

BATTERY CELL CONTACTING

less energy consumption – more efficiency



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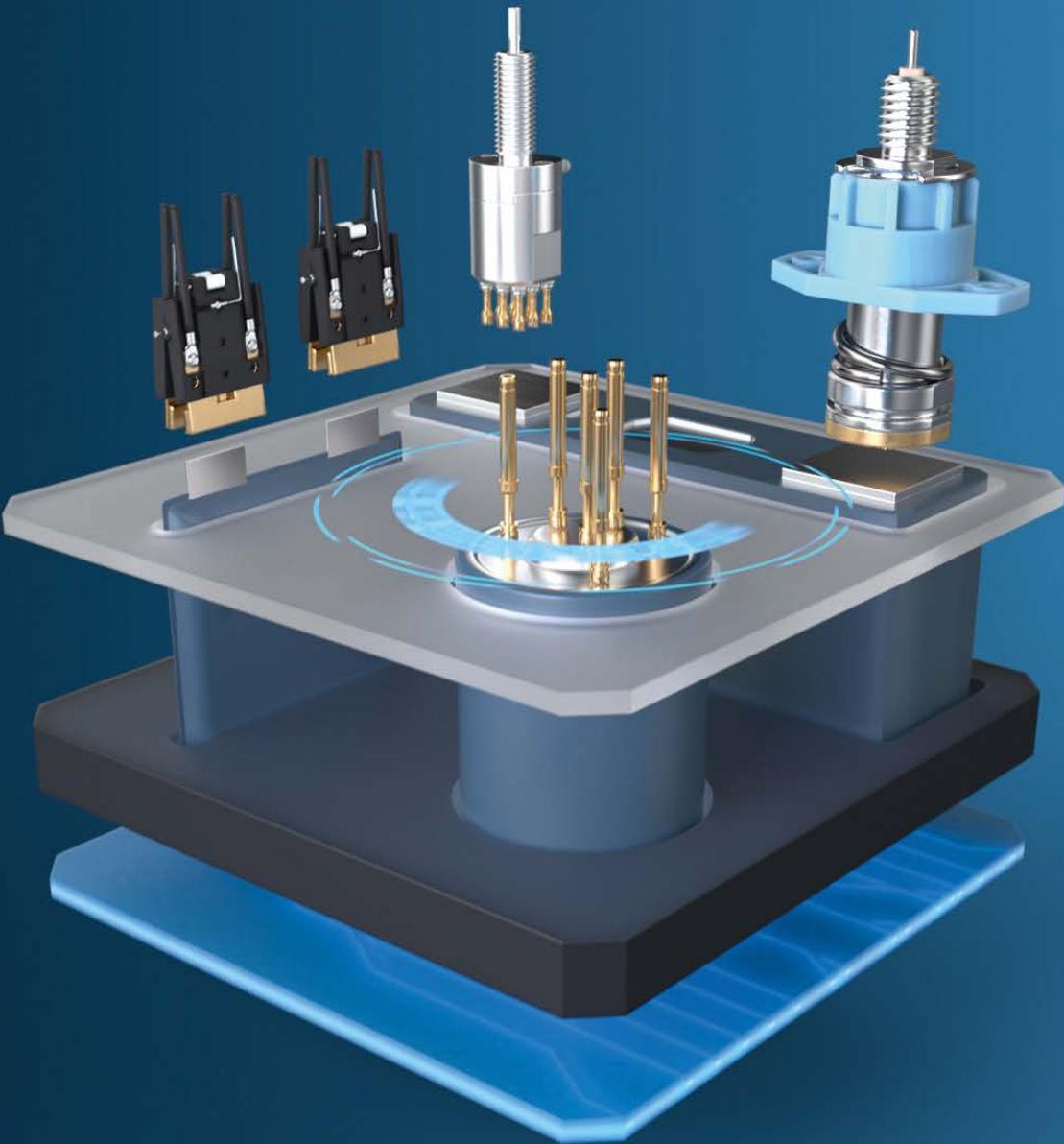
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Efficiency starts at the point of contact.

INGUN technologies for high-performance cell production.

Reliable contacting. Efficient cell production.

Reliable contacting is the key to efficient battery cell production. INGUN provides precision-engineered solutions that ensure stable high-current transmission, minimal energy loss, and maximum productivity.

From formation to end-of-line testing, rely on the market leader in contacting solutions for uncompromising quality and process reliability.

Your key advantages



Lower energy consumption

High-performance contacts minimize electrical losses and reduce overall process energy demand.



Shorter formation cycles

Consistent, low-resistance contact quality enables fast, reproducible charging and discharging.



Ready for gigafactories

Robust, scalable solutions designed for automated, high-volume production environments.

HIGHEST EFFICIENCY



Unmatched efficiency in every step From cell formation to end-of-line testing

Our battery contacting probes and clamps are engineered to deliver exceptionally low contact resistance and stable thermal behaviour. This ensures faster test times and greater energy savings across various key stages of the production process.

Formation

Formation is the most critical and time-intensive stage in cell manufacturing. During this step, the Solid Electrolyte Interphase (SEI) is formed and stabilized on the anode. This initial charging cycle defines the long-term safety, lifetime, and overall performance of the cell. Precise thermal and electrical control is essential, requiring components engineered for high-volume production, process consistency, and maximum reliability.

EOL Test

The EOL (End-of-Line) test serves as the final, high-speed quality checkpoint to verify that each finished cell or pack meets all safety and performance specifications. Key measurements include high-precision OCV (Open Circuit Voltage), leakage current testing, and - most critically - low-frequency AC Resistance and Internal Resistance (AC-IR) analysis to validate the cell's power capability. These measurements require low-inductance, highly stable connections to ensure fast and accurate electrical data acquisition.

Fast Charging

Fast charging pushes the cell to its operational limits. High current multiples (xC rates) must be delivered efficiently without damaging internal structures or creating thermal risks. This process demands contact solutions capable of handling high continuous currents with minimal resistance and effective thermal management. If the connection cannot support instantaneous power transfer with ultra-low resistance, energy loss as heat increases - compromising cell lifetime and safety validation.

DC-IR Test

The DC-IR (Direct Current Internal Resistance) test is a fundamental indicator of cell health. By applying a controlled current pulse and analyzing the resulting voltage drop, the resistive components of the cell can be assessed. This brief resistive load highlights quality concerns such as inadequate welding, connection defects, or problematic electrode interfaces. Accurate DC-IR measurements rely heavily on a stable, repeatable, and low-resistance electrical path.

Hi-POT Test

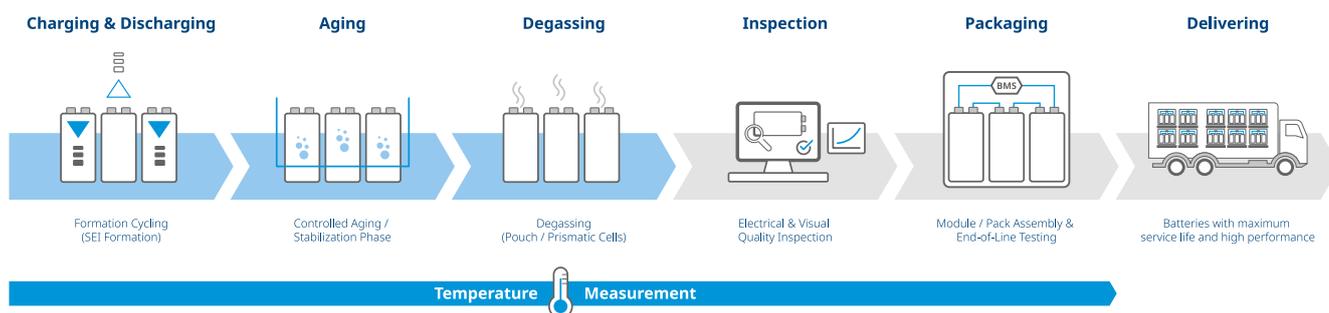
The Hi-POT (High Potential) test is a critical safety procedure in which a battery cell or pack is subjected to high voltage - often several kilovolts - to verify insulation integrity. This test ensures there is no harmful electrical leakage or breakdown between conductive elements, such as terminal-to-housing insulation. Hi-POT testing requires connectors engineered with robust insulation, generous creepage distances, and zero partial discharge to safely manage high-voltage stress without risk to equipment or personnel.

Temperature Measurement

Temperature measurement is essential throughout cell processing, as it provides the most direct insight into internal energy efficiency and safety. Excessive heat generation during steps such as formation, fast charging, or DC-IR testing can degrade cell chemistry, accelerate aging, or trigger thermal runaway. Reliable temperature monitoring ensures the cell remains within its safe operating window and that all test results reflect true performance.

See the summary table to quickly find the right INGUN product for each process step:

Products	Formation	EOL Test	Fast Charging	DC-IR Test	Hi-POT Test	Temperature Measurement
BCP-113	✓	✓			✓	
BCP-118	✓	✓			✓	
BCP-120	✓	✓			✓	
BCP-150	✓	✓			✓	
BCP-623	✓		✓			
BCP-624	✓		✓	✓		
BCP-626	✓		✓	✓		
BCP-653	✓		✓	✓		
BCP-654	✓		✓	✓		
BCP-655	✓		✓	✓		
BCP-667	✓	✓			✓	
BCP-671	✓	✓			✓	
BCP-692	✓		✓	✓		
BCP-693	✓		✓	✓		
BCP-694	✓		✓	✓		
BCP-695	✓		✓	✓		
HCM-667	✓		✓	✓		✓
BCC-635	✓		✓	✓		✓
TKS-503						✓
TKS-667						✓



LESS ENERGY



Less energy consumption – more efficiency Battery cell production reimagined

INGUN is your strong and reliable partner for efficient and sustainable battery production. For more than five decades, we have been setting the benchmarks in test and contacting technology.

Today, this expertise powers our advanced battery cell contacting solutions – accelerating formation processes, reducing energy loss, and extending service life.

With application-specific products for cylindrical, prismatic, and pouch cells, we provide both standardised and customised solutions that ensure future-proof manufacturing.

Our mission is simple: less energy consumption – more efficiency in your battery cell production.

What sets our solution apart

- ✓ **Current carrying capacity:** up to 500 A
- ✓ **Versatile applications:** pre-charge, formation, AC-IR/DC-IR, OCV, and EOL tests
- ✓ **Energy efficiency:** low contact resistance for minimal energy and heat loss
- ✓ **Voltage measurement:** sense contacts ensure precise measurement results
- ✓ **Temperature monitoring:** optional feature with K-type, NTC, PT100 or PT1000 sensors
- ✓ **Flexible installation:** press-in, screw-in, flange, or axle versions available
- ✓ **Non-moving cable:** direct installation in busbars eliminates moving cables
- ✓ **Thermal management:** Active or passive cooling during formation
- ✓ **CleverCoat®:** Patented palladium layer prevents tarnishing of probes

Ready for the future of battery technology?

Discover our products and get in touch with us.



Contact us.

Discover more about our test and contacting solutions online:
<https://ingun.com/en/applications/battery-cell-contacting/>

Or get in touch with us directly for personal consultation:
battery@ingun.com

WE ARE INGUN



INGUN – Precise test and contacting solutions

For over 50 years, companies worldwide have relied on components from INGUN. With the largest portfolio of test probes, test fixture kits, and customising accessories, we offer you the optimal solution for every application – used worldwide and proven millions of times over.

From Constance to global success

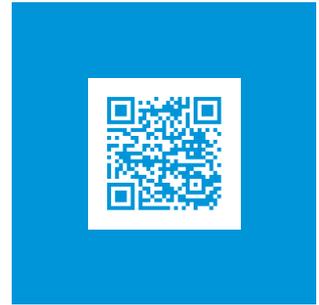
What began in Constance, southwest Germany in 1971 is now an international success story: INGUN has been developing high-precision test and contacting solutions for over five decades and is now the world's leading supplier.

Our products are manufactured at two certified locations in Germany and Vietnam. Our customers around the globe benefit from consistently high quality and fast delivery times.

More than 450 employees worldwide are committed to meeting our customers' needs every day. **We are your reliable Partner for Future Technology.**

Local service, wherever you are Supporting customers worldwide

With over 40 locations worldwide, we are exactly where you need us. Our technical experts provide you with personal, reliable, and application-focused support.



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Questions? We are here for you.

Whether you have questions about product selection or technical issues – we have the answer. **Contact us now.**

Hotline: +49 7531 8105-888
customer.service@ingun.com



INGUN Selection

Your seal of trusted quality

With INGUN Selection, you receive a carefully curated range of our most commonly used test probes, test fixtures, and accessories – perfectly suited to the requirements of your market. Benefit from short delivery times, attractive prices, and trusted quality that has been proven to deliver results millions of times in practice.



Readily available

INGUN Selection products are always in stock and can be delivered quickly, worldwide.



Recommended by experts

Our specialists have pre-selected products precisely suited to your market's needs.



Trusted quality

Rely on components that are used worldwide millions of times daily.



Attractive prices

Take advantage of special conditions for reliable, long-term budget planning.

INGUN SELECTION

Simply the smart choice: With INGUN Selection, you opt for top products trusted by customers worldwide, ensuring the optimal solution for your testing needs – without lengthy searches.

Just look for the blue flag.



SHOPPING 24/7



INGUN online shop Find what you are looking for faster

Find test probes, test fixture kits, and compatible customising accessories for your application quickly and easily in our online shop.



Exclusive benefits for your first online order – scan the QR code now and save!

Highlights of the INGUN online shop

- **Clear product overview**
Easily compare products and series, save your favourites, or share comparisons of selected products with your colleagues.
- **More knowledge = better decisions**
Access detailed technical data and product information, also available for download.
- **Discover suitable alternatives**
Simply enter the item number of another manufacturer and immediately find the optimum INGUN equivalent using our cross reference tool.
- **Re-order in seconds**
Open your order history, then select the desired product to re-order with just a few clicks.
- **Price advantages at a glance**
View your personalised terms and conditions and benefit from attractive discounts on bulk orders.

Battery contacting probes BCP-113

Cell type	Cylindrical, prismatic
Application rec.	Formation, EOL, HV
Rated current	20 – 25 A
Typical Ri	10 mOhm
Temperature range	-100 – 200 °C [-148 – 392 °F]
Grid	4 mm [157 mil]
Rec. working stroke	4 mm [.157 in]
Installation height	10.5 mm [.413 in]
Screw-in torque	10 – 20 cNm [.885 – 1.77 lbf·in]

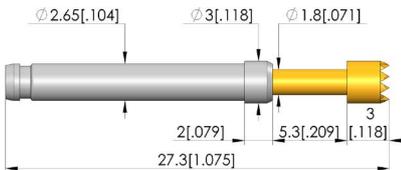
Product features

Non-moving cable	CleverCoat®	Sense contact	Installation flange	Cooling
✓	✓	–	–	–

Series

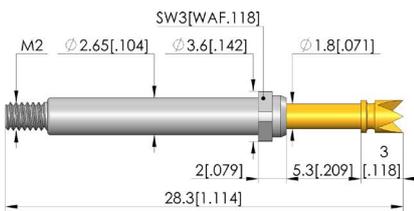
BCP-113 02

BCP-113 306 300 A 3002

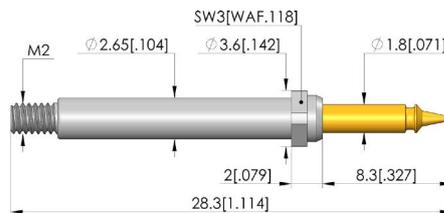


BCP-113 02 M

BCP-113 314 230 A 5002 M



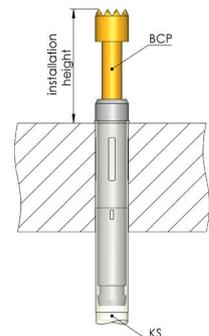
BCP-113 370 028 A 3002 M



Installation height

Installation height in mm [in]	
BCP-113 02	BCP-113 02 M
10.5 [.413]	
	10.5 [.413]

Compatible receptacles	
Solder cup	Wire-wrap
KS-113 30	KS-113 46
KS-113 30 M2	
KS-113 30 M2-R	
KS-113 30 M2-R-S	
KS-113 30 M2-T	



Tips

Tip style	Tip \varnothing in mm [in]	Tip	Tip version	Tool type
06 	3.00 [.118]	306 300 A		009
14 	2.30 [.090]	314 230 A		009
70 	0.28 [.011]	370 028 A		009

Available versions

Version	Description
02	[02] min. installation height 10.5 mm [.413 in]
02 M	[02] min. installation height 10.5 mm [.413 in], [M] screw-in probe

Products in the BCP-113 series

Spring force at working stroke in N [ozf]	Tip	Version	Order code
3 [10.8]	306 300 A	02	BCP-113 306 300 A 3002
	370 028 A	02 M	BCP-113 370 028 A 3002 M
5 [17.9]	314 230 A	02 M	BCP-113 314 230 A 5002 M

Battery contacting probes BCP-118

Cell type	Cylindrical, prismatic
Application rec.	Formation, EOL, HV
Rated current	20 A
Typical Ri	10 mOhm
Temperature range	-100 – 200 °C [-148 – 392 °F]
Grid	2.54 mm [100 mil]
Rec. working stroke	4 mm [.157 in]
Installation height	10.5 – 18.3 mm [.413 – .720 in]
Screw-in torque	3 – 5 cNm [.265 – .442 lbf-in]

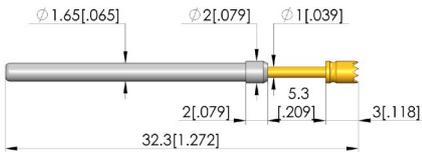
Product features

Non-moving cable	CleverCoat®	Sense contact	Installation flange	Cooling
✓	✓	–	–	–

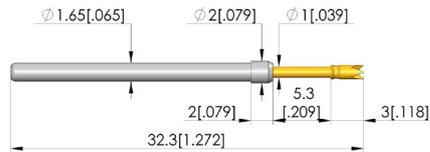
Series

BCP-118 02

BCP-118 306 200 A 2202

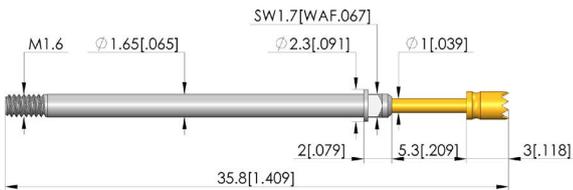


BCP-118 314 130 A 2202

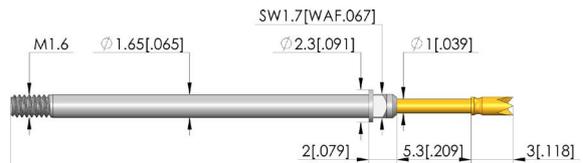


BCP-118 02 M

BCP-118 306 200 A 2202 M



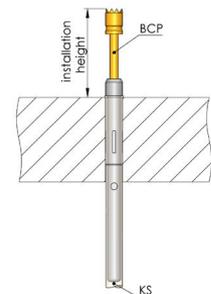
BCP-118 314 130 A 2202 M



Installation height

Installation height in mm [in]	
BCP-118 02	BCP-118 02 M
10.5 [.413]	
12.3 [.484]	
15.3 [.602]	
18.3 [.720]	
	10.5 [.413]

Compatible receptacles 65		
Solder cup	Wire-wrap	Plug connection
KS-112 23 KS-112 30	KS-112 47 KS-112 47-15	KS-112 35
KS-112 30 E2 KS-112 30 E5 KS-112 30 G8	KS-112 47 E2 KS-112 47 E5 KS-112 47 G8	
KS-112 30 M KS-112 30 M-R KS-112 30 M-R-Z KS-112 30 M-T	KS-112 46 M	



Tips

Tip style	Tip Ø in mm [in]	Tip	Tip version	Tool type
06 	2.00 [.079]	306 200 A		007, 505
14 	1.30 [.051]	314 130 A		007, 505

Available versions

Version	Description
02	[02] min. installation height 10.5 mm [.413 in]
02 M	[02] min. installation height 10.5 mm [.413 in], [M] screw-in probe

Products in the BCP-118 series

Spring force at working stroke in N [ozf]	Tip	Version	Order code
2.25 [8.09]	306 200 A	02	BCP-118 306 200 A 2202
	306 200 A	02	BCP-118 314 130 A 2202
	314 130 A	02 M	BCP-118 306 200 A 2202 M
	314 130 A	02 M	BCP-118 314 130 A 2202 M

Battery contacting probes BCP-120

Cell type	Cylindrical, prismatic
Application rec.	Formation, EOL, HV
Rated current	30 A
Typical CR	10 mOhm
Temperature range	-100 - 200 °C [-148 - 392 °F]
Grid min.	4.00 mm [157 mil]
Rec. working stroke	4 mm [.157 in]
Installation height	10.5 mm [.413 in]
Screw-in torque	10 - 20 cNm [.885 - 1.77 lbf-in]

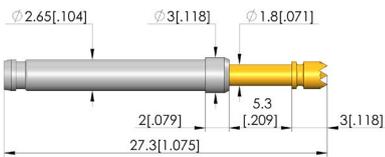
Product features

Non-moving cable	CleverCoat®	Sense contact	Installation flange	Cooling
✓	✓	-	-	-

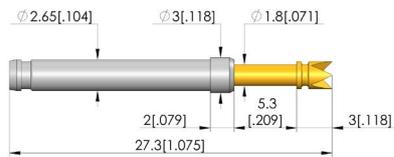
Series

BCP-120 02

BCP-120 306 230 A 3002

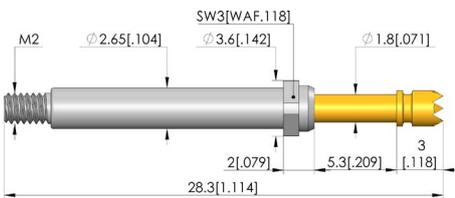


BCP-120 314 230 A 3002

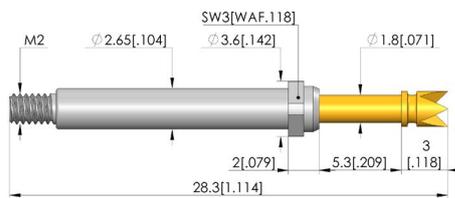


BCP-120 02 M

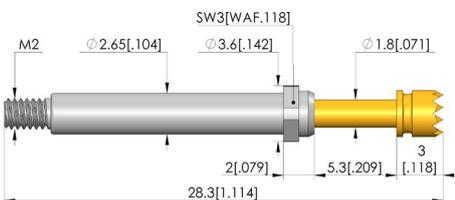
BCP-120 306 230 A 3002 M



BCP-120 314 230 A 3002 M



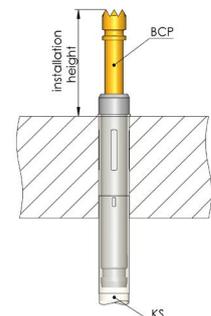
BCP-120 306 300 A 3002 M



Installation height

Installation height in mm [in]	
BCP-120 02	BCP-120 02 M
10.5 [.413]	
	10.5 [.413]

Compatible receptacles	
Solder cup	Wire-wrap
KS-113 30	KS-113 46
KS-113 30 M2	
KS-113 30 M2-R	
KS-113 30 M2-R-S	
KS-113 30 M2-T	



Tips

Tip style	Tip Ø in mm [in]	Tip	Tip version	Tool type
06 	2.30 [.091]	306 230 A		009, 504
06 	3.00 [.118]	306 300 A		009
14 	2.30 [.091]	314 230 A		009, 504

Available versions

Version	Description
02	[02] min. installation height 10.5 mm [.413 in]
02 M	[02] min. installation height 10.5 mm [.413 in], [M] screw-in probe

Products in the BCP-120 series

Spring force at working stroke in N [ozf]	Tip	Version	Order code
3.00 [10.8]	306 200 A	02	BCP-120 306 230 A 3002
	314 230 A	02	BCP-120 314 230 A 3002
	306 230 A	02 M	BCP-120 306 230 A 3002 M
	306 300 A	02 M	BCP-120 306 300 A 3002 M
	314 230 A	02 M	BCP-120 314 230 A 3002 M

Battery contacting probes BCP-150

Cell type	Cylindrical, prismatic
Application rec.	Formation, EOL, HV
Rated current	50 A
Typical CR	10 mOhm
Temperature range	-100 - 200 °C [-148 - 392 °F]
Grid min.	5.08 mm [200 mil]
Rec. working stroke	4.4 mm [.173 in]
Installation height	10.8 mm [.425 in]
Screw-in torque	10 - 20 cNm [.885 - 1.77 lbf·in]

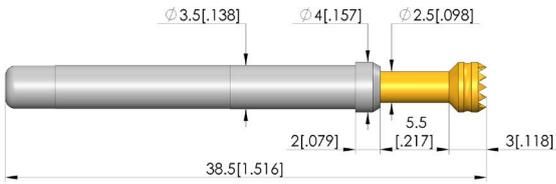
Product features

Non-moving cable	CleverCoat®	Sense contact	Installation flange	Cooling
✓	✓	-	-	-

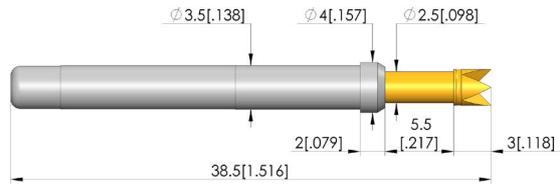
Series

BCP-150 02

BCP-150 306 400 A 5002

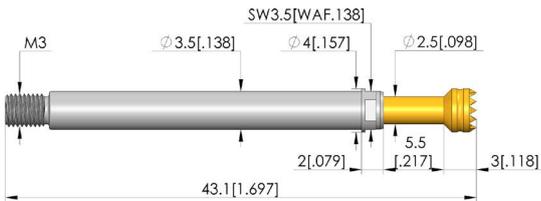


BCP-150 314 290 A 5002

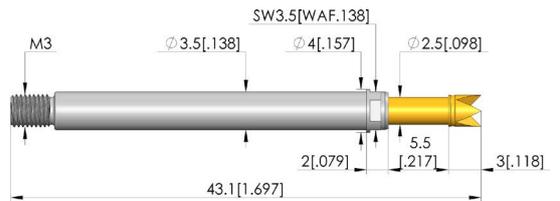


BCP-150 02 M

BCP-150 306 400 A 5002 M



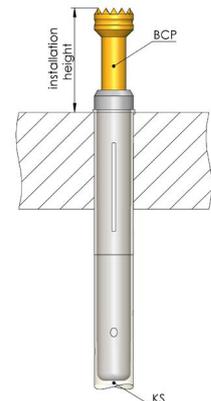
BCP-150 314 290 A 5002 M



Installation height

Installation height in mm [in]	
BCP-150 02	BCP-150 02 M
10.8 [.425]	
	10.8 [.425]

Compatible receptacles 71	
Solder cup	Wire-wrap
KS-150 30	KS-150 M3-R
KS-150 30 M3	KS-150 M3 M3-R
KS-150 30 M3-R	



Tips

Tip style	Tip \varnothing in mm [in]	Tip	Tip version	Tool type
06 	4.00 [.157]	306 400 A		026, 027
14 	2.90 [.114]	314 290 A		026

Available versions

Version	Description
02	[02] min. installation height 10.8 mm [.425 in]
02 M	[02] min. installation height 10.8 mm [.425 in], [M] screw-in probe

Products in the BCP-150 series

Spring force at working stroke in N [ozf]	Tip	Version	Order code
5.00 [18.0]	306 400 A	02	BCP-150 306 400 A 5002
	314 290 A	02	BCP-150 314 290 A 5002
	306 400 A	02 M	BCP-150 306 400 A 5002 M
	314 290 A	02 M	BCP-150 314 290 A 5002 M

Battery contacting probes BCP-667

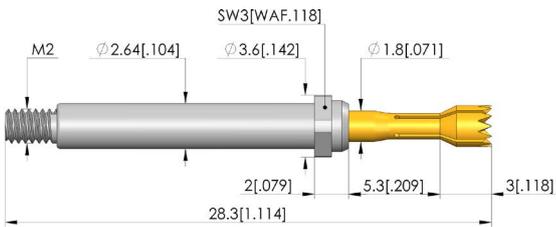
Cell type	Cylindrical, prismatic
Application rec.	Formation, EOL, HV
Rated current	30 A
Typical CR	5 mOhm
Temperature range	-100 - 200 °C [-148 - 392 °F]
Grid min.	4.00 mm [157 mil]
Rec. working stroke	4.0 mm [.157 in]
Installation height	10.5 mm [.413 in]
Screw-in torque	10 - 20 cNm [.885 - 1.77 lbf.in]

Product features

Non-moving cable	CleverCoat®	Sense contact	Installation flange	Cooling
✓	✓	-	-	-

Series

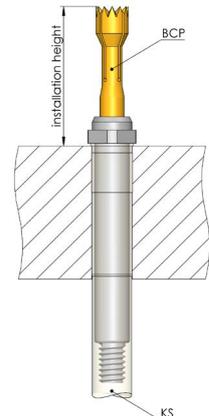
- BCP-667 02 M
- BCP-667 368 240 A 5002M



Installation height

Installation height in mm [in]
BCP-667 02 M
10.5 [.413]

Compatible receptacles
Solder cup
KS-113 30 M2
KS-113 30 M2-R
KS-113 30 M2-R-S
KS-113 30 M2-T



Tips

Tip style	Tip Ø in mm [in]	Tip	Tip version	Tool type
68 	2.40 [.094]	368 240 A		009

Available versions

Version	Description
02 M	[02] min. installation height 10.5 mm [.413 in], [M] screw-in probe

Products in the BCP-667 series

Spring force at working stroke in N [ozf]	Tip	Version	Order code
5.00 [18.0]	368 240 A	02 M	BCP-667 368 240 A 5002 M

Battery contacting probes BCP-671

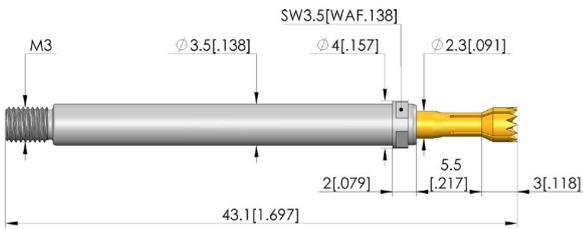
Cell type	Cylindrical, prismatic
Application rec.	Formation, EOL, HV
Rated current	30 A
Typical CR	5 mOhm
Temperature range	-100 – 200 °C [-148 – 392 °F]
Grid min.	4.50 mm [177 mil]
Rec. working stroke	4.4 mm [.173 in]
Installation height	10.8 mm [.425 in]
Screw-in torque	10 – 20 cNm [.885 – 1.77 lbf·in]

Product features

Non-moving cable	CleverCoat®	Sense contact	Installation flange	Cooling
✓	✓	–	–	–

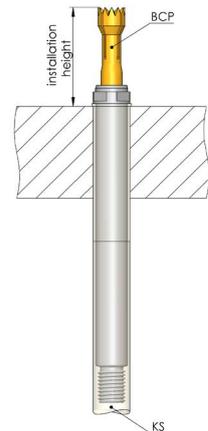
Series

- BCP-671 02 M
- BCP-671 368 290 A 5002 M



Installation height

Installation height in mm [in]	Compatible receptacles 71	
BCP-671 02 M	Solder cup	Screw connection
10.8 [.425]	KS-150 30 M3 KS-150 30 M3-H KS-150 30 M3-R	KS-150 M3 M3-R



Tips

Tip style	Tip Ø in mm [in]	Tip	Tip version	Tool type
68 	2.90 [114]	368 290 A		026

Available versions

Version	Description
02 M	[02] min. installation height 10.8 mm [425 in], [M] screw-in probe

Products in the BCP-671 series

Spring force at working stroke in N [ozf]	Tip	Version	Order code
5.00 [18.0]	368 290 A	02 M	BCP-671 368 290 A 5002 M

Battery contacting probes BCP-623

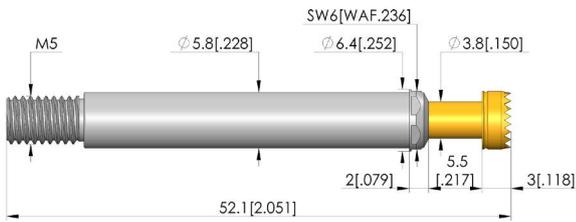
Cell type	Cylindrical, prismatic
Application rec.	Formation, FC
Rated current	100 A
Typical CR	5 mOhm
Temperature range	-100 - 200 °C [-148 - 392 °F]
Grid min.	7.6 mm [299 mil]
Rec. working stroke	4.4 mm [.173 in]
Installation height	10.8 mm [.425 in]
Screw-in torque	40 cNm [3.54 lbf.in]

Product features

Non-moving cable	CleverCoat®	Sense contact	Installation flange	Cooling
✓	✓	-	-	-

Series

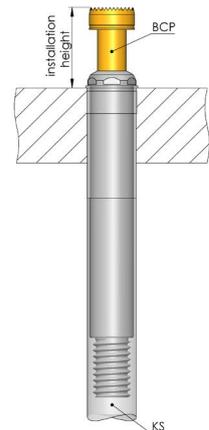
BCP-623 02 M



Installation height

Installation height in mm [in]
BCP-623 02 M
10.8 [.425]

Compatible receptacles	
Solder cup	Screw connection
KS-623 30 M5-R	KS-623 M5 M5-R



Tips

Tip style	Tip Ø in mm [in]	Tip	Tip version	Tool type
60 	6.00 [.236]	360 600 A		030

Available versions

Version	Description
02 M	[02] min. installation height 10.8 mm [.425 in], [M] screw-in probe

Products in the BCP-623 series

Spring force at working stroke in N [ozf]	Tip	Version	Order code
7.00 [25.2]	360 600 A	02 M	BCP-623 360 600 A 7002 M
10.00 [36.0]	360 600 A	02 M	BCP-623 360 600 A 10002 M
15.00 [54.0]	360 600 A	02 M	BCP-623 360 600 A 15002 M

Battery contacting probes BCP-624

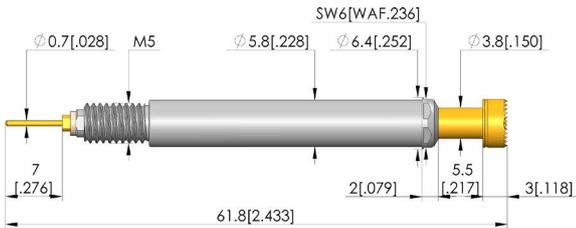
Cell type	Cylindrical, prismatic
Application rec.	Formation, FC, DC-IR
Rated current	100 A
Typical CR	5 mOhm
Temperature range	-100 - 200 °C [-148 - 392 °F]
Grid min.	7.6 mm [299 mil]
Rec. working stroke	4.4 mm [.173 in]
Installation height	10.8 mm [.425 in]
Screw-in torque	40 cNm [3.54 lbf.in]

Product features

Non-moving cable	CleverCoat®	Sense contact	Installation flange	Cooling
✓	✓	✓	-	-

Series

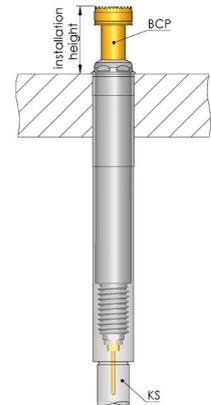
BCP-624 02 M
BCP-624 360 600 A 9002 M-51



Installation height

Installation height in mm [in]
BCP-624 02 M
10.8 [.425]

Compatible receptacles	73
Screw connection	
KS-624 M5 M5-RF	
KS-624 M5 M5-RF-S	



Tips

Tip style	Tip Ø in mm [in]	Tip	Tip version	Tool type
60 	6.00 [2.36]	360 600 A	-51	030

Available versions

Version	Description
02 M-51	[02] min. installation height 10.8 mm [.425 in], [M] screw-in probe, [-51] with inner conductor GKS-075 306 150 A 2002 MC (GKS-075-0624)

Products in the BCP-624 series

Spring force at working stroke in N [ozf]	Tip	Version	Order code
9.00 [32.4]	360 600 A	02 M-51	BCP-624 360 600 A 9002 M-51

Battery contacting probes BCP-626

Cell type	Cylindrical, prismatic
Application rec.	Formation, FC, DC-IR
Rated current	100 A
Typical CR	5 mOhm
Temperature range	-100 - 200 °C [-148 - 392 °F]
Grid min.	8.90 mm [350 mil]
Rec. working stroke	4.4 mm [.173 in]
Installation height	10.8 mm [.425 in]
Screw-in torque	40 cNm [3.54 lbf.in]

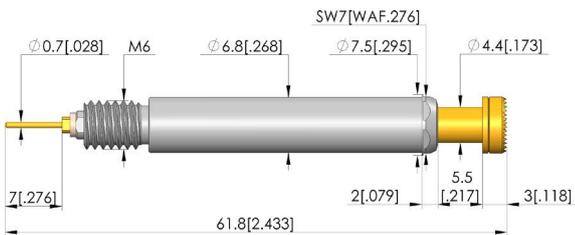
Product features

Non-moving cable	CleverCoat®	Sense contact	Installation flange	Cooling
✓	✓	✓	-	-

Series

BCP-626 02 M

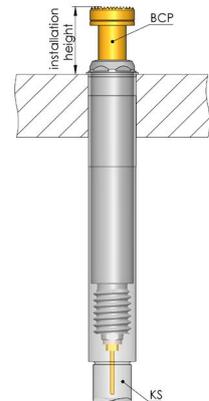
BCP-626 360 700 A 12002 M-51



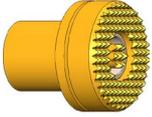
Installation height

Installation height in mm [in]
BCP-626 02 M
10.8 [.425]

Compatible receptacles	73
Screw connection	KS-626 M6 M6-RF



Tips

Tip style	Tip Ø in mm [in]	Tip	Tip version	Tool type
60 	7.00 [.276]	360 700 A	-51	076

Available versions

Version	Description
02 M-51	[02] min. installation height 10.8 mm [.425 in], [M] screw-in probe, [-51] with inner conductor GKS-075 306 150 A 2002 MC (GKS-075-0624)

Products in the BCP-626 series

Spring force at working stroke in N [ozf]	Tip	Version	Order code
12.00 [43.2]	360 700 A	02 M-51	BCP-626 360 700 A 12002 M-51

Battery contacting probes BCP-692

Cell type	Cylindrical, prismatic
Application rec.	Formation, FC, DC-IR
Rated current	100 A
Typical CR	5 mOhm
Temperature range	-100 - 200 °C [-148 - 392 °F]
Grid min.	11.0 mm [433 mil]
Rec. working stroke	8.0 mm [.314 in]
Installation height	65.5 mm [2.58 in]
Screw-in torque	-

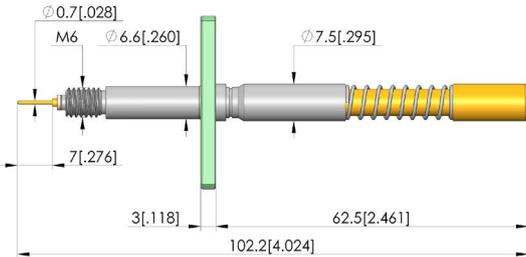
Product features

Non-moving cable	CleverCoat®	Sense contact	Installation flange	Cooling
✓	✓	✓	✓	-

Series

BCP-692 29

BCP-692 360 750 A 150**29-59**

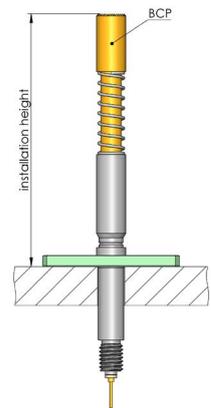


Installation height

Installation height in mm [in]

BCP-692 29

65.5 [2.58]



Tips

Tip style	Tip Ø in mm [in]	Tip	Tip version	Tool type
60 	7.50 [.295]	360 750 A	-59	-

Available versions

Version	Description
29-59	[29] min. installation height 65.5 mm [2.58 in], [-59] with inner conductor GKS-035 306 150 A 1202 MC (GKS-035-0059)

Products in the BCP-692 series

Spring force at working stroke in N [ozf]	Tip	Version	Order code
15.0 [53.9]	360 750	29-59	BCP-692 360 750 A 15029-59

Battery contacting probes BCP-740

Cell type	Cylindrical, prismatic
Application rec.	Formation, FC, DC-IR
Rated current	100 A
Typical CR	5 mOhm
Temperature range	-100 - 200 °C [-148 - 392 °F]
Grid min.	11.0 mm [433 mil]
Rec. working stroke	6.0 mm [.236 in]
Installation height	34.2 mm [13.46 in]
Screw-in torque	-

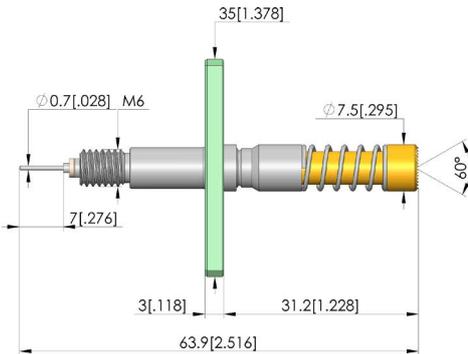
Product features

Non-moving cable	CleverCoat®	Sense contact	Installation flange	Cooling
✓	✓	✓	✓	-

Series

BCP-740 16

BCP-740 360 750 A 15016-51

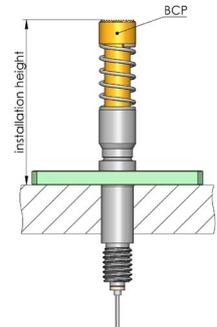


Installation height

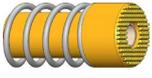
Installation height in mm [in]

BCP-740 16

34.2 [13.46]



Tips

Tip style	Tip Ø in mm [in]	Tip	Tip version	Tool type
60 	7.50 [.295]	360 750 A	-51	-

Available versions

Version	Description
16-51	[16] min. installation height 34.2 mm [13.46 in], [-51] with inner conductor GKS-075 306 150 A 2002 MC (GKS-075-0624)

Products in the BCP-740 series

Spring force at working stroke in N [ozf]	Tip	Version	Order code
15.0 [53.9]	360 750	16-51	BCP-740 360 750 A 15016-51

Battery contacting probes BCP-693

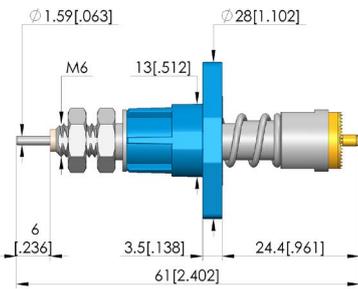
Cell type	Cylindrical, prismatic
Application rec.	Formation, FC, DC-IR
Rated current	80 - 100 A
Typical CR	0.5 mOhm
Temperature range	-40 - 80 °C [-104 - 176 °F]
Grid min.	14.0 mm [551 mil]
Rec. working stroke	4.4 mm [.173 in]
Installation height	27.9 mm [1.098 in]
Screw-in torque	-

Product features

Non-moving cable	CleverCoat®	Sense contact	Installation flange	Cooling
-	✓	✓	✓	-

Series

BCP-693 04

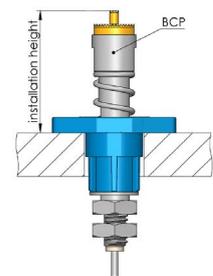


Note

Matching **temperature sensor** with identical installation height: TKS-691 02 (see page 56).
 Matching **high-current cables**: SE-AWG08 (see page 77).
 Matching **voltage measurement cables**: SE-AWG20 (see page 76).

Installation height

Installation height in mm [in]
BCP-693 04
27.9 [1.098]



Tips

Tip style	Tip Ø in mm [in]	Tip	Tip version	Tool type
60 	10.0 [.394]	360 1000 A	-53	-
60 	11.0 [.433]	360 1100 A	-53	-

Available versions

Version	Description
04-53	[04] min. installation height 27.9 mm [1.098 in] [-53] with inner conductor GKS-112 306 200 A 1502 (GKS-112-0674)

Products in the BCP-693 series

Spring force at working stroke in N [ozf]	Tip	Version	Order code
28.00 [100]	360 1000 A	04-53	BCP-693 360 1000 A 28004-53
35.00 [100]	360 1100 A	04-53	BCP-693 360 1100 A 35004-53

Battery contacting probes BCP-694

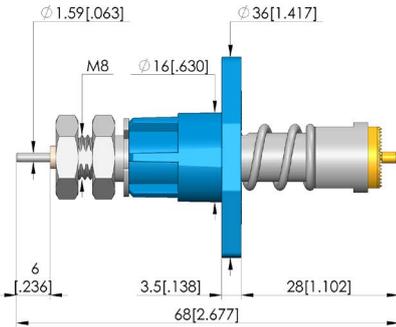
Cell type	Cylindrical, prismatic
Application rec.	Formation, FC, DC-IR
Rated current	120 - 150 A
Typical CR	0.5 mOhm
Temperature range	-40 - 80 °C [-104 - 176 °F]
Grid min.	17.0 mm [669 mil]
Rec. working stroke	4.4 mm [.173 in]
Installation height	31.5 mm [1.24 in]
Screw-in torque	-

Product features

Non-moving cable	CleverCoat®	Sense contact	Installation flange	Cooling
-	✓	✓	✓	-

Series

BCP-694 04

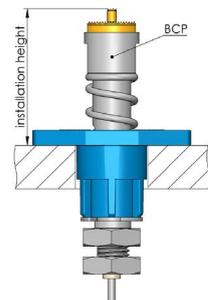


Note

- Matching **temperature sensor** with identical installation height: TKS-691 02 L (see page 56).
- Matching **high-current cables**: SE-AWG08 (see page 77).
- Matching **voltage measurement cables**: SE-AWG20 (see page 76).

Installation height

Installation height in mm [in]
BCP-694 04
31.5 [1.24]



Tips

Tip style	Tip Ø in mm [in]	Tip	Tip version	Tool type
60 	12.5 [.492]	360 1250 A	-53	-
60 	14.0 [.551]	360 1400 A	-53	-
60 	14.0 [.551]	360 1400 A	-63	-

Available versions

Version	Description
04-53	[04] min. installation height 31.5 mm [1.24 in] [-53] with inner conductor GKS-112 306 200 A 1502 (GKS-112-0674)
04-63	[04] min. installation height 31.5 mm [1.24 in] [-63] with inner conductor GKS-112 028 1100 A 9902 (GKS-112-3042)

Products in the BCP-694 series

Spring force at working stroke in N [ozf]	Tip	Version	Order code
45.00 [161.8]	360 1250 A	04-53	BCP-694 360 1250 A 45004-53
60.00 [215.8]	360 1400 A	04-53	BCP-694 360 1400 A 60004-53
		04-63	BCP-694 360 1400 A 60004-63

Battery contacting probes BCP-695

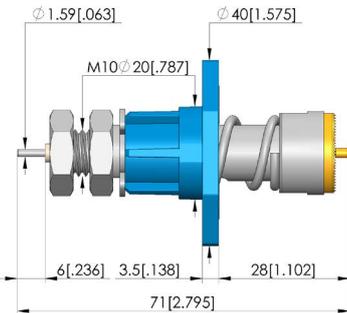
Cell type	Cylindrical, prismatic
Application rec.	Formation, FC, DC-IR
Rated current	200 A
Typical CR	0.5 mOhm
Temperature range	-40 – 80 °C [-104 – 176 °F]
Grid min.	21.0 mm [826 mil]
Rec. working stroke	4.4 mm [.173 in]
Installation height	31.5 mm [1.24 in]
Screw-in torque	-

Product features

Non-moving cable	CleverCoat®	Sense contact	Installation flange	Cooling
-	✓	✓	✓	-

Series

BCP-695 04
BCP-695 360 1800 A 100004-54

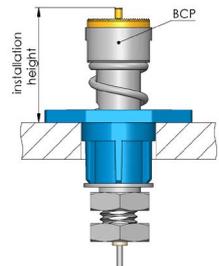


Note

Matching **temperature sensor** with identical installation height: TKS-691 02 L (see page 56).
 Matching **high-current cables**: SE-AWG08 (see page 77).
 Matching **voltage measurement cables**: SE-AWG20 (see page 76).

Installation height

Installation height in mm [in]
BCP-695 04
31.5 [1.24]



Tips

Tip style	Tip Ø in mm [in]	Tip	Tip version	Tool type
60 	18.0 [.708]	360 1800 A	-54	-
60 	18.0 [.708]	360 1800 A	-62	-

Available versions

Version	Description
04-54	[04] min. installation height 31.5 mm [1.24 in] [-54] with inner conductor GKS-112 306 200 A 1505 (GKS-112-0910)
04-62	[04] min. installation height 31.5 mm [1.24 in] [-62] with inner conductor GKS-112 028 1400 A 9904 (GKS-112-3023)

Products in the BCP-695 series

Spring force at working stroke in N [ozf]	Tip	Version	Order code
100 [359]	360 1800 A	04-54	BCP-695 360 1800 A 100004-54
		04-62	BCP-695 360 1800 A 100004-62

Battery contacting probes

BCP-696

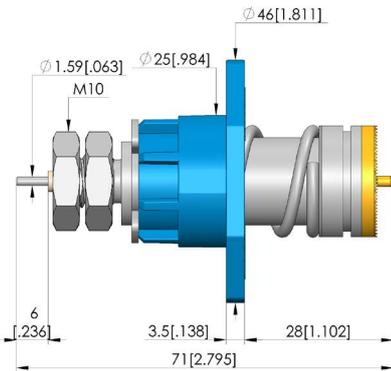
Cell type	Cylindrical, prismatic
Application rec.	Formation, FC, DC-IR
Rated current	400 A
Typical CR	0.2 mOhm
Temperature range	-40 – 80 °C [-104 – 176 °F]
Grid min.	26.0 mm [669 mil]
Rec. working stroke	4.4 mm [.173 in]
Installation height	31.5 mm [1.24 in]
Screw-in torque	-

Product features

Non-moving cable	CleverCoat®	Sense contact	Installation flange	Cooling
-	✓	✓	✓	-

Series

BCP-696 04

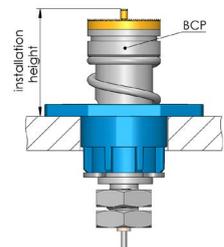


Note

- Matching **temperature sensor** with identical installation height: TKS-691 02 L (see page 56).
- Matching **high-current cables**: SE-AWG08 (see page 77).
- Matching **voltage measurement cables**: SE-AWG20 (see page 76).

Installation height

Installation height in mm [in]
BCP-696 04
31.5 [1.24]



Tips

Tip style	Tip Ø in mm [in]	Tip	Tip version	Tool type
60 	22.0 [.866]	360 2200 A	-54	-
60 	22.0 [.866]	360 2200 A	-62	-

Available versions

Version	Description
04-54	[04] min. installation height 31.5 mm [1.24 in] [-54] with inner conductor GKS-112 306 200 A 1505 (GKS-112-0910)
04-62	[04] min. installation height 31.5 mm [1.24 in] [-62] with inner conductor GKS-112 028 1400 A 9904 (GKS-112-3023)

Products in the BCP-696 series

Spring force at working stroke in N [ozf]	Tip	Version	Order code
110 [395]	360 2200 A	04-54	BCP-696 360 2200 A 110004-54
150 [539]	360 2200 A	04-54	BCP-696 360 2200 A 150004-54
		04-62	BCP-696 360 2200 A 150004-62

Battery contacting probes BCP-653

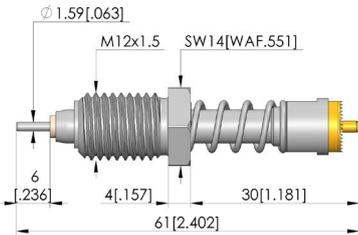
Cell type	Cylindrical, prismatic
Application rec.	Formation, FC, DC-IR
Rated current	90 - 100 A
Typical CR	3 mOhm
Temperature range	-40 - 80 °C [-104 - 176 °F]
Grid min.	24.0 mm [944 mil]
Rec. working stroke	4.4 mm [.173 in]
Installation height	34.0 mm [1.33 in]
Screw-in torque	1000 - 1500 cNm [88.5 - 132.7 lbf-in]

Product features

Non-moving cable	CleverCoat®	Sense contact	Installation flange	Cooling
✓	✓	✓	-	-

Series

BCP-653 04 M

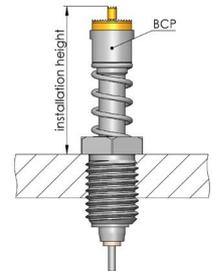


Note

Matching **voltage measurement cables**: SE-AWG20 (see page 76).

Installation height

Installation height in mm [in]
BCP-653 04 M
34.0 [1.33]



Tips

Tip style	Tip Ø in mm [in]	Tip	Tip version	Tool type
60 	10.0 [.394]	360 1000 A	-53	-
60 	110 [.433]	360 1100 A	-53	-

Available versions

Version	Description
04 M-53	[04] min. installation height 34.0 mm [1.33 in], [M] screw-in probe [-53] with inner conductor GKS-112 306 200 A 1502 (GKS-112-0674)

Products in the BCP-653 series

Spring force at working stroke in N [ozf]	Tip	Version	Order code
28[100]	360 1000 A	04 M-53	BCP-653 360 1000 A 28004 M-53
35 [125]	360 1100 A	04 M-53	BCP-653 360 1100 A 35004 M-53

Battery contacting probes BCP-654

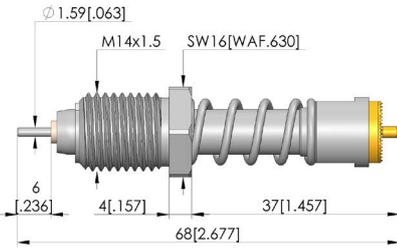
Cell type	Cylindrical, prismatic
Application rec.	Formation, FC, DC-IR
Rated current	120 - 140 A
Typical CR	1.5 mOhm
Temperature range	-40 - 80 °C [-104 - 176 °F]
Grid min.	26.0 mm [1023 mil]
Rec. working stroke	4.4 mm [.173 in]
Installation height	41.0 mm [1.61 in]
Screw-in torque	1500 - 2000 cNm [132.7 - 177.0 lbf-in]

Product features

Non-moving cable	CleverCoat®	Sense contact	Installation flange	Cooling
✓	✓	✓	-	-

Series

BCP-654 04 M



Note

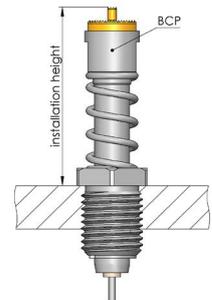
Matching **voltage measurement cables**: SE-AWG20 (see page 76).

Installation height

Installation height in mm [in]

BCP-654 04 M

41.0 [1.61]



Tips

Tip style	Tip Ø in mm [in]	Tip	Tip version	Tool type
60 	12.5 [.492]	360 1250 A	-53	-
60 	14.0 [.433]	360 1400 A	-53	-

Available versions

Version	Description
04 M-53	[04] min. installation height 41.0 mm [1.61 in], [M] screw-in probe [-53] with inner conductor GKS-112 306 200 A 1502 (GKS-112-0674)

Products in the BCP-654 series

Spring force at working stroke in N [ozf]	Tip	Version	Order code
45 [161]	360 1250 A	04 M-53	BCP-654 360 1250 A 45004 M-53
60 [215]	360 1400 A	04 M-53	BCP-654 360 1400 A 60004 M-53

Battery contacting probes BCP-655

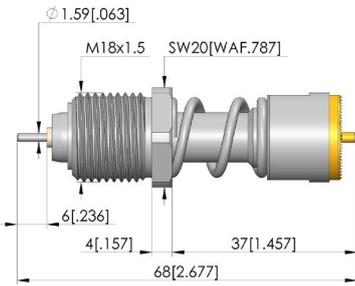
Cell type	Cylindrical, prismatic
Application rec.	Formation, FC, DC-IR
Rated current	160 A
Typical CR	1 mOhm
Temperature range	-40 – 80 °C [-104 – 176 °F]
Grid min.	30.0 mm [1181 mil]
Rec. working stroke	4.4 mm [.173 in]
Installation height	41.6 mm [1.61 in]
Screw-in torque	1500 – 2000 cNm [132.7 – 177.0 lbf-in]

Product features

Non-moving cable	CleverCoat®	Sense contact	Installation flange	Cooling
✓	✓	✓	–	–

Series

BCP-655 04 M
BCP-655 360 1800 A 100004M-53

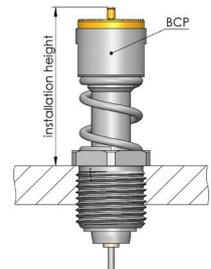


Note

Matching **voltage measurement cables**: SE-AWG20 (see page 76).

Installation height

Installation height in mm [in]
BCP-655 04 M
41.6 [1.61]



Tips

Tip style	Tip Ø in mm [in]	Tip	Tip version	Tool type
60 	18 [.709]	360 1800 A	-53	-

Available versions

Version	Description
04 M-53	[04] min. installation height 41.6 mm [1.61 in], [M] screw-in probe [-53] with inner conductor GKS-112 306 200 A 1502 (GKS-112-0674)

Products in the BCP-655 series

Spring force at working stroke in N [ozf]	Tip	Version	Order code
100 [359]	360 1800 A	04 M-53	BCP-655 360 1800 A 10004 M-53

Multi-head solutions HCM-667

Cell type	Cylindrical, prismatic
Application rec.	Formation, FC, DC-IR
Rated current	300 A
Typical CR	1 mOhm
Temperature range	-100 - 200 °C [-148 - 392 °F]
Grid min.	15.0 - 19.0 mm [590 - 748 mil]
Rec. working stroke	4.0 mm [1.57 in]
Installation height	33.3 mm [1.31 in]
Screw-in torque	60 - 100 cNm [5.31 - 8.85 lbf-in]

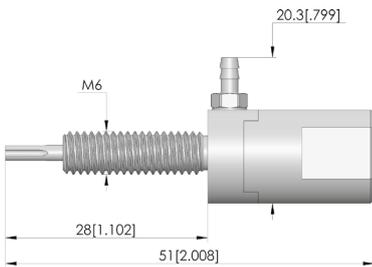
Product features

Non-moving cable	CleverCoat®	Sense contact	Installation flange	Cooling
✓	✓	✓	-	✓

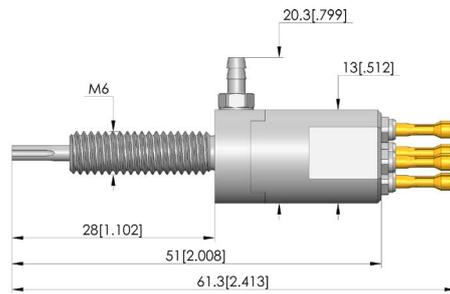
Series

HCM-667

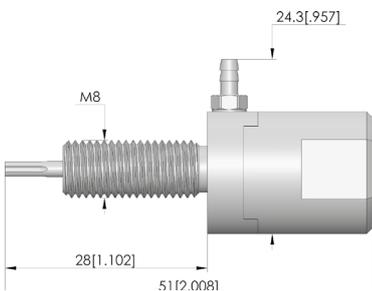
HCM-667-0000 C02-00000-00



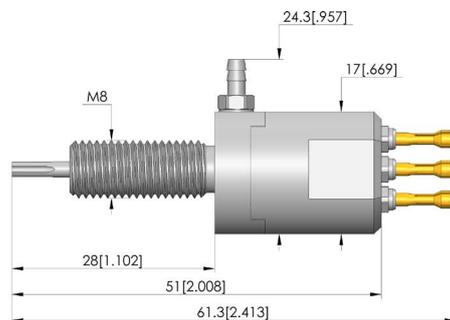
HCM-667-0012 C02-05000-02



HCM-667-0000 C01-00000-00



HCM-667-0012 C01-08000-02

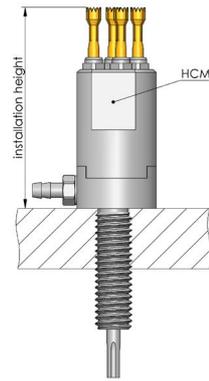


Note

The HCM-667 can be equipped with the BCP-120 (see page 16), the BCP-667 (see page 20), or a combination of both.
The TKS-667 may be installed in the centre slot to enable simultaneous temperature and voltage measurement (see page 54).

Installation height

Installation height in mm [in]
HCM-667
33.3 [1.31]



Products in the HCM-667 series

Shape	Diameter in mm [in]	No. of probes	Spring force at working stroke in N [ozf]	Air-cooling probe	Sealing bolts	Sense contact	Version	Order code
cylindrical	14 [.551]	0	0 [0]	no	no	no		HCM-667-0000 C02-00000-00
	14 [.551]	5	30 [107]	no	no	HCM-667-0012		HCM-667-0012 C02-05000-02
	18 [.709]	0	0 [0]	no	no	no		HCM-667-0000 C01-00000-00
	18 [.709]	8	45 [161]	no	no	HCM-667-0012		HCM-667-0012 C01-08000-02

Battery contacting clamps BCC-635

Cell type	Pouch
Application rec.	Formation, FC, DC-IR
Rated current	100 - 140 A
Typical CR	1 mOhm
Temperature range	-40 - 80 °C [-104 - 176 °F]
Grid min.	30.0 mm [1181 mil]

Product features

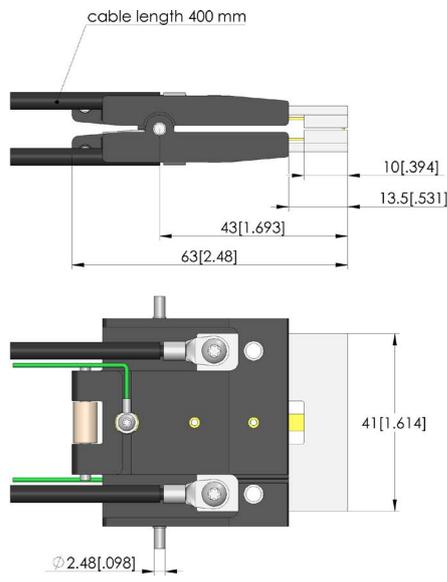
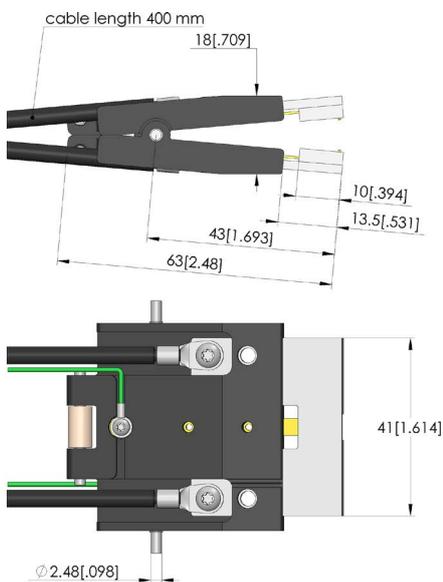
Non-moving cable	CleverCoat®	Sense contact	Installation flange	Cooling
✓	-	-	-	-

Series

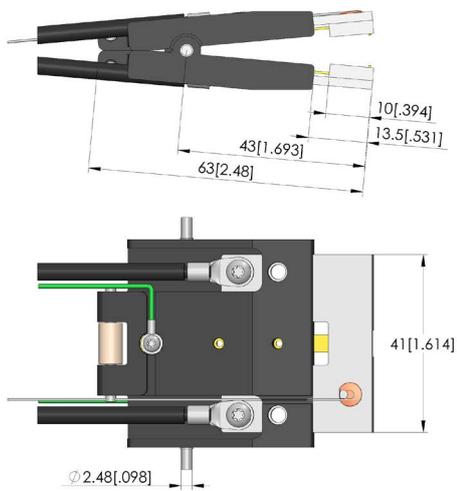
BCC-635

BCC-635 410 05 N 000 02 06

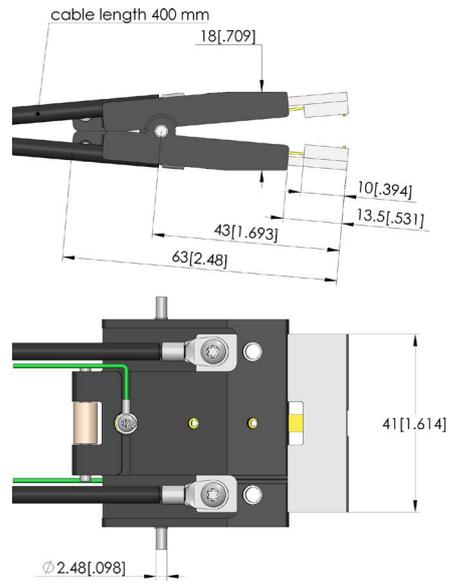
BCC-635 410 05 N 400 02 06



BCC-635 410 05 N 000 02 06 T5



BCC-635 410 05 S 000 02 06



Available versions

Version	Description
T5	[T5] with temperature sensor type K

Products in the BCC-635 series

Spring force at working stroke in N [ozf]	Tip	Tip plating	Version	Order code
-	flat	Silver		BCC-635 410 05 S 000 02 06
		Nickel		BCC-635 410 05 N 000 02 06
		Nickel	T5	BCC-635 410 06 N 000 02 06 T5
40	flat	Nickel		BCC-635 410 05 N 400 02 06

Temperature sensors TKS-503

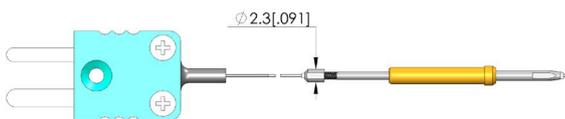
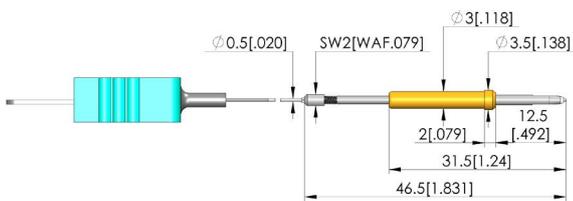
Application rec.	Temperature measurement
Grid min.	4 mm [157 mil]
Rec. working stroke	5.6 mm [.220 in]
Installation type	Plug-in
Installation height	14.75 mm [.580 in]

Product features

Non-moving cable	CleverCoat®	Sense contact	Installation flange	Cooling
-	-	-	-	-

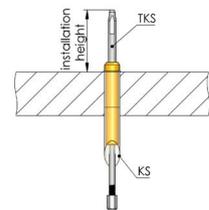
Series

TKS-503 02



Installation height

Installation height in mm [in]	Compatible receptacles  62
TKS-503 02	Solder cup
14.75 [.580]	KS-103 23



Tips

Tip style	Tip Ø in mm [in]	Tip	Tip version	Tool type
05 	0.5 [.020]	405 050 U	K100S	-

Available versions

Version	Description
02 K100S	[02] min. installation height 14.75 mm [.580 in], [K100] with temperature sensor type K100, [S] with plug

Products in the TKS-503 series

Spring force at working stroke in N [ozf]	Temperature range in °C [°F]	Tip	Version	Order code
1.5 [5.39]	-100 - 200 [-148 - 392]	405 050 U	02 K100S	TKS-503 405 050 U 1502 K100S
3.0 [10.7]				TKS-503 405 050 U 3002 K100S

Temperature sensors TKS-667

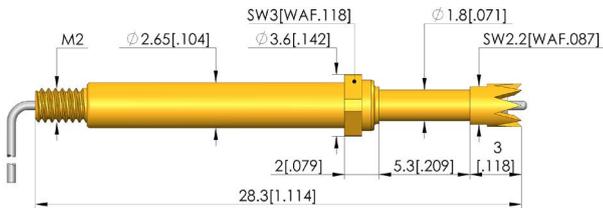
Application rec.	Temperature measurement
Grid min.	4 mm [157 mil]
Rec. working stroke	4.0 mm [.157 in]
Installation type	Screw-in
Installation height	10.8 mm [.425 in]
Screw-in torque	10 – 20 cNm [.885 – 1.77 lbf.in]

Product features

Non-moving cable	CleverCoat®	Sense contact	Installation flange	Cooling
—	—	—	—	—

Series

TKS-667 02 M

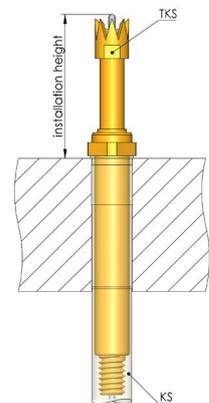


Note

The TKS-667 can be integrated into the centre slot of the multi-head solution HCM-667 (see page 48) to enable simultaneous temperature and voltage measurement.

Installation height

Installation height in mm [in]	Compatible receptacles  67
TKS-667 02 M	Solder cup / open
10.8 [.425]	KS-113 23



Tips

Tip style	Tip Ø in mm [in]	Tip	Tip version	Tool type
88 	2.5 [.098]	388 250 A	T5	-

Available versions

Version	Description
02 M-T5	[02] min. installation height 10.8 mm [.425 in], [M] screw-in probe, [T5] with temperature sensor type TK

Products in the TKS-667 series

Spring force at working stroke in N [ozf]	Temperature range in °C [°F]	Tips	Version	Order code
5.6 [20.1]	-100 - 200 [-148 - 392]	388 250 A	02 M-T5	TKS-667 388 250 A 5602 M-T5

Temperature sensors TKS-691

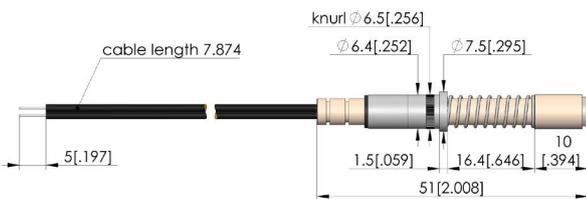
Application rec.	Temperature measurement
Grid min.	8.5 mm [334 mil]
Rec. working stroke	7.4 mm [.291 in]
Installation type	Press-in
Installation height	27.9 – 32.0 mm [1.098 – 1.259 in]
Screw-in torque	-

Product features

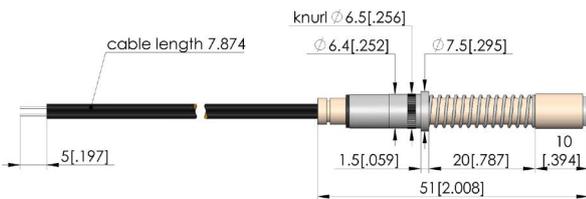
Non-moving cable	CleverCoat®	Sense contact	Installation flange	Cooling
-	-	-	-	-

Series

TKS-691 02



TKS-691 02 L

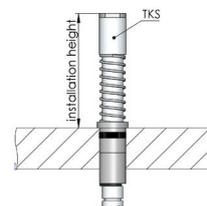


Note

TKS-691 02 features an identical installation height to the BCP-693 series (see page 34).
TKS-691 02 L features an identical installation height to the BCP-694 (see page 36), BCP-695 (see page 38) and BCP-696 (see page 40) series.

Installation height

Installation height in mm [in]	
TKS-691 02	TKS-691 02 L
27.9 [1.098]	31.5 [1.240]



Tips

Tip style		Tip Ø in mm [in]	Tip	Tip version	Tool type
02		6.50 [.256]	102 650 N	T3, T4, T9	412
02		6.50 [.256]	402 650 U	T9	412
05		6.50 [.256]	005 650 U	T5	412

Available versions

Version	Description
02 L-T3	[02] min. installation height 31.5 mm [1.240 in], [L] TKS with extended plunger, [T3] with temperature sensor type PT100
02 L-T4	[02] min. installation height 31.5 mm [1.240 in], [L] TKS with extended plunger, [T4] with temperature sensor type PT1000
02 L-T5	[02] min. installation height 32.0 mm [1.259 in], [L] TKS with extended plunger, [T5] with temperature sensor type K, installation height + 0.5 mm [.019 in]
02 L-T9	[02] min. installation height 31.5 mm [1.240 in], [L] TKS with extended plunger, [T9] with temperature sensor type NTC10
02 T3	[02] min. installation height 27.9 mm [1.098 in], [T3] with temperature sensor type PT100
02 T4	[02] min. installation height 27.9 mm [1.098 in], [T4] with temperature sensor type PT1000
02 T5	[02] min. installation height 28.4 mm [1.118 in], [T5] with temperature sensor type K, installation height + 0.5 mm [.019 in]
02 T9	[02] min. installation height 27.9 mm [1.098 in], [T9] with temperature sensor type NTC10

Temperature sensors TKS-691

 **Products in the TKS-691 series**

Spring force at working stroke in N [ozf]	Temperature range in °C [°F]	Tip	Version	Order code
7.0 [25.17]	-40 - 105 [-40 - 221]	102 650 N	02 L-T9	TKS-691 102 650 N 7002 L-T9
		102 650 N	02 T9	TKS-691 102 650 N 7002 T9
		402 650 U	02 L-T9	TKS-691 402 650 U 7002 L-T9
		402 650 U	02 T9	TKS-691 402 650 U 7002 T9
		005 650 U	02 L-T5	TKS-691 005 650 U 7002 L-T5
		005 650 U	02 T5	TKS-691 005 650 U 7002 T5
	-50 - 200 [-58 - 392]	102 650 N	02 L-T3	TKS-691 102 650 N 7002 L-T3
		102 650 N	02 L-T4	TKS-691 102 650 N 7002 L-T4
		102 650 N	02 T3	TKS-691 102 650 N 7002 T3
		102 650 N	02 T4	TKS-691 102 650 N 7002 T4

Precise test and contacting solutions

Test probes, test fixtures, and customising accessories
- in trusted quality from the market leader.



CONNECTOR TEST



Tips

Tip style	Tip Ø in mm [in]	Tip	Tip version	Tool type
02 	7.50 [.295]	102 650 N	T3, T4, T9	-
02 	7.50 [.295]	402 650 U	T9	-

Available versions

Version	Description
29 T3	[29] min. installation height 65.5 mm [2.578 in], [T3] with temperature sensor type PT100
29 T4	[29] min. installation height 65.5 mm [2.578 in], [T4] with temperature sensor type PT1000
29 T9	[29] min. installation height 65.5 mm [2.578 in], [T9] with temperature sensor type NTC10

Products in the TKS-667 series

Spring force at working stroke in N [ozf]	Temperature range in °C [°F]	Tip	Version	Order code
7.0 [25.17]	-40 - 105 [-40 - 221]	102 650 N	29 T3	TKS-692 102 650 N 7029 T3
		102 650 N	29 T4	TKS-692 102 650 N 7029 T4
		102 650 N	29 T9	TKS-692 102 650 N 7029 T9
		402 650 U	29 T9	TKS-692 402 650 U 7029 T9

Temperature sensors TKS-740

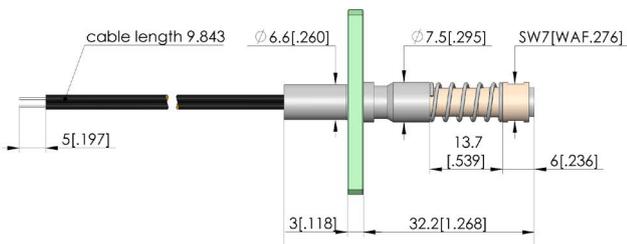
Application rec.	Temperature measurement
Grid min.	11.0 mm [433 mil]
Rec. working stroke	6.0 mm [.236 in]
Installation type	Flange
Installation height	35.2 mm [1.385 in]
Screw-in torque	-

Product features

Non-moving cable	CleverCoat®	Sense contact	Installation flange	Cooling
-	-	-	-	-

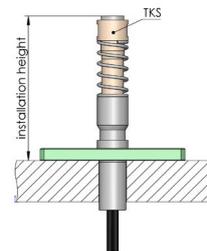
Series

TKS-740 16



Installation height

Installation height in mm [in]
TKS-740 16
35.2 [1.385]



Tip style	Tip Ø in mm [in]	Tip	Tip version	Tool type
02 	7.50 [.295]	102 650 N	T3, T4, T9	-
02 	7.50 [.295]	402 650 U	T9	-

Available versions

Version	Description
16 T3	[16] min. installation height 35.2 mm [1.385 in], [T3] with temperature sensor type PT100
16 T4	[16] min. installation height 35.2 mm [1.385 in], [T4] with temperature sensor type PT1000
16 T9	[16] min. installation height 35.2 mm [1.385 in], [T9] with temperature sensor type NTC10

Products in the TKS-740 series

Spring force at working stroke in N [ozf]	Temperature range in °C [°F]	Tip	Version	Order code
6.0 [21.5]	-50 - 200 [-58 - 392]	102 650 N	16 T3	TKS-740 102 650 N 6016 T3
		102 650 N	16 T4	TKS-740 102 650 N 6016 T4
	-40 - 105 [-40 - 221]	102 650 N	16 T9	TKS-740 102 650 N 6016 T9
		402 650 U	16 T9	TKS-740 402 650 U 6016 T9

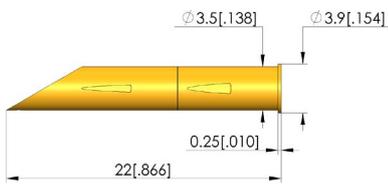
Receptacles KS-103

Grid min.	4.00 mm [157 mil]
Collar diameter	3.9 mm [153 mil]
Rated current	8 A
Temperature range	-100 – 200 °C [-148 – 392 °F]

Series

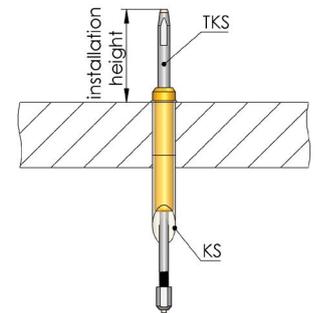
KS-103 23 with open solder connection and collar-stop

KS-103 23



Installation height

Available version	Compatible probes with installation height in mm [inch]
Solder / open	TKS-503
KS-103 23	14.75 [.581]



Products in the KS-103 series

Connection type	Air tight	Installation	Mounting hole FR4 in mm [inch]	Mounting hole CEM1 in mm [inch]	Tool type	Version	Order code
Solder / open	no	collar-stop	3.48 – 3.49 [.137]	3.48 – 3.49 [.137]	211		KS-103 23

Receptacles KS-112

Grid min.	2.54 mm [100 mil]
Collar diameter	2.08 - 2.3 mm [81.8 - 90.5 mil]
Rated current	20 A
Temperature range	-100 - 200 °C [-148 - 392 °F]

Series

KS-112 23 with open solder connection and collar-stop

KS-112 23



KS-112 30 with solder cup and collar-stop

KS-112 30



KS-112 30 E2



KS-112 30 E5



KS-112 30 G with solder cup and press-ring

KS-112 30 G8



KS-112 35 with plug connection and collar-stop

KS-112 35



Receptacles KS-112

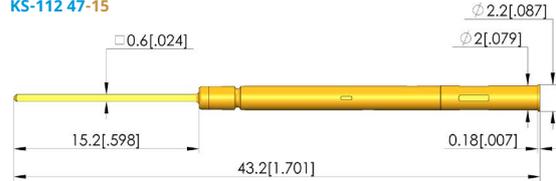
Series

KS-112 47 with wire-wrap post and collar-stop

KS-112 47



KS-112 47-15



KS-112 47 E2



KS-112 47 E5



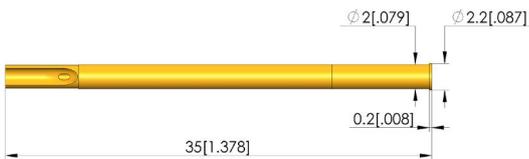
KS-112 47 G with wire-wrap post and press-ring

KS-112 47 G8

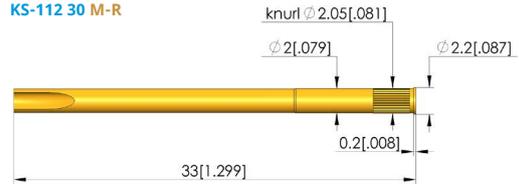


KS-112 30 M with solder cup and collar-stop for screw-in probes

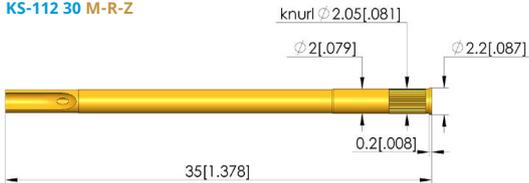
KS-112 30 M



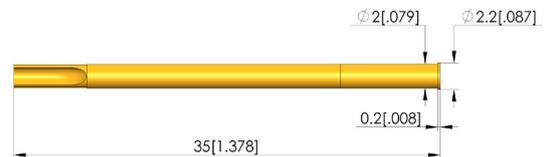
KS-112 30 M-R



KS-112 30 M-R-Z

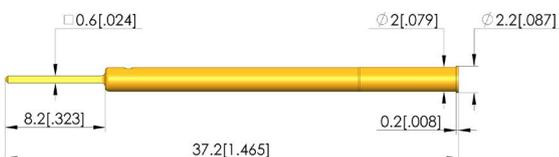


KS-112 30 M-T



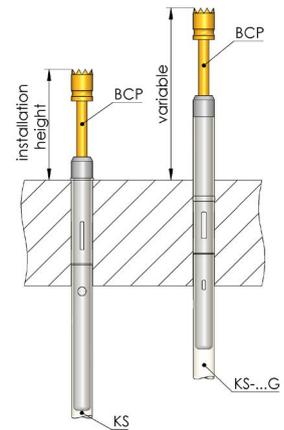
KS-112 46 M with wire-wrap post and press-ring for screw-in probes

KS-112 46 M



Installation height

Available version				Compatible probes with installation height in mm [inch]	
Solder / open	Solder cup	Plug connection	Wire-wrap	BCP-118	BCP-118 M
KS-112 23				10.5 [.413]	
	KS-112 30			10.5 [.413]	
	KS-112 30 E2			12.3 [.484]	
	KS-112 30 E5			15.3 [.602]	
	KS-112 30 G8			18.3 [.720]	
	KS-112 30 M				10.5 [.413]
	KS-112 30 M-R				10.5 [.413]
	KS-112 30 M-R-Z				10.5 [.413]
	KS-112 30 M-T				10.5 [.413]
		KS-112 35		10.5 [.413]	
			KS-112 46 M		10.5 [.413]
			KS-112 47	10.5 [.413]	
			KS-112 47-15	10.5 [.413]	
			KS-112 47 E2	12.3 [.484]	
			KS-112 47 E5	15.3 [.602]	
			KS-112 47 G8	18.3 [.720]	



Available versions

Version	Description
M	[M] for screw-in probes
M-R	[M] for screw-in probes, [-R] with knurl
M-R-Z	[M] for screw-in probes, [-R] with knurl, [-Z] with axial vent bore
M-T	[M] for screw-in probes, [-T] with lateral vent bore
-15	[-15] length 15.2 mm [.598 inch]

Receptacles KS-112

Products in the KS-112 series

Connection type	Air tight	Installation	Mounting hole FR4 in mm [inch]	Mounting hole CEM1 in mm [inch]	Tool type	Version	Order code
Solder / open	no	collar-stop	1.99 - 2.01 [.078 - .079]	1.98 - 2.00 [.077 - .078]	212, 237		KS-112 23
		collar-stop	1.99 - 2.01 [.078 - .079]	1.98 - 2.00 [.077 - .078]			KS-112 30
		collar-stop	1.99 - 2.01 [.078 - .079]	1.98 - 2.00 [.077 - .078]			KS-112 30 E2
		collar-stop	1.99 - 2.01 [.078 - .079]	1.98 - 2.00 [.077 - .078]			KS-112 30 E5
		collar-stop	1.99 - 2.01 [.078 - .079]	1.98 - 2.00 [.077 - .078]			KS-112 30 G8
Solder cup	no	press-ring	2.03 - 2.05 [.079 - .080]	2.03 - 2.05 [.079 - .080]	212, 237		
		collar-stop	1.99 - 2.01 [.078 - .079]	1.98 - 2.00 [.077 - .078]		M	KS-112 30 M
		collar-stop	2.00 - 2.02 [.078 - .079]	2.00 - 2.02 [.078 - .079]		M-R	KS-112 30 M-R
		collar-stop	2.00 - 2.02 [.078 - .079]	2.00 - 2.02 [.078 - .079]		M-R-Z	KS-112 30 M-R-Z
		collar-stop	1.98 - 1.99 [.077 - .078]	1.98 - 1.99 [.077 - .078]		M-T	KS-112 30 M-T
Plug connection	no	collar-stop	1.99 - 2.01 [.078 - .079]	1.98 - 2.00 [.077 - .078]	212, 237		KS-112 35
		collar-stop	1.98 - 1.99 [.077 - .078]	1.98 - 1.99 [.077 - .078]		M	KS-112 46 M
	yes (< 1 ccm / min.)	collar-stop	1.99 - 2.01 [.078 - .079]	1.98 - 2.00 [.077 - .078]			KS-112 47
	yes (< 1 ccm / min.)	collar-stop	1.99 - 2.01 [.078 - .079]	1.98 - 2.00 [.077 - .078]			KS-112 47 E2
	yes (< 1 ccm / min.)	collar-stop	1.99 - 2.01 [.078 - .079]	1.98 - 2.00 [.077 - .078]			KS-112 47 E5
Wire-wrap	yes (< 1 ccm / min.)	collar-stop	1.99 - 2.01 [.078 - .079]	1.98 - 2.00 [.077 - .078]	212, 237		
		collar-stop	1.99 - 2.01 [.078 - .079]	1.98 - 2.00 [.077 - .078]			KS-112 47 G8
		press-ring	2.03 - 2.05 [.079 - .080]	2.03 - 2.05 [.079 - .080]			
	yes (< 1 ccm / min.)	collar-stop	1.99 - 2.01 [.078 - .079]	1.98 - 2.00 [.077 - .078]		-15	KS-112 47-15

Receptacles KS-113

Grid min.	4.00 mm [157 mil]
Collar diameter	3.2 mm [125.9 mil]
Rated current	30 A
Temperature range	-100 – 200 °C [-148 – 392 °F]

Series

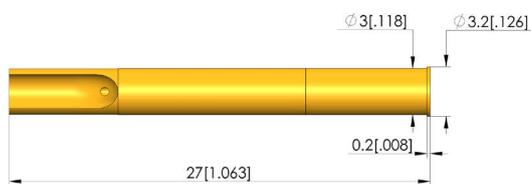
KS-113 30 with solder cup and collar-stop

KS-113 30

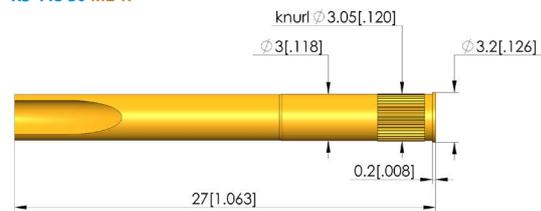


KS-113 30 M with solder cup and collar-stop

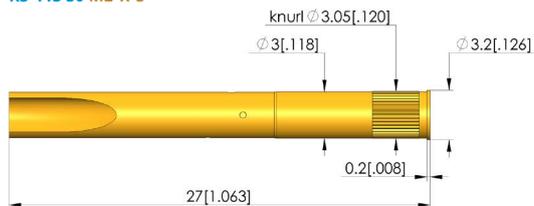
KS-113 30 M2



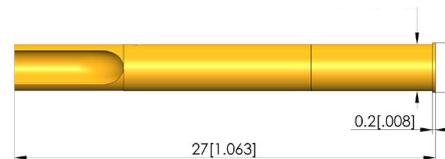
KS-113 30 M2-R



KS-113 30 M2-R-S

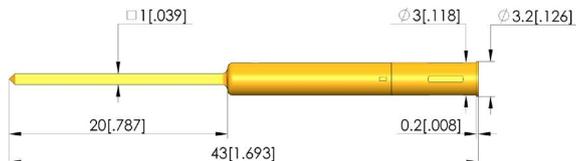


KS-113 30 M2-T



KS-113 46 with wire-wrap post and collar-stop

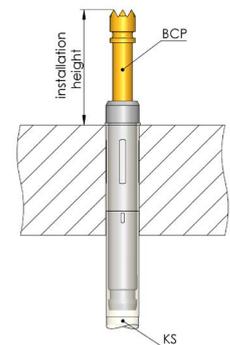
KS-113 46



Receptacles KS-113

Installation height

Available version		Compatible probes with installation height in mm [inch]	
Solder cup	Wire-wrap	BCP-113 BCP-120	BCP-113 M BCP-120 M BCP-667 M
KS-113 30		10.5 [.413]	
KS-113 30 M2			
KS-113 30 M2-R			10.5 [.413]
KS-113 30 M2-R-S			
KS-113 30 M2-T			
	KS-113 46	10.5 [.413]	



Available versions

Version	Description
M2	[M2] for screw-in probes (M2)
M2-R	[M2] for screw-in probes (M2), [-R] with knurl
M2-R-S	[M2] for screw-in probes (M2), [-R] with knurl, [-S] with crimping points for self-locking
M2-T	[M2] for screw-in probes (M2), [-T] with lateral vent bore

🛒 Products in the KS-113 series

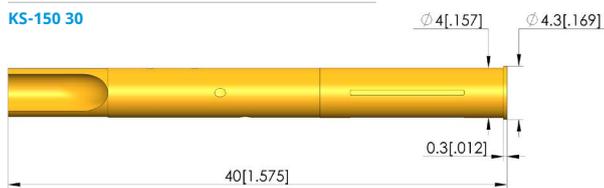
Connection type	Air tight	Installation	Mounting hole FR4 in mm [inch]	Mounting hole CEM1 in mm [inch]	Tool type	Version	Order code
Solder cup	no	collar-stop	2.98 - 2.99 [.117]	2.98 - 2.99 [.117]	213, 237		KS-113 30
			2.99 [.117]	2.99 [.117]		M2	KS-113 30 M2
			3.00 - 3.02 [.118]	3.00 - 3.02 [.118]		M2-R	KS-113 30 M2-R
			3.00 - 3.02 [.118]	3.00 - 3.02 [.118]		M2-R-S	KS-113 30 M2-R-S
Wire-wrap	no	collar-stop	2.99 [.117]	2.99 [.117]		M2-T	KS-113 30 M2-T
			2.98 - 2.99 [.117]	2.98 - 2.99 [.117]		KS-113 46	

Receptacles KS-150

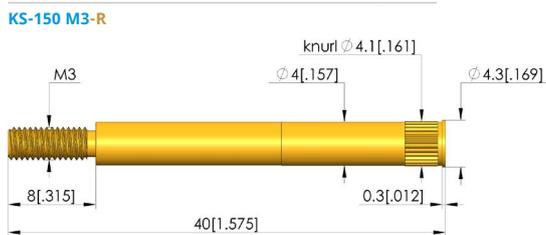
Grid min.	5.08 mm [200 mil]
Collar diameter	4.3 mm [169.2 mil]
Rated current	50 A
Temperature range	-100 – 200 °C [-148 – 392 °F]

Series

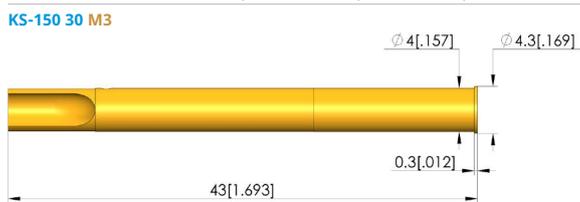
KS-150 30 with solder cup and collar-stop



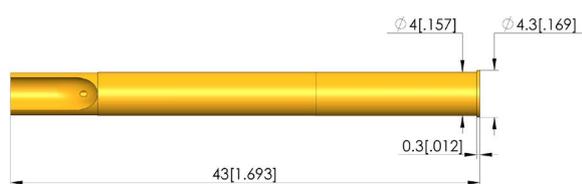
KS-150 M with screw connection and collar-stop



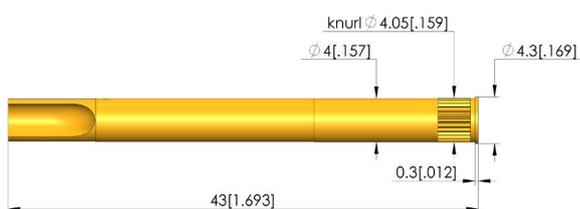
KS-150 30 M with solder cup and collar-stop for screw-in probes



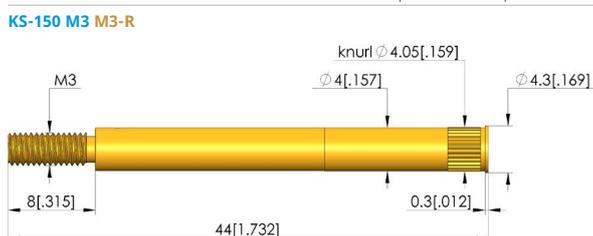
KS-150 30 M3-H



KS-150 30 M3-R



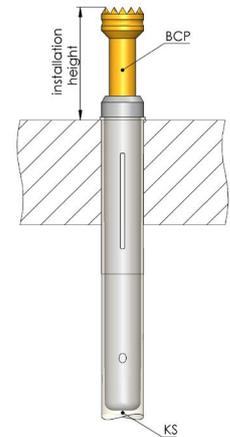
KS-150 M M with screw connection and collar-stop for screw-in probes



Receptacles KS-150

Installation height

Available version		Compatible probes with installation height in mm [inch]	
Solder cup	Screw connection	BCP-150	BCP-150 M BCP-671 M
KS-150 30		10.8 [.425]	
	KS-150 M3-R	10.8 [.425]	
KS-150 30 M3			10.8 [.425]
KS-150 30 M3-H			10.8 [.425]
KS-150 30 M3-R			10.8 [.425]
	KS-150 M3 M3-R		10.8 [.425]



Available versions

Version	Description
M3	[M3] for screw-in probes (M3)
M3-H	[M3] for screw-in probes (M3), [-H] with axial vent bore
M3-R	[M3] for screw-in probes (M3), [-R] with knurl
-R	[-R] with knurl

Products in the KS-150 series

Connection type	Air tight	Installation	Mounting hole FR4 in mm [inch]	Mounting hole CEM1 in mm [inch]	Tool type	Version	Order code
Solder cup	no	collar-stop	3.98 - 3.99 [.156]	3.98 - 3.99 [.156]			KS-150 30
			3.99 [.157]	3.99 [.157]		M3	KS-150 30 M3
			3.99 [.157]	3.99 [.157]		M3-H	KS-150 30 M3-H
			4.00 - 4.02 [.157]	4.00 - 4.02 [.157]		M3-R	KS-150 30 M3-R
Screw connection	no	collar-stop	4.00 - 4.02 [.157]	4.00 - 4.02 [.157]		M3-R	KS-150 M3 M3-R
			4.00 - 4.02 [.157]	4.00 - 4.02 [.157]		-R	KS-150 M3-R

Receptacles KS-623, KS-624, KS-626

Grid min.	7.6 mm [299 mil]
Collar diameter	6.9 – 8.2 mm [271.6 – 322.8 mil]
Rated current	100 A
Temperature range	-100 – 200 °C [-148 – 392 °F]

Series

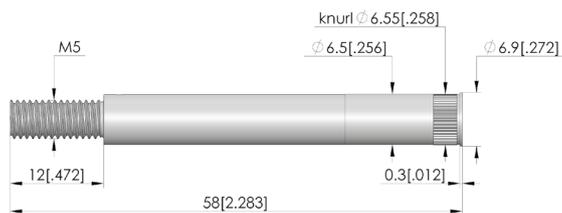
KS-623 30 M with solder cup and collar-stop for screw-in probes

KS-623 30 M5-R



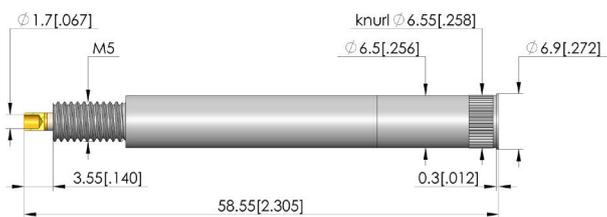
KS-623 M M with screw connection and collar-stop for screw-in probes

KS-623 M5 M5-R



KS-624 M M with screw connection and collar-stop for screw-in probes

KS-624 M5 M5-RF

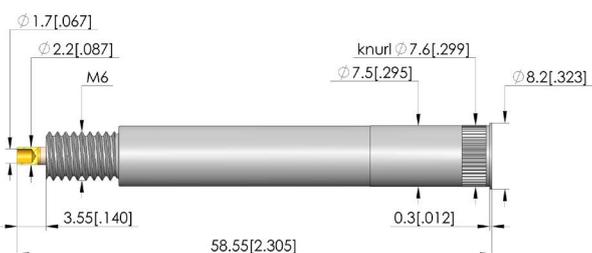


KS-624 M5 M5-RF-S



KS-626 M M with screw connection and collar-stop for screw-in probes

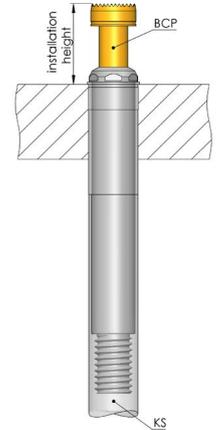
KS-626 M6 M6-RF



Receptacles KS-623, KS-624, KS-626

Installation height

Available version		Compatible probes with intallation height in mm [inch]		
Solder cup	Screw connection	BCP-623 M	BCP-624 M	BCP-626 M
KS-623 30 M5-R		10.8 [.425]		
	KS-623 M5 M5-R	10.8 [.425]		
	KS-624 M5 M5-RF		10.8 [.425]	
	KS-624 M5 M5-RF-S			
	KS-626 M6 M6-RF			10.8 [.425]



Available versions

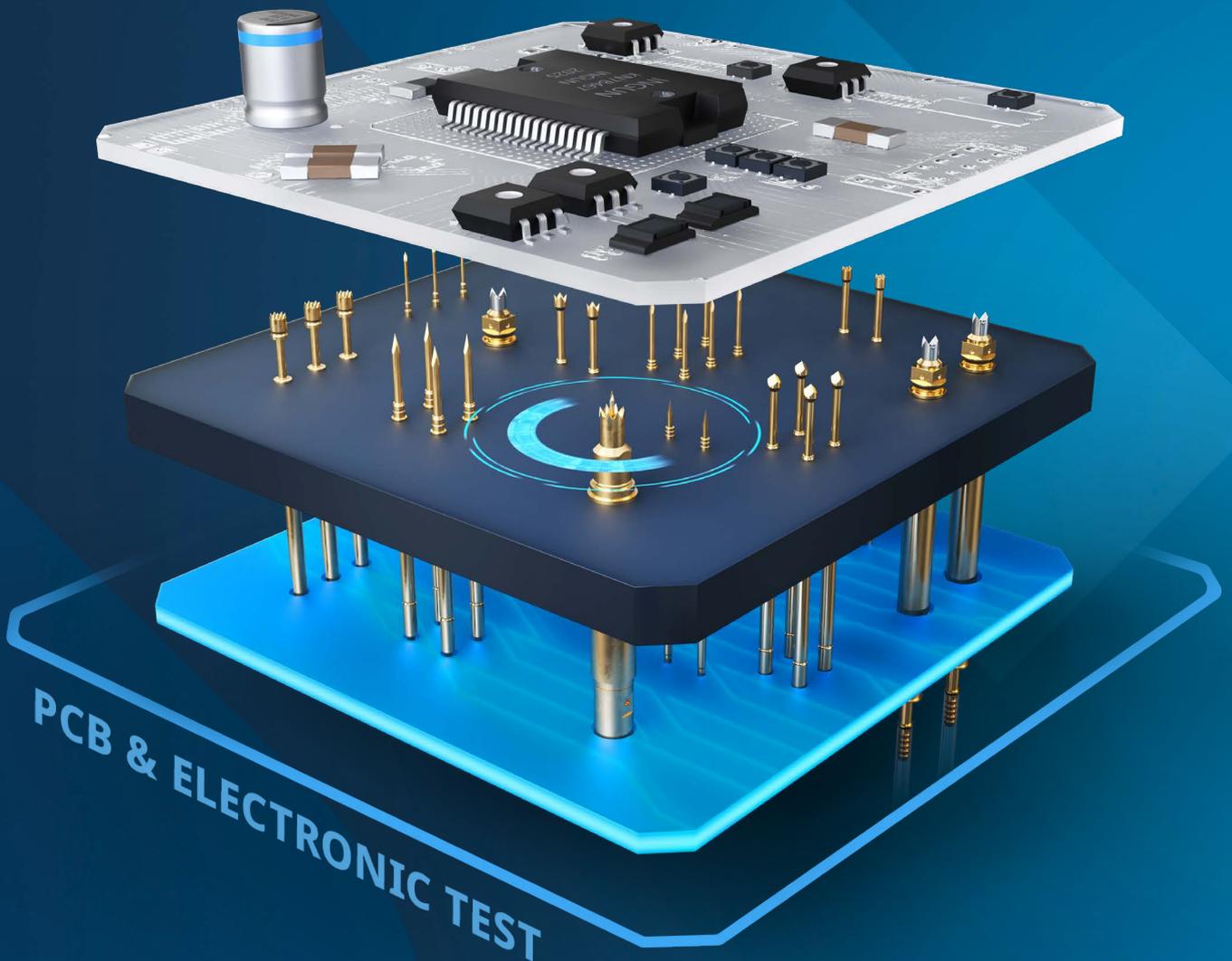
Version	Description
M5-R	[M5] for screw-in probes (M5), [-R] with knurl
M5-RF	[M5] for screw-in probes (M5), [-R] with knurl, [F] with quick exchange system
M5-RF-S	[M5] for screw-in probes (M5), [-R] with knurl, [F] with quick exchange system, [-S] with crimping points for self-locking
M6-RF	[M6] for screw-in probes (M6), [-R] with knurl, [F] with quick exchange system

Products in the KS-623, KS-624, KS-626 series

Connection type	Air tight	Installation	Mounting hole FR4 in mm [inch]	Mounting hole CEM1 in mm [inch]	Tool type	Version	Order code
Solder cup	no	collar-stop	6.50 - 6.52 [.255]	6.50 - 6.52 [.255]		M5-R	KS-623 30 M5-R
	no		6.50 - 6.52 [.255]	6.50 - 6.52 [.255]		M5-R	KS-623 M5 M5-R
Screw connection	yes (< 1 ccm / min.)	collar-stop	6.50 - 6.52 [.255]	6.50 - 6.52 [.255]		M5-RF	KS-624 M5 M5-RF
	no		6.50 - 6.52 [.255]	6.50 - 6.52 [.255]		M5-RF-S	KS-624 M5 M5-RF-S
	no		7.50 - 7.52 [.295]	7.50 - 7.52 [.295]		M6-RF	KS-626 M6 M6-RF

Precise test and contacting solutions

Test probes, test fixtures, and customising accessories
- in trusted quality from the market leader.



Connection cables SE-AWG20

Application rec.	Connection to probe sense contact (voltage measurement)
Connection type	Push-on
Temperature range	-40 – 80 °C [-104 – 176 °F]

Series

SE-AWG20

SE-AWG20-2-BU01660-100



Note

The cable allows direct connection to the sense contact of the BCP-65x (page 42 to 47) and BCP-69x (page 34 to 41) product series for voltage measurement.

Products in the SE-AWG20 series

Cable type	Compatible with series	Cable length in cm [inch]	Order code
AWG20	BCP-653, BCP-654, BCP-655, BCP-693, BCP-694, BCP-695, BCP-696	100 [39.3]	SE-AWG20-2-BU01660-100

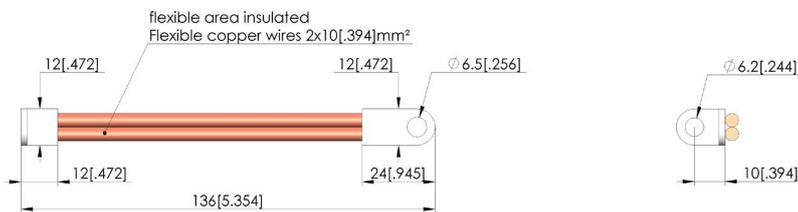
Connection cables SE-AWG08

Grid min.	High-current cable
Collar diameter	160 – 400 A
Rated current	Bolt-on ring terminal
Temperature range	-40 – 80 °C [-104 – 176 °F]

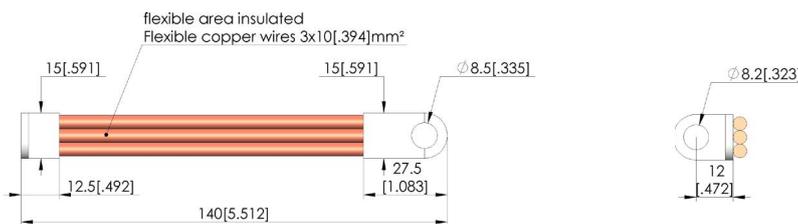
Series

SE-AWG08

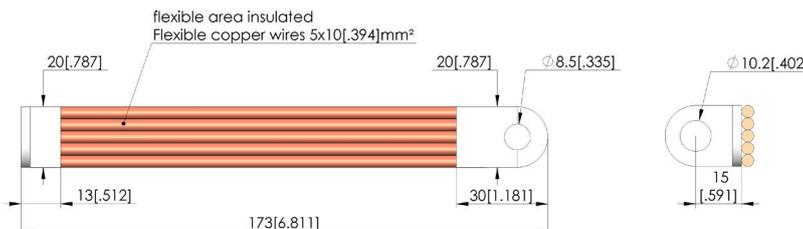
SE-AWG08-6-AN0005-100-AN00062



SEAWG08-6-AN0003-100-AN00043



SEAWG08-6-AN0001-130-AN00025



Note

The cable allows direct connection to the BCP-69x (page 34 to 41) product series for current transmission.

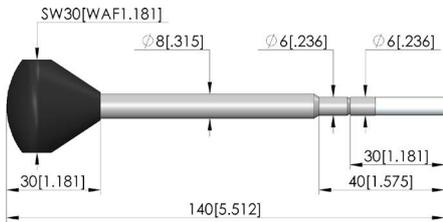
Products in the SE-AWG08 series

Cable type	Compatible with series	Rated current in A	Cable length in cm [inch]	Order code
AWG08	BCP-693	160	14 [5.51]	SEAWG08-6-AN0005-100-AN00062
	BCP-694	240	14 [5.51]	SEAWG08-6-AN0003-100-AN00043
	BCP-695, BCP-696	400	17 [6.69]	SEAWG08-6-AN0001-130-AN00025

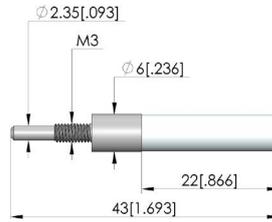
Tools

Insertion and extraction tools for probes (tool type 400-599)

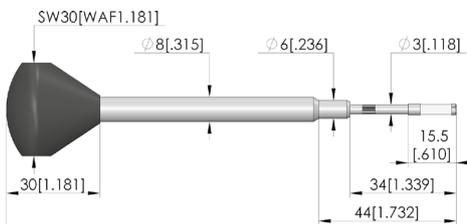
SW-GKS (universal insertion tool for GKS)



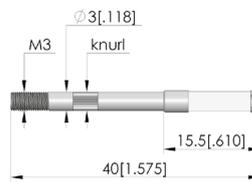
E-SW-GKS (insert for universal insertion tool)



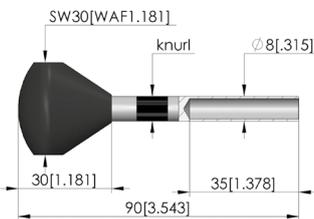
SW-ZW-GKS-103



E-SW-ZW-GKS-103



SW-TKS-691 (insertion tool for TKS-691)

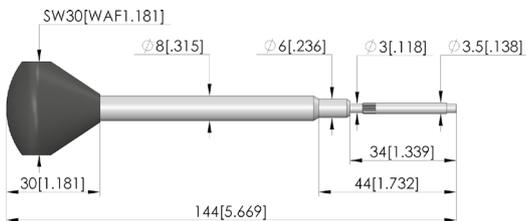


E-SW-TKS-691 (insert for insertion tool for TKS-691)

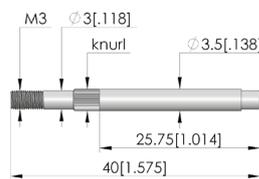


Insertion and extraction tools for receptacles (tool type 200-299)

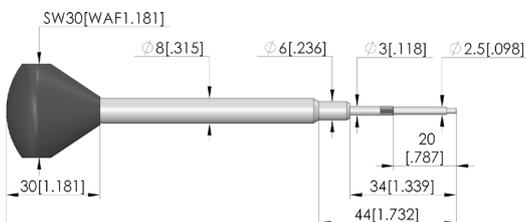
SW-KS-103



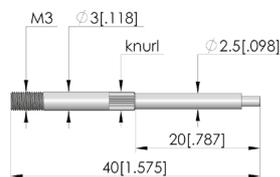
E-SW-KS-103



SW-KS-112

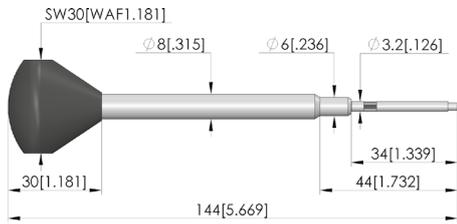


E-SW-KS-112

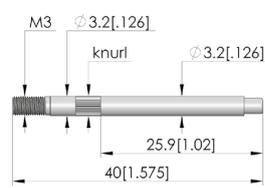


Tools

SW-KS-113



E-SW-KS-113



AW-KS-Set-CABLE



Note

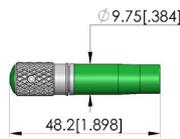
Incorrectly inserted or damaged receptacles can be removed using this extraction tool. The receptacle extraction set AW-KS-Set-CABLE includes bits E-AW-KS-xxx for extracting receptacles KS-075, KS-100, KS-112 and KS-113. All bits are available separately.

Torque wrenches

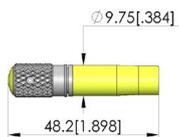
DW-S (handle without a ratchet mechanism)



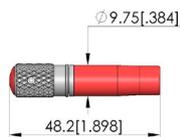
DW-1-S (fixed torque: 1 cNm [.088 lbf-in])



DW-3-S (fixed torque: 3 cNm [.265 lbf-in])



DW-5-S (fixed torque: 5 cNm [.442 lbf-in])

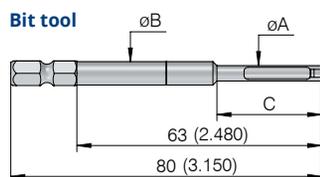


DW-5-40 (torque range adjustable:
5 - 40 cNm [.442 - 3.54 lbf-in])



DW-20-120 (torque range adjustable:
20 - 120 cNm [1.77 - 10.6 lbf-in])





Overview tool types

Bits for torque tools (tool type 000 - 099)

Tool type	Compatible with series	Tip \varnothing max. in mm [in]	Bit dimensions in mm [inch]			Rec. screw-in torque in cNm [lbf·in]		Torque wrench		Order code
			$\varnothing A$	$\varnothing B$	$\varnothing C$	min.	max.	fix	variable	
007	BCP-118 M	2.0 [.078]	2.7 [.106]	5.0 [.196]	30.0 [1.18]	3 [.265]	5 [.442]	DW-3-S DW-5-S	DW-5-40	BIT-GKS-112 M-B
009	BCP-113 M BCP-120 M BCP-667 M	3.0 [.118]	4.8 [.188]	4.8 [.188]	63.0 [2.48]	5 [.442]	20 [1.77]	DW-5-S	DW-5-40 DW-20-120	BIT-GKS-113 M-B
026	BCP-150 M BCP-671 M	4.0 [.157]	5.6 [.220]	6.0 [.236]	28.0 [1.10]	10 [.885]	20 [1.77]		DW-5-40	BIT-HSS-150 M
027	BCP-150 M BCP-671 M	3.0 [.118]	5.6 [.220]	6.0 [.236]	28.0 [1.10]	10 [.885]	20 [1.77]		DW-5-40	BIT-HSS-150 M-300
030	BCP-623 M BCP-624 M	6.0 [.236]	6.0 [.236]	7.6 [.299]	28.5 [1.12]	40 [3.54]	40 [3.54]		DW-5-40 DW-20-120	BIT-HSS-623 M-600
076	BCP-626 M	7.0 [.275]	9.5 [.374]	6.0 [.236]	28.9 [1.13]	60 [6.10]	60 [6.10]		DW-20-120	BIT-HSS-625 M-700

Insertion and extraction tools for probes (tool type 400-599)

Tool type	Description	Compatible with series	Tip \varnothing max. in mm [in]	Bit dimensions in mm [inch]			Order code
				$\varnothing A$	$\varnothing B$	$\varnothing C$	
-	Universal insertion tool with handle	BCP-150 M					SW-GKS
-	Universal insertion tool bit	BCP-150 M					E-SW-GKS
412	Insertion tool for TKS-691 with handle	TKS-691					SW-TKS-691
	Insertion tool for TKS-691 bit	TKS-691		8.0 [.314]	8.0 [.314]	70.0 [2.755]	E-SW-TKS-691
504	Insertion and extraction tool with handle	BCP-120 M	2.5 [.098]	3.5 [.137]	3.0 [.118]	15.5 [.610]	SW-ZW-GKS-103
	Insertion and extraction tool bit	BCP-120 M	2.5 [.098]	3.5 [.137]	3.0 [.118]	15.5 [.610]	E-SW-ZW-GKS-103

Insertion and extraction tools for receptacles (tool type 200-299)

Tool type	Description	Compatible with series	Order code
211	Insertion tool with handle	KS-103	SW-KS-103
	Insertion tool bit	KS-103	E-SW-KS-103
212	Insertion tool with handle	KS-112	SW-KS-112
	Insertion tool bit	KS-112	E-SW-KS-112
213	Insertion tool with handle	KS-113	SW-KS-113
	Insertion tool bit	KS-113	E-SW-KS-113
237	Extraction tool	KS-112, KS-113	AW-KS-Set-CABLE

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