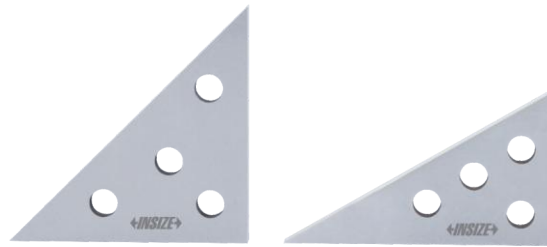


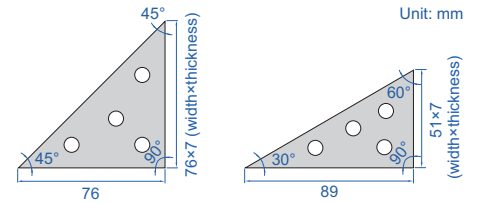
ANGLE BLOCK SET



6540-1

- For angle set-up in tooling, production and inspection
- Accuracy of angle: ± 9 seconds
- Made of alloy steel
- Hardness HRC60 ± 2

Code	Angle plates included	Angle
6540-1	2	45°, 45°, 90°
		30°, 60°, 90°



CARBIDE PIN GAUGE SETS

- Meet DIN2269, grade 1
- Made of carbide
- Hardness HRA90-90.5
- Diameter accuracy: $\pm 1\mu\text{m}$



4194-10D

Code	Diameter $\varnothing d$ (mm)	Step	Pin gauges per set
4194-1S	0.30, 0.31, 0.32, ..., 1.00	0.01mm	71
4194-2S	1.00, 1.01, 1.02, ..., 2.00	0.01mm	101
4194-3S	2.00, 2.01, 2.02, ..., 3.00	0.01mm	101
4194-4S	3.00, 3.01, 3.02, ..., 4.00	0.01mm	101
4194-5S	4.00, 4.01, 4.02, ..., 5.00	0.01mm	101
4194-6S	5.00, 5.01, 5.02, ..., 6.00	0.01mm	101
4194-7S	6.00, 6.01, 6.02, ..., 7.00	0.01mm	101
4194-8S	7.00, 7.01, 7.02, ..., 8.00	0.01mm	101
4194-9S	8.00, 8.01, 8.02, ..., 9.00	0.01mm	101
4194-10S	9.00, 9.01, 9.02, ..., 10.00	0.01mm	101
4194-10D	10.00, 10.01, 10.02, ..., 10.50	0.01mm	51
4194-11	10.50, 10.51, 10.52, ..., 11.00	0.01mm	51
4194-11D	11.00, 11.01, 11.02, ..., 11.50	0.01mm	51
4194-12	11.50, 11.51, 11.52, ..., 12.00	0.01mm	51
4194-12D	12.00, 12.01, 12.02, ..., 12.50	0.01mm	51
4194-13	12.50, 12.51, 12.52, ..., 13.00	0.01mm	51
4194-13D	13.00, 13.01, 13.02, ..., 13.50	0.01mm	51
4194-14	13.50, 13.51, 13.52, ..., 14.00	0.01mm	51
4194-14D	14.00, 14.01, 14.02, ..., 14.50	0.01mm	51
4194-15	14.50, 14.51, 14.52, ..., 15.00	0.01mm	51

Unit: mm

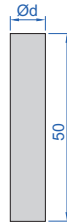


STEEL PIN GAUGE SETS

POPULAR MODEL

- Meet DIN2269, grade 1
- Made of alloy steel
- Hardness HRC62-65
- Diameter accuracy: $\pm 1\mu\text{m}$

Unit: mm



4166-10

Code	Diameter $\varnothing d$ (mm)	Step	Pin gauges per set
4166-2S	1.00, 1.01, 1.02, ..., 2.00	0.01mm	101
4166-3S	2.00, 2.01, 2.02, ..., 3.00	0.01mm	101
4166-4S	3.00, 3.01, 3.02, ..., 4.00	0.01mm	101
4166-5S	4.00, 4.01, 4.02, ..., 5.00	0.01mm	101
4166-6S	5.00, 5.01, 5.02, ..., 6.00	0.01mm	101
4166-7S	6.00, 6.01, 6.02, ..., 7.00	0.01mm	101
4166-8S	7.00, 7.01, 7.02, ..., 8.00	0.01mm	101
4166-9S	8.00, 8.01, 8.02, ..., 9.00	0.01mm	101
4166-10S	9.00, 9.01, 9.02, ..., 10.00	0.01mm	101

Code	Diameter $\varnothing d$ (mm)	Step	Pin gauges per set
4166-411	1.0, 1.1, 1.2, ..., 5.0	0.1mm	41
4166-511	5.0, 5.1, 5.2, ..., 10.0	0.1mm	51
4166-512	10.0, 10.1, 10.2, ..., 15.0	0.1mm	51
4166-513	15.0, 15.1, 15.2, ..., 20.0	0.1mm	51

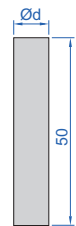
Code	Diameter $\varnothing d$ (mm)	Step	Pin gauges per set
4166-0D	0.20, 0.21, 0.22, ..., 0.50	0.01mm	31
4166-1	0.50, 0.51, 0.52, ..., 1.00	0.01mm	51
4166-1D	1.00, 1.01, 1.02, ..., 1.50	0.01mm	51
4166-2	1.50, 1.51, 1.52, ..., 2.00	0.01mm	51
4166-2D	2.00, 2.01, 2.02, ..., 2.50	0.01mm	51
4166-3	2.50, 2.51, 2.52, ..., 3.00	0.01mm	51
4166-3D	3.00, 3.01, 3.02, ..., 3.50	0.01mm	51
4166-4	3.50, 3.51, 3.52, ..., 4.00	0.01mm	51
4166-4D	4.00, 4.01, 4.02, ..., 4.50	0.01mm	51
4166-5	4.50, 4.51, 4.52, ..., 5.00	0.01mm	51
4166-5D	5.00, 5.01, 5.02, ..., 5.50	0.01mm	51
4166-6	5.50, 5.51, 5.52, ..., 6.00	0.01mm	51
4166-6D	6.00, 6.01, 6.02, ..., 6.50	0.01mm	51
4166-7	6.50, 6.51, 6.52, ..., 7.00	0.01mm	51
4166-7D	7.00, 7.01, 7.02, ..., 7.50	0.01mm	51
4166-8	7.50, 7.51, 7.52, ..., 8.00	0.01mm	51
4166-8D	8.00, 8.01, 8.02, ..., 8.50	0.01mm	51
4166-9	8.50, 8.51, 8.52, ..., 9.00	0.01mm	51
4166-9D	9.00, 9.01, 9.02, ..., 9.50	0.01mm	51
4166-10	9.50, 9.51, 9.52, ..., 10.00	0.01mm	51

Code	Diameter $\varnothing d$ (mm)	Step	Pin gauges per set
4166-10D	10.00, 10.01, 10.02, ..., 10.50	0.01mm	51
4166-11	10.50, 10.51, 10.52, ..., 11.00	0.01mm	51
4166-11D	11.00, 11.01, 11.02, ..., 11.50	0.01mm	51
4166-12	11.50, 11.51, 11.52, ..., 12.00	0.01mm	51
4166-12D	12.00, 12.01, 12.02, ..., 12.50	0.01mm	51
4166-13	12.50, 12.51, 12.52, ..., 13.00	0.01mm	51
4166-13D	13.00, 13.01, 13.02, ..., 13.50	0.01mm	51
4166-14	13.50, 13.51, 13.52, ..., 14.00	0.01mm	51
4166-14D	14.00, 14.01, 14.02, ..., 14.50	0.01mm	51
4166-15	14.50, 14.51, 14.52, ..., 15.00	0.01mm	51
4166-15D	15.00, 15.01, 15.02, ..., 15.50	0.01mm	51
4166-16	15.50, 15.51, 15.52, ..., 16.00	0.01mm	51
4166-16D	16.00, 16.01, 16.02, ..., 16.50	0.01mm	51
4166-17	16.50, 16.51, 16.52, ..., 17.00	0.01mm	51
4166-17D	17.00, 17.01, 17.02, ..., 17.50	0.01mm	51
4166-18	17.50, 17.51, 17.52, ..., 18.00	0.01mm	51
4166-18D	18.00, 18.01, 18.02, ..., 18.50	0.01mm	51
4166-19	18.50, 18.51, 18.52, ..., 19.00	0.01mm	51
4166-19D	19.00, 19.01, 19.02, ..., 19.50	0.01mm	51
4166-20	19.50, 19.51, 19.52, ..., 20.00	0.01mm	51

CERAMIC PIN GAUGE SETS



Unit: mm



- Meet DIN2269, grade 1
- Made of ceramic, extremely wear resistance, corrosion resistance and dimensional stability
- Diameter accuracy: $\pm 1\mu\text{m}$

4169-3

Code	Diameter $\varnothing d$ (mm)	Step	Pin gauges per set
4169-2S	1.00, 1.01, 1.02, ..., 2.00	0.01mm	101
4169-3S	2.00, 2.01, 2.02, ..., 3.00	0.01mm	101
4169-4S	3.00, 3.01, 3.02, ..., 4.00	0.01mm	101
4169-5S	4.00, 4.01, 4.02, ..., 5.00	0.01mm	101
4169-6S	5.00, 5.01, 5.02, ..., 6.00	0.01mm	101
4169-7S	6.00, 6.01, 6.02, ..., 7.00	0.01mm	101
4169-8S	7.00, 7.01, 7.02, ..., 8.00	0.01mm	101
4169-9S	8.00, 8.01, 8.02, ..., 9.00	0.01mm	101
4169-10S	9.00, 9.01, 9.02, ..., 10.00	0.01mm	101

Code	Diameter $\varnothing d$ (mm)	Step	Pin gauges per set
4169-411	1.0, 1.1, 1.2, ..., 5.0	0.1mm	41
4169-511	5.0, 5.1, 5.2, ..., 10.0	0.1mm	51
4169-512	10.0, 10.1, 10.2, ..., 15.0	0.1mm	51
4169-513	15.0, 15.1, 15.2, ..., 20.0	0.1mm	51

Code	Diameter $\varnothing d$ (mm)	Step	Pin gauges per set
4169-0D	0.30, 0.31, 0.32, ..., 0.50	0.01mm	21
4169-1	0.50, 0.51, 0.52, ..., 1.00	0.01mm	51
4169-1D	1.00, 1.01, 1.02, ..., 1.50	0.01mm	51
4169-2	1.50, 1.51, 1.52, ..., 2.00	0.01mm	51
4169-2D	2.00, 2.01, 2.02, ..., 2.50	0.01mm	51
4169-3	2.50, 2.51, 2.52, ..., 3.00	0.01mm	51
4169-3D	3.00, 3.01, 3.02, ..., 3.50	0.01mm	51
4169-4	3.50, 3.51, 3.52, ..., 4.00	0.01mm	51
4169-4D	4.00, 4.01, 4.02, ..., 4.50	0.01mm	51
4169-5	4.50, 4.51, 4.52, ..., 5.00	0.01mm	51
4169-5D	5.00, 5.01, 5.02, ..., 5.50	0.01mm	51
4169-6	5.50, 5.51, 5.52, ..., 6.00	0.01mm	51
4169-6D	6.00, 6.01, 6.02, ..., 6.50	0.01mm	51
4169-7	6.50, 6.51, 6.52, ..., 7.00	0.01mm	51
4169-7D	7.00, 7.01, 7.02, ..., 7.50	0.01mm	51
4169-8	7.50, 7.51, 7.52, ..., 8.00	0.01mm	51
4169-8D	8.00, 8.01, 8.02, ..., 8.50	0.01mm	51
4169-9	8.50, 8.51, 8.52, ..., 9.00	0.01mm	51
4169-9D	9.00, 9.01, 9.02, ..., 9.50	0.01mm	51
4169-10	9.50, 9.51, 9.52, ..., 10.00	0.01mm	51

Code	Diameter $\varnothing d$ (mm)	Step	Pin gauges per set
4169-10D	10.00, 10.01, 10.02, ..., 10.50	0.01mm	51
4169-11	10.50, 10.51, 10.52, ..., 11.00	0.01mm	51
4169-11D	11.00, 11.01, 11.02, ..., 11.50	0.01mm	51
4169-12	11.50, 11.51, 11.52, ..., 12.00	0.01mm	51
4169-12D	12.00, 12.01, 12.02, ..., 12.50	0.01mm	51
4169-13	12.50, 12.51, 12.52, ..., 13.00	0.01mm	51
4169-13D	13.00, 13.01, 13.02, ..., 13.50	0.01mm	51
4169-14	13.50, 13.51, 13.52, ..., 14.00	0.01mm	51
4169-14D	14.00, 14.01, 14.02, ..., 14.50	0.01mm	51
4169-15	14.50, 14.51, 14.52, ..., 15.00	0.01mm	51
4169-15D	15.00, 15.01, 15.02, ..., 15.50	0.01mm	51
4169-16	15.50, 15.51, 15.52, ..., 16.00	0.01mm	51
4169-16D	16.00, 16.01, 16.02, ..., 16.50	0.01mm	51
4169-17	16.50, 16.51, 16.52, ..., 17.00	0.01mm	51
4169-17D	17.00, 17.01, 17.02, ..., 17.50	0.01mm	51
4169-18	17.50, 17.51, 17.52, ..., 18.00	0.01mm	51
4169-18D	18.00, 18.01, 18.02, ..., 18.50	0.01mm	51
4169-19	18.50, 18.51, 18.52, ..., 19.00	0.01mm	51
4169-19D	19.00, 19.01, 19.02, ..., 19.50	0.01mm	51
4169-20	19.50, 19.51, 19.52, ..., 20.00	0.01mm	51

CARBIDE INDIVIDUAL PIN GAUGES



- Meet DIN2269, grade 1
- Diameter range: $\varnothing 0.300\text{--}\varnothing 30.000\text{mm}$ with three decimal, for example 0.311mm, 5.562mm, 16.298mm
- Diameter accuracy: $\pm 1\mu\text{m}$
- Made of carbide
- Hardness HRA90-90.5

Code	Diameter range $\varnothing d$ (mm)
4193-□□□□*	0.300~30.000

*Supplied with manufacturer inspection certificate



Ordering examples:

Diameter	Code
0.311mm	4193-0D311
5.562mm	4193-5D562
16.298mm	4193-16D298

Note: "D" stands for "."

STEEL INDIVIDUAL PIN GAUGES WITH TWO DECIMAL PLACES (0.01MM STEP)

Ordering examples:

Diameter	Code
0.21mm	4110-0D21
5.56mm	4110-5D56
16.00mm	4110-16D00

Note: "D" stands for "."



- Meet DIN2269, grade 1
- Diameter range: $\varnothing 0.20\text{--}\varnothing 20.00\text{mm}$
- Diameter accuracy: $\pm 1\mu\text{m}$
- Made of alloy steel
- Hardness HRC62-65

Code
4110-□□□□

Diameter $\varnothing d$ (mm)
0.20, 0.21, 0.22, 0.23, ..., 1.00
1.01, 1.02, 1.03, 1.04, ..., 2.00
2.01, 2.02, 2.03, 2.04, ..., 3.00
3.01, 3.02, 3.03, 3.04, ..., 4.00
4.01, 4.02, 4.03, 4.04, ..., 5.00
5.01, 5.02, 5.03, 5.04, ..., 6.00
6.01, 6.02, 6.03, 6.04, ..., 7.00
7.01, 7.02, 7.03, 7.04, ..., 8.00
8.01, 8.02, 8.03, 8.04, ..., 9.00
9.01, 9.02, 9.03, 9.04, ..., 10.00
10.01, 10.02, 10.03, 10.04, ..., 11.00
11.01, 11.02, 11.03, 11.04, ..., 12.00
12.01, 12.02, 12.03, 12.04, ..., 13.00
13.01, 13.02, 13.03, 13.04, ..., 14.00
14.01, 14.02, 14.03, 14.04, ..., 15.00
15.01, 15.02, 15.03, 15.04, ..., 16.00
16.01, 16.02, 16.03, 16.04, ..., 17.00
17.01, 17.02, 17.03, 17.04, ..., 18.00
18.01, 18.02, 18.03, 18.04, ..., 19.00
19.01, 19.02, 19.03, 19.04, ..., 20.00

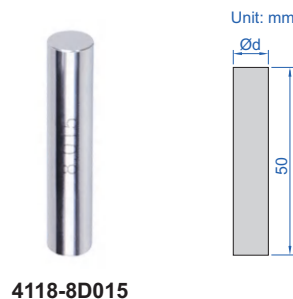
STEEL INDIVIDUAL PIN GAUGES WITH THREE DECIMAL PLACES (0.001MM STEP)



- Meet DIN2269, grade 1
- Diameter range: $\varnothing 0.200\text{--}\varnothing 30.000\text{mm}$ with three decimal, for example 0.211mm, 5.562mm, 16.298mm
- Diameter accuracy: $\pm 1\mu\text{m}$
- Made of alloy steel
- Hardness HRC62-65

Code	Diameter range $\varnothing d$ (mm)
4118-□□□□*	0.200~30.000

*Supplied with manufacturer inspection certificate



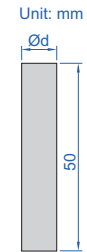
Ordering examples:

Diameter	Code
0.211mm	4118-0D211
5.562mm	4118-5D562
16.298mm	4118-16D298

Note: "D" stands for "."

CERAMIC INDIVIDUAL PIN GAUGES WITH TWO DECIMAL PLACES (0.01MM STEP)

- Meet DIN2269, grade 1
- Diameter range: Ø0.30~Ø20.00mm
- Diameter accuracy: ±1µm
- Made of ceramic, extremely wear resistance, corrosion resistance and dimensional stability



4113-10D00

Ordering examples:

Diameter	Code
1.21mm	4113-1D21
5.56mm	4113-5D56
15.00mm	4113-15D00

Note: "D" stands for "."

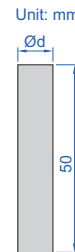
Diameter Ød (mm)
0.30, 0.31, 0.32, 0.33, ..., 1.00
1.01, 1.02, 1.03, 1.04, ..., 2.00
2.01, 2.02, 2.03, 2.04, ..., 3.00
3.01, 3.02, 3.03, 3.04, ..., 4.00
4.01, 4.02, 4.03, 4.04, ..., 5.00
5.01, 5.02, 5.03, 5.04, ..., 6.00
6.01, 6.02, 6.03, 6.04, ..., 7.00
7.01, 7.02, 7.03, 7.04, ..., 8.00
8.01, 8.02, 8.03, 8.04, ..., 9.00
9.01, 9.02, 9.03, 9.04, ..., 10.00

Diameter Ød (mm)
10.01, 10.02, 10.03, 10.04, ..., 11.00
11.01, 11.02, 11.03, 11.04, ..., 12.00
12.01, 12.02, 12.03, 12.04, ..., 13.00
13.01, 13.02, 13.03, 13.04, ..., 14.00
14.01, 14.02, 14.03, 14.04, ..., 15.00
15.01, 15.02, 15.03, 15.04, ..., 16.00
16.01, 16.02, 16.03, 16.04, ..., 17.00
17.01, 17.02, 17.03, 17.04, ..., 18.00
18.01, 18.02, 18.03, 18.04, ..., 19.00
19.01, 19.02, 19.03, 19.04, ..., 20.00

Code
4113-□□□□

CERAMIC INDIVIDUAL PIN GAUGES WITH THREE DECIMAL PLACES (0.001MM STEP)

- Meet DIN2269, grade 1
- Diameter range: Ø0.300~Ø30.000mm
- With three decimal, for example 1.211mm, 5.562mm, 14.955mm
- Diameter accuracy: ±1µm
- Made of ceramic, extremely wear resistance, corrosion resistance and dimensional stability



4192-10D000

Ordering examples:

Diameter	Code
1.211mm	4192-1D211
5.562mm	4192-5D562
14.955mm	4192-14D955

Note: "D" stands for "."

Code	Diameter range Ød (mm)
4192-□□□□	0.300-30.000

BOXES FOR PIN GAUGES

- For individual pin gauges (4110, 4118, 4192, 4113 and 4193 series)



7340

Code	Applicable pin gauge diameter Ød	Quantity of pin gauges
7340	0.20-10.00mm	51 pcs
7340-101	0.20-10.00mm	101 pcs
7340-201	10.00-15.00mm	51 pcs
7340-202	15.00-20.00mm	51 pcs