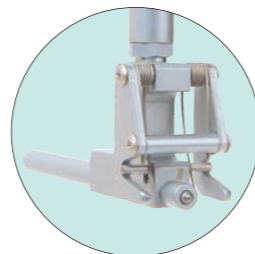
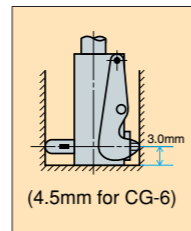
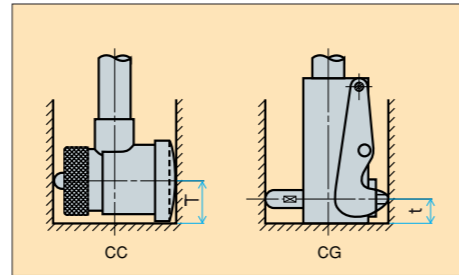
CG series

If using a CC type cylinder gauge for blind hole bore diameter, its guide plate interrupt the measurement at a point deeper than "T", as shown in the figure below.

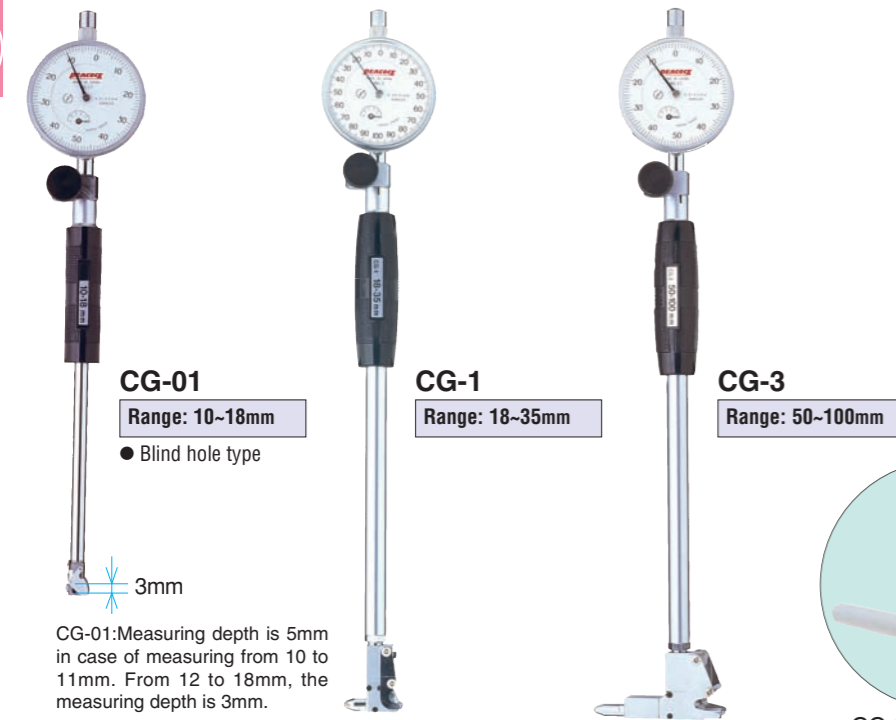
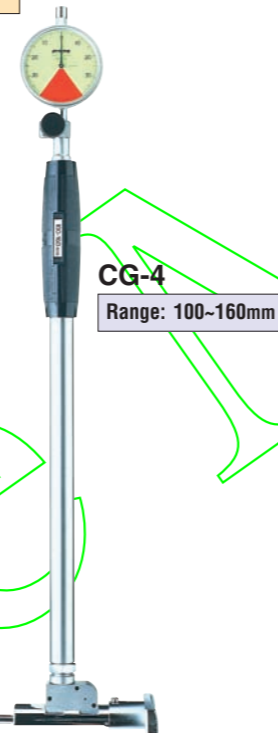
In such case, the CG type with modified guide plate is suitable for measurement of the diameter to the point as deep as "t".

- Wide range accuracy...5 μm or less
- Adjacent error...2 μm or less
- Repeated accuracy...2 μm or less
- Effective measuring range is 0.5 mm (CG-01)
- Effective measuring range is 1.2 mm (CG-1 to CG-6)

Applied Example



CG-2 head details



Specifications

| Model | Range (mm) | Length below grip (mm) | Number of Feelers (mm) | Thickness of Washers (mm) |
|-------|------------|------------------------|------------------------|---------------------------|
| CG-01 | 10 ~ 18 | 100 | Intervals 1 mm x 9 | 0.5 mm each |
| CG-1 | 18 ~ 35 | 150 | Intervals 2 mm x 9 | 0.5, 1 mm each |
| CG-2 | 35 ~ 60 | 150 | Intervals 5 mm x 6 | 0.5, 1, 2, 3 mm each |
| CG-3 | 50 ~ 100 | 150 | Intervals 5 mm x 11 | 0.5, 1, 2, 3 mm each |
| CG-3C | 50 ~ 150 | 150 | Intervals 5 mm x 11 | 0.5, 1, 2, 3 mm each |
| CG-4 | 100~160 | 250 | Intervals 10 mm x 7 | 1, 2, 3, 4 mm each |
| CG-5 | 160~250 | 250 | Intervals 10 mm x 10 | 1, 2, 3, 4 mm each |
| CG-6 | 250~400 | 400 | Intervals 10 mm x 16 | 1, 2, 3, 4 mm each |

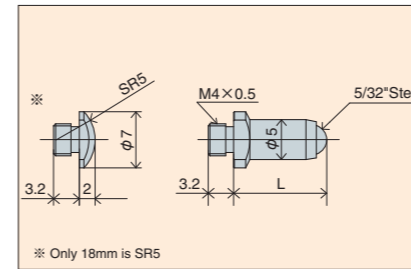
※ Dial gauge is not furnished and supplied only on request. Suitable dial gauges are 17Z, 57B (0.01mm) and 15Z, 5F (0.001mm).
 ※ CG-3C includes 50 mm extension collar.
 ※ In general, it is the range from the origin, that is the position where the plunger is pushed in by 0.1 mm, to the position where the plunger is pushed in further by 1.2 mm.

● List of special length below grip (available on request)

| | L=50 (mm) | L=100 (mm) | L=150 (mm) | L=200 (mm) | L=250 (mm) | L=300 (mm) | L=400 (mm) | L=500 (mm) | L=600 (mm) | L=700 (mm) | L=800 (mm) | L=900 (mm) | L=1000 (mm) |
|-------|-----------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|
| CG-01 | ● | standard | ● | ● | ● | ● | | | | | | | |
| CG-1 | ● | ● | standard | ● | ● | ● | ● | ● | | | | | |
| CG-2 | ● | ● | standard | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| CG-3 | ● | ● | standard | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| CG-3C | ● | ● | standard | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| CG-4 | ● | ● | | ● | standard | ● | ● | ● | ● | ● | ● | ● | ● |
| CG-5 | ● | ● | | ● | standard | ● | ● | ● | ● | ● | ● | ● | ● |
| CG-6 | ● | ● | ● | ● | ● | ● | standard | ● | ● | ● | ● | ● | ● |

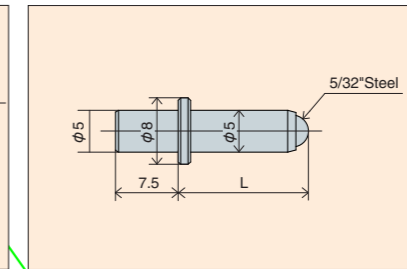
Dimensions for Feeler and Washer for Cylinder Gauges

CC-1 Feeler

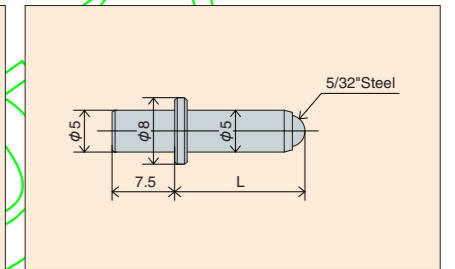


※ Only 18mm is SR5

CC-2 Feeler



CC-3·3C Feeler

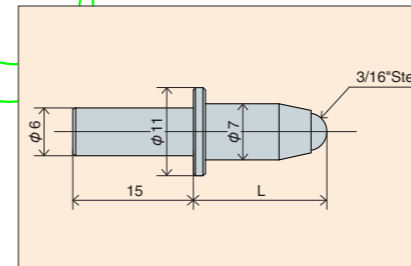


| Model | Size (mm) | L (mm) |
|-------------|-----------|--------|
| CC-1 Feeler | 18 | 2 |
| | 20 | 4 |
| | 22 | 6 |
| | 24 | 8 |
| | 26 | 10 |
| | 28 | 12 |
| | 30 | 14 |
| | 32 | 16 |
| | 34 | 18 |

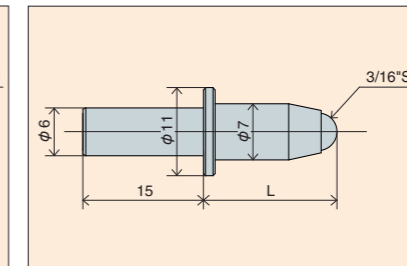
| Model | Size (mm) | L (mm) |
|-------------|-----------|--------|
| CC-2 Feeler | 35 | 5 |
| | 40 | 10 |
| | 45 | 15 |
| | 50 | 20 |
| | 55 | 25 |
| | 60 | 30 |

| Model | Size (mm) | L (mm) |
|----------------|-----------|--------|
| CC-3·3C Feeler | 50 | 5 |
| | 55 | 10 |
| | 60 | 15 |
| | 65 | 20 |
| | 70 | 25 |
| | 75 | 30 |
| | 80 | 35 |
| | 85 | 40 |
| | 90 | 45 |
| | 95 | 50 |
| | 100 | 55 |

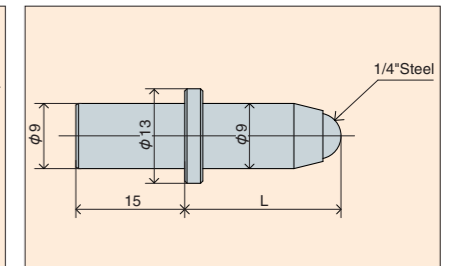
CC-4 Feeler



CC-5 Feeler



CC-6 Feeler

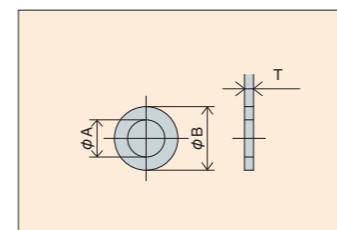


| Model | Size (mm) | L (mm) |
|-------------|-----------|--------|
| CC-4 Feeler | 100 | 10 |
| | 110 | 20 |
| | 120 | 30 |
| | 130 | 40 |
| | 140 | 50 |
| | 150 | 60 |
| | 160 | 70 |

| Model | Size (mm) | L (mm) |
|-------------|-----------|--------|
| CC-5 Feeler | 160 | 10 |
| | 170 | 20 |
| | 180 | 30 |
| | 190 | 40 |
| | 200 | 50 |
| | 210 | 60 |
| | 220 | 70 |
| | 230 | 80 |
| | 240 | 90 |
| | 250 | 100 |

| Model | Size (mm) | L (mm) |
|-------------|-----------|--------|
| CC-6 Feeler | 250 | 10 |
| | 260 | 20 |
| | 270 | 30 |
| | 280 | 40 |
| | 290 | 50 |
| | 300 | 60 |
| | 310 | 70 |
| | 320 | 80 |
| | 330 | 90 |
| | 340 | 100 |
| | 350 | 110 |
| | 360 | 120 |
| | 370 | 130 |
| | 380 | 140 |

CC-1~6 Washer



| Model | T (mm) | A (mm) | B (mm) |
|---------|------------|--------|--------|
| CC-1 | 0.5, 1 | 4.1 | 7 |
| CC-2 | 1, 2, 3 | 5.1 | 8 |
| CC-3·3C | 1, 2, 3 | 5.1 | 8 |
| CC-4 | 1, 2, 3, 4 | 6.1 | 10 |
| CC-5 | 1, 2, 3, 4 | 6.1 | 10 |
| CC-6 | 1, 2, 3, 4 | 9.1 | 13 |



Cylinder Gauges

CC·CG-R series

Do you have any trouble when measuring internal diameter?
If so, we offer more radii of Contact Point & Feeler for Cylinder Gauges "R" Series.

- Wide range accuracy...5 μm or less
- Adjacent error...2 μm or less
- Repeated accuracy...2 μm or less

CC-1R



CC-3R



Specifications for CC-"R" series

| Model | Range | Length below grip | Number of feelers | Thickness of washers | Extension collar |
|--------|----------|-------------------|--------------------|----------------------|------------------|
| CC-01R | 10~ 18mm | 100mm | Intervals 0.5mm× 9 | 0.5mm | — |
| CC-1R | 18~ 35mm | 150mm | Intervals 2mm× 9 | 0.5, 1mm each | — |
| CC-2R | 35~ 60mm | 150mm | Intervals 5mm× 6 | 1, 2, 3mm each | — |
| CC-3R | 50~100mm | 150mm | Intervals 5mm× 11 | 1, 2, 3mm each | — |
| CC-3CR | 50~150mm | 150mm | Intervals 5mm× 11 | 1, 2, 3mm each | 50mm |

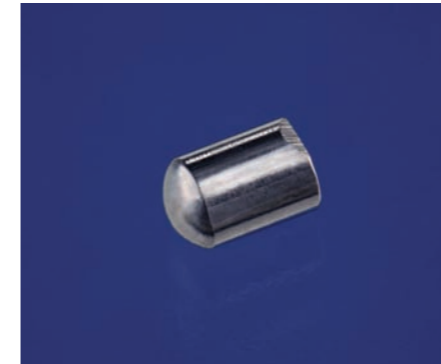
Specifications for CG-"R" series

| Model | Range | Length below grip | Number of feelers | Thickness of washers | Extension collar |
|--------|----------|-------------------|--------------------|----------------------|------------------|
| CG-01R | 10~ 18mm | 100mm | Intervals 0.5mm× 9 | 0.5mm | — |
| CG-1R | 18~ 35mm | 150mm | Intervals 2mm× 9 | 0.5, 1mm each | — |
| CG-2R | 35~ 60mm | 150mm | Intervals 5mm× 6 | 0.5, 1, 2, 3mm each | — |
| CG-3R | 50~100mm | 150mm | Intervals 5mm× 11 | 0.5, 1, 2, 3mm each | — |
| CG-3CR | 50~150mm | 150mm | Intervals 5mm× 11 | 0.5, 1, 2, 3mm each | 50mm |

Note: CG-01, in case 10~11mm measurement, the measuring depth is 5mm but 11~18mm is 3mm measuring depth.

Contact Point Hv700±50 (Tip heat treatment and hardened)

CC-01R
CG-01R



CC-1R · CG-1R · CG-2R
CG-3R · CG-3CR



CC-2R · CC-3R
CC-3CR



Feeler Hv700±50 (Tip heat treatment and hardened)

CC-01R
CG-01R



CC-1R



CC-2R · CC-3R
CC-3CR



Feeler Hv700±50 (Tip heat treatment and hardened)

CG-1R

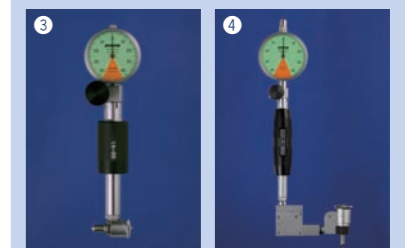


CG-2R · CG-3R
CG-3CR

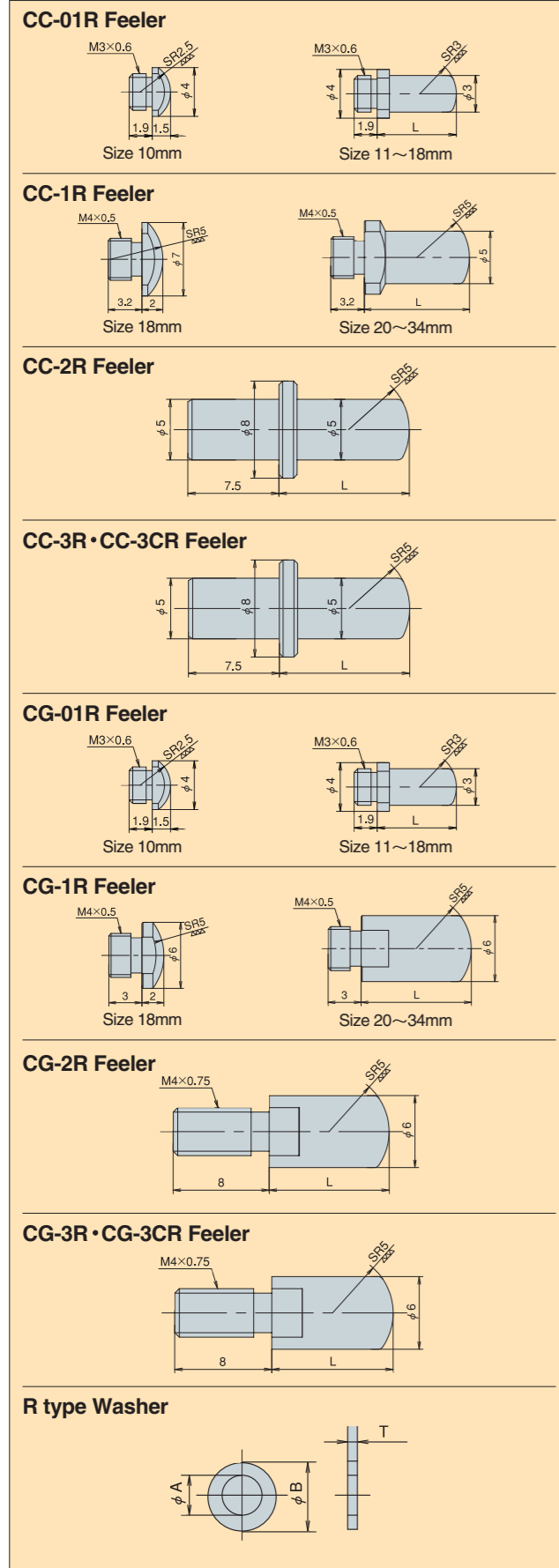


"R" Series Cylinder Gauges can be made Special Production as following:

- 1 Long Size of Length below grip Cylinder Gauge
- 2 Short Size of Length below grip Cylinder Gauge
- 3 Short Size of the overall length Cylinder Gauge
- 4 L-shaped Cylinder Gauge



Dimensions for Feeler and Washer for R series Cylinder Gauges:



| Size (mm) | L (mm) | Size (mm) | L (mm) |
|-----------|--------|-----------|--------|
| 10 | 1.5 | 15 | 6.5 |
| 11 | 2.5 | 16 | 7.5 |
| 12 | 3.5 | 17 | 8.5 |
| 13 | 4.5 | 18 | 9.5 |
| 14 | 5.5 | | |

| Size (mm) | L (mm) | Size (mm) | L (mm) |
|-----------|--------|-----------|--------|
| 18 | 2 | 28 | 12 |
| 20 | 4 | 30 | 14 |
| 22 | 6 | 32 | 16 |
| 24 | 8 | 34 | 18 |
| 26 | 10 | | |

| Size (mm) | L (mm) | Size (mm) | L (mm) |
|-----------|--------|-----------|--------|
| 35 | 5 | 50 | 20 |
| 40 | 10 | 55 | 25 |
| 45 | 15 | 60 | 30 |

| Size (mm) | L (mm) | Size (mm) | L (mm) |
|-----------|--------|-----------|--------|
| 50 | 5 | 80 | 35 |
| 55 | 10 | 85 | 40 |
| 60 | 15 | 90 | 45 |
| 65 | 20 | 95 | 50 |
| 70 | 25 | 100 | 55 |
| 75 | 30 | | |

| Size (mm) | L (mm) | Size (mm) | L (mm) |
|-----------|--------|-----------|--------|
| 10 | 1.5 | 15 | 6.5 |
| 11 | 2.5 | 16 | 7.5 |
| 12 | 3.5 | 17 | 8.5 |
| 13 | 4.5 | 18 | 9.5 |
| 14 | 5.5 | | |

| Size (mm) | L (mm) | Size (mm) | L (mm) |
|-----------|--------|-----------|--------|
| 18 | 2 | 28 | 12 |
| 20 | 4 | 30 | 14 |
| 22 | 6 | 32 | 16 |
| 24 | 8 | 34 | 18 |
| 26 | 10 | | |

| Size (mm) | L (mm) | Size (mm) | L (mm) |
|-----------|--------|-----------|--------|
| 35 | 5 | 50 | 20 |
| 40 | 10 | 55 | 25 |
| 45 | 15 | 60 | 30 |

| Size (mm) | L (mm) | Size (mm) | L (mm) |
|-----------|--------|-----------|--------|
| 50 | 5 | 80 | 35 |
| 55 | 10 | 85 | 40 |
| 60 | 15 | 90 | 45 |
| 65 | 20 | 95 | 50 |
| 70 | 25 | 100 | 55 |
| 75 | 30 | | |

| Model | T | A | B |
|----------------|-----------------|-----|-----|
| CC01-R | 0.5 | 3.1 | 4.5 |
| CC-1R | 0.5 · 1 | 4.1 | 7 |
| CC-2R | 1 · 2 · 3 | 5.1 | 8 |
| CC-3R · CC-3CR | 1 · 2 · 3 | 5.1 | 8 |
| CG01-R | 0.5 | 3.1 | 4.5 |
| CG-1R | 0.5 · 1 | 4.1 | 5 |
| CG-2R | 0.5 · 1 · 2 · 3 | 4.1 | 6 |
| CG-3R · CG-3CR | 0.5 · 1 · 2 · 3 | 4.1 | 6 |

Waterproof



Cylinder Gauges