

GAGE BLOCKS

Accuracy according to ISO3650

Nominal length (mm)	Grade 0		Grade 1		Grade 2	
	Limit deviation of length	Tolerance for the variation in length	Limit deviation of length	Tolerance for the variation in length	Limit deviation of length	Tolerance for the variation in length
over 0.5 to 10	±0.12µm	0.10µm	±0.20µm	0.16µm	±0.45µm	0.30µm
over 10 to 25	±0.14µm	0.10µm	±0.30µm	0.16µm	±0.60µm	0.30µm
over 25 to 50	±0.20µm	0.10µm	±0.40µm	0.18µm	±0.80µm	0.30µm
over 50 to 75	±0.25µm	0.12µm	±0.50µm	0.18µm	±1.00µm	0.35µm
over 75 to 100	±0.30µm	0.12µm	±0.60µm	0.20µm	±1.20µm	0.35µm
over 100 to 150	±0.40µm	0.14µm	±0.80µm	0.20µm	±1.60µm	0.40µm
over 150 to 200	±0.50µm	0.16µm	±1.00µm	0.25µm	±2.00µm	0.40µm
over 200 to 250	±0.60µm	0.16µm	±1.20µm	0.25µm	±2.40µm	0.45µm
over 250 to 300	±0.70µm	0.18µm	±1.40µm	0.25µm	±2.80µm	0.50µm
over 300 to 400	±0.90µm	0.20µm	±1.80µm	0.30µm	±3.60µm	0.50µm
over 400 to 500	±1.10µm	0.25µm	±2.20µm	0.35µm	±4.40µm	0.60µm
over 500 to 600	±1.30µm	0.25µm	±2.60µm	0.40µm	±5.00µm	0.70µm
over 600 to 700	±1.50µm	0.30µm	±3.00µm	0.45µm	±6.00µm	0.70µm
over 700 to 800	±1.70µm	0.30µm	±3.40µm	0.50µm	±6.50µm	0.80µm
over 800 to 900	±1.90µm	0.35µm	±3.80µm	0.50µm	±7.50µm	0.90µm
over 900 to 1000	±2.00µm	0.40µm	±4.20µm	0.60µm	±8.00µm	1.00µm

Grade and application

Grade	Application
0	To be used as basic standards in calibration laboratories by skilled inspection staff, to calibrate or set high accuracy measuring instruments, to calibrate gage blocks of grade 1 and 2.
1	To be used in inspection rooms, to check gages, inspect high accuracy parts and set measuring instruments.
2	To be used in workshops, to check production gages, set measuring instruments and mount tools.

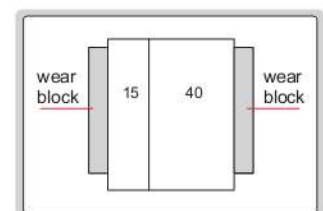
WEAR BLOCK SETS



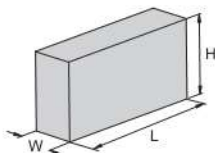
- Protect the measuring surfaces of gage blocks from excessive wear
- Meet ISO3650
- Supplied with manufacturer inspection certificate



4111-2



Blocks per set	Size	Material	Code	
			Grade 0	Grade 1
2	1.0mm	ceramic	4111-1	4111-11
2	1.0mm	alloy steel	4111-1A	4111-11A
2	2.0mm	ceramic	4111-2	4111-12
2	2.0mm	alloy steel	4111-2A	4111-12A



Dimension:

Size (L)	W	H
0.5 ≤ L ≤ 10mm	9mm	30mm
L > 10mm	9mm	35mm



4105-87

- Made of ceramic, extremely wear resistance and corrosion resistance, excellent dimension stability
- Meet ISO3650
- Supplied with manufacturer inspection certificate

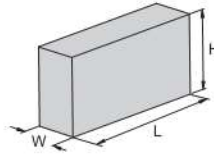
Blocks per set	Gage blocks included in set			Code	
	Size (mm)	Step (mm)	Quantity	Grade 0	Grade 1
112	1.0005		1	4105-112	4105-1112
	1.001-1.009	0.001	9		
	1.01-1.49	0.01	49		
	0.5-24.5	0.5	49		
	25-100	25	4		
103	1.005		1	4105-103	4105-1103
	1.01-1.49	0.01	49		
	0.5-24.5	0.5	49		
	25-100	25	4		
88	1.0005		1	4105-88	4105-188
	1.001-1.009	0.001	9		
	1.01-1.49	0.01	49		
	0.5-9.5	0.5	19		
87	1.001-1.009	0.001	9	4105-87	4105-187
	1.01-1.49	0.01	49		
	0.5-9.5	0.5	19		
76	1.005		1	4105-76	4105-176
	1.01-1.49	0.01	49		
	0.5-9.5	0.5	19		
	10-40	10	4		
56	0.5		1	4105-56	4105-156
	1.001-1.009	0.001	9		
	1.01-1.09	0.01	9		
	1.1-1.9	0.1	9		
	1-24	1	24		
	25-100	25	4		

Blocks per set	Gage blocks included in set			Code	
	Size (mm)	Step (mm)	Quantity	Grade 0	Grade 1
47	1.005		1	4105-47A	4105-147A
	1.01-1.09	0.01	9		
	1.1-1.9	0.1	9		
	1-24	1	24		
	25-100	25	4		
47	1.005		1	4105-47	4105-147
	1.01-1.19	0.01	19		
	1.2-1.9	0.1	8		
	1-9	1	9		
	10-100	10	10		
46	1.001-1.009	0.001	9	4105-46	4105-146
	1.01-1.09	0.01	9		
	1.1-1.9	0.1	9		
	1-9	1	9		
	10-100	10	10		
34	1.0005		1	4105-34	4105-134
	1.001-1.009	0.001	9		
	1.01-1.09	0.01	9		
	1.1-1.9	0.1	9		
	1-5	1	5		
	10	1			
32	1.005		1	4105-32	4105-132
	1.01-1.09	0.01	9		
	1.1-1.9	0.1	9		
	1-9	1	9		
	10-30	10	3		
	50	1			
8	125-175	25	3	4105-8	4105-18
	200-250	50	2		
	300-500	100	3		

INDIVIDUAL CERAMIC GAGE BLOCKS



4106-A80



Dimension:

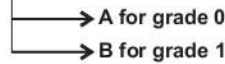
Size (L)	W	H
0.5 ≤ L ≤ 10mm	9mm	30mm
L > 10mm	9mm	35mm

9

- Grade 0 and 1 gage blocks are available
- Made of ceramic, extremely wear resistance and corrosion resistance
- Meet ISO3650
- Supplied with manufacturer inspection certificate

Code explanation:

4106-X□□□□□



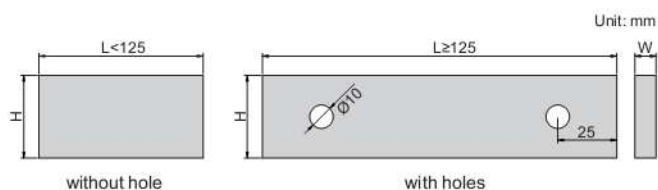
Code examples:

Size (L)	Grade	Code
0.5mm	0	4106-AD5
10mm	1	4106-B10

Size	Code	Size	Code	Size	Code	Size	Code
0.5mm	4106- <u>X</u> D5	1.23mm	4106- <u>X</u> 1D23	3mm	4106- <u>X</u> 3	17.6mm	4106- <u>X</u> 17D6
1mm	4106- <u>X</u> 1	1.24mm	4106- <u>X</u> 1D24	3.5mm	4106- <u>X</u> 3D5	18mm	4106- <u>X</u> 18
1.0005mm	4106- <u>X</u> 1D0005	1.25mm	4106- <u>X</u> 1D25	4mm	4106- <u>X</u> 4	18.5mm	4106- <u>X</u> 18D5
1.001mm	4106- <u>X</u> 1D001	1.26mm	4106- <u>X</u> 1D26	4.5mm	4106- <u>X</u> 4D5	19mm	4106- <u>X</u> 19
1.002mm	4106- <u>X</u> 1D002	1.27mm	4106- <u>X</u> 1D27	5mm	4106- <u>X</u> 5	19.5mm	4106- <u>X</u> 19D5
1.003mm	4106- <u>X</u> 1D003	1.28mm	4106- <u>X</u> 1D28	5.1mm	4106- <u>X</u> 5D1	20mm	4106- <u>X</u> 20
1.004mm	4106- <u>X</u> 1D004	1.29mm	4106- <u>X</u> 1D29	5.5mm	4106- <u>X</u> 5D5	20.2mm	4106- <u>X</u> 20D2
1.005mm	4106- <u>X</u> 1D005	1.3mm	4106- <u>X</u> 1D3	6mm	4106- <u>X</u> 6	20.5mm	4106- <u>X</u> 20D5
1.006mm	4106- <u>X</u> 1D006	1.31mm	4106- <u>X</u> 1D31	6.5mm	4106- <u>X</u> 6D5	21mm	4106- <u>X</u> 21
1.007mm	4106- <u>X</u> 1D007	1.32mm	4106- <u>X</u> 1D32	7mm	4106- <u>X</u> 7	21.5mm	4106- <u>X</u> 21D5
1.008mm	4106- <u>X</u> 1D008	1.33mm	4106- <u>X</u> 1D33	7.5mm	4106- <u>X</u> 7D5	22mm	4106- <u>X</u> 22
1.009mm	4106- <u>X</u> 1D009	1.34mm	4106- <u>X</u> 1D34	7.7mm	4106- <u>X</u> 7D7	22.5mm	4106- <u>X</u> 22D5
1.01mm	4106- <u>X</u> 1D01	1.35mm	4106- <u>X</u> 1D35	8mm	4106- <u>X</u> 8	22.8mm	4106- <u>X</u> 22D8
1.02mm	4106- <u>X</u> 1D02	1.36mm	4106- <u>X</u> 1D36	8.5mm	4106- <u>X</u> 8D5	23mm	4106- <u>X</u> 23
1.03mm	4106- <u>X</u> 1D03	1.37mm	4106- <u>X</u> 1D37	9mm	4106- <u>X</u> 9	23.5mm	4106- <u>X</u> 23D5
1.04mm	4106- <u>X</u> 1D04	1.38mm	4106- <u>X</u> 1D38	9.5mm	4106- <u>X</u> 9D5	24mm	4106- <u>X</u> 24
1.05mm	4106- <u>X</u> 1D05	1.39mm	4106- <u>X</u> 1D39	10mm	4106- <u>X</u> 10	24.5mm	4106- <u>X</u> 24D5
1.06mm	4106- <u>X</u> 1D06	1.4mm	4106- <u>X</u> 1D4	10.3mm	4106- <u>X</u> 10D3	25mm	4106- <u>X</u> 25
1.07mm	4106- <u>X</u> 1D07	1.41mm	4106- <u>X</u> 1D41	10.5mm	4106- <u>X</u> 10D5	30mm	4106- <u>X</u> 30
1.08mm	4106- <u>X</u> 1D08	1.42mm	4106- <u>X</u> 1D42	11mm	4106- <u>X</u> 11	40mm	4106- <u>X</u> 40
1.09mm	4106- <u>X</u> 1D09	1.43mm	4106- <u>X</u> 1D43	11.5mm	4106- <u>X</u> 11D5	41.3mm	4106- <u>X</u> 41D3
1.1mm	4106- <u>X</u> 1D1	1.44mm	4106- <u>X</u> 1D44	12mm	4106- <u>X</u> 12	50mm	4106- <u>X</u> 50
1.11mm	4106- <u>X</u> 1D11	1.45mm	4106- <u>X</u> 1D45	12.5mm	4106- <u>X</u> 12D5	60mm	4106- <u>X</u> 60
1.12mm	4106- <u>X</u> 1D12	1.46mm	4106- <u>X</u> 1D46	12.9mm	4106- <u>X</u> 12D9	70mm	4106- <u>X</u> 70
1.13mm	4106- <u>X</u> 1D13	1.47mm	4106- <u>X</u> 1D47	13mm	4106- <u>X</u> 13	75mm	4106- <u>X</u> 75
1.14mm	4106- <u>X</u> 1D14	1.48mm	4106- <u>X</u> 1D48	13.5mm	4106- <u>X</u> 13D5	80mm	4106- <u>X</u> 80
1.15mm	4106- <u>X</u> 1D15	1.49mm	4106- <u>X</u> 1D49	14mm	4106- <u>X</u> 14	90mm	4106- <u>X</u> 90
1.16mm	4106- <u>X</u> 1D16	1.5mm	4106- <u>X</u> 1D5	14.5mm	4106- <u>X</u> 14D5	100mm	4106- <u>X</u> 100
1.17mm	4106- <u>X</u> 1D17	1.6mm	4106- <u>X</u> 1D6	15mm	4106- <u>X</u> 15	125mm	4106- <u>X</u> 125
1.18mm	4106- <u>X</u> 1D18	1.7mm	4106- <u>X</u> 1D7	15.5mm	4106- <u>X</u> 15D5	131.4mm	4106- <u>X</u> 131D4
1.19mm	4106- <u>X</u> 1D19	1.8mm	4106- <u>X</u> 1D8	16mm	4106- <u>X</u> 16	150mm	4106- <u>X</u> 150
1.2mm	4106- <u>X</u> 1D2	1.9mm	4106- <u>X</u> 1D9	16.5mm	4106- <u>X</u> 16D5		
1.21mm	4106- <u>X</u> 1D21	2mm	4106- <u>X</u> 2	17mm	4106- <u>X</u> 17		
1.22mm	4106- <u>X</u> 1D22	2.5mm	4106- <u>X</u> 2D5	17.5mm	4106- <u>X</u> 17D5		



STEEL GAGE BLOCK SETS



Dimension:

Size (L)	W	H
0.5 ≤ L ≤ 10mm	9mm	30mm
L > 10mm	9mm	35mm

Code example:
"-122" stands for "4100-122"

- Made of alloy steel
- Meet ISO3650
- Gage blocks ≥ 125mm have clamping holes
- Supplied with manufacturer inspection certificate



4100-87

Blocks per set	Gage blocks included in set			Code (4100)		
	Size (mm)	Step (mm)	Quantity	Grade 0	Grade 1	Grade 2
122	1.0005		1			
	1.001-1.009	0.001	9			
	1.01-1.49	0.01	49			
	1.6-1.9	0.1	4	-122	-1122	-2122
	0.5-24.5	0.5	49			
	30-100	10	8			
	25-75	50	2			
112	1.0005		1			
	1.001-1.009	0.001	9			
	1.01-1.49	0.01	49	-112	-1112	-2112
	0.5-24.5	0.5	49			
	25-100	25	4			
103	1.005		1			
	1.01-1.49	0.01	49	-103	-1103	-2103
	0.5-24.5	0.5	49			
	25-100	25	4			
88	1.0005		1			
	1.001-1.009	0.001	9			
	1.01-1.49	0.01	49	-88	-188	-288
	0.5-9.5	0.5	19			
	10-100	10	10			
87	1.001-1.009	0.001	9			
	1.01-1.49	0.01	49	-87	-187	-287
	0.5-9.5	0.5	19			
	10-100	10	10			
83	0.5		1			
	1		1			
	1.005		1			
	1.01-1.49	0.01	49	-83	-183	-283
	1.5-1.9	0.1	5			
	2-9.5	0.5	16			
10-100	10	10				
76	1.005		1			
	1.01-1.49	0.01	49			
	0.5-9.5	0.5	19	-76	-176	-276
	10-40	10	4			
	50-100	25	3			

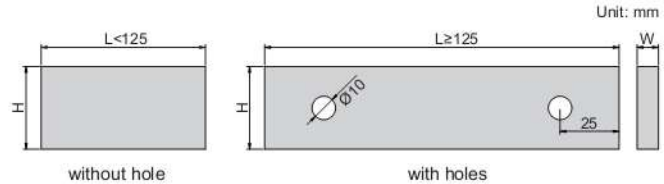
Blocks per set	Gage blocks included in set			Code (4100)		
	Size (mm)	Step (mm)	Quantity	Grade 0	Grade 1	Grade 2
56	0.5		1			
	1.001-1.009	0.001	9			
	1.01-1.09	0.01	9	-56	-156	-256
	1.1-1.9	0.1	9			
	1-24	1	24			
	25-100	25	4			
47	1.005		1			
	1.01-1.09	0.01	9			
	1.1-1.9	0.1	9	-47A	-147A	-247A
	1-24	1	24			
	25-100	25	4			
47	1.005		1			
	1.01-1.19	0.01	19			
	1.2-1.9	0.1	8	-47	-147	-247
	1-9	1	9			
	10-100	10	10			
46	1.001-1.009	0.001	9			
	1.01-1.09	0.01	9			
	1.1-1.9	0.1	9	-46	-146	-246
	1-9	1	9			
	10-100	10	10			
34	1.0005		1			
	1.001-1.009	0.001	9			
	1.01-1.09	0.01	9	-34	-134	-234
	1.1-1.9	0.1	9			
	1-5	1	5			
	10	1				
32	1.005		1			
	1.01-1.09	0.01	9			
	1.1-1.9	0.1	9	-32	-132	-232
	1-9	1	9			
	10-30	10	3			
		50	1			
9	1.001-1.009	0.001	9	-9	-19	-29
9	0.991-0.999	0.001	9	-9A	-19A	-29A
8	125-175	25	3			
	200-250	50	2	-8	-18	-28
	300-500	100	3			

INDIVIDUAL STEEL GAGE BLOCKS

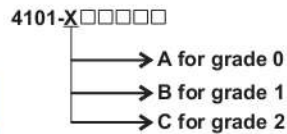
CUSTOM-MADE
CAN SUPPLY ANY SIZES FROM
0.5 TO 1000MM, SUCH AS 72.672MM



- Grade 0, 1 and 2 gage blocks are available
- Made of alloy steel
- Meet ISO3650
- Gage blocks ≥ 125 mm have clamping holes
- Supplied with manufacturer inspection certificate



Code explanation:



Code examples:

Size (L)	Grade	Code
0.5mm	0	4101-AD5
1mm	1	4101-B1
10.5mm	2	4101-C10D5

Dimension:

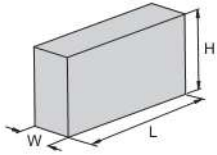
Size (L)	W	H
0.5 ≤ L ≤ 10mm	9mm	30mm
L > 10mm	9mm	35mm

Size	Code
0.5mm	4101-XD5
0.991mm	4101-XD991
0.992mm	4101-XD992
0.993mm	4101-XD993
0.994mm	4101-XD994
0.995mm	4101-XD995
0.996mm	4101-XD996
0.997mm	4101-XD997
0.998mm	4101-XD998
0.999mm	4101-XD999
1mm	4101-X1
1.0005mm	4101-X1D0005
1.001mm	4101-X1D001
1.002mm	4101-X1D002
1.003mm	4101-X1D003
1.004mm	4101-X1D004
1.005mm	4101-X1D005
1.006mm	4101-X1D006
1.007mm	4101-X1D007
1.008mm	4101-X1D008
1.009mm	4101-X1D009
1.01mm	4101-X1D01
1.02mm	4101-X1D02
1.03mm	4101-X1D03
1.04mm	4101-X1D04
1.05mm	4101-X1D05
1.06mm	4101-X1D06
1.07mm	4101-X1D07
1.08mm	4101-X1D08
1.09mm	4101-X1D09
1.1mm	4101-X1D1
1.11mm	4101-X1D11
1.12mm	4101-X1D12
1.13mm	4101-X1D13
1.14mm	4101-X1D14
1.15mm	4101-X1D15
1.16mm	4101-X1D16
1.17mm	4101-X1D17
1.18mm	4101-X1D18

Size	Code
1.19mm	4101-X1D19
1.2mm	4101-X1D2
1.21mm	4101-X1D21
1.22mm	4101-X1D22
1.23mm	4101-X1D23
1.24mm	4101-X1D24
1.25mm	4101-X1D25
1.26mm	4101-X1D26
1.27mm	4101-X1D27
1.28mm	4101-X1D28
1.29mm	4101-X1D29
1.3mm	4101-X1D3
1.31mm	4101-X1D31
1.32mm	4101-X1D32
1.33mm	4101-X1D33
1.34mm	4101-X1D34
1.35mm	4101-X1D35
1.36mm	4101-X1D36
1.37mm	4101-X1D37
1.38mm	4101-X1D38
1.39mm	4101-X1D39
1.4mm	4101-X1D4
1.41mm	4101-X1D41
1.42mm	4101-X1D42
1.43mm	4101-X1D43
1.44mm	4101-X1D44
1.45mm	4101-X1D45
1.46mm	4101-X1D46
1.47mm	4101-X1D47
1.48mm	4101-X1D48
1.49mm	4101-X1D49
1.5mm	4101-X1D5
1.6mm	4101-X1D6
1.7mm	4101-X1D7
1.8mm	4101-X1D8
1.9mm	4101-X1D9
2mm	4101-X2
2.5mm	4101-X2D5
3mm	4101-X3

Size	Code
3.5mm	4101-X3D5
4mm	4101-X4
4.5mm	4101-X4D5
5mm	4101-X5
5.1mm	4101-X5D1
5.5mm	4101-X5D5
6mm	4101-X6
6.5mm	4101-X6D5
7mm	4101-X7
7.5mm	4101-X7D5
7.7mm	4101-X7D7
8mm	4101-X8
8.5mm	4101-X8D5
9mm	4101-X9
9.5mm	4101-X9D5
10mm	4101-X10
10.3mm	4101-X10D3
10.5mm	4101-X10D5
11mm	4101-X11
11.5mm	4101-X11D5
12mm	4101-X12
12.5mm	4101-X12D5
12.9mm	4101-X12D9
13mm	4101-X13
13.5mm	4101-X13D5
14mm	4101-X14
14.5mm	4101-X14D5
15mm	4101-X15
15.5mm	4101-X15D5
16mm	4101-X16
16.5mm	4101-X16D5
17mm	4101-X17
17.5mm	4101-X17D5
17.6mm	4101-X17D6
18mm	4101-X18
18.5mm	4101-X18D5
19mm	4101-X19
19.5mm	4101-X19D5
20mm	4101-X20

Size	Code
20.2mm	4101-X20D2
20.5mm	4101-X20D5
21mm	4101-X21
21.5mm	4101-X21D5
22mm	4101-X22
22.5mm	4101-X22D5
22.8mm	4101-X22D8
23mm	4101-X23
23.5mm	4101-X23D5
24mm	4101-X24
24.5mm	4101-X24D5
25mm	4101-X25
30mm	4101-X30
35mm	4101-X35
40mm	4101-X40
41.3mm	4101-X41D3
45mm	4101-X45
50mm	4101-X50
60mm	4101-X60
70mm	4101-X70
75mm	4101-X75
80mm	4101-X80
90mm	4101-X90
100mm	4101-X100
125mm	4101-X125
131.4mm	4101-X131D4
150mm	4101-X150
175mm	4101-X175
200mm	4101-X200
250mm	4101-X250
300mm	4101-X300
400mm	4101-X400
500mm	4101-X500
600mm	4101-X600
700mm	4101-X700
750mm	4101-X750
800mm	4101-X800
900mm	4101-X900
1000mm	4101-X1000



Dimension:

Size (L)	W	H
0.5 ≤ L ≤ 10mm	9mm	30mm
L > 10mm	9mm	35mm

- Made of carbide, extremely wear resistance and corrosion resistance, excellent dimension stability
- Meet ISO3650
- Supplied with manufacturer inspection certificate

CARBIDE GAGE BLOCK SETS



4164-32

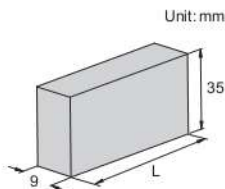
Blocks per set	Gage blocks included in set			Code	
	Size (mm)	Step (mm)	Quantity	Grade 0	Grade 1
122	1.0005		1	4164-122	4164-1122
	1.001-1.009	0.001	9		
	1.01-1.49	0.01	49		
	1.6-1.9	0.1	4		
	0.5-24.5	0.5	49		
	30-100	10	8		
112	1.0005		1	4164-112	4164-1112
	1.001-1.009	0.001	9		
	1.01-1.49	0.01	49		
	0.5-24.5	0.5	49		
	25-100	25	4		
103	1.005		1	4164-103	4164-1103
	1.01-1.49	0.01	49		
	0.5-24.5	0.5	49		
	25-100	25	4		
87	1.001-1.009	0.001	9	4164-87	4164-187
	1.01-1.49	0.01	49		
	0.5-9.5	0.5	19		
	10-100	10	10		
83	0.5		1	4164-83	4164-183
	1		1		
	1.005		1		
	1.01-1.49	0.01	49		
	1.5-1.9	0.1	5		
	2-9.5	0.5	16		
	10-100	10	10		

Blocks per set	Gage blocks included in set			Code	
	Size (mm)	Step (mm)	Quantity	Grade 0	Grade 1
76	1.005		1	4164-76	4164-176
	1.01-1.49	0.01	49		
	0.5-9.5	0.5	19		
	10-40	10	4		
	50-100	25	3		
47	1.005		1	4164-47A	4164-147A
	1.01-1.09	0.01	9		
	1.1-1.9	0.1	9		
	1-24	1	24		
47	1.005		1	4164-47	4164-147
	1.01-1.19	0.01	19		
	1.2-1.9	0.1	8		
	1-9	1	9		
	10-100	10	10		
46	1.001-1.009	0.001	9	4164-46	4164-146
	1.01-1.09	0.01	9		
	1.1-1.9	0.1	9		
	1-9	1	9		
	10-100	10	10		
32	1.005		1	4164-32	4164-132
	1.01-1.09	0.01	9		
	1.1-1.9	0.1	9		
	1-9	1	9		
	10-30	10	3		
	50		1		



CALIPER INSPECTION GAGE BLOCK SET

- Meet ISO3650/grade 2
- Supplied with manufacturer inspection certificate



(mm)

Code	Material	Blocks per set	Gage blocks included in set (L)	Applicable calipers
4108-3005	alloy steel	5	30, 41.3, 131.4, 243.5, 281.2	0-150, 0-200, 0-300

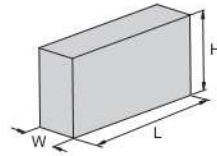


4108-3005

MICROMETER INSPECTION GAGE BLOCK SETS



4107-10



Dimension:

Size (L)	W	H
0.5 ≤ L ≤ 10mm	9mm	30mm
L > 10mm	9mm	35mm

Code	Material	Gage blocks included in set	Applicable micrometer	Optical flat
4107-10	ceramic	2.5mm, 5.1mm, 7.7mm, 10.3mm, 12.9mm, 15mm, 17.6mm, 20.2mm, 22.8mm, 25mm, optical flat	0-25mm	included
4107-101	alloy steel	2.5mm, 5.1mm, 7.7mm, 10.3mm, 12.9mm, 15mm, 17.6mm, 20.2mm, 22.8mm, 25mm, optical flat	0-25mm	included
4107-112	alloy steel	25mm, 27.5mm, 30.1mm, 32.7mm, 35.3mm, 37.9mm, 40mm, 42.6mm, 45.2mm, 47.8mm, 50mm	25-50mm	not included
4107-113	alloy steel	50mm, 52.5mm, 55.1mm, 57.7mm, 60.3mm, 62.9mm, 65mm, 67.6mm, 70.2mm, 72.8mm, 75mm	50-75mm	not included
4107-114	alloy steel	75mm, 77.5mm, 80.1mm, 82.7mm, 85.3mm, 87.9mm, 90mm, 92.6mm, 95.2mm, 97.8mm, 100mm	75-100mm	not included

- One piece of optical flat is included in 4107-10, 4107-101
- Meet ISO3650/grade 0
- Supplied with manufacturer inspection certificate

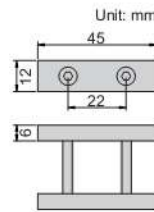
GAGE BLOCK HOLDERS

- Made of aluminum
- To be used with individual steel gage blocks (code 4101) as Go and No-Go gage

Code	Applicable gage block size
6883-1	1.5-5mm
6883-2	5-10mm
6883-3	10-15mm
6883-4	15-20mm
6883-5	20-25mm



6883-4



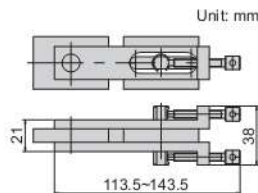
To be used as Go and No-Go gage



GAGE BLOCK HOLDER



6886-1

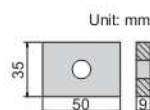


- For gage blocks over 100mm with clamping holes
- Optional accessory: gage block holder accessory, gage block accessory (code 6881)

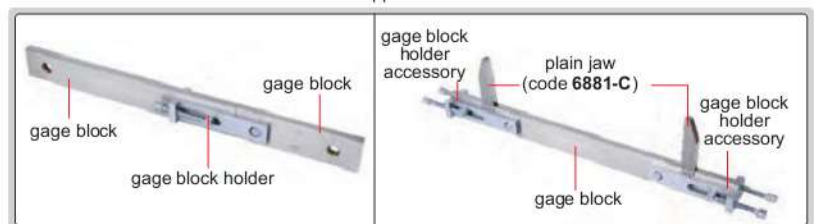
GAGE BLOCK HOLDER ACCESSORY



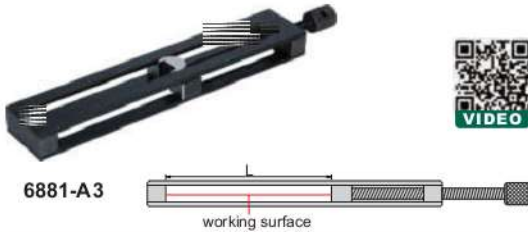
6886-A



application



GAGE BLOCK ACCESSORIES

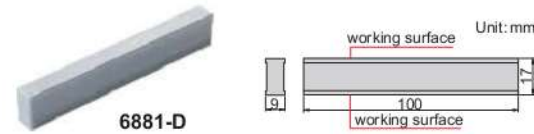


Code	Name	Clamping range * (L)
6881-A1	holder	0-25mm
6881-A2	holder	25-50mm
6881-A3	holder	50-100mm
6881-A4	holder	100-200mm
6881-A5	holder	200-300mm
6881-A6**	holder	300-500mm

* The actual clamping range should deduct the width of jaws
 ** Not suitable for base 6881-B



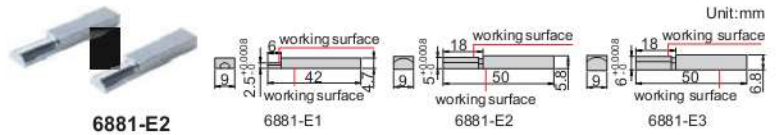
Code	Name	Remark
6881-F	scriber	made of carbide



Code	Name	Remark
6881-D	parallel jaw	made of carbide



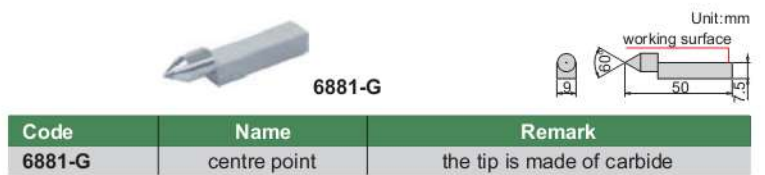
Code	Name
6881-B	base



Code	Name	Size	Remark
6881-E1	half round jaw	2.5mm	made of carbide, supplied in pair
6881-E2	half round jaw	5.0mm	made of carbide, supplied in pair
6881-E3	half round jaw	6.0mm	made of carbide, supplied in pair



Code	Name	Remark
6881-C	plain jaw	made of carbide, supplied in pair



Code	Name	Remark
6881-G	centre point	the tip is made of carbide



holder, 0-25mm (code 6881-A1)	1 pc
holder, 25-50mm (code 6881-A2)	1 pc
holder, 50-100mm (code 6881-A3)	1 pc
holder, 100-200mm (code 6881-A4)	1 pc
holder, 200-300mm (code 6881-A5)	1 pc
base (code 6881-B)	1 pc
plain jaw (code 6881-C)	1 pair
parallel jaw (code 6881-D)	1 pc
half round jaw, 2.5mm (code 6881-E1)	1 pair
half round jaw, 5.0mm (code 6881-E2)	1 pair
half round jaw, 6.0mm (code 6881-E3)	1 pair
scriber (code 6881-F)	1 pc
centre point (code 6881-G)	1 pc

GAGE BLOCK ACCESSORY SET

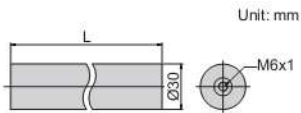
Code	Mark
6881-S17	17 pcs (including the below items)

application



CYLINDER GAGE BLOCKS

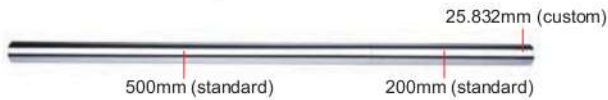
CUSTOM-MADE
CAN SUPPLY ANY LENGTH, SUCH AS 80.672MM



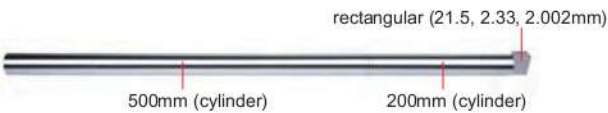
- Made of special alloy steel, hardness HRC64, high stability, wear resistance and easy combination
- Meet ISO3650 grade 1
- Can be connected with M6x1 screw and combined to any sizes up to 4m

can be combined to any sizes up to 4m

Combination 1: combined by several standard size cylinder gage blocks and one custom size cylinder gage block
For example: 500 (standard) + 200 (standard) + 25.832 (custom)=725.832mm
Note: in order to reduce cost, custom size should be within 100mm



Combination 2: combined by standard size cylinder gage blocks and rectangular gage blocks
For example: 500 (cylinder) + 200 (cylinder) + 21.5 (rectangular) + 2.33 (rectangular) + 2.002 (rectangular)=725.832mm



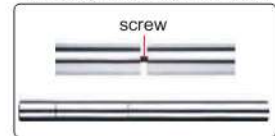
high stability in vertical position, suitable for checking height gages



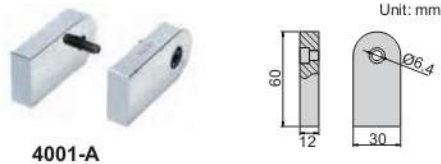
Code	Length (L)
4001-25 *	25mm
4001-50 *	50mm
4001-75 *	75mm
4001-100 *	100mm
4001-200 *	200mm
4001-300 *	300mm
4001-400 *	400mm
4001-500 *	500mm

* Supplied with manufacturer inspection certificate

connected with M6x1mm screw



INTERNAL BLOCKS



4001-A

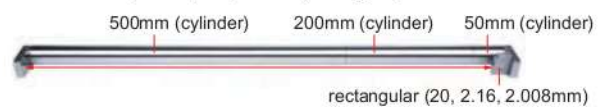
- Can be attached to cylinder and rectangular gage blocks
- Made of special alloy steel, hardness HRC64, high stability, wear resistance and easy combination
- Supplied in a matched pair

Code	Size	Flatness
4001-A	12mm	0.2µm

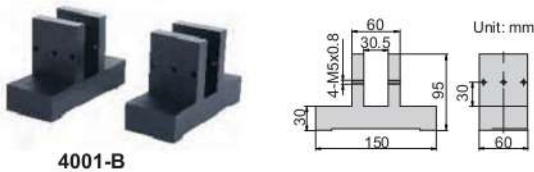
Combination 1: combined by several standard size cylinder gage blocks and one custom size cylinder gage block
For example: 500 (standard) + 200 (standard) + 25.832 (custom)=725.832mm
Note: in order to reduce cost, custom size should be within 100mm



Combination 2: combined by standard size cylinder gage blocks and rectangular gage blocks
For example: 500 (cylinder) + 200 (cylinder) + 50 (rectangular) - 20 (rectangular) - 2.16 (rectangular) - 2.008 (rectangular)=725.832mm



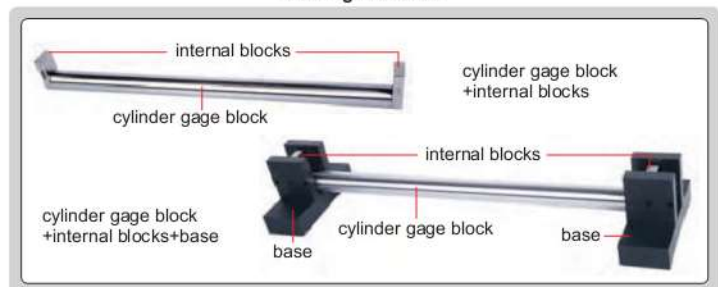
BASE



4001-B

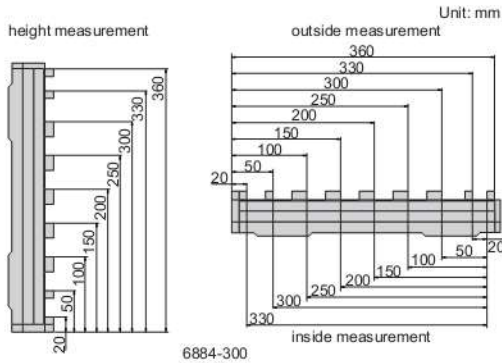
Code	Remark
4001-B	supplied in pair

working with base



CALIPER/HEIGHT GAGE CHECKERS

**INSPECTION
CERTIFICATE**

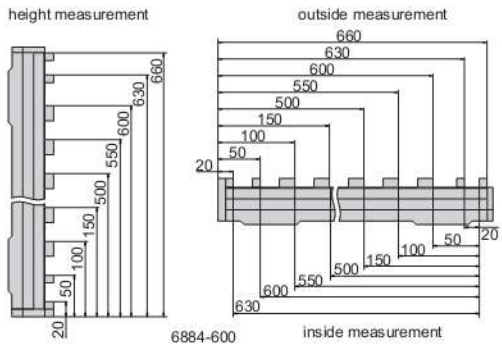


horizontal use

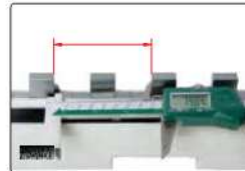


vertical use

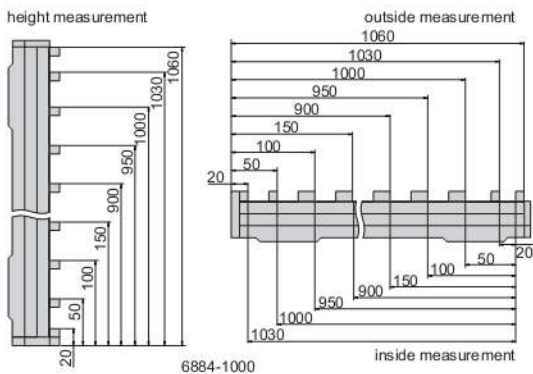
6884-300



check upper jaws of calipers



check lower jaws of calipers



check height gages



- To check calipers and height gages
- Constructed with steel gage blocks

(mm)

Code	Size	Range of inside measurement	Range of outside measurement	Range of height measurement	Accuracy
6884-300*	0-300mm	20, 50, 100, 150, 200, 250, 300, 330	20, 50, 100, 150, 200, 250, 300, 330, 360	20, 50, 100, 150, 200, 250, 300, 330, 360	±3µm
6884-600*	0-600mm	20, 50, 100, 150, 200, 250, 300, 350, 400, 450, 500, 550, 600, 630	20, 50, 100, 150, 200, 250, 300, 350, 400, 450, 500, 550, 600, 630, 660	20, 50, 100, 150, 200, 250, 300, 350, 400, 450, 500, 550, 600, 630, 660	±5µm
6884-1000*	0-1000mm	20, 50, 100, 150, 200, 250, 300, 350, 400, 450, 500, 550, 600, 650, 700, 750, 800, 850, 900, 950, 1000, 1030	20, 50, 100, 150, 200, 250, 300, 350, 400, 450, 500, 550, 600, 650, 700, 750, 800, 850, 900, 950, 1000, 1030, 1060	20, 50, 100, 150, 200, 250, 300, 350, 400, 450, 500, 550, 600, 650, 700, 750, 800, 850, 900, 950, 1000, 1030, 1060	±7µm

*Supplied with manufacturer inspection certificate

INSIDE MICROMETER ACCESSORIES

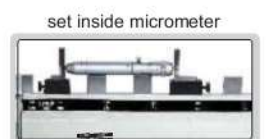
- Supplied with a pair of 5mm carbide gage blocks

Code	Applicable caliper/height gage checker
6884-A3*	0-300mm/0-600mm
6884-A10*	0-1000mm

*Supplied with manufacturer inspection certificate



6884-A3

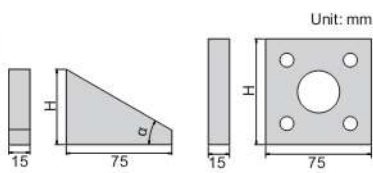


set inside micrometer

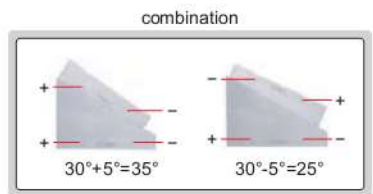
ANGLE GAGE BLOCKS



4002-15



set angle of plate



inspect angle



- Accuracy: ±2"
- To inspect protractor, taper gage, index plate, index head and goniometer, can also be used to set angle
- Made of special alloy steel, hardness HRC64, high stability, wear resistance and easy combination
- Can be combined to any angle with interval 6 seconds after combination (6", 12", 18", ... , 360°)

Individual

Code	Angle (α)	H (mm)
4002-A1 *	1°	11.5
4002-A3 *	3°	14.0
4002-A5 *	5°	16.5
4002-A9 *	9°	22.0
4002-A15 *	15°	30.5
4002-A27 *	27°	48.0
4002-A30 *	30°	53.5
4002-A41 *	41°	75.0
4002-A45 *	45°	84.0
4002-B1 *	1'	10.0
4002-B3 *	3'	10.0
4002-B5 *	5'	10.0
4002-B9 *	9'	10.0
4002-B20 *	20'	10.0
4002-B27 *	27'	10.0
4002-B30 *	30'	10.0
4002-C6 *	6"	10.0
4002-C12 *	12"	10.0
4002-C18 *	18"	10.0
4002-C30 *	30"	10.0
4002-D *	90°/90°/90°/90°	75.0

Set

Code	Angle (α)	Total quantity
4002-13 *	1°, 3°, 9°, 27°, 41°, 1', 3', 9', 27', 6", 18", 30", 90°/90°/90°/90°	13
4002-15 *	1°, 3°, 5°, 15°, 30°, 45°, 1', 3', 5', 20', 30', 6", 12", 30", 90°/90°/90°/90°	15

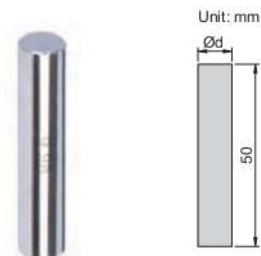
* Supplied with manufacturer inspection certificate

INDIVIDUAL PIN GAGES WITH TWO DECIMAL PLACES (0.01MM STEP)

- Meet DIN2267, grade 1
- Diameter range: Ø0.20~Ø20.00mm
- Diameter accuracy: ±1µm
- Made of alloy steel
- Hardness HRC62-65
- Optional accessory: wooden box

Diameter Ød (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

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



4110-9D98

Code
4110-□□□□

Ordering examples:

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

Note : "D" stands for "."

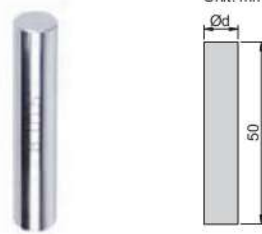
INDIVIDUAL PIN GAGES WITH THREE DECIMAL PLACES (0.001MM STEP)



- Meet DIN2267, 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
- Optional accessory: wooden box

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

* Supplied with manufacturer inspection certificate



4118-8D015

Ordering examples:

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

Note: "D" stands for "."

PIN GAGE SETS

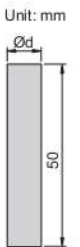
- Meet DIN2267, grade 1
- Made of alloy steel
- Hardness HRC62-65
- Diameter accuracy: $\pm 1\mu\text{m}$

Code	Diameter $\varnothing d$ (mm)	Step	Pin gages 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 gages 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



4166-6D



Code	Diameter $\varnothing d$ (mm)	Step	Pin gages 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 gages 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

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

- Diameter range: $\varnothing 0.50\text{--}\varnothing 10.00\text{mm}$
- Diameter accuracy: $\pm 1\mu\text{m}$
- Made of ceramic, extremely wear resistance, corrosion resistance and dimensional stability
- Optional accessory: wooden box (code **7340**)

Diameter $\varnothing d$ (mm)
0.50, 0.51, 0.52, 0.53, 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



4113-3D00

Ordering examples:

Diameter	Code
0.21mm	4113-0D21
5.56mm	4113-5D56
10.00mm	4113-10D00

Code
4113-□□□□

Note: "D" stands for "."

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CERAMIC PIN GAGE SETS

- 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 gages per set
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 gages 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

Code	Diameter $\varnothing d$ (mm)	Step	Pin gages 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

BOXES FOR PIN GAGES

- For individual pin gages (4110 and 4118 series)

Code	Applicable pin gage diameter Ød	Quantity of pin gages
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



7340

PIN GAGE HANDLES



- Wrench is needed to install pins
- Clamping bushes (0.2~7.14mm) are made of brass, clamping bushes (7.14~25.65mm) are made of aluminum



Handle



brass (0.2~7.14mm)
aluminum (7.14~25.65mm)
clamping bush

Code	Applicable pin gage diameter	Including	
		Handle	Clamping bush (mm)
7341-0S	0.2-1.02mm	1 pc	6 pairs (the clamping range are 0.2-0.38, 0.38-0.51, 0.51-0.64, 0.64-0.76, 0.76-0.89, 0.89-1.02)
7341-1S	1.02-1.91mm	1 pc	7 pairs (the clamping range are 1.02-1.14, 1.14-1.27, 1.27-1.40, 1.40-1.52, 1.52-1.65, 1.65-1.78, 1.78-1.91)
7341-2S	1.91-3.33mm	1 pc	8 pairs (the clamping range are 1.91-2.08, 2.08-2.26, 2.26-2.44, 2.44-2.62, 2.62-2.79, 2.79-2.97, 2.97-3.15, 3.15-3.33)
7341-3S	3.33-4.57mm	1 pc	7 pairs (the clamping range are 3.33-3.51, 3.51-3.68, 3.68-3.86, 3.86-4.04, 4.04-4.22, 4.22-4.39, 4.39-4.57)
7341-4S	4.57-5.79mm	1 pc	6 pairs (the clamping range are 4.57-4.78, 4.78-4.98, 4.98-5.18, 5.18-5.38, 5.38-5.59, 5.59-5.79)
7341-5S	5.79-7.14mm	1 pc	6 pairs (the clamping range are 5.79-5.99, 5.99-6.20, 6.20-6.40, 6.40-6.63, 6.63-6.88, 6.88-7.14)

Code	Applicable pin gage diameter	Including	
		Handle	Clamping bush (mm)
7341-6S	7.14-8.66mm	1 pc	6 pairs (the clamping range are 7.14-7.39, 7.39-7.65, 7.65-7.90, 7.90-8.15, 8.15-8.41, 8.41-8.66)
7341-7S	8.66-10.31mm	1 pc	6 pairs (the clamping range are 8.66-8.92, 8.9-9.17, 9.17-9.42, 9.42-9.70, 9.70-10.01, 10.01-10.31)
7341-8S	10.31-11.81mm	1 pc	4 pairs (the clamping range are 10.31-10.67, 10.67-11.05, 11.05-11.43, 11.43-11.81)
7341-9S	11.81-12.95mm	1 pc	3 pairs (the clamping range are 11.81-12.19, 12.19-12.57, 12.57-12.95)
7341-10S	12.95-14.71mm	1 pc	4 pairs (the clamping range are 12.95-13.51, 13.51-13.89, 13.89-14.30, 14.30-14.71)
7341-11S	14.71-16.13mm	1 pc	4 pairs (the clamping range are 14.71-15.09, 15.09-15.49, 15.49-15.88, 15.88-16.13)
7341-12S	16.13-17.88mm	1 pc	4 pairs (the clamping range are 16.13-16.66, 16.66-17.07, 17.07-17.48, 17.48-17.88)
7341-13S	17.88-19.30mm	1 pc	4 pairs (the clamping range are 17.88-18.26, 18.26-18.67, 18.67-19.05, 19.05-19.30)
7341-15S	19.30-25.65mm	1 pc	8 pairs (the clamping range are 19.30-19.84, 19.84-20.62, 20.62-21.41, 21.41-22.23, 22.23-23.03, 23.03-23.80, 23.80-24.59, 24.59-25.65)