

Electric Vehicle Charging Technology by Sam Woo Electronics



DC (Fast Charging/Regular Charging) and AC (Regular Charging) EV Chargers available as Connector or Cable Assembly. Customized solutions available. Solutions are manufactured under IEC Standards (IEC 62196-1, IEC 62196-2, IEC 62196-3).

COMBO1



COMBO2



C TYPE



Specifications subject to change without notice. Consult Sam Woo Electronics for the latest specifications.



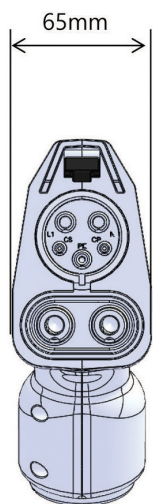
Sam Woo Electronics EV Charging Assembly IEC Standard (IEC 62196-1, 62196-2 and IEC 62196-3).

- CE Certified
- UL Certified
UL File NO.: E508032
Reference Standard : UL 2251-ED3
- CCS1 (Combined Charging System Type 1)
- DC 150A / 600V DC Fast Charger
DC 200A / 1000V DC Fast Charger
- Three Step Safe Charging
 - Step 1 : Secure Lock on INLET and LEVER in vehicles
 - Step 2 : Locking System for INLET and LEVER while charging
 - Step 3 : Safe Removal of INLET and LEVER after charging
- Ergonomic Design
- Available in Connector and Cable Assembly Solutions

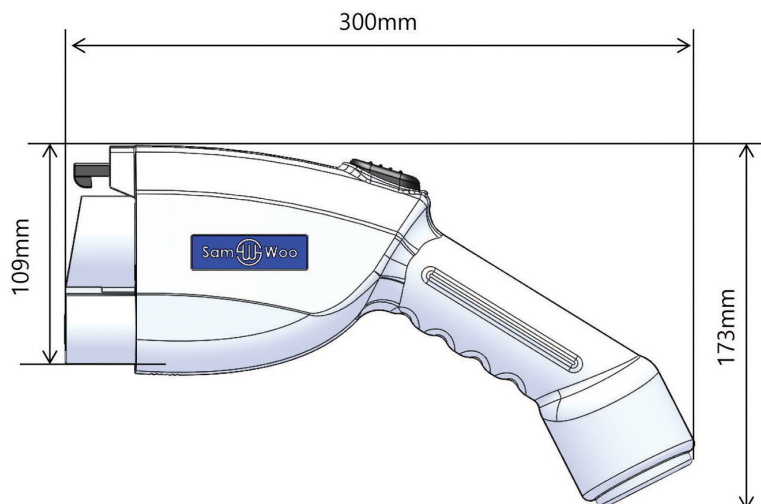
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COMBO 1 TECHNICAL DATA				
General Specification	Part No.		SW-EVT151	SW-EVT201
	Charger Type		TYPE 1 CCS DC (Combined Charging System)	
	Standard		IEC 62196-1, IEC 62196-3	
	Certification	UL	N/A	UL File NO. : E508032 Reference Standard : UL 2251-ED3
		CE	Yes	
Connector Specification	Connector Dimension		65mm x 168mm x 300mm	
	Oprating Temperature		-30℃ to + 40℃	
	Storage Temperature		-40℃ to + 80℃	
	Electric Power		90 KW	120 KW (200 KW)
	DC Contact		Power Contacts	
	DC Current(A)		150 A	200 A
	DC Voltage(V)		600 V	600 V (1,000 V DC, is tested)
	AC Contact		Signal Contacts	
	AC Current(A)		2 A	
	AC Voltage(V)		30 V	
	Mating Cycle		10,000 ↑	
	Insertion Force		100 N ↓	
	Extraction Force		100 N ↓	
Cable Specification	Material		TPE (SW-EVT151)	TPE (SW-EVT201)
	Specification		DC 2X 2 AWG	DC 2X 50 mm ²
			PE 1X 6 AWG	PE 1X 35 mm ²
			CP & CS 2 X 18 AWG	CP & CS 2 X 16 AWG
			Temperature Sensor 2X 18 AWG	Temperature Sensor 2X 16 AWG
	Diameter		31 mm	36 mm
	Color		Black	Black
	Curvature Radius		186 mm ↑	216 mm ↑
Certification	UL	UL File NO. : E504829 UL Steandard : UL 62		
		Yes		
	CE			
Temperature Sensor Specification	Sensor Type		PT 1000	
	Standard		DIN EN 60751	
	Current(A)		1 mA (0℃에 서 1 V)	
	Tolerance		±1K	
	Temperature Range		-50 ℃ ~ 130 ℃	
Test Results	Test Standard		DESCRIPTION	RESULT
	IEC 62196-1 IEC 62196-3		IEC Test Standard	PASS

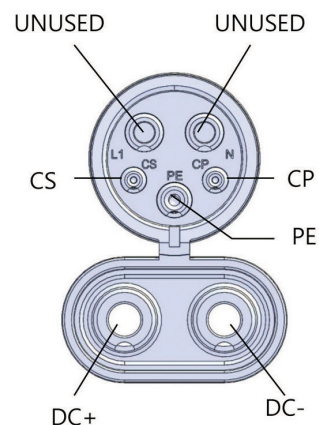
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Front View

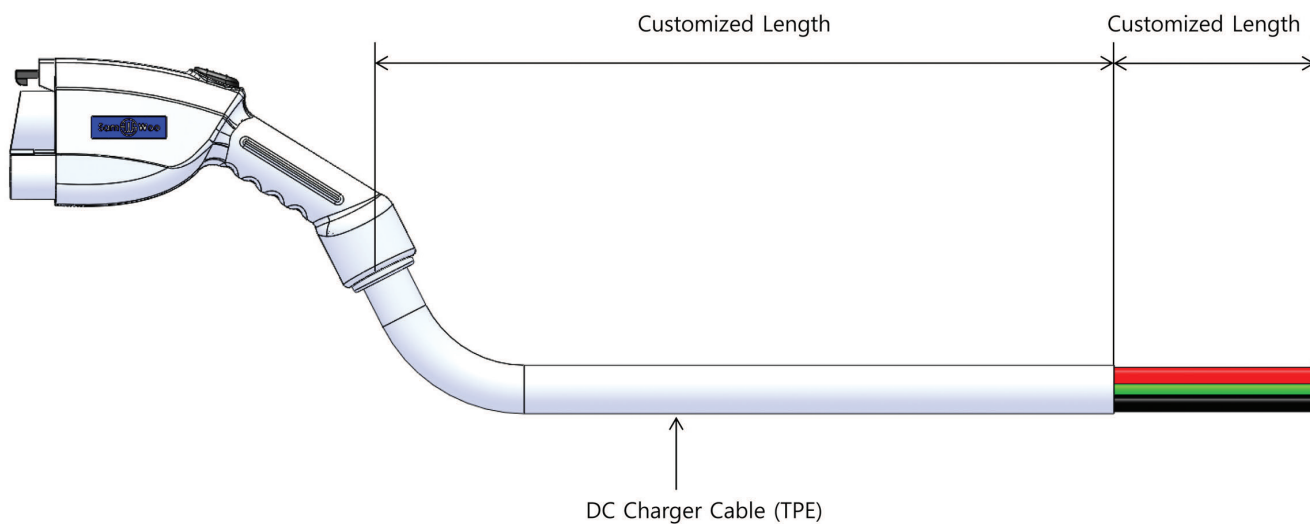


Side View



Contact Interface

EV Charging Assembly can be customized according to customer request.





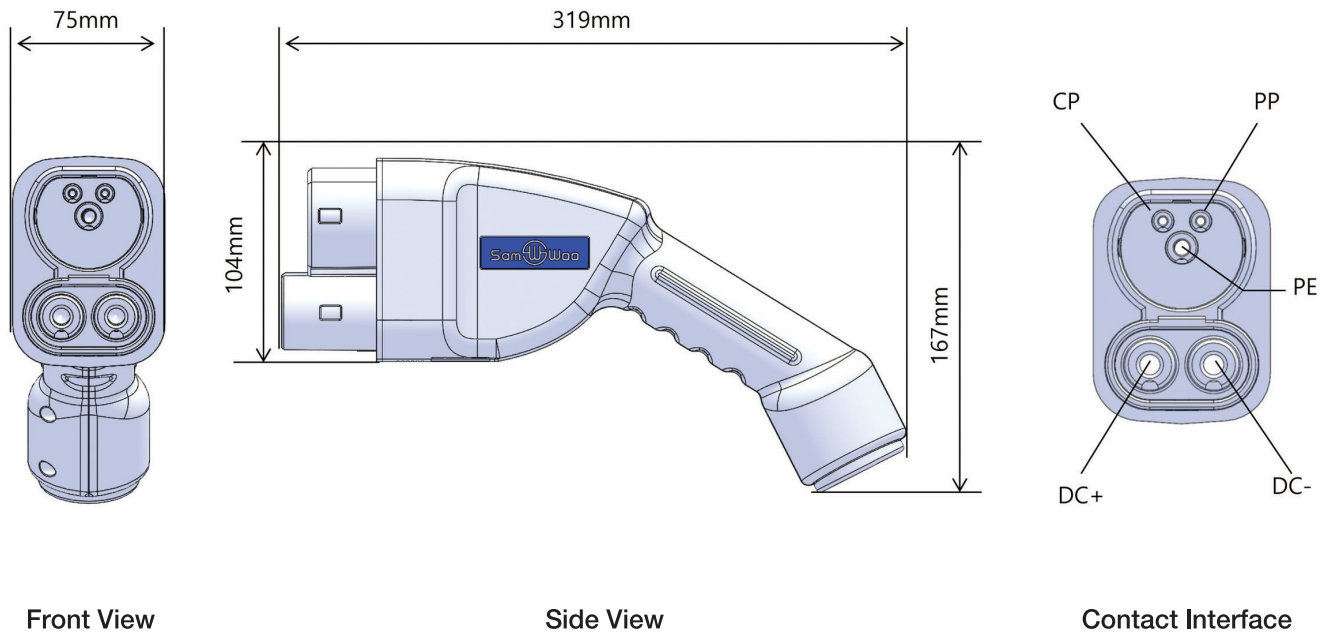
Sam Woo Electronics EV Charging Assembly IEC Standard (IEC 62196-1, 62196-2 and IEC 62196-3).

- CE Certified
- CCS2(Combined Charging System Type2)
- DC 200A / 1000V Fast Charger
- Ergonomic Design
- Available in Connector and Cable Assembly Solutions.

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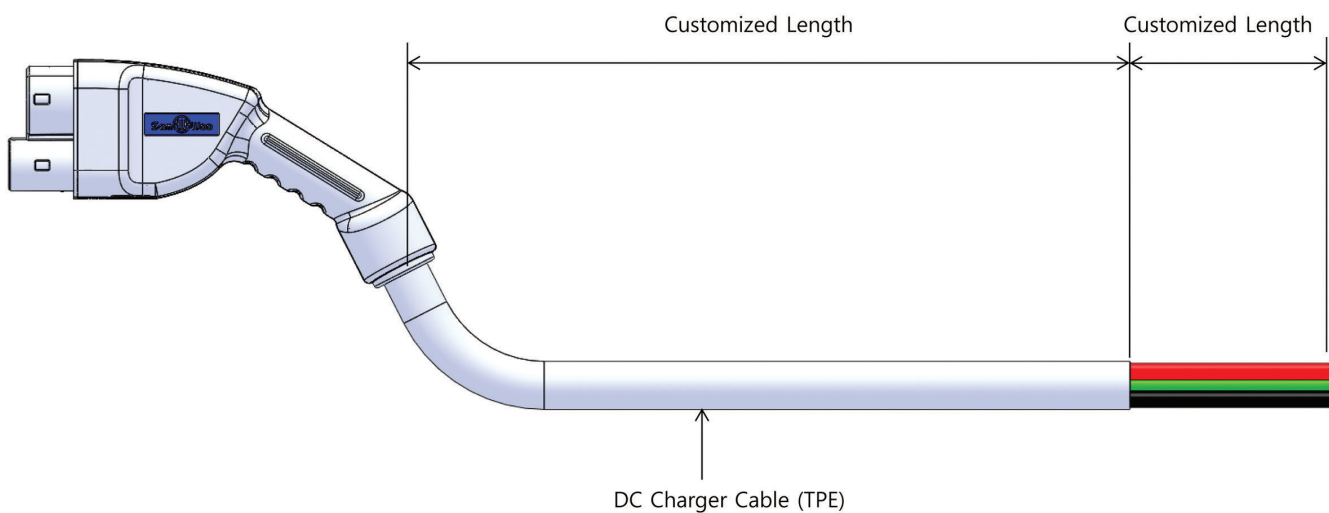


COMBO 2 TECHNICAL DATA				
General Specification	Part No.		SW-EVT202	
	Charger Type		TYPE 2 CCS DC (Combined Charging System)	
	Standard		IEC 62196-1, IEC 62196-3	
	Certification	CE	Yes	
Connector Specification	Connector Dimension		75mm x 167mm x 319mm	
	Oprating Temperature		-30℃ to + 40℃	
	Storage Temperature		-40℃ to + 80℃	
	Electric Power		200 KW	
	DC Contact		Power Contacts	
	DC Current(A)		200 A	
	DC Voltage(V)		1,000 V DC	
	AC Contact		Signal Contacts	
	AC Current(A)		2 A	
	AC Voltage(V)		30 V	
	Mating Cycle		10,000 ↑	
	Insertion Force		100 N ↓	
	Extraction Force		100 N ↓	
Cable Specification	Material		TPE (SW-EVT202)	
	Specification		DC 2X 50 mm ²	
			PE 1X 35 mm ²	
			CP & CS 2 X 16 AWG	
			Temperature Sensor 2X 16 AWG	
	Diameter		36 mm	
	Color		Black	
	Curvature Radius		216 mm ↑	
Certification	UL	UL File NO. : E504829		
	CE	UL Steandard : UL 62		
		Yes		
Temperature Sensor Specification	Sensor Type		PT 1000	
	Standard		DIN EN 60751	
	Current(A)		1 mA (0℃ → 1 V)	
	Tolerance		±1K	
	Temperature Range		-50 ℃ ~ 130 ℃	
Test Results	Test Standard		DESCRIPTION	RESULT
	IEC 62196-1		IEC Test Standard	PASS
	IEC 62196-3			



Cable Assembly

EV Charging Assembly can be customized according to customer request.



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C TYPE



B TYPE



Sam Woo Connectors(SEV-TC1) and Cable Assemblies(SW-EV032)
developed according to IEC standard(IEC 62196-1 and IEC 62196-2).

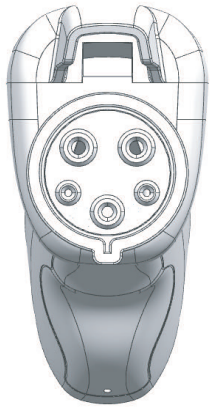
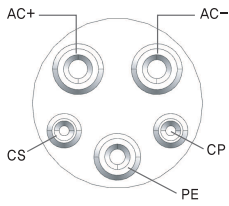
AC Charger Technical Data

AC CHARGER TECHNICAL DATA			
General Specification	Part No.	SW-EV032	
	Charger Type	TYPE 1 C AC	
	Standard	IEC 62196-1, IEC 62196-2	
Connector Specification	Connector Dimension	65mm x 227mm x 326mm	
	Operating Temperature	-30°C to +50°C	
	Storage Temperature	-40°C to +80°C	
	Electrical Power	7.5 Kw	
	AC Contact	2 Poles (CP, CS)	
	AC Current(A)	CP, CS, PE 2A AC+, AC- 32A	
	AC Voltage(V)	CP, CS, PE 30V AC+, AC- 250V	
	Mating Cycle	10,000 ↑	
	Insertion Force	75 N ↓	
	Extraction Force	75 N ↓	
Cable Specification	Material	PVC	
	Specification	3 X 10 AWG 2 X 18 AWG	
	Diameter	16mm	
	Color	Black	
Test Results	Test Standard	DESCRIPTION	RESULT
	IEC 62196-1	IEC Test Standard	PASS
	IEC 62196-2		

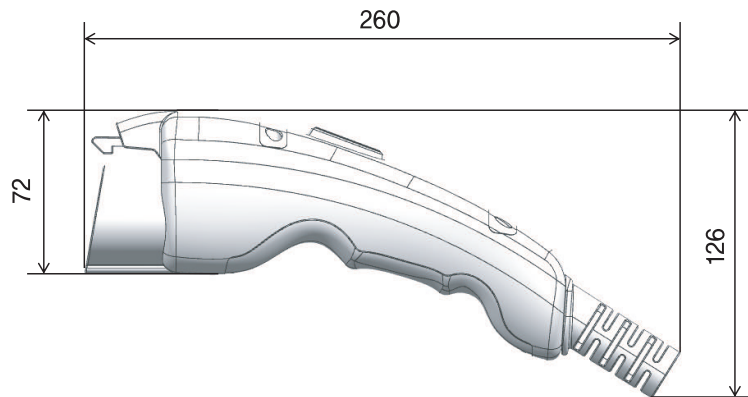
- TYPE 1 C AC
- AC 32A / 250V AC Charger
- Three Step Safe Charging :
 - Step 1 : Secure Lock on INLET and LEVER in vehicles
 - Step 2 : Locking System for INLET and LEVER while charging
 - Step 3 : Safe Removal of INLET and LEVER after charging
- Ergonomic Design
- Available in Connector and Cable Assembly Solutions

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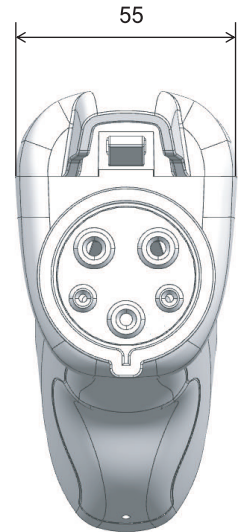
AC Charger Dimensions



Contact Interface



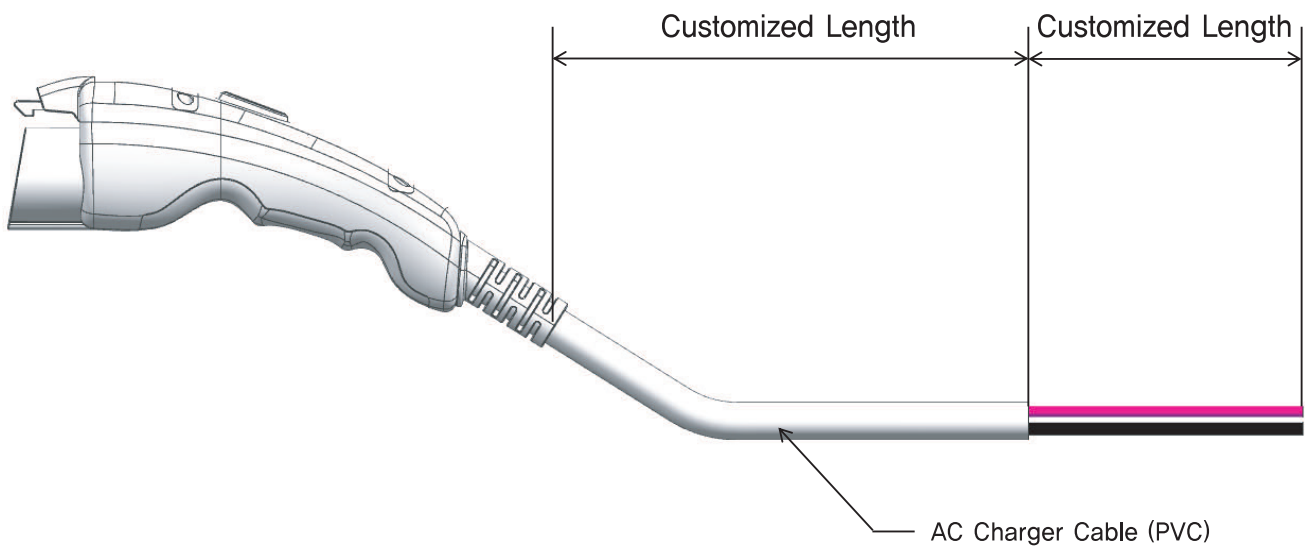
Side View



Front View

Cable Assembly

EV Charging Assembly can be customized according to customer request.



Connector Overview



SCC Series

Size / No. of Contacts

Size - 13,16,21,25
Contacts - 3,4,5,7,8,10,16,24

Material / Finish

Body - Aluminum alloy / Ni plating
Insulator - Thermosetting resin / Blue, Green
Contacts - Copper alloy / Silver plating



SCK / SCN Series

Size / No. of Contacts

SCN Size - 12,16,20,25
SCK Size - 12,16,20,25,30,32,40
Contacts - 2,3,4,5,6,7,8,10,12,14,20

Material / Finish

Body - Zinc alloy / Ni plating
Insulator - PA & Bakelite / Green & Black
Contacts - Brass, Phosphor Bronze / Silver or Gold plating



SH Series

Size / No. of Contacts

Size - 9
Contacts - 6

Material / Finish

Body - Brass / Chromium plating
Insulator - Glass filled polyacetal / White
Contacts - Brass, Phosphor Bronze / Gold plating



SM Series

Size / No. of Contacts

Size - 9
Contacts - 8

Material / Finish

Body - Brass / Ni plating
Insulator - PA / Black, Ivory
Contacts - Brass, Phosphor Bronze / Gold plating



Push-Pull

SN Series

Size / No. of Contacts

Size - 8,10
Contacts - 2,3,4,5,6,9,10,12

Material / Finish

Body - Zinc alloy and Brass / Ni Plating
Insulator - PA / Black
Contacts - Brass, Phosphor Bronze / Silver or Gold Plating



Push-Pull

SP Series

Size / No. of Contacts

Size - 00,0,1,2,3
Contacts - multiple

Material / Finish

Body - Brass / Chromium Plating
Insulator - PEEK, PA or Teflon
Contacts - Brass / Gold Plating



Push-Pull

SPP Series

Size / No. of Contacts

Size - 1
Contacts - multiple

Material / Finish

Body-PSU, PEI, PC
Insulator - PEEK, PA
Contacts - Brass / Gold Plating



SR IP67 Series

Size / No. of Contacts

Size - 8
Contacts - 4

Material / Finish

Cap - Brass / Ni Plating
Insulator - PBT / Black
Outer sheath - PVC / Black
Contacts - Brass, Phosphor Bronze / Silver or Gold Plating

Connector Overview

Bayonet



SRC Series

Size / No. of Contacts

Size - 21
Contacts - 10,16,26

Material / Finish

Body - Aluminum alloy / Ni plating
Insulator - Thermosetting resin / Black or Blue
Contacts - Brass, Phosphor Bronze/Gold or Silver plating



ST Series

Size / No. of Contacts

Size - 8,8B,9, 9A
Contacts - 12,14,16,20

Material / Finish

Body - Brass & Zinc alloy / Ni plating
Insulator - PPS resin / Black
Contacts - Brass, Phosphor Bronze / Gold plating



ST IP67 Series

Size / No. of Contacts

Size - 9
Contacts - 12,16,20

Material / Finish

Body - Brass & Zinc alloy / Ni plating
Insulator - PPS resin / Black
Contacts - Brass, Phosphor Bronze / Gold plating



SU IP67 Series

Size / No. of Contacts

Size - 20
Contacts - 3,4,5,6,8,A5,12,14

Material / Finish

Body - Zinc Alloy / Ni plating
Insulator - PA / Black
Contacts - Brass, Phosphor Bronze / Gold plating



SU2 / SU3 IP67 Series

Size / No. of Contacts

Size - 20
Contacts - 3,4,5,6,8,A5,12,14

Material / Finish

Body - Zinc Alloy,Brass
Insulator - PA
Contacts - Brass, Phosphor Bronze



SW Series

Size / No. of Contacts

Size - 8,10
Contacts - 2,3,4,5,6,9,10,12

Material / Finish

Body - Brass / Ni plating
Insulator - PA / Black
Contacts - Brass, Phosphor Bronze / Silver or Gold Plating



SW IP67 Series

Size / No. of Contacts

Size - 8,10,16
Contacts - 2,3,4,5,6,9,10,12,28

Material / Finish

Body - Brass / Ni plating
Insulator - PA / Black
Contacts - Brass, Phosphor Bronze / Silver or Gold Plating



SXR Series

Size / No. of Contacts

Size - 10
Contacts - 8

Material / Finish

Body - Aluminum alloy / Ni plating
Insulator - PBT resin / Black
Contacts - Brass, Phosphor Bronze / Gold plating

Cable Assembly Overview



SCC Series Cable Assembly



SCN / SCK Series Cable Assembly



SP Series Cable Assembly



SPP Series Cable Assembly



SN Series Cable Assembly



SU2 / SU3 Series Cable Assembly



SH Series Cable Assembly

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