

FINE PITCH PROBES - PITCH 0.11 - 0.29 MM

FM Choice

FP090DF-L047

0.11 mm Pitch | Single acting



Electrical specifications

Current [A]	0.25	
R _{TYP} [mOhm]	<600	
Self Inductance [nH]	1.89	
	Socket [Pitch 0.15]	Probe Card [Pitch 0.11]
Frequency at -1dB [GHz]	33	43

Mechanical specifications

Temperature [°C]	-45°...+120°	
Preload [cN]	0.8	
Spring force at nt [cN ±20%]	4.5	
Nominal travel [mm]	0.40	
Maximum travel [mm]	0.50	

Materials and plating

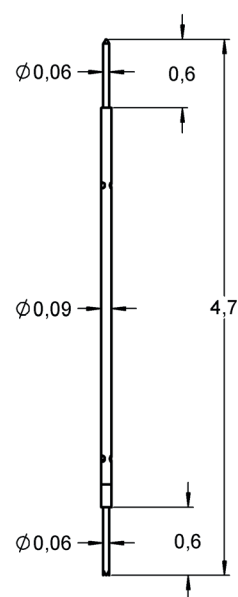
Top Plunger	Palladium alloy	unplated
Bottom Plunger (rigid)	Palladium alloy	unplated
Barrel	Nickel	gold plated (inside)
Spring	Spring steel	gold plated

Drill size recommendation [mm]

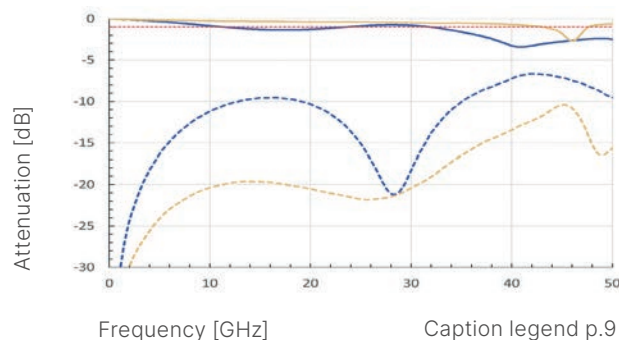
For barrel-Ø of probe	0.12 - 0.14
-----------------------	-------------

Series drawing

All measurements are in mm.



Radio frequency performance [GHz]



Order code	Product name	Top plunger	Bottom plunger	Ø in mm	FM Choice
1135965	FP090DF0329P006U005L047	03	29	0.06	

FINE PITCH PROBES - PITCH 0.11 - 0.29 MM

FM Choice

FP110DF-L047

0.15 mm Pitch | Single acting



Electrical specifications

Current [A]	0.25	
R _{TYP} [mOhm]	<500	
Self Inductance [nH]	1.72	
	Socket [Pitch 0.15]	Probe Card [Pitch 0.17]
Frequency at -1dB [GHz]	33	42

Mechanical specifications

Temperature [°C]	-45°...+120°	
Preload [cN]	1.7	
Spring force at nt [cN ±20%]	6.0	
Nominal travel [mm]	0.40	
Maximum travel [mm]	0.50	

Materials and plating

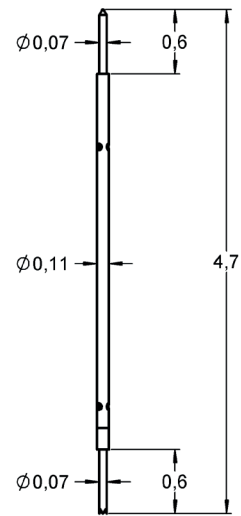
Top Plunger	Palladium alloy	unplated
Bottom Plunger (rigid)	Palladium alloy	unplated
Barrel	Nickel	gold plated (inside)
Spring	Spring steel	gold plated

Drill size recommendation [mm]

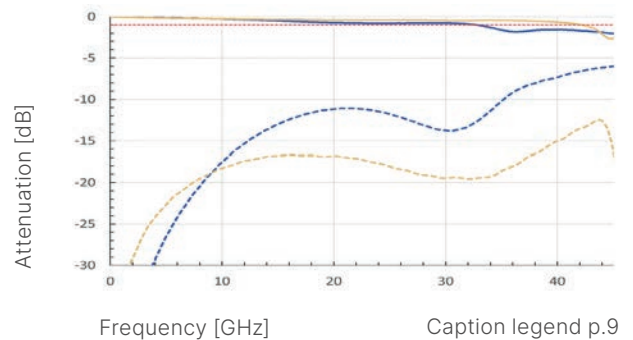
For barrel-Ø of probe	0.12 - 0.14
-----------------------	-------------

Series drawing

All measurements are in mm.



Radio frequency performance [GHz]



Order code	Product name	Top plunger	Bottom plunger	Ø in mm	FM Choice
1040994	FP110DF0329P007U006L047	03	29	0.07	

FINE PITCH PROBES - PITCH 0.30 - 0.50 MM

FM Choice

FP200D-L037

0.30 mm Pitch | Double acting



Electrical specifications

Current [A]	0.8	
R _{TYP} [mOhm]	<100	
Self Inductance [nH]	1.27	
	Socket	Probe Card
Frequency at -1dB [GHz]	22	42.5

Mechanical specifications

Temperature [°C]	-45°...+120°	
Preload [cN]	7	5
Spring force at nt [cN ±20%]	17	13
Nominal travel [mm]	0.40	0.40
Maximum travel [mm]	0.50	0.50

Materials and plating

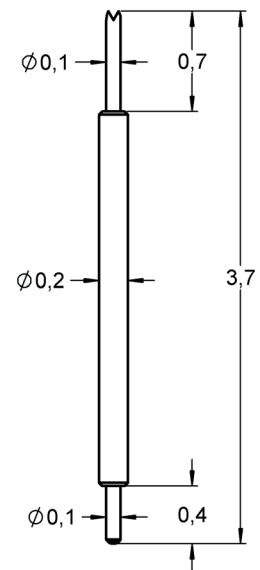
Top Plunger	BeCu	gold plated
	Palladium alloy	unplated
Bottom Plunger	BeCu	gold plated
Barrel	Nickel	gold plated
Spring	Spring steel	gold plated

Drill size recommendation [mm]

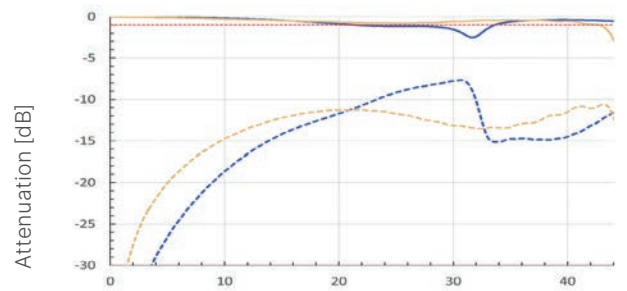
For barrel-Ø of probe	0.21 - 0.23
-----------------------	-------------

Series drawing

All measurements are in mm.



Radio frequency performance [GHz]



Frequency [GHz]

Caption legend p.9

Order code	Product name	Top plunger	Bottom plunger	Ø in mm	FM Choice
1023002	FP200D0301B010G017L037	03	01	0.07	FM Choice
1023129	FP200D2901B010G017L037	29	01	0.10	FM Choice
1030448	FP200D2901P010U013L037	29	01	0.10	FM Choice

FINE PITCH PROBES - PITCH 0.30 - 0.50 MM



FP200DF-L045

0.30 mm Pitch | Single acting

Electrical specifications

Current [A]	0.7	
R _{TYP} [mOhm]	<500	
Self Inductance [nH]	1.62	
	Socket	Probe Card
Frequency at -1dB [GHz]	27..5	38.5

Mechanical specifications

Temperature [°C]	-45°...+120°	
Preload [cN]	10	
Spring force at nt [cN ±20%]	15	
Nominal travel [mm]	0.30	
Maximum travel [mm]	0.45	

Materials and plating

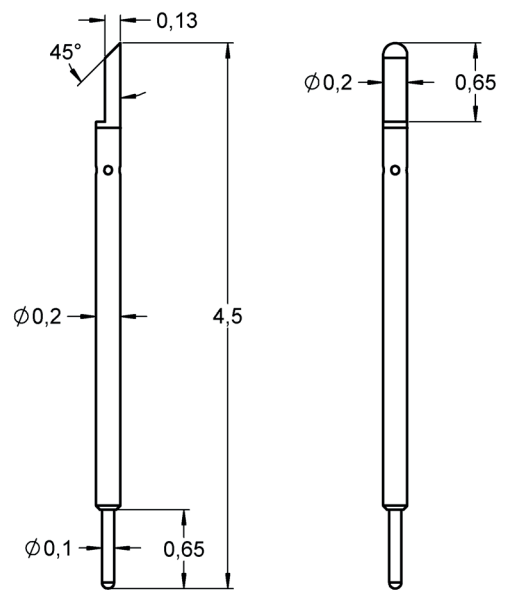
Top Plunger	BeCu	gold plated (rigid)
Bottom Plunger	BeCu	gold plated
Barrel	Nickel	gold plated (inside)
Spring	Spring steel	gold plated

Drill size recommendation [mm]

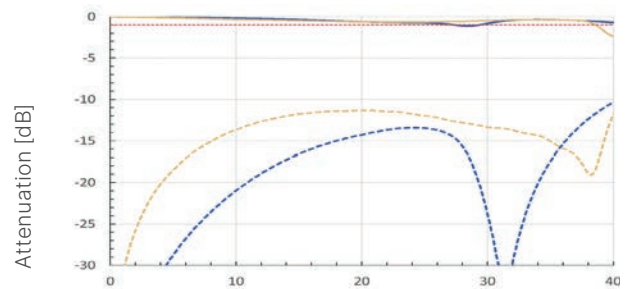
For barrel-Ø of probe	0.21 - 0.23
-----------------------	-------------

Series drawing

All measurements are in mm.



Radio frequency performance [GHz]



Frequency [GHz]

Caption legend p.9

Order code	Product name	Top plunger	Bottom plunger	Ø in mm	FM Choice
1024610	FP200DF7111B020G015L045	71	11	0.13	
1030202	FP200DF7111P020U015L045	71	11	0.13	

FINE PITCH PROBES - PITCH 0.30 - 0.50 MM



FP210D-L057

0.30 mm Pitch | Double acting

Electrical specifications

Current [A]	0.5	
R _{TYP} [mOhm]	<150	
Self Inductance [nH]	1.86	
	Socket	Probe Card
Frequency at -1dB [GHz]	14	29

Mechanical specifications

Temperature [°C]	-45°...+120°	
Preload [cN]	3.5	3
Spring force at nt [cN ±20%]	11	16
Nominal travel [mm]	0.60	0.50
Maximum travel [mm]	1.00	0.60

Materials and plating

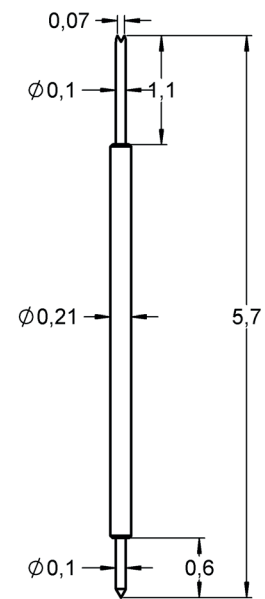
Top Plunger	BeCu	gold plated
Bottom Plunger	BeCu	gold plated
Barrel	Nickel	gold plated
Spring	Spring steel	gold plated

Drill size recommendation [mm]

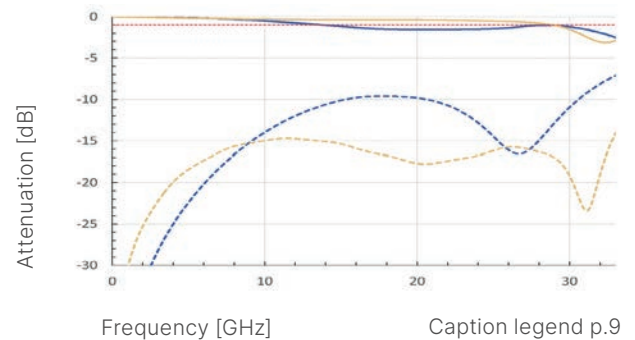
For barrel-Ø of probe	0.22 - 0.24
-----------------------	-------------

Series drawing

All measurements are in mm.



Radio frequency performance [GHz]



Order code	Product name	Top plunger	Bottom plunger	Ø in mm	FM Choice
1031798	FP210D0303B010G016L057	03	03	0.10	
1024774	FP210D2903B010G011L057	29	03	0.10	

FINE PITCH PROBES - PITCH 0.30 - 0.50 MM

FM Choice

FP260D-L072

0.35 mm Pitch | Double acting | High temperature version



Electrical specifications

Current [A]	1.5	
R _{TYP} [mOhm]	<100	
Self Inductance [nH]	2.07	
	Socket	Probe Card
Frequency at -1dB [GHz]	22.5	27.5

Mechanical specifications

Temperature [°C]	-45°...+150°	
Preload [cN]	7	
Spring force at nt [cN ±20%]	25	
Nominal travel [mm]	0.80	
Maximum travel [mm]	1.00	

Materials and plating

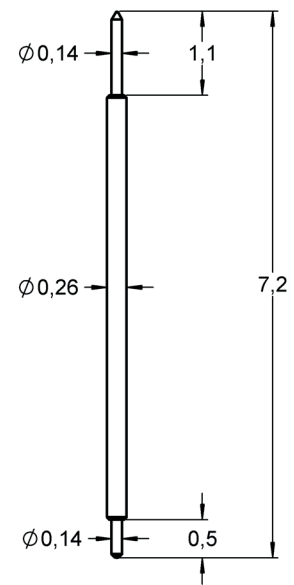
Top Plunger	BeCu	gold plated
Bottom Plunger	BeCu	gold plated
Barrel	Nickel	gold plated
Spring	Stainless steel	gold plated

Drill size recommendation [mm]

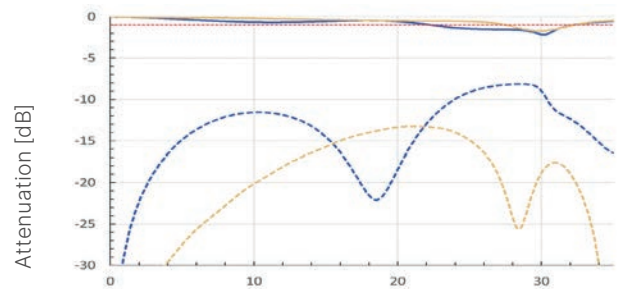
For barrel-Ø of probe	0.27 - 0.30
-----------------------	-------------

Series drawing

All measurements are in mm.



Radio frequency performance [GHz]



Frequency [GHz]

Caption legend p.9

Order code	Product name	Top plunger	Bottom plunger	Ø in mm	FM Choice
1023003	FP260D0301B014G025L072	03	01	0.14	
1023128	FP260D2901B014G025L072	29	01	0.14	

FINE PITCH PROBES - PITCH 0.30 - 0.50 MM



FP280DF-L033

0.35 mm Pitch | Single acting

Electrical specifications

Current [A]	2.5
R _{TYP} [mOhm]	-
Self Inductance [nH]	0.82

Mechanical specifications

Temperature [°C]	-45°...+150°
Preload [cN]	2.5
Spring force at nt [cN ±20%]	10
Nominal travel [mm]	0.30
Maximum travel [mm]	0.47

Materials and plating

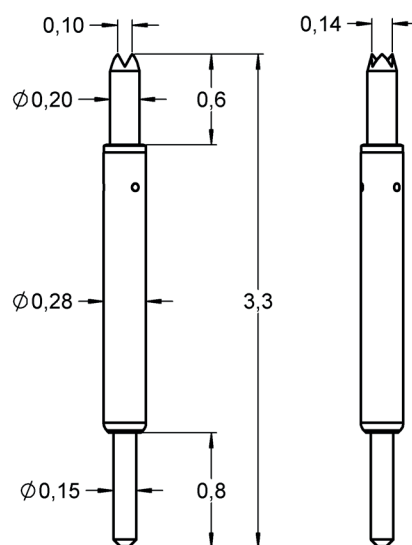
Top Plunger (rigid)	Palladium alloy	unplated
Bottom Plunger	Palladium alloy	unplated
Barrel	Bronze	gold plated
Spring	Stainless steel	gold plated

Drill size recommendation [mm]

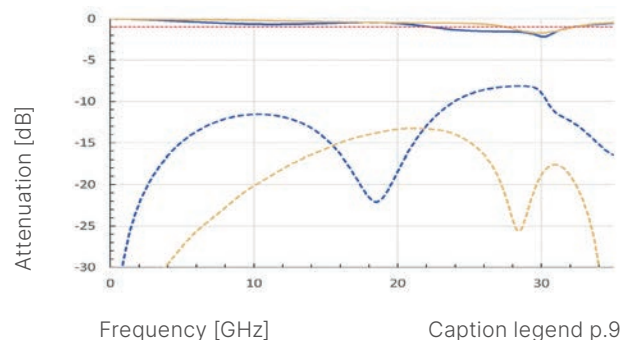
For barrel-Ø of probe	0.29 - 0.31
-----------------------	-------------

Series drawing

All measurements are in mm.



Radio frequency performance [GHz]



Order code	Product name	Top plunger	Bottom plunger	Ø in mm	FM Choice
1120799	FP280DF2911P020U010L033	29	11	0.20	

FINE PITCH PROBES - PITCH 0.30 - 0.50 MM



FP280D-L054

0.35 mm Pitch | Double acting

Electrical specifications

Current [A]	1.5	
R _{TYP} [mOhm]	<125	
Self Inductance [nH]	1.36	
	Socket	Probe Card
Frequency at -1dB [GHz]	11	31.5

Mechanical specifications

Temperature [°C]	-45°...+120°	
Preload [cN]	6	
Spring force at nt [cN ±20%]	25	
Nominal travel [mm]	0.50	
Maximum travel [mm]	0.08	

Materials and plating

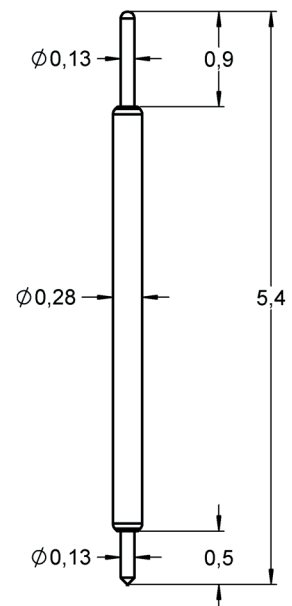
Top Plunger	Palladium alloy	unplated
Bottom Plunger	BeCu	gold plated
Barrel	Bronze	gold plated
Spring	Spring steel	gold plated

Drill size recommendation [mm]

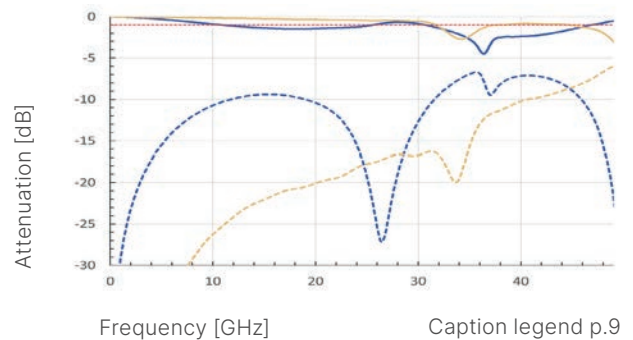
For barrel-Ø of probe	0.29 - 0.31
-----------------------	-------------

Series drawing

All measurements are in mm.



Radio frequency performance [GHz]



Order code	Product name	Top plunger	Bottom plunger	Ø in mm	FM Choice
1087982	FP280D1101P013U025L054	11	01	0.13	

FINE PITCH PROBES - PITCH 0.30 - 0.50 MM

FM Choice

FP280D-L057

0.35 mm Pitch | Double acting



Electrical specifications

Current [A]	1.5	
R _{TYP} [mOhm]	<100	
Self Inductance [nH]	1.44	
	Socket	Probe Card
Frequency at -1dB [GHz]	10	27.5

Mechanical specifications

Temperature [°C]	-45°...+120°	
Preload [cN]	6	6
Spring force at nt [cN ±20%]	25	30
Nominal travel [mm]	0.50	0.65
Maximum travel [mm]	0.80	1.10

Materials and plating

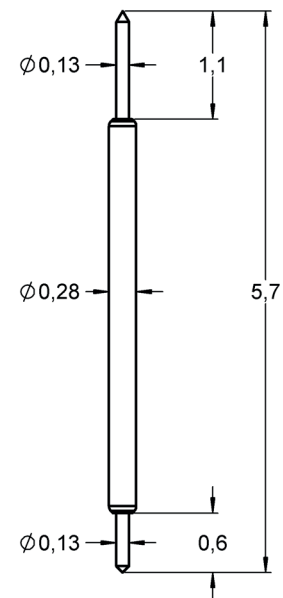
Top Plunger	BeCu	gold plated
	Palladium alloy	unplated
Bottom Plunger	BeCu	gold plated
Barrel	Bronze	gold plated
Spring	Spring steel	gold plated

Drill size recommendation [mm]

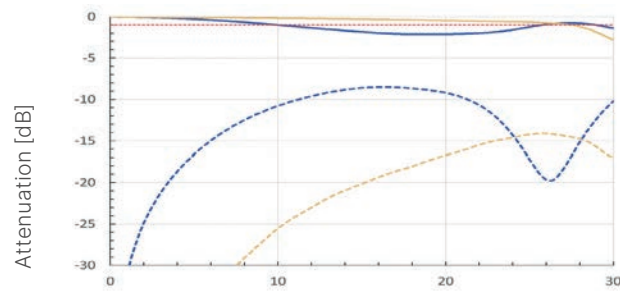
For barrel-Ø of probe	0.29 - 0.31
-----------------------	-------------

Series drawing

All measurements are in mm.



Radio frequency performance [GHz]



Frequency [GHz]

Caption legend p.9

Order code	Product name	Top plunger	Bottom plunger	Ø in mm	FM Choice
1031135	FP280D0301B013G025L057	03	01	0.13	
1031133	FP280D2901B013G025L057	29	01	0.13	
1030726	FP280D0301P013U030L057	03	01	0.13	

FINE PITCH PROBES - PITCH 0.30 - 0.50 MM



FP280D-L057H

0.35 mm Pitch | Double acting | High temperature version

Electrical specifications

Current [A]	1.5
R _{TYP} [mOhm]	<125
Self Inductance [nH]	1.44
Frequency at -1dB [GHz]	11.5

Mechanical specifications

Temperature [°C]	-45°...+150°
Preload [cN]	6
Spring force at nt [cN ±20%]	15
Nominal travel [mm]	0.50
Maximum travel [mm]	0.80

Materials and plating

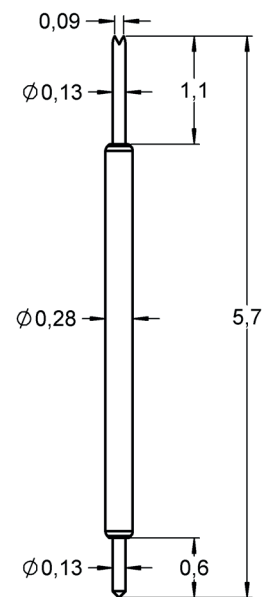
Top Plunger	BeCu	gold plated
	Palladium alloy	unplated
Bottom Plunger	BeCu	gold plated
Barrel	Bronze	gold plated
Spring	Stainless steel	gold plated

Drill size recommendation [mm]

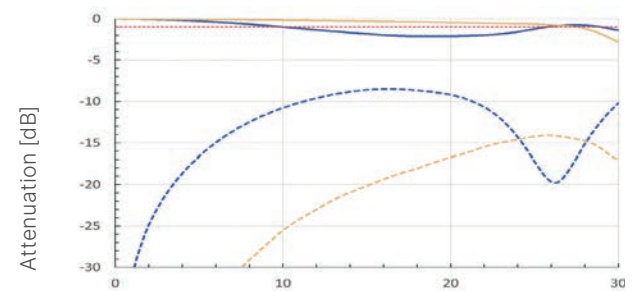
For barrel-Ø of probe	0.29 - 0.31
-----------------------	-------------

Series drawing

All measurements are in mm.



Radio frequency performance [GHz]



Frequency [GHz]

Caption legend p.9

Order code	Product name	Top plunger	Bottom plunger	Ø in mm	FM Choice
1035118	FP280D0101B013G015L057	01	01	0.13	
1031136	FP280D0301B013G015L057	03	01	0.13	
1031132	FP280D0301P013U015L057	03	01	0.13	
1031134	FP280D2901B013G015L057	29	01	0.13	

FINE PITCH PROBES - PITCH 0.30 - 0.50 MM



FP280D-L086

0.35 mm Pitch | Double acting | High temperature version

Electrical specifications

Current [A]	1.1	
R _{TYP} [mOhm]	<180	
Self Inductance [nH]	2.16	
	Socket	Probe Card
Frequency at -1dB [GHz]	19	26

Mechanical specifications

Temperature [°C]	-45°...+150°	
Preload [cN]	4	
Spring force at nt [cN ±20%]	20	
Nominal travel [mm]	0.80	
Maximum travel [mm]	1.10	

Materials and plating

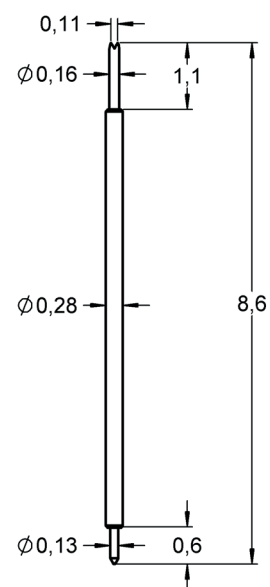
Top Plunger	Palladium alloy	unplated
Bottom Plunger	BeCu	gold plated
Barrel	Nickel	gold plated (inside)
Spring	Spring steel	gold plated

Drill size recommendation [mm]

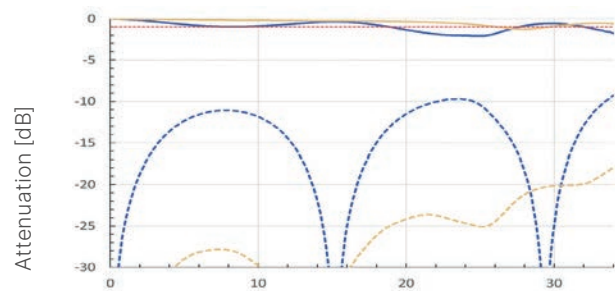
For barrel-Ø of probe	0.29 - 0.31
-----------------------	-------------

Series drawing

All measurements are in mm.



Radio frequency performance [GHz]



Frequency [GHz]

Caption legend p.9

Order code	Product name	Top plunger	Bottom plunger	Ø in mm	FM Choice
1030449	FP280D2903P016U020L086	29	03	0.16	

FINE PITCH PROBES - PITCH 0.30 - 0.50 MM

FM Choice

FP300D-L032

0.40 mm Pitch | Double acting



Electrical specifications

Current [A]	1.4	
R _{TYP} [mOhm]	<100	
Self Inductance [nH]	0.87	
	Socket	Probe Card
Frequency at -1dB [GHz]	19	48.5

Mechanical specifications

Temperature [°C]	-45°...+120°	
Preload [cN]	7	7
Spring force at nt [cN ±20%]	17	19
Nominal travel [mm]	0.45	0.45
Maximum travel [mm]	0.58	0.58

Materials and plating

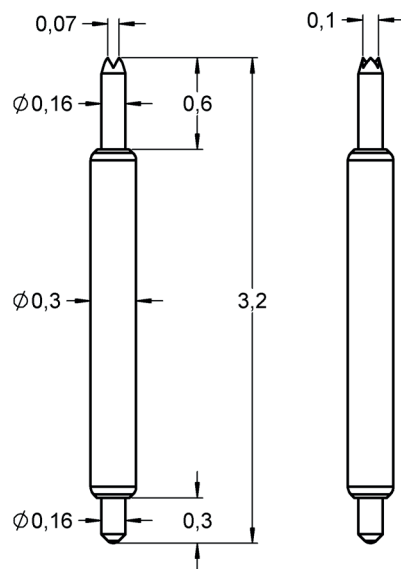
Top Plunger	BeCu	gold plated
	Palladium alloy	unplated
Bottom Plunger	BeCu	gold plated
Barrel	Nickel	gold plated
Spring	Spring steel	gold plated

Drill size recommendation [mm]

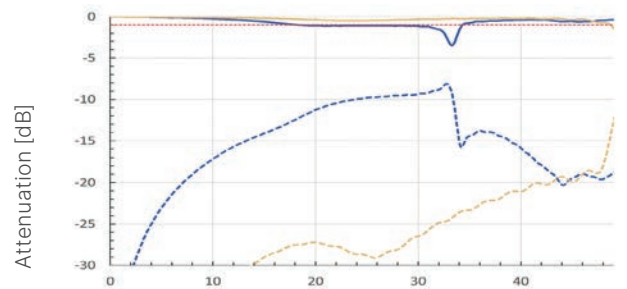
For barrel-Ø of probe	0.31 - 0.33
-----------------------	-------------

Series drawing

All measurements are in mm.



Radio frequency performance [GHz]



Frequency [GHz]

Caption legend p.9

Order code	Product name	Top plunger	Bottom plunger	Ø in mm	FM Choice
1023111	FP300D0301B016G019L032	03	01	0.16	
1023004	FP300D2901B016G019L032	29	01	0.16	
1024431	FP300D2901P016U017L032	29	01	0.16	

FINE PITCH PROBES - PITCH 0.30 - 0.50 MM

FM Choice

FP300D-L057

0.40 mm Pitch | Double acting



Electrical specifications

Current [A]	1.4	
R _{TYP} [mOhm]	<100	
Self Inductance [nH]	1.61	
	Socket	Probe Card
Frequency at -1dB [GHz]	13	28.5

Mechanical specifications

Temperature [°C]	-45°...+120° -45°...+150° (H)	
Preload [cN]	3	5
Spring force at nt [cN ±20%]	25	30
Nominal travel [mm]	0.65	0.65
Maximum travel [mm]	0.80	0.80

Materials and plating

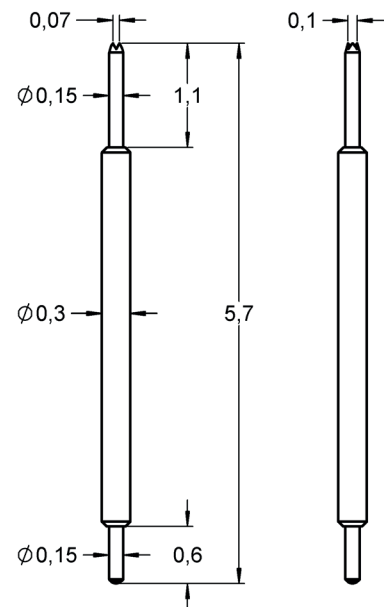
Top Plunger	BeCu	gold plated
	Palladium alloy	unplated
Bottom Plunger	BeCu	gold plated
Barrel	Nickel	gold plated
Spring	Spring steel	gold plated

Drill size recommendation [mm]

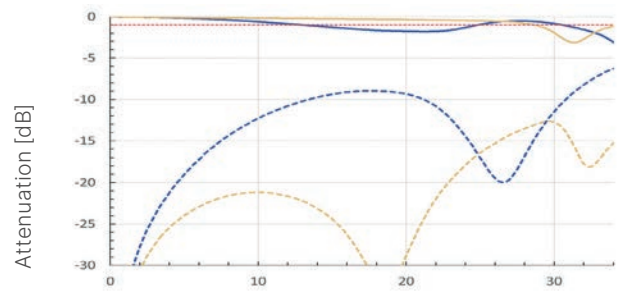
For barrel-Ø of probe	0.31 - 0.33
-----------------------	-------------

Series drawing

All measurements are in mm.



Radio frequency performance [GHz]



Frequency [GHz]

Caption legend p.9

Order code	Product name	Top plunger	Bottom plunger	Ø in mm	FM Choice
1023125	FP300D0301B015G030L057	03	01	0.15	
1023005	FP300D2901B015G030L057	29	01	0.15	
1024430	FP300D2901P015U025L057H	29	01	0.15	

FINE PITCH PROBES - PITCH 0.30 - 0.50 MM



FP350D-L069

0.50 mm Pitch | Double acting | High temperature version

Electrical specifications

Current [A]	2.0	
R _{TYP} [mOhm]	<66	
Self Inductance [nH]	2.22	
Frequency at -1dB [GHz]	Socket	Probe Card
	27	26.5

Mechanical specifications

Temperature [°C]	-45°...+150°	
Preload [cN]	8	
Spring force at nt [cN ±20%]	20	
Nominal travel [mm]	0.65	
Maximum travel [mm]	0.75	

Materials and plating

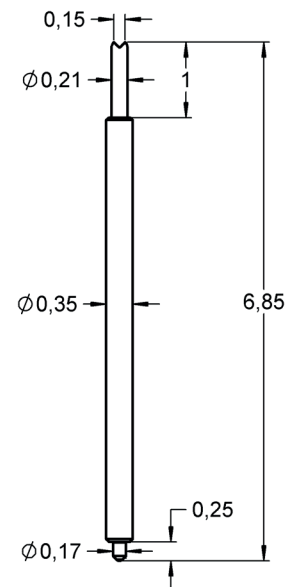
Top Plunger	BeCu	gold plated
Bottom Plunger	BeCu	gold plated
Barrel	Nickel	gold plated
Spring	Stainless steel	gold plated

Drill size recommendation [mm]

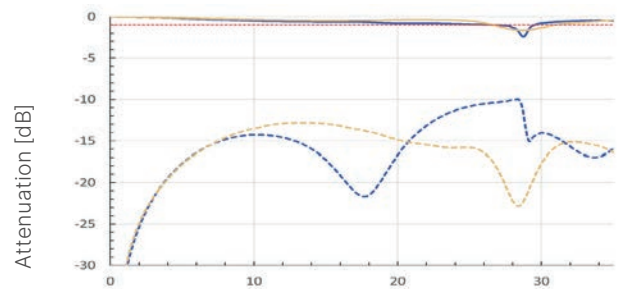
For barrel-Ø of probe	0.36 - 0.38
-----------------------	-------------

Series drawing

All measurements are in mm.



Radio frequency performance [GHz]



Frequency [GHz]

Caption legend p.9

Order code	Product name	Top plunger	Bottom plunger	Ø in mm	FM Choice
1023460	FP350D0301B025G020L069	03	01	0.25	
1023459	FP350D2901B021G020L069	29	01	0.25	

FINE PITCH PROBES - PITCH 0.30 - 0.50 MM



FP350D-L076

0.50 mm Pitch | Double acting | High temperature version

Electrical specifications

Current [A]	2.0	
R _{TYP} [mOhm]	<80	
Self Inductance [nH]	2.50	
	Socket	Probe Card
Frequency at -1dB [GHz]	23	22

Mechanical specifications

Temperature [°C]	-45°...+150°	
Preload [cN]	8	
Spring force at nt [cN ±20%]	20	
Nominal travel [mm]	0.65	
Maximum travel [mm]	0.75	

Materials and plating

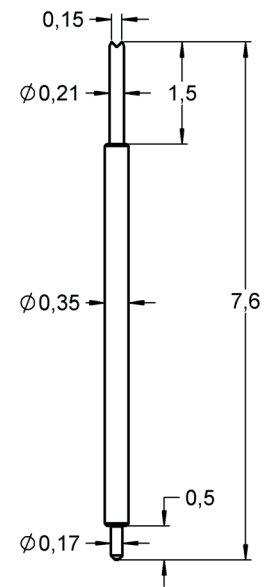
Top Plunger	BeCu	gold plated
Bottom Plunger	BeCu	gold plated
Barrel	Bronze	gold plated
Spring	Stainless steel	gold plated

Drill size recommendation [mm]

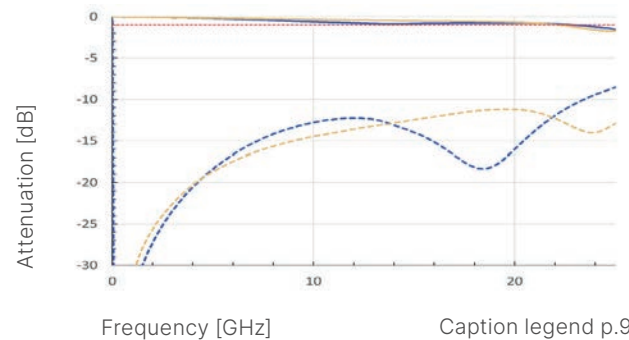
For barrel-Ø of probe	0.36 - 0.38
-----------------------	-------------

Series drawing

All measurements are in mm.



Radio frequency performance [GHz]



Order code	Product name	Top plunger	Bottom plunger	Ø in mm	FM Choice
1114002	FP350D2901B021G020L076	29	01	0.21	

FINE PITCH PROBES - PITCH 0.30 - 0.50 MM

FM Choice

FP380D-L030

0.50 mm Pitch | Double acting



Electrical specifications

Current [A]	1.1	
R _{TYP} [mOhm]	<100	
Self Inductance [nH]	0.81	
	Socket	Probe Card
Frequency at -1dB [GHz]	21.5	44

Mechanical specifications

Temperature [°C]	-45°...+120°	
Preload [cN]	15	
Spring force at nt [cN ±20%]	25	
Nominal travel [mm]	0.40	
Maximum travel [mm]	0.55	

Materials and plating

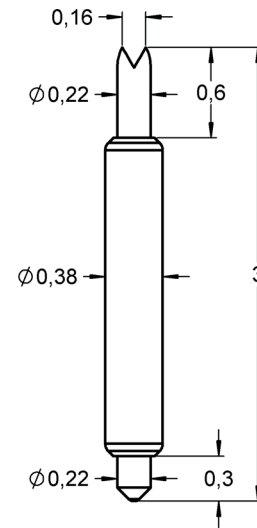
Top Plunger	Palladium alloy	unplated
Bottom Plunger	BeCu	gold plated
Barrel	Nickel	gold plated
Spring	Spring steel	gold plated

Drill size recommendation [mm]

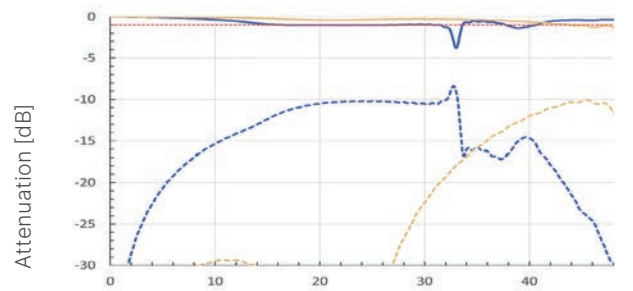
For barrel-Ø of probe	0.39 - 0.41
-----------------------	-------------

Series drawing

All measurements are in mm.



Radio frequency performance [GHz]



Frequency [GHz]

Caption legend p.9

Order code	Product name	Top plunger	Bottom plunger	Ø in mm	FM Choice
1023006	FP380D2901P022U025L030	29	01	0.22	

FINE PITCH PROBES - PITCH 0.30 - 0.50 MM

FM Choice

FP380D-L032

0.50 mm Pitch | Double acting



Electrical specifications

Current [A]	1.1	
R _{TYP} [mOhm]	<100	
Self Inductance [nH]	0.82	
	Socket	Probe Card
Frequency at -1dB [GHz]	16	45

Mechanical specifications

Temperature [°C]	-45°...+120°	
Preload [cN]	8	
Spring force at nt [cN ±20%]	23	
Nominal travel [mm]	0.55	
Maximum travel [mm]	0.65	

Materials and plating

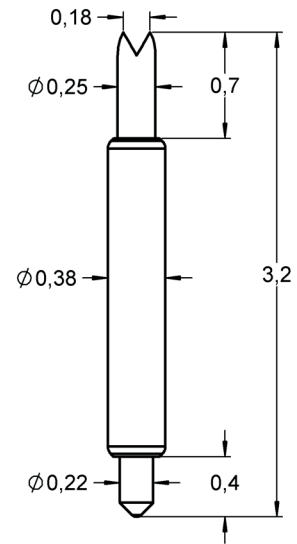
Top Plunger	BeCu	gold plated
	Palladium alloy	unplated
Bottom Plunger	BeCu	gold plated
Barrel	Bronze	gold plated
Spring	Spring steel	gold plated

Drill size recommendation [mm]

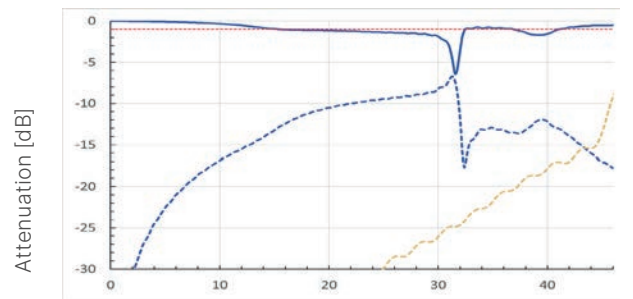
For barrel-Ø of probe	0.39 - 0.41
-----------------------	-------------

Series drawing

All measurements are in mm.



Radio frequency performance [GHz]



Frequency [GHz]

Caption legend p.9

Order code	Product name	Top plunger	Bottom plunger	Ø in mm	FM Choice
1127923	FP380D0301B025G023L032	03	01	0.25	
1127922	FP380D2901B025G023L032	29	01	0.25	
1127921	FP380D2901P025U023L032	29	01	0.25	

FINE PITCH PROBES - PITCH 0.30 - 0.50 MM

FM Choice

FP380D-L057

0.50 mm Pitch | Double acting | High temperature version



Electrical specifications

Current [A]	1.6	
R _{TYP} [mOhm]	<75	
Self Inductance [nH]	1.57	
	Socket	Probe Card
Frequency at -1dB [GHz]	12	28

Mechanical specifications

Temperature [°C]	-45°...+150°	
Preload [cN]	4.5	
Spring force at nt [cN ±20%]	24	
Nominal travel [mm]	0.65	
Maximum travel [mm]	0.80	

Materials and plating

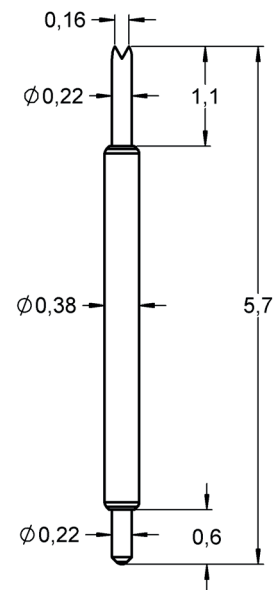
Top Plunger	BeCu	gold plated
	Palladium alloy	unplated
Bottom Plunger	BeCu	gold plated
Barrel	Bronze	gold plated
Spring	Stainless steel	gold plated

Drill size recommendation [mm]

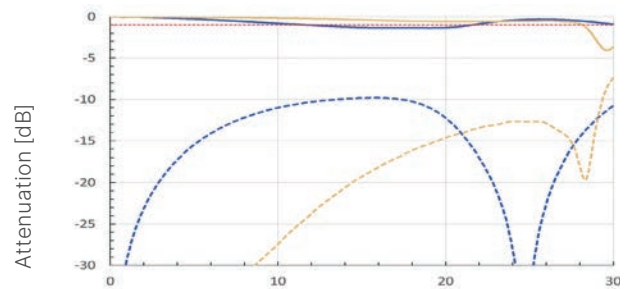
For barrel-Ø of probe	0.39 - 0.41
-----------------------	-------------

Series drawing

All measurements are in mm.



Radio frequency performance [GHz]



Frequency [GHz]

Caption legend p.9

Order code	Product name	Top plunger	Bottom plunger	Ø in mm	FM Choice
1127691	FP380D0103B022G024L057	01	03	0.22	FM Choice
1127689	FP380D2903B022G024L057	29	03	0.22	FM Choice
1127686	FP380D2903P022U024L057	29	03	0.22	FM Choice

FINE PITCH PROBES - PITCH 0.30 - 0.50 MM



FP380D-L087

0.50 mm Pitch | Double acting | High temperature version

Electrical specifications

Current [A]	2.0	
R _{TYP} [mOhm]	<66	
Self Inductance [nH]	2.37	
	Socket	Probe Card
Frequency at -1dB [GHz]	7.5	19.5

Mechanical specifications

Temperature [°C]	-45°...+150°	
Preload [cN]	12	
Spring force at nt [cN ±20%]	30	
Nominal travel [mm]	1.0	
Maximum travel [mm]	1.2	

Materials and plating

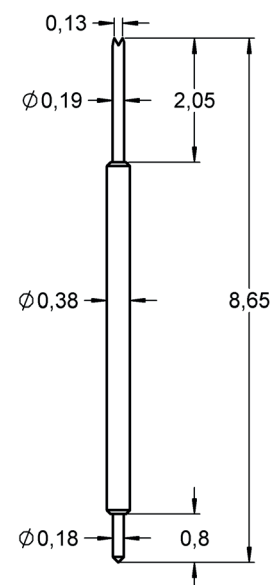
Top Plunger	Palladium alloy	unplated
Bottom Plunger	BeCu	gold plated
Barrel	Nickel	gold plated
Spring	Stainless steel	gold plated

Drill size recommendation [mm]

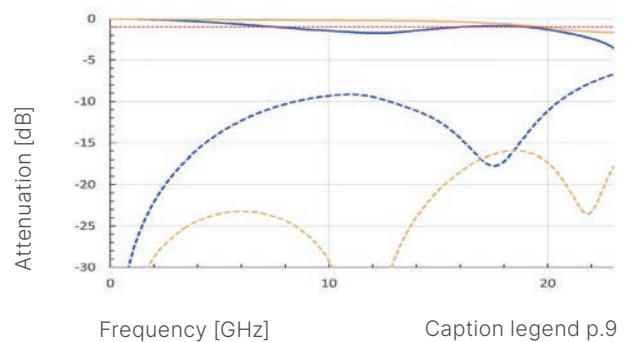
For barrel-Ø of probe	0.39 - 0.41
-----------------------	-------------

Series drawing

All measurements are in mm.



Radio frequency performance [GHz]



Order code	Product name	Top plunger	Bottom plunger	Ø in mm	FM Choice
1024574	FP380D2901P019U030L087	29	01	0.19	

FINE PITCH PROBES - PITCH 0.30 - 0.50 MM



FP380D-L243

0.50 mm Pitch | Double acting

Electrical specifications

Current [A]	1.0	
R _{TYP} [mOhm]	<250	
Self Inductance [nH]	6.91	
	Socket	Probe Card
Frequency at -1dB [GHz]	7.5	-

Mechanical specifications

Temperature [°C]	-45°...+100°	
Preload [cN]	10	
Spring force at nt [cN ±20%]	50	
Nominal travel [mm]	2.0	
Maximum travel [mm]	2.5	

Materials and plating

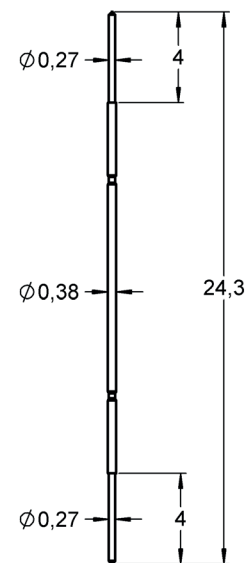
Top Plunger	BeCu	longtime gold plated
Bottom Plunger	BeCu	longtime gold plated
Barrel	Bronze	gold plated
Spring	Stainless steel	gold plated

Drill size recommendation [mm]

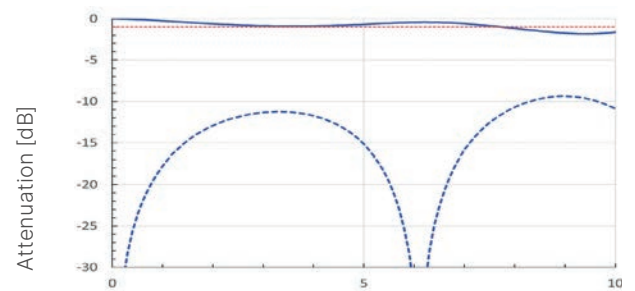
For barrel-Ø of probe	0.39 - 0.41
-----------------------	-------------

Series drawing

All measurements are in mm.



Radio frequency performance [GHz]



Frequency [GHz]

Caption legend p.9

Order code	Product name	Top plunger	Bottom plunger	Ø in mm	FM Choice
1003136	FP380D0101B027L050L243	01	01	0.27	
1003137	FP380D1111B027L050L243	11	11	0.27	

FINE PITCH PROBES - PITCH > 0.50 MM



FP350DF-L035

0.55 mm Pitch | Single acting

Electrical specifications

Current [A]	2.0
R _{TYP} [mOhm]	<100
Self Inductance [nH]	1.09
Frequency at -1dB [GHz]	37

Mechanical specifications

Temperature [°C]	-45°...+120°
Preload [cN]	7
Spring force at nt [cN ±20%]	38
Nominal travel [mm]	0.45
Maximum travel [mm]	0.60

Materials and plating

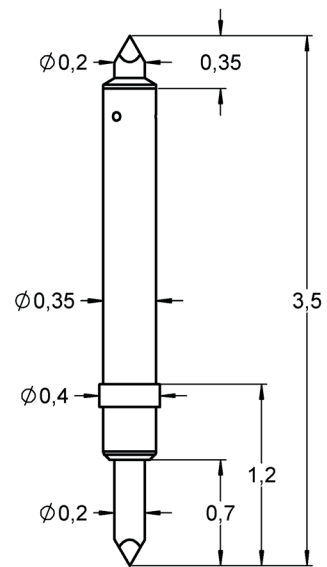
Top Plunger (rigid)	Palladium alloy	unplated
Bottom Plunger	BeCu	gold plated
Barrel	Bronze	gold plated
Spring	Spring steel	gold plated

Drill size recommendation [mm]

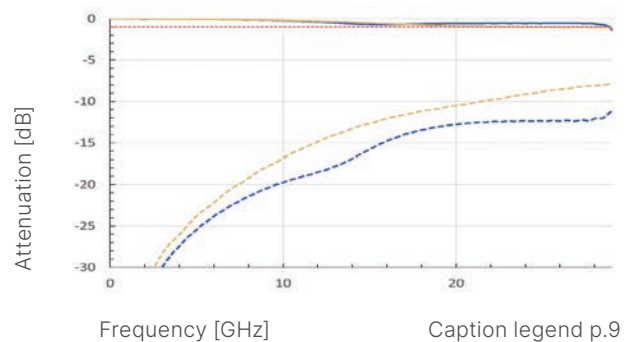
For barrel-Ø of probe	0.31 - 0.33
-----------------------	-------------

Series drawing

All measurements are in mm.



Radio frequency performance [GHz]



Order code	Product name	Top plunger	Bottom plunger	Ø in mm	FM Choice
1142148	FP350DF3030P020U038L035	30	30	0.20	

FINE PITCH PROBES - PITCH > 0.50 MM



FP480D-L046NM

0.65 mm Pitch | Double acting |
High temperature | non-magnetic

Electrical specifications

Current [A]	2.3	
R _{TYP} [mOhm]	<56	
Self Inductance [nH]	1.38	
	Socket	Probe Card
Frequency at -1dB [GHz]	12	32

Mechanical specifications

Temperature [°C]	-45°...+200°	
Preload [cN]	20	
Spring force at nt [cN ±20%]	46	
Nominal travel [mm]	0.4	
Maximum travel [mm]	0.6	

Materials and plating

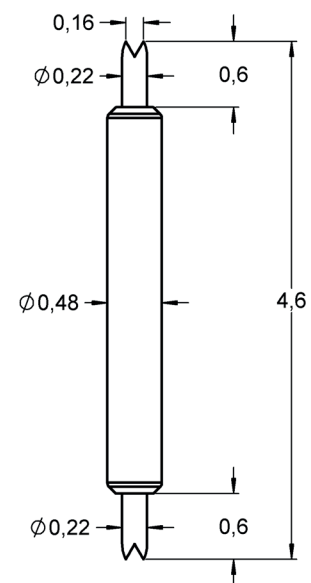
Top Plunger	BeCu	gold plated
Bottom Plunger	BeCu	gold plated
Barrel	Bronze	gold plated
Spring	Stainless steel	gold plated

Drill size recommendation [mm]

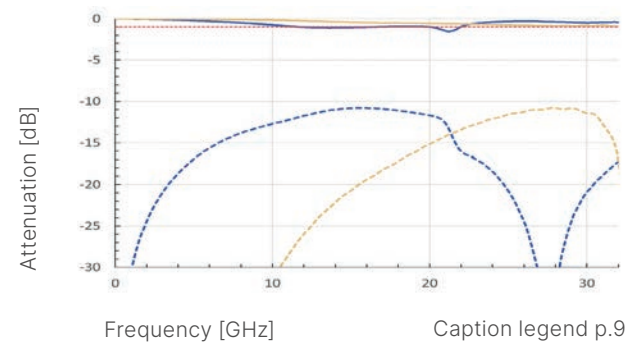
For barrel-Ø of probe	0.49 - 0.51
-----------------------	-------------

Series drawing

All measurements are in mm.



Radio frequency performance [GHz]



Order code	Product name	Top plunger	Bottom plunger	Ø in mm	FM Choice
1031177	FP480D2929B022G046L046NM	29	29	0.22	

FINE PITCH PROBES - PITCH > 0.50 MM



FP510D-L166

0.70 mm Pitch | Double acting

Electrical specifications

Current [A]	1.0	
R _{TYP} [mOhm]	<70	
Self Inductance [nH]	4.90	
	Socket	Probe Card
Frequency at -1dB [GHz]	10	18

Mechanical specifications

Temperature [°C]	-45°...+100°	
Preload [cN]	10	10
Spring force at nt [cN ±20%]	25	50
Nominal travel [mm]	2.0	2.0
Maximum travel [mm]	2.5	2.5

Materials and plating

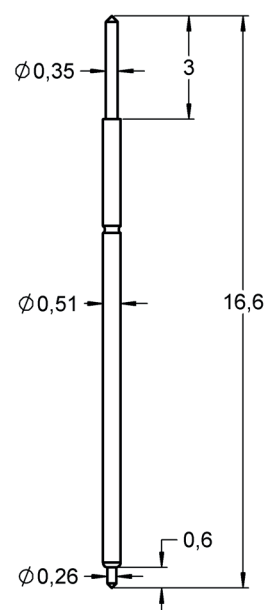
Top Plunger	BeCu	gold plated
Bottom Plunger	BeCu	gold plated
Barrel	Bronze	gold plated
Spring	Spring steel	silver plated

Drill size recommendation [mm]

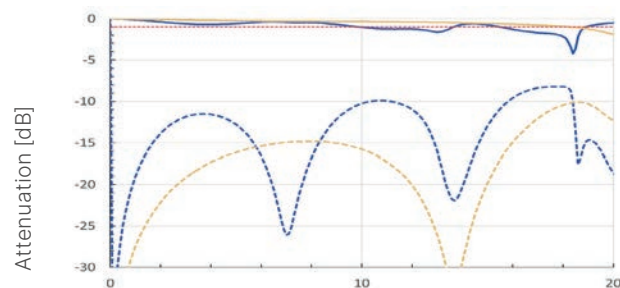
For barrel-Ø of probe	0.52 - 0.54
-----------------------	-------------

Series drawing

All measurements are in mm.







Radio frequency performance [GHz]



Frequency [GHz]

Caption legend p.9

Order code	Product name	Top plunger	Bottom plunger	Ø in mm	FM Choice
1001356	FP510D0101B035G025L166	01 	01 	0.35	
1001356	FP510D0101B035G050L166	01 	01 	0.35	

FINE PITCH PROBES - PITCH > 0.50 MM



FP510D-L243

0.70 mm Pitch | Double acting

Electrical specifications

Current [A]	1.0	
R _{TYP} [mOhm]	<70	
Self Inductance [nH]	7.48	
Frequency at -1dB [GHz]	Socket	Probe Card
	7	-

Mechanical specifications

Temperature [°C]	-45°...+100° -45°...+200° (H)	
Preload [cN]	10	10
Spring force at nt [cN ±20%]	(H) 40	50
Nominal travel [mm]	2.0	2.0
Maximum travel [mm]	2.5	2.5

Materials and plating

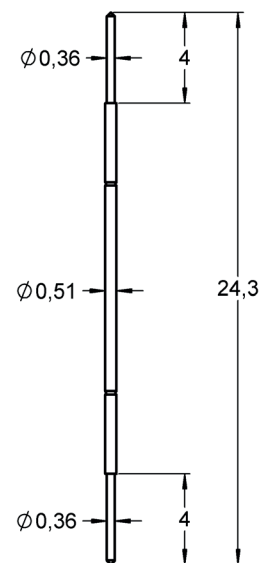
Top Plunger	BeCu	gold plated
Bottom Plunger	BeCu	gold plated
Barrel	Bronze	gold plated
Spring	Spring steel (H) Stainless steel	silver plated unplated

Drill size recommendation [mm]

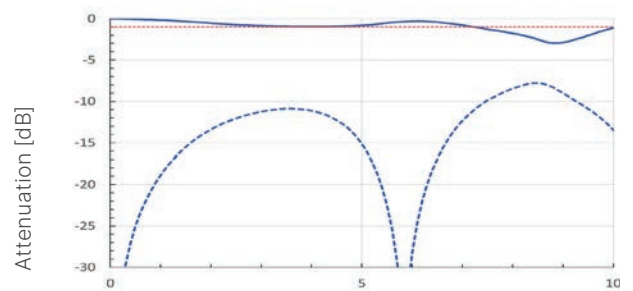
For barrel-Ø of probe	0.52 - 0.54
-----------------------	-------------

Series drawing

All measurements are in mm.



Radio frequency performance [GHz]



Frequency [GHz]

Caption legend p.9

Order code	Product name	Top plunger	Bottom plunger	Ø in mm	FM Choice
1013358	FP510D0101S036L040L243H	01	01	0.36	
1005083	FP510D0101S036L050L243	01	01	0.36	

FINE PITCH PROBES - PITCH > 0.50 MM

FM Choice

FP570D-L057

0.80 mm Pitch | Double acting | High temperature version



Electrical specifications

Current [A]	3.8	
R _{TYP} [mOhm]	<60	
Self Inductance [nH]	1.76	
	Socket	Probe Card
Frequency at -1dB [GHz]	15.5	25.5

Mechanical specifications

Temperature [°C]	-45°...+150°	
Preload [cN]	10	
Spring force at nt [cN ±20%]	30	
Nominal travel [mm]	0.65	
Maximum travel [mm]	0.85	

Materials and plating

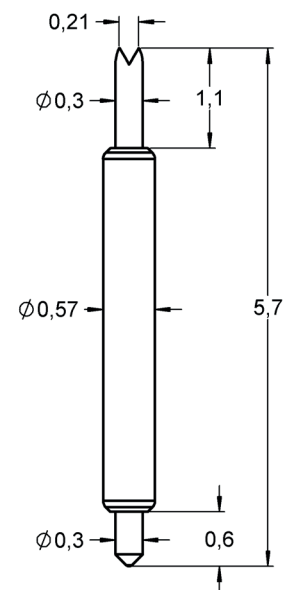
Top Plunger	BeCu	gold plated
Bottom Plunger	BeCu	gold plated
Barrel	Bronze	gold plated
Spring	Stainless steel	gold plated

Drill size recommendation [mm]

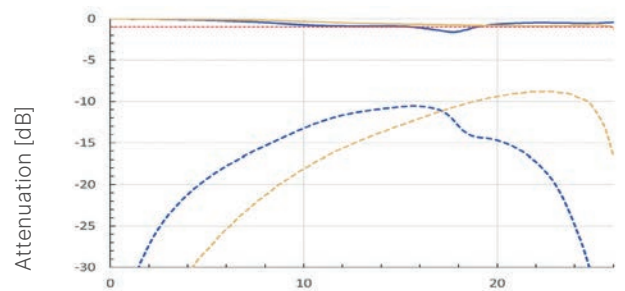
For barrel-Ø of probe	0.58 - 0.61
-----------------------	-------------

Series drawing

All measurements are in mm.



Radio frequency performance [GHz]



Frequency [GHz]

Caption legend p.9

Order code	Product name	Top plunger	Bottom plunger	Ø in mm	FM Choice
1128177	FP570D0101B030G030L057	01	01	0.30	
1128176	FP570D2901B030G030L057	29	01	0.30	

FINE PITCH PROBES - PITCH > 0.50 MM



FP580D-L058NM

0.80 mm Pitch | Double acting | High temperature | non-magnetic

Electrical specifications

Current [A]	3.5	
R _{TYP} [mOhm]	<60	
Self Inductance [nH]	1.79	
Frequency at -1dB [GHz]	Socket	Probe Card
	28.5	26

Mechanical specifications

Temperature [°C]	-45°...+150°	
Preload [cN]	30	
Spring force at nt [cN ±20%]	60	
Nominal travel [mm]	0.5	
Maximum travel [mm]	0.6	

Materials and plating

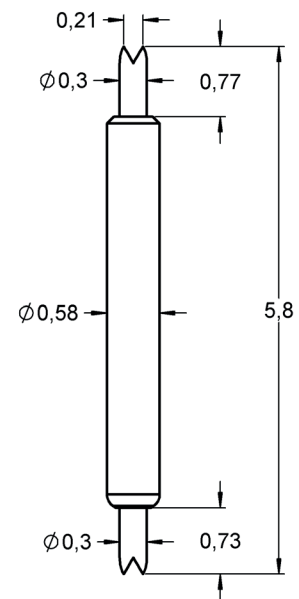
Top Plunger	BeCu	gold plated
Bottom Plunger	BeCu	gold plated
Barrel	Bronze	gold plated
Spring	Stainles steel	gold plated

Drill size recommendation [mm]

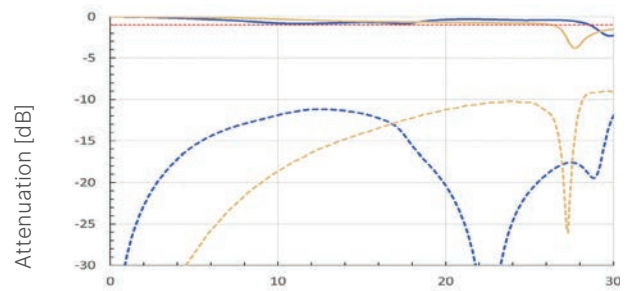
For barrel-Ø of probe	0.59 - 0.62
-----------------------	-------------

Series drawing

All measurements are in mm.



Radio frequency performance [GHz]



Frequency [GHz]

Caption legend p.9

Order code	Product name	Top plunger	Bottom plunger	Ø in mm	FM Choice
1028445	FP580D2929B030G060L058NM	29	29	0.30	

FINE PITCH PROBES - PITCH > 0.50 MM



FP580D-L059NM

0.80 mm Pitch | non-magnetic

Electrical specifications

Current [A]	3.5		
R _{TYP} [mOhm]	<60		
Self Inductance [nH]	1.80		
	Socket	Probe Card	
Frequency at -1dB [GHz]	28.5	26	

Mechanical specifications

Temperature [°C]	-45°...+100° -45°...+200° (H)		
Preload [cN]	30	30	30
Spring force at nt [cN ±20%]	20	40	60
Nominal travel [mm]	0.5	0.5	0.5
Maximum travel [mm]	0.6	0.6	0.6

Materials and plating

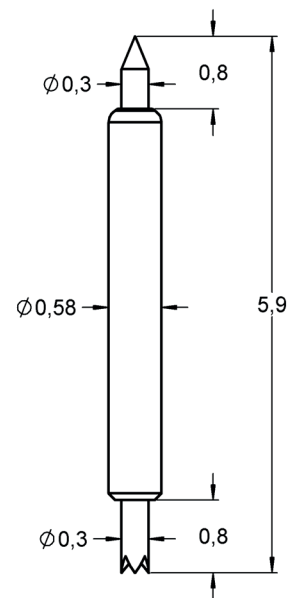
Top Plunger	BeCu	gold plated
Bottom Plunger	BeCu	gold plated
Barrel	Bronze	gold plated
Spring	Spring steel (H) Stainless steel	silver plated unplated

Drill size recommendation [mm]

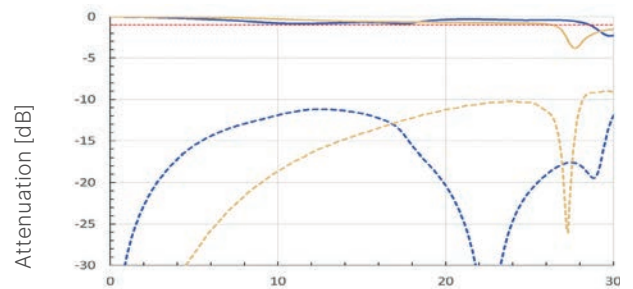
For barrel-Ø of probe	0.59 - 0.62
-----------------------	-------------

Series drawing

All measurements are in mm.



Radio frequency performance [GHz]



Frequency [GHz]

Caption legend p.9

Order code	Product name	Top plunger	Bottom plunger	Ø in mm	FM Choice
1003844	FP580D0329B030G020L059	03	29	0.30	
1093730	FP580D1111B030G060L059HS1	11	11	0.30	
1001489	FP580D1629B030G040L059	16	29	0.30	
1025408	FP580D2903B030G060L059HS1	29	03	0.30	
1001490	FP580D2929B030G040L059	29	29	0.30	

FINE PITCH PROBES - PITCH > 0.50 MM



FP590D-L087

0.80 mm Pitch | Double acting | High temperature version

Electrical specifications

Current [A]	2.5	
R _{TYP} [mOhm]	<100	
Self Inductance [nH]	2.61	
	Socket	Probe Card
Frequency at -1dB [GHz]	8.5	17

Mechanical specifications

Temperature [°C]	-45°...+150°	
Preload [cN]	10	
Spring force at nt [cN ±20%]	35	
Nominal travel [mm]	0.75	
Maximum travel [mm]	1.00	

Materials and plating

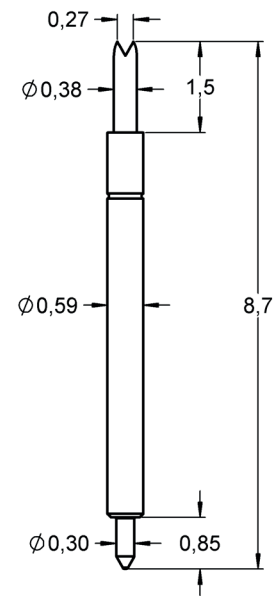
Top Plunger	Steel	gold plated
Bottom Plunger	Steel	gold plated
Barrel	Bronze	gold plated (inside)
Spring	Stainles steel	gold plated

Drill size recommendation [mm]

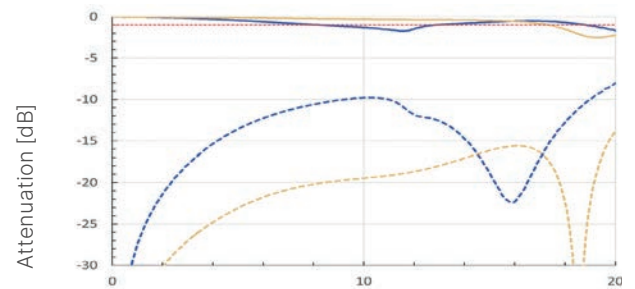
For barrel-Ø of probe	0.60 - 0.63
-----------------------	-------------

Series drawing

All measurements are in mm.



Radio frequency performance [GHz]



Frequency [GHz]

Caption legend p.9

Order code	Product name	Top plunger	Bottom plunger	Ø in mm	FM Choice
1023461	FP590D0303S038G035L087	03	03	0.38	
1023462	FP590D2903S038G035L087	29	03	0.38	

FINE PITCH PROBES - PITCH > 0.50 MM

FM Choice

FP650D-L057

0.80 mm Pitch | Double acting | High temperature version



Electrical specifications

Current [A]	4.0	
R _{TYP} [mOhm]	<50	
Self Inductance [nH]	1.35	
	Socket	Probe Card
Frequency at -1dB [GHz]	7.5	25

Mechanical specifications

Temperature [°C]	-45°...+150°	
Preload [cN]	7	
Spring force at nt [cN ±20%]	30	
Nominal travel [mm]	0.65	
Maximum travel [mm]	0.85	

Materials and plating

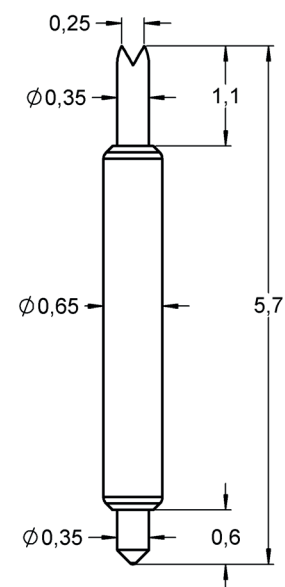
Top Plunger	BeCu	gold plated
Bottom Plunger	BeCu	gold plated
Barrel	Bronze	gold plated
Spring	Stainles steel	gold plated

Drill size recommendation [mm]

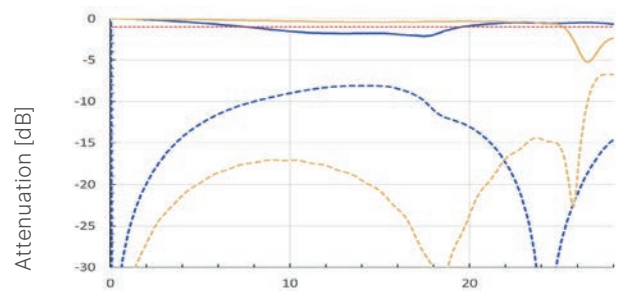
For barrel-Ø of probe	0.66 - 0.69
-----------------------	-------------

Series drawing

All measurements are in mm.



Radio frequency performance [GHz]



Frequency [GHz]

Caption legend p.9

Order code	Product name	Top plunger	Bottom plunger	Ø in mm	FM Choice
1131068	FP650D0301B035G030L057	03	01	0.35	FM Choice
1131051	FP650D2901B035G030L057	29	01	0.35	FM Choice

FINE PITCH PROBES - PITCH > 0.50 MM



FP680D-L245

1.00 mm Pitch | Double acting

Electrical specifications

Current [A]	1.5	
R _{TYP} [mOhm]	<75	
Self Inductance [nH]	5.27	
Frequency at -1dB [GHz]	Socket	Probe Card
	1.5	-

Mechanical specifications

Temperature [°C]	-45°...+100°	
Preload [cN]	35	
Spring force at nt [cN ±20%]	85	
Nominal travel [mm]	2.0	
Maximum travel [mm]	2.5	

Materials and plating

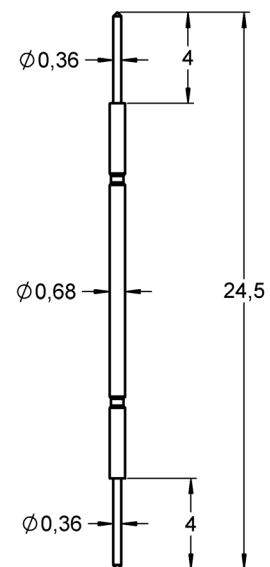
Top Plunger	Steel	gold plated
Bottom Plunger	Steel	gold plated
Barrel	Bronze	silver plated
Spring	Spring steel	silver plated

Drill size recommendation [mm]

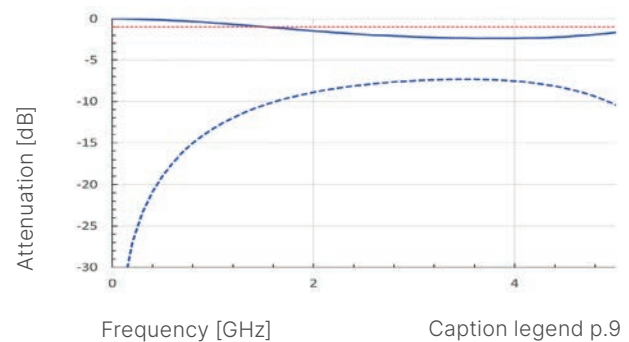
For barrel-Ø of probe	0.69 - 0.72
-----------------------	-------------

Series drawing

All measurements are in mm.



Radio frequency performance [GHz]



Order code	Product name	Top plunger	Bottom plunger	Ø in mm	FM Choice
1035969	FP680D0101S036L085L245	01	01	0.36	
1035970	FP680D1111S036L085L245	11	11	0.36	

FINE PITCH PROBES - PITCH > 0.50 MM

FM Choice

FP800D-L057

1.00 mm Pitch | Double acting | High temperature version



Electrical specifications

Current [A]	3.5	
R _{TYP} [mOhm]	<55	
Self Inductance [nH]	1.40	
	Socket	Probe Card
Frequency at -1dB [GHz]	7	23.5

Mechanical specifications

Temperature [°C]	-45°...+150°	
Preload [cN]	10	
Spring force at nt [cN ±20%]	25	
Nominal travel [mm]	0.65	
Maximum travel [mm]	0.85	

Materials and plating

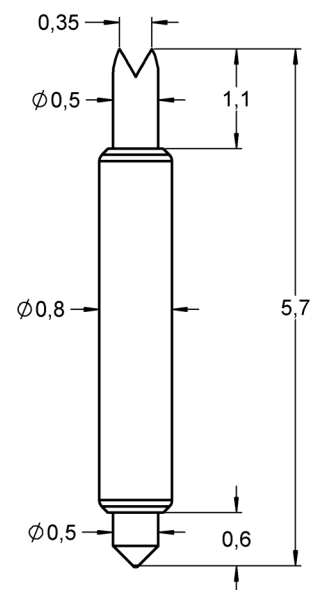
Top Plunger	BeCu	gold plated
Bottom Plunger	BeCu	gold plated
Barrel	Bronze	gold plated
Spring	Stainles steel	gold plated

Drill size recommendation [mm]

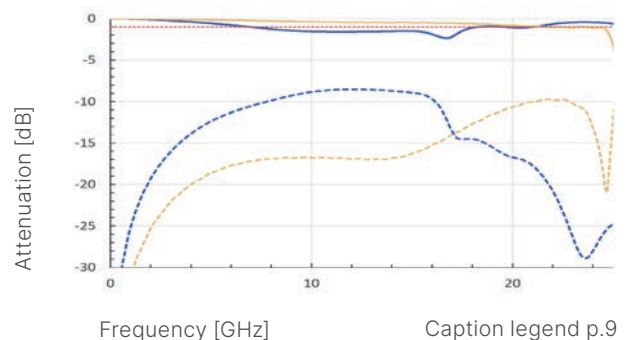
For barrel-Ø of probe	0.81 - 0.83
-----------------------	-------------

Series drawing

All measurements are in mm.



Radio frequency performance [GHz]



Order code	Product name	Top plunger	Bottom plunger	Ø in mm	FM Choice
1130443	FP800D0301B050G025L057	03	01	0.50	FM Choice
1130428	FP800D2901B050G025L057	29	01	0.50	FM Choice