



Focussimple

Connector Gage Kits

2024

In the field of RF connectors, the accuracy of interface dimensions is crucial for the universality and electrical performance of the connectors. Deviating from the specified interface range of a connector, especially if the center conductor’s depth and position are outside the standard interface range, can not only lead to a decrease in electrical performance but also potentially damage mating connectors, resulting in unnecessary losses. Therefore, accurate measurement of connector interface dimensions is particularly necessary.

The Connector Interface Gauge is a specialized instrument designed for precisely measuring the interface dimensions between the inner and outer conductors of RF coaxial connectors to ensure compliance with industry standards. Our Interface Gauge utilizes a digital display and precision mechanical components to efficiently and accurately determine interface dimensions, effectively avoiding risks associated with dimensional deviations and ensuring the performance and reliability of connectors.

■ **Features:**

- Simple testing method;
- Optional resolution (resolution of 0.001 mm, repeatability of 0.002 mm);
- Digital micrometer reading for convenient measurement;
- Support both metric and imperial units;
- Comprehensive range of port types;

■ **Components List:**



Package Overview

- ① Male Interface Gauge
- ② Male Interface Gauge Zero Calibration Block
- ③ Male Interface Gauge Calibration Standard Block
- ④ Female Interface Gauge
- ⑤ Female Interface Gauge Zero Calibration Block
- ⑥ Female Interface Gauge Calibration Standard Block
- ⑦ Torque Wrench
- ⑧ Fixed Open-End Wrench
- ⑨ Packaging Wooden Box and Lining

■ **Model:**

Model	Gauge Type	Resolution
CGK-10	1.0 mm	0.001 mm
CGK-13	1.35 mm	0.001 mm
CGK-18	1.85/2.4 mm	0.001 mm
CGK-29	2.92/3.5 mm	0.001 mm
CGK-SMA	SMAP(Center Pin)	0.001 mm
	SMAD(Insulator)	0.001 mm
CGK-N	N	0.001 mm

Note: Optional resolution 0.001 mm or 0.01 mm.

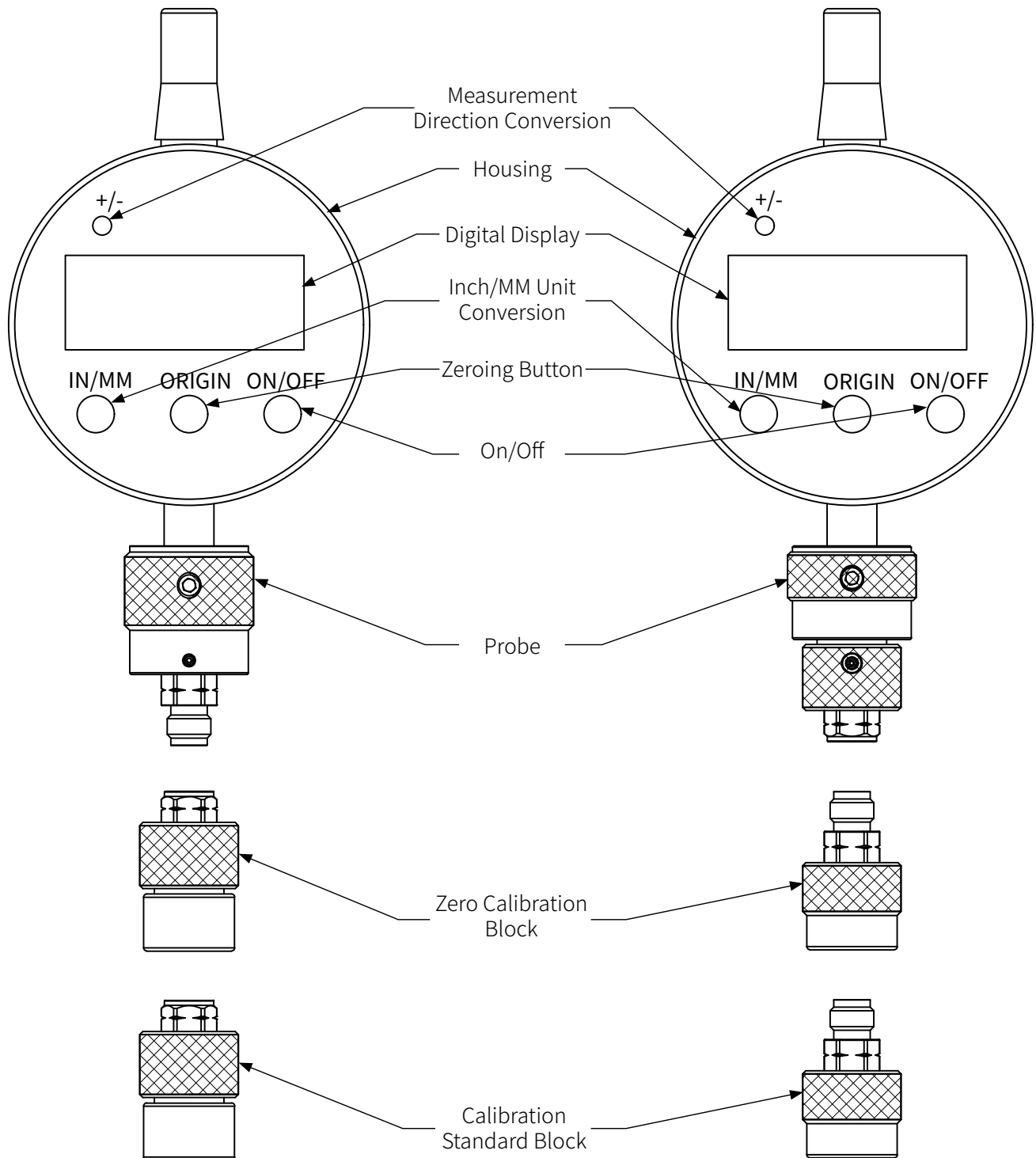
■ **Structure:**

Usage Method

- ① Turn on the micrometer switch.
- ② Calibrate the interface gauge probe by connecting it to the zero calibration block.
- ③ Press “ORIGIN” to reset to zero.
- ④ Remove the zero calibration block.
- ⑤ Connect the calibration standard block, and if the micrometer reading matches the value of the calibration standard block, proceed with measurement.



■ Structure:



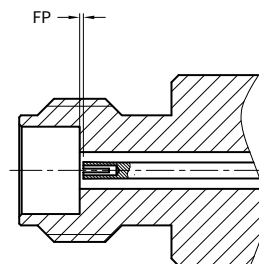
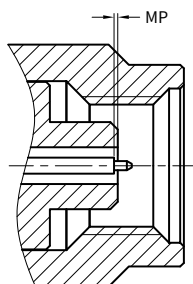
CGK-10

1.0 mm Connector Gage Kits

Model	Dial Indicator	Range	Resolution	Accuracy	Repeatability
CGK-10	Digital Metric/Imperial	0.4 (0.0157")	0.001 (0.000039")	0.003 (0.00012")	0.002 (0.000079")

Interface Dimensions

MP(Male Pin):
Distance from Male Pin Step
Surface to Main End Surface.



FP(Female Pin):
Distance from Female Pin End
Surface to Main End Surface.

1.0 mm				
Specification	MP mm (inch)		FP mm (inch)	
	Min	Max	Min	Max
IEC61169-31	0	0.05(0.002")	0	0.05(0.002")

Note: Metric dimensions shall prevail; all geometric tolerances must meet requirements.

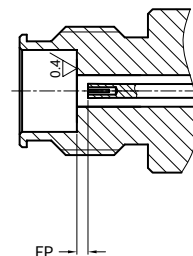
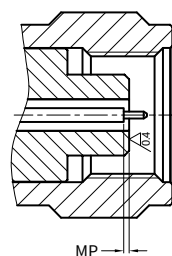
CGK-13

1.35 mm Connector Gage Kits

Model	Dial Indicator	Range	Resolution	Accuracy	Repeatability
CGK-13	Digital Metric/Imperial	0.4 (0.0157")	0.001 (0.000039")	0.003 (0.00012")	0.002 (0.000079")

Interface Dimensions

MP(Male Pin):
Distance from Male Pin Step
Surface to Main End Surface.



FP(Female Pin):
Distance from Female Pin End
Surface to Main End Surface.

1.35 mm				
Specification	MP mm (inch)		FP mm (inch)	
	Min	Max	Min	Max
IEC61169-65	0.003(0.000118")	0.05(0.002")	0.003(0.000118")	0.05(0.002")

Note: Metric dimensions shall prevail; all geometric tolerances must meet requirements.

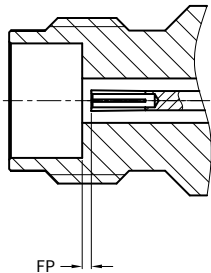
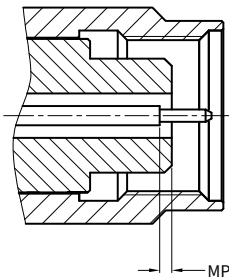
CGK-18

1.85/2.4 mm Connector Gage Kits

Model	Dial Indicator	Range	Resolution	Accuracy	Repeatability
CGK-18	Digital Metric/Imperial	0.4 (0.0157")	0.001 (0.000039")	0.003 (0.00012")	0.002 (0.000079")

Interface Dimensions

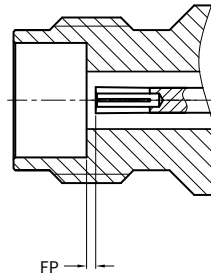
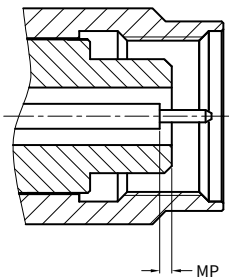
MP(Male Pin):
Distance from Male Pin Step
Surface to Main End Surface.



FP(Female Pin):
Distance from Female Pin End
Surface to Main End Surface.

1.85 mm				
Specification	MP mm (inch)		FP mm (inch)	
	Min	Max	Min	Max
IEEE Std 287-2007	0	0.05(0.002")	0	0.05(0.002")

MP(Male Pin):
Distance from Male Pin Step
Surface to Main End Surface.



FP(Female Pin):
Distance from Female Pin End
Surface to Main End Surface.

2.4 mm				
Specification	MP mm (inch)		FP mm (inch)	
	Min	Max	Min	Max
IEEE Std 287-2007	0	0.05(0.002")	0	0.05(0.002")

Note: Metric dimensions shall prevail; all geometric tolerances must meet requirements.

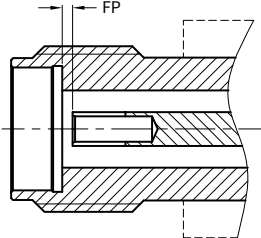
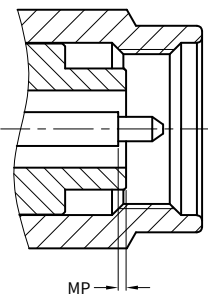
CGK-29

2.92/3.5 mm Connector Gage Kits

Model	Dial Indicator	Range	Resolution	Accuracy	Repeatability
CGK-29	Digital Metric/Imperial	0.4 (0.0157")	0.001 (0.000039")	0.003 (0.00012")	0.002 (0.000079")

Interface Dimensions

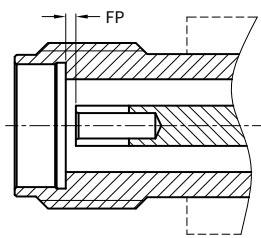
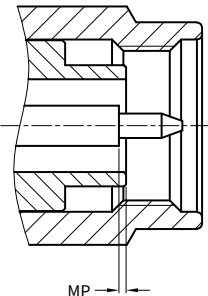
MP(Male Pin):
Distance from Male Pin Step
Surface to Main End Surface.



FP(Female Pin):
Distance from Female Pin End
Surface to Main End Surface.

2.92 mm				
Specification	MP mm (inch)		FP mm (inch)	
	Min	Max	Min	Max
IEC 61169-35	0	0.076(0.003")	0	0.076(0.003")

MP(Male Pin):
Distance from Male Pin Step
Surface to Main End Surface.



FP(Female Pin):
Distance from Female Pin End
Surface to Main End Surface.

3.5 mm				
Specification	MP mm (inch)		FP mm (inch)	
	Min	Max	Min	Max
IEC 60169-23	0	0.076(0.003")	0	0.076(0.003")

Note: Metric dimensions shall prevail; all geometric tolerances must meet requirements.

CGK-SMA

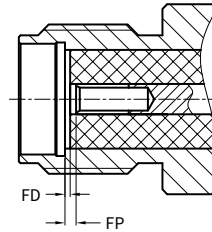
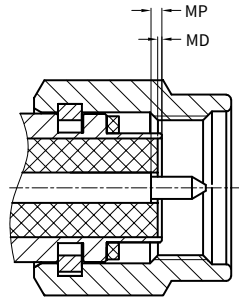
SMA Connector Gage Kits

Model	Dial Indicator	Range	Resolution	Accuracy	Repeatability
CGK-SMA	Digital Metric/Imperial	0.4 (0.0157")	0.001 (0.000039")	0.003 (0.00012")	0.002 (0.000079")

Interface Dimensions

MD(Male Dielectric):
Male Pin Insulator Below Main
End Surface Range.

MP(Male Pin):
Distance from Male Pin Step
Surface to Main End Surface.



FD(Female Dielectric):
Female Pin Insulator Below Main
End Surface Range.

FP(Female Pin):
Distance from Female Pin End
Surface to Main End Surface.

SMA								
规范	MP mm (inch)		MD mm (inch)		FP mm (inch)		FD mm (inch)	
	Min	Max	Min	Max	Min	Max	Min	Max
MIL-STD-348B	0	0.254(0.01")	0	0.2(0.008")	0	0.254(0.01")	0	0.2(0.008")

Note: Metric dimensions shall prevail; all geometric tolerances must meet requirements.

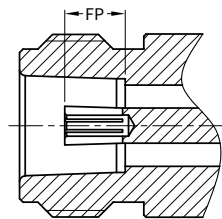
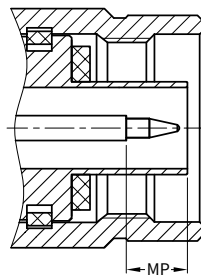
CGK-N

N Connector Gage Kits

Model	Dial Indicator	Range	Resolution	Accuracy	Repeatability
CGK-N	Digital Metric/Imperial	0.4 (0.0157")	0.001 (0.000039")	0.003 (0.00012")	0.002 (0.000079")

Interface Dimensions

MP(Male Pin):
Distance from Male Pin Step
Surface to Main End Surface.



FP(Female Pin):
Distance from Female Pin End
Surface to Main End Surface.

N				
Specification	MP mm (inch)		FP mm (inch)	
	Min	Max	Min	Max
MIL-STD-348B	5.28(0.0208")	5.36(0.211")	5.18(0.204")	5.26(0.207")

Note: Metric dimensions shall prevail; all geometric tolerances must meet requirements.



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