

Screw-in Probes



Screw-in Probes are widely used in the automotive industry, to test connectors or in demanding testing conditions. They have a threaded barrel at one end to secure a firm seat on the fixture. In addition, a squared or hexagonal milling on the collar helps the screwing of the receptacle.

All these features have been designed to allow the perfect placing in the assembly hole, even in difficult working conditions and to avoid any possible displacement during tests.

Recommended minimum centers (grid-pitch)

The installation pitch of the Screw-in Probes ranges from 2.54mm to 5.08mm.

Current Rating

The rated current of our Screw-in Probes ranges from 3A to 12 A but can be increased according to individual requirements.

Typical contact resistance

The typical electrical resistance of our Screw-in Probes ranges from 20 mΩ to 30 mΩ.

Materials and plating

Our Screw-in Probes can be made of:

The barrel:

- Brass, material with excellent electrical conductivity and malleability, but not as hard as bronze

The barrel is gold plated.

The spring:

- music wire (Harmonic steel) with a spring force ranging from 100 to 350 gr

The spring is plated with gold to improve electrical conductivity.

The plunger:

- Beryllium-Copper (Be-Cu)

The plunger can be plated in gold.

The Receptacle

The receptacles for Screw-in Probes are made of gold plated brass

Head Shape

The choice of the head style for the probe depends on the actual testing conditions and the surface to be tested. It is possible to design this probe with or without collar. The size, diameter or height of the collar will vary according to the project requirements.






Summary of Screw-in Probes

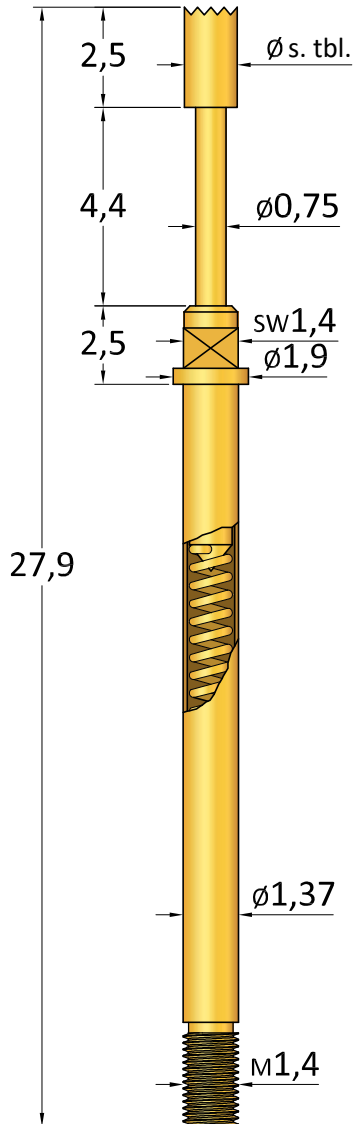
Test probes version	Series	Pitch size (≥mm)	Working stroke (mm)	Max. stroke (mm)	Current rating (A)	Spring force (g)		Installation heights (mm) v = variable			Page
						min	max	min	max	v	
Screw-in probes	GLP 31M	2,54	3,50	4,40	3 - 5	70	300	-	12,80	-	110
	GLP 32M	2,54	4,00	5,00	5 - 8	200	300	-	10,50	-	111
	GLP 33M	4,00	4,00	5,30	5 - 8	150	500	-	10,50	-	112
	GLP 103M	4,00	4,80	6,00	5 - 8	80	500	12,30	12,55	-	113
	GLP 133/16M	4,00	9,00	11,00	5 - 8	150	500	16,00	16,20	-	114
	GLP 133/19M	4,00	12,00	14,00	5 - 8	150	500	19,00	19,20	-	115
	GLP 133/23M	4,00	15,00	17,50	5 - 8	150	500	23,00	23,20	-	116
	GLP 133/27M	4,00	15,00	17,50	5 - 8	150	500	27,00	27,20	-	117
	GLP 133/37M	4,00	15,00	17,50	5 - 8	150	500	37,00	37,20	-	118
	GLP 150M	5,08	4,40	5,50	10 - 12	300	500	10,50	10,80	-	119

GLP 31M

Screw-in Probes $\geq 2,54$ mm / ≥ 100 mil

Available Tip Styles

Material	Tip Style	ϕ mm
B	01 	1,80
B S	02 	0,75
B	03 	0,75 1,50 1,60
B	04 	0,50 0,60 0,75
B	08 	1,00 1,30 1,80



Technical Data

Recommended minimum centers:	2,54 mm
Recommended working stroke:	3,50 mm
Maximum stroke:	4,40 mm
Current rating:	3,0 - 5,0 A
Typical contact resistance:	<20 m Ω
Operating temperature range:	-50° up to +100°

Materials

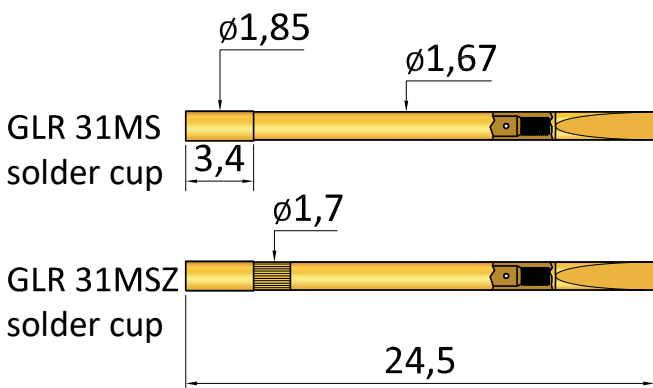
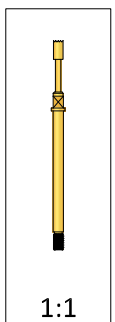
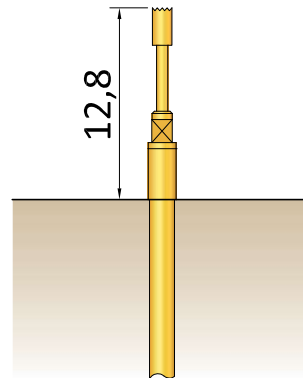
Plunger:	BeCu, nickel or gold plated
Barrel:	Brass, gold plated
Spring:	Music wire, gold plated
Receptacle:	Brass, gold plated

Spring Force (g $\pm 20\%$)

Spring force:	150 g
Alternative:	70 g 250 g 300 g

Hole size for receptacle

Drills: $\phi 1,66 - \phi 1,70$

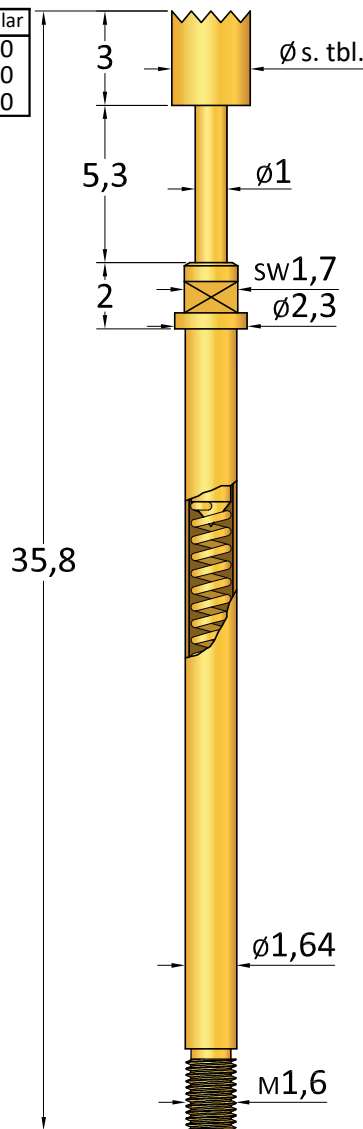


Ordering example:

Series	Tip Style	Spring Force		
GLP 31M	B	08	130	200
	Material	Tip ϕ mm		Plating
	B=BeCu			G=Gold N=Nickel

Available Tip Styles

Mat.	Tip Style	ϕ mm	Tip Height	ϕ Collar
B	03C	0,65	2,00	2,00
		0,80		2,50
		1,00		3,00
B	01	1,00	2,00	2,00
		2,00		3,00
		3,00		
B	02	1,00		
B	03	1,00	2,00	2,00
		2,00		3,00
		3,00		
B	04	1,00	2,00	2,00
		2,00		3,00
		3,00		
B	05	1,80	2,00	
		2,00		
B	08	2,00	2,50	2,50
		2,50		3,00
		3,00		
B	10	3,00	3,50	
		3,50		
B	11	1,00	2,00	
		2,00		
B	13	1,00	2,00	2,00
		2,00		3,00
		3,00		
B	21	1,00	2,00	2,00
		2,00		3,00
		3,00		
B	25	1,00	2,00	
		2,00		
B	88	1,20	1,80	
		1,80		



Technical Data

Recommended minimum centers:	2,54 mm
Recommended working stroke:	4,00 mm
Maximum stroke:	5,00 mm
Current rating:	5,0 - 8,0 A
Typical contact resistance:	<20 m Ω
Operating temperature range:	-50° up to +100°

Materials

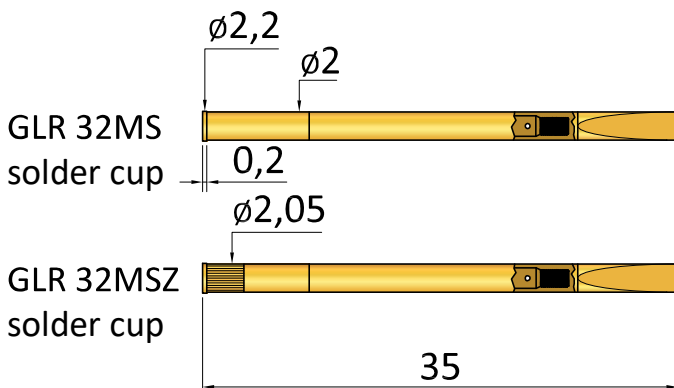
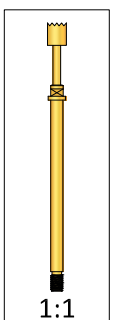
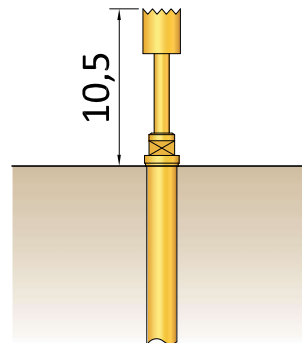
Plunger:	BeCu, nickel or gold plated
Barrel:	Brass, gold plated
Spring:	Music wire, gold plated
Receptacle:	Brass, gold plated

Spring Force (g $\pm 20\%$)

Spring force:	200 g
Alternative:	300 g

Hole size for receptacle

Drills: $\phi 1,99 - \phi 2,00$










Ordering example:

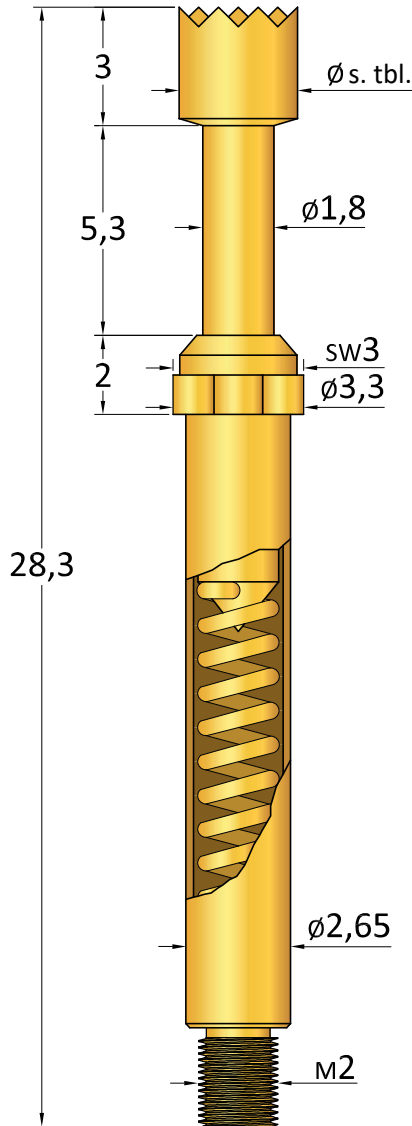
Series	Tip Style	Spring Force			
GLP 32M	B	08	250	200	G
	Material		Tip ϕ mm		Plating
	B=BeCu				G=Gold N=Nickel

GLP 33M

Screw-in Probes $\geq 4,00$ mm / ≥ 160 mil

Available Tip Styles

Material	Tip Style	ϕ mm
B	01 	1,80 3,00
B S	02 	1,80
B	03 	1,80 3,00
B	04 	1,80 3,00
B	05 	1,80 3,00
B	08 	1,80 3,00
B	10 	3,00 4,00



Technical Data

Recommended minimum centers: 4,00 mm
 Recommended working stroke: 4,00 mm
 Maximum stroke: 5,30 mm
 Current rating: 5,0 - 8,0 A
 Typical contact resistance: <20 m Ω
 Operating temperature range: -50° up to $+100^\circ$

Materials

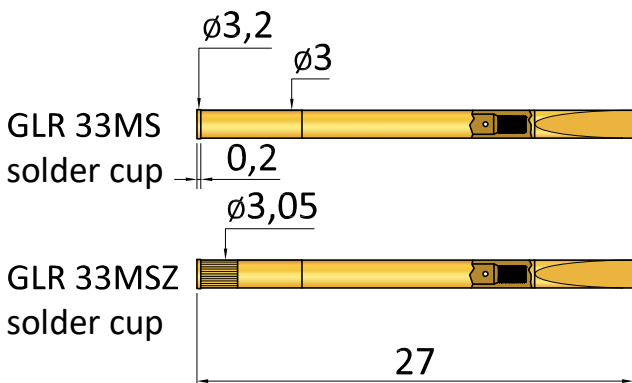
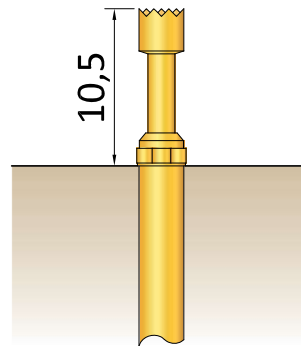
Plunger: BeCu, nickel or gold plated
 Barrel: Brass, gold plated
 Spring: Music wire, gold plated
 Receptacle: Brass, gold plated

Spring Force (g $\pm 20\%$)

Spring force: 150 g
 Alternative: 200 g
 300 g
 500 g

Hole size for receptacle








Drills: $\phi 2,99 - \phi 3,00$

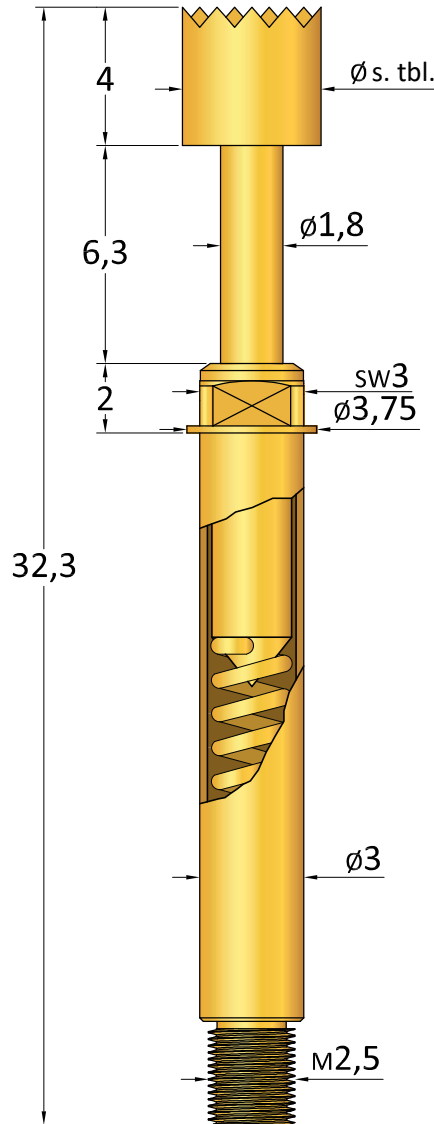


Ordering example:

Series	Tip Style	Spring Force	Material	Tip ϕ mm	Plating
GLP 33M	B	10	B=BeCu	300	G
				150	N=Nickel

Available Tip Styles

Material	Tip Style	ϕ mm
B	01 	2,30 4,00
B S	02 	1,80
B	03 	2,30 4,00 6,50
B	04 	2,30 4,00
B	08 	2,30 4,00
B	10 	4,00 6,50 9,00
B	21 	2,30 4,00



Technical Data

Recommended minimum centers:	4,00 mm
Recommended working stroke:	4,80 mm
Maximum stroke:	6,00 mm
Current rating:	5,0 - 8,0 A
Typical contact resistance:	<30 m Ω
Operating temperature range:	-50° up to +100°

Materials

Plunger:	BeCu or Steel, nickel or gold plated
Barrel:	Brass, gold plated
Spring:	Music wire, gold plated
Receptacle:	Brass, gold plated

Spring Force (g $\pm 20\%$)

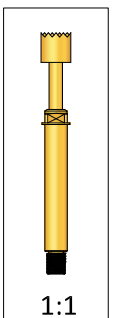
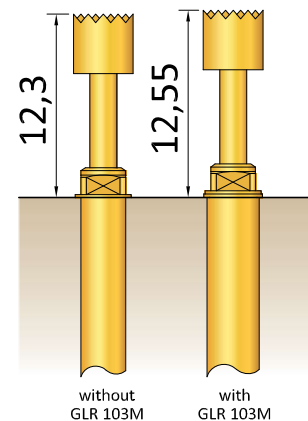
Spring force:	150 g
Alternative:	80 g 300 g 500 g

Hole size without receptacle

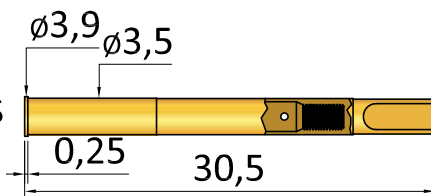
Drills: $\phi 2,99 - \phi 3,00$

Hole size with receptacle

Drills: $\phi 3,49 - \phi 3,50$



GLR 103MS crimp











Ordering example:

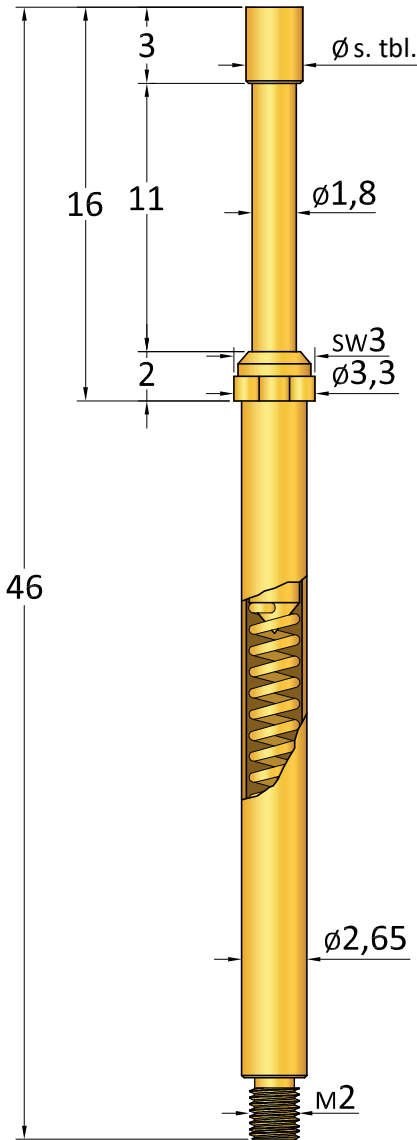
Series	Tip Style	Spring Force			
GLP 103M	B	10	400	150	G
	Material	Tip ϕ mm			Plating
	B=BeCu S=Steel				G=Gold N=Nickel

GLP 133/16M

Screw-in Probes $\geq 4,00$ mm / ≥ 160 mil

Available Tip Styles

Material	Tip Style	ϕ mm
B	01 	2,30
		3,00
		4,00
B S	02 	1,80
B P	03 	2,30
		3,00
		4,00
B	04 	1,80
		2,50
		4,00
B	08 	1,80
		2,50
		4,00
B	10 	4,00
		6,00
B	21 	1,80
		2,50
		4,00
B	31 	1,80



Technical Data

Recommended minimum centers: 4,00 mm
 Recommended working stroke: 9,00 mm
 Maximum stroke: 11,00 mm
 Current rating: 5,0 - 8,0 A
 Typical contact resistance: <30 m Ω
 Operating temperature range: -50° up to $+100^\circ$

Materials

Plunger: BeCu, nickel or gold plated
 Barrel: Brass, gold plated
 Spring: Music wire, gold plated
 Receptacle: Brass, gold plated

Spring Force (g $\pm 20\%$)

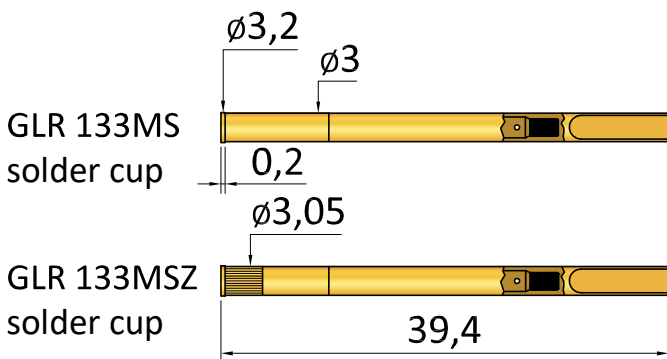
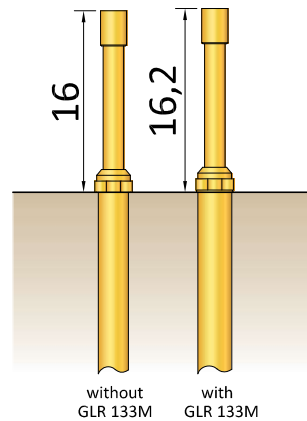
Spring force: 300 g
 Alternative: 150 g
 400 g
 500 g

Hole size without receptacle

Drills: $\phi 2,64 - \phi 2,65$

Hole size with receptacle

Drills: $\phi 2,99 - \phi 3,00$











Ordering example:

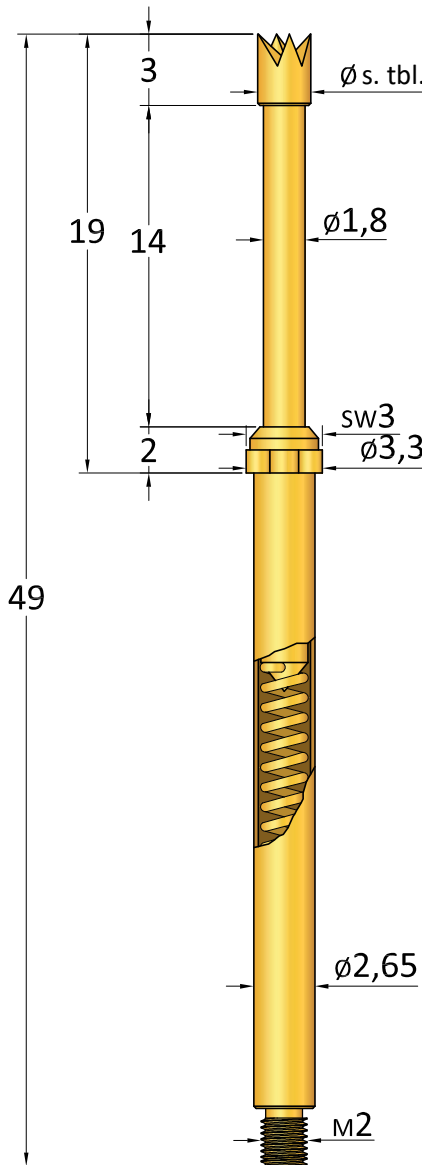
Series	Tip Style	Spring Force			
GLP 133/16M	B	03	230	300	G
	Material	Tip ϕ mm			Plating
	B=BeCu				G=Gold N=Nickel

GLP 133/19M

Screw-in Probes $\geq 4,00$ mm / ≥ 160 mil

Available Tip Styles

Material	Tip Style	ϕ mm
B	01 	2,30
		3,00
		4,00
B S	02 	1,80
B P	03 	2,30
		3,00
		4,00
B	04 	1,80
		2,50
		4,00
B	08 	1,80
		2,50
		4,00
B	10 	4,00
		6,00
B	21 	1,80
		2,50
		4,00
B	31 	1,80



Technical Data

Recommended minimum centers:	4,00 mm
Recommended working stroke:	12,00 mm
Maximum stroke:	14,00 mm
Current rating:	5,0 - 8,0 A
Typical contact resistance:	<30 m Ω
Operating temperature range:	-50° up to +100°

Materials

Plunger:	BeCu, nickel or gold plated
Barrel:	Brass, gold plated
Spring:	Music wire, gold plated
Receptacle:	Brass, gold plated

Spring Force (g $\pm 20\%$)

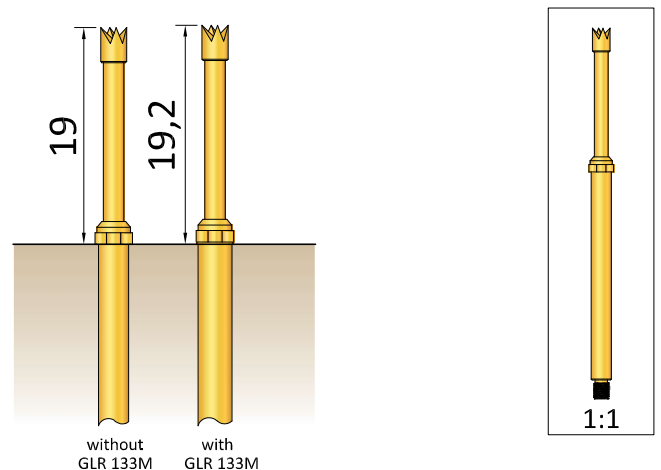
Spring force:	300 g
Alternative:	150 g
	400 g
	500 g

Hole size without receptacle

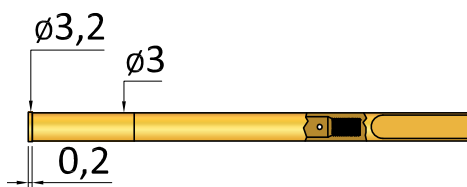
Drills: $\phi 2,64 - \phi 2,65$

Hole size with receptacle

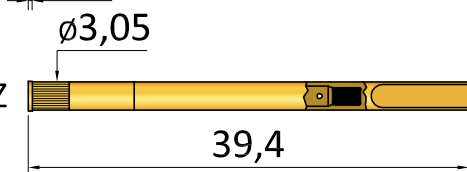
Drills: $\phi 2,99 - \phi 3,00$



GLR 133MS
solder cup



GLR 133MSZ
solder cup



Ordering example:

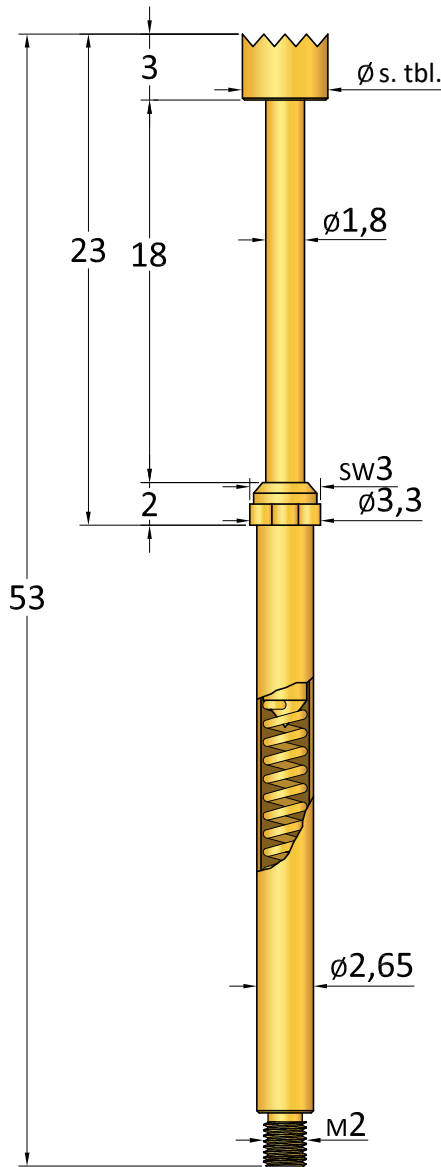
Series	Tip Style	Spring Force	
GLP 133/19M	B	21	230
	Material	Tip ϕ mm	
	B=BeCu		
			300
			G
			Plating
			G=Gold
			N=Nickel

GLP 133/23M

Screw-in Probes $\geq 4,00$ mm / ≥ 160 mil

Available Tip Styles

Material	Tip Style	ϕ mm
B	01	2,30 3,00 4,00
B S	02	1,80
B P	03	2,30 3,00 4,00
B	04	1,80 2,50 4,00
B	08	1,80 2,50 4,00
B	10	4,00 6,00
B	21	1,80 2,50 4,00
B	31	1,80



Technical Data

Recommended minimum centers: 4,00 mm
 Recommended working stroke: 15,00 mm
 Maximum stroke: 17,50 mm
 Current rating: 5,0 - 8,0 A
 Typical contact resistance: <30 m Ω
 Operating temperature range: -50° up to $+100^\circ$

Materials

Plunger: BeCu, nickel or gold plated
 Barrel: Brass, gold plated
 Spring: Music wire, gold plated
 Receptacle: Brass, gold plated

Spring Force (g $\pm 20\%$)

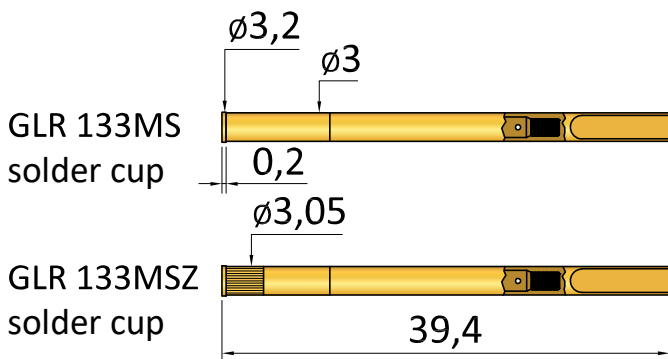
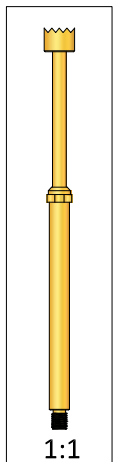
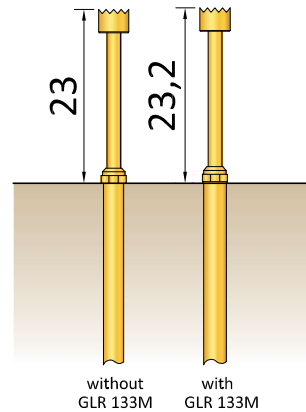
Spring force: 300 g
 Alternative: 150 g
 400 g
 500 g

Hole size without receptacle

Drills: $\phi 2,64 - \phi 2,65$

Hole size with receptacle

Drills: $\phi 2,99 - \phi 3,00$



Ordering example:

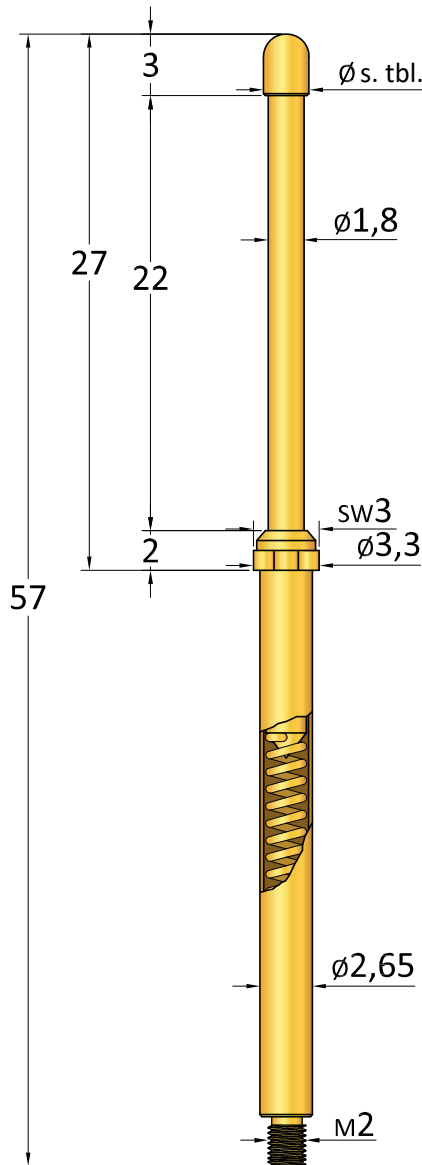
Series	Tip Style	Spring Force			
GLP 133/16M	B	03	230	300	G
	Material	Tip ϕ mm			Plating
	B=BeCu				G=Gold N=Nickel

GLP 133/27M

Screw-in Probes $\geq 4,00$ mm / ≥ 160 mil

Available Tip Styles

Material	Tip Style	ϕ mm
B	01	2,30
		3,00
		4,00
B S	02	1,80
B P	03	2,30
		3,00
		4,00
B	04	1,80
		2,50
		4,00
B	08	1,80
		2,50
		4,00
B	10	4,00
		6,00
B	21	1,80
		2,50
		4,00
B	31	1,80



Technical Data

Recommended minimum centers:	4,00 mm
Recommended working stroke:	15,00 mm
Maximum stroke:	17,50 mm
Current rating:	5,0 - 8,0 A
Typical contact resistance:	<30 m Ω
Operating temperature range:	-50° up to +100°

Materials

Plunger:	BeCu, nickel or gold plated
Barrel:	Brass, gold plated
Spring:	Music wire, gold plated
Receptacle:	Brass, gold plated

Spring Force (g $\pm 20\%$)

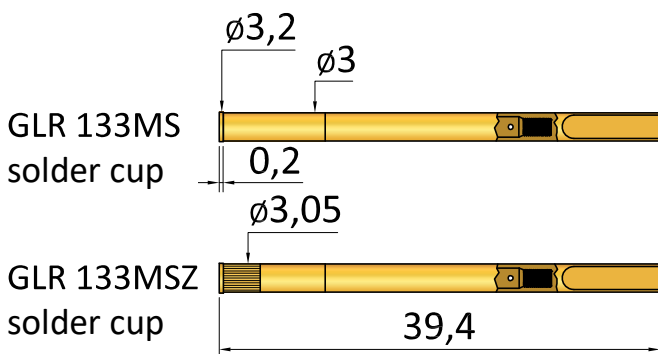
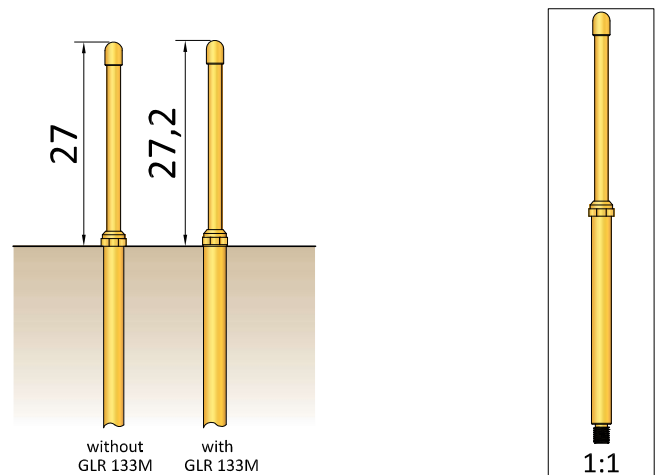
Spring force:	300 g
Alternative:	150 g
	400 g
	500 g

Hole size without receptacle

Drills: $\phi 2,64 - \phi 2,65$

Hole size with receptacle

Drills: $\phi 2,99 - \phi 3,00$











Ordering example:

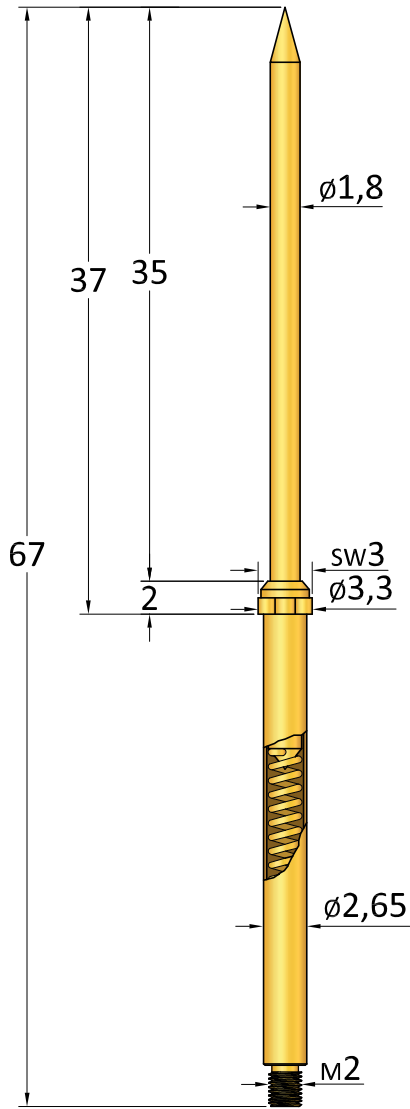
Series	Tip Style	Spring Force	
GLP 133/27M	B 04	230 400	G
	Material	Tip ϕ mm	Plating
	B=BeCu		G=Gold N=Nickel

GLP 133/37M

Screw-in Probes $\geq 4,00$ mm / ≥ 160 mil

Available Tip Styles

Material	Tip Style	ϕ mm
B	01 	2,30 3,00 4,00
B S	02 	1,80
B P	03 	2,30 3,00 4,00
B	04 	1,80 2,50 4,00
B	08 	1,80 2,50 4,00
B	10 	4,00 6,00
B	21 	1,80 2,50 4,00
B	31 	1,80



Technical Data

Recommended minimum centers:	4,00 mm
Recommended working stroke:	15,00 mm
Maximum stroke:	17,50 mm
Current rating:	5,0 - 8,0 A
Typical contact resistance:	<30 m Ω
Operating temperature range:	-50° up to +100°

Materials

Plunger:	BeCu, nickel or gold plated
Barrel:	Brass, gold plated
Spring:	Music wire, gold plated
Receptacle:	Brass, gold plated

Spring Force (g $\pm 20\%$)

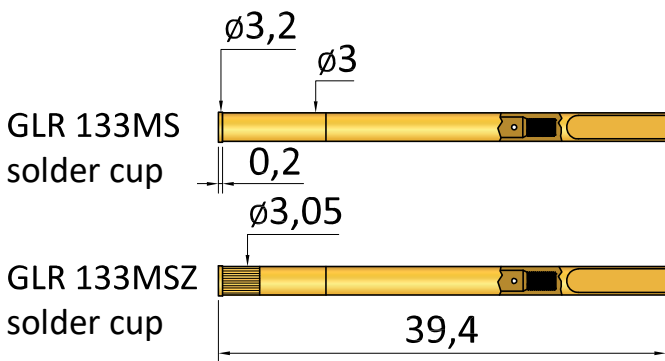
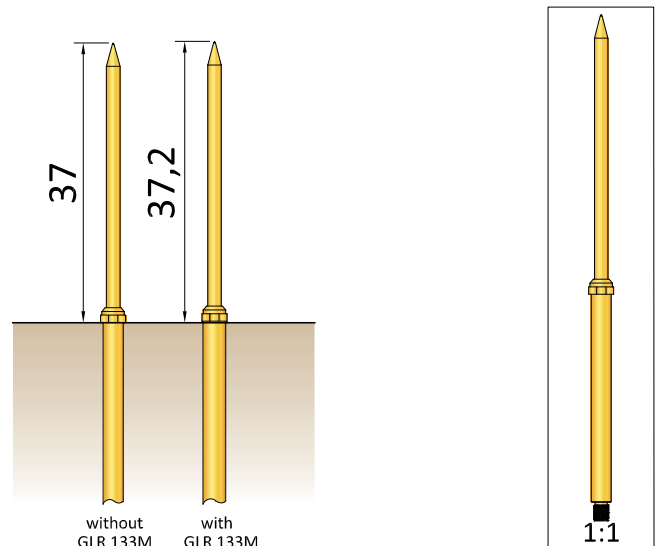
Spring force:	300 g
Alternative:	150 g 400 g 500 g

Hole size without receptacle

Drills: $\phi 2,64 - \phi 2,65$

Hole size with receptacle





Drills: $\phi 2,99 - \phi 3,00$

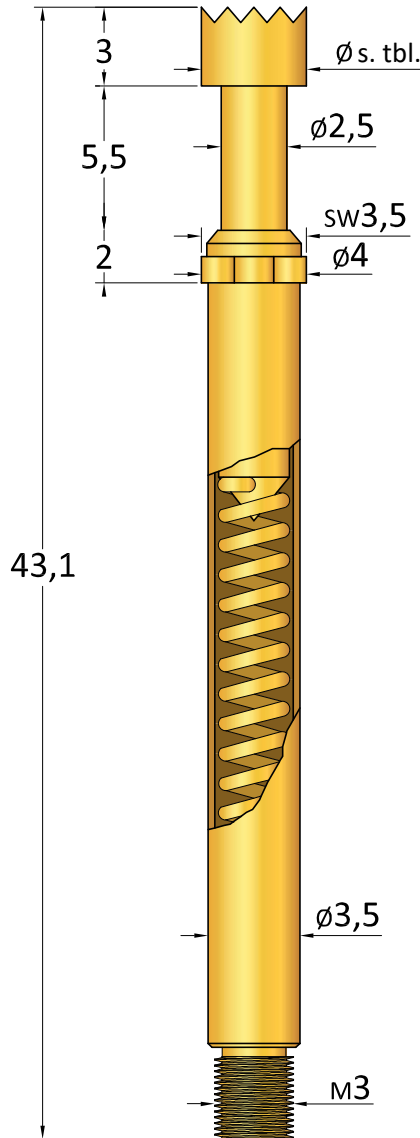


Ordering example:

Series	Tip Style	Spring Force		
GLP 133/37M	B 02	180	400	G
	Material	Tip ϕ mm		Plating
	B=BeCu			G=Gold N=Nickel

Available Tip Styles

Material	Tip Style	∅ mm
B	03 	2,50
		4,00
		6,50
B	04 	3,00
		4,00
B	08 	3,00
		4,00
B	10 	4,00



Technical Data

Recommended minimum centers:	5,08 mm
Recommended working stroke:	4,40 mm
Maximum stroke:	5,50 mm
Current rating:	10,0 - 12,0 A
Typical contact resistance:	<20 mΩ
Operating temperature range:	-50° up to +100°

Materials

Plunger:	BeCu, nickel or gold plated
Barrel:	Brass, gold plated
Spring:	Music wire, gold plated
Receptacle:	Brass, gold plated

Spring Force (g ±20%)

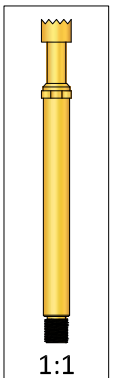
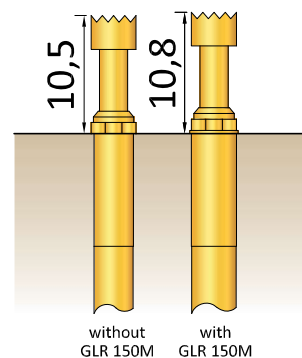
Spring force:	300 g
Alternative:	500 g

Hole size without receptacle

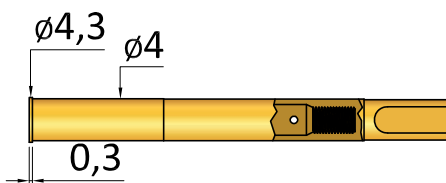
Drills:	\varnothing 3,49 - \varnothing 3,50
---------	---

Hole size with receptacle

Drills:	\varnothing 3,99 - \varnothing 4,00
---------	---



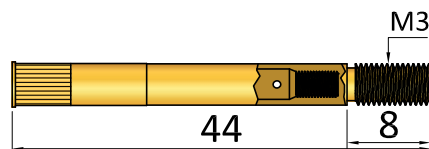
GLR 150MS



GLR 150MSZ



GLR 150MMZ



Ordering example:

Series	Tip Style	Spring Force	Material	Tip ∅ mm	Plating
GLP 150M	B	400	B=BeCu	300	G

Material: B=BeCu
Tip ∅ mm: 300
Plating: G=Gold, N=Nickel