

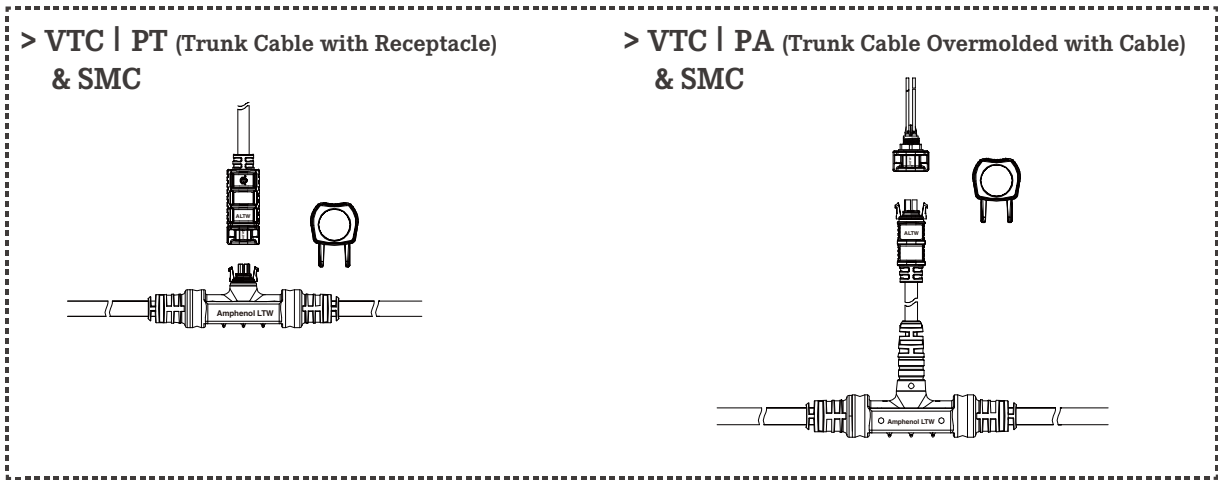
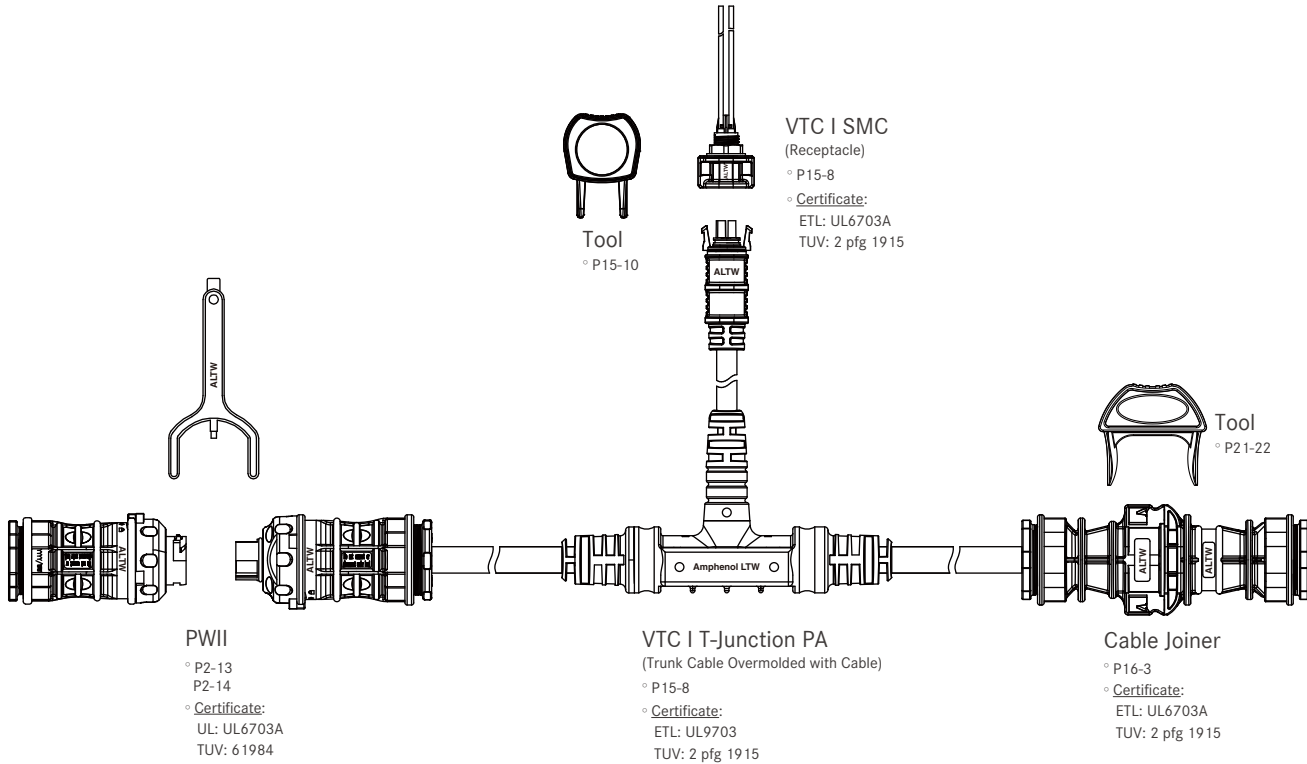
## PV AC Connectors / T-Junction Connector



CATALOGUE

# PV AC Connectors / T-Junction Connector

## Range Overview



**VTC | SMC**

(Overmolded with Cable)

° P15-9

° Certificate:

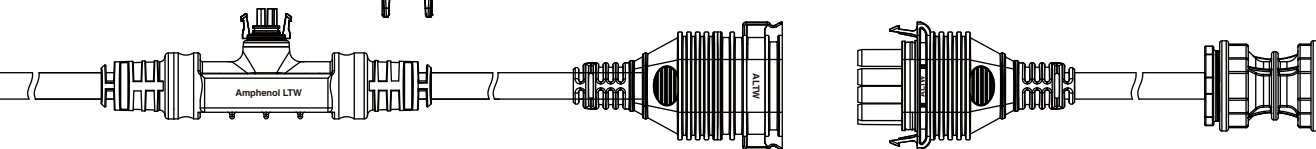
ETL: UL6703A  
TUV: 2 pfg 1915



Tool  
° P15-10



Tool  
° P15-13



**VTC | T-Junction PT**  
(Trunk Cable with Receptacle)

° P15-8

° Certificate:

ETL: UL9703  
TUV: 2 pfg 1915

**BMC**

° P15-13

° Certificate:

ETL: UL6703A  
TUV: 2 pfg 1915

**End Cap**

° P15-10

° Certificate:

ETL: UL6703A  
TUV: 2 pfg 1915

**> SMC | In Line**



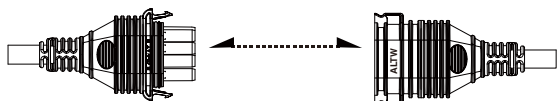
**> SMC | Receptacle to Overmolded with Cable**



**> SMC | Receptacle to Receptacle**



**> BMC | In Line**



\* Design and specification are subject to change without notice.

## Specification

<b>Identifications</b>	VTC I T Junction: PT & PA (For Trunk Cable) VTC I SMC (For Drop or Receptacle) BMC
<b>Description</b>	Cabling System for Micro-inverter
<b>Current Rating / Data</b>	VTC I T Junction: Trunk Range: UL15A~30A / TUV17-25A / 3~4Pin VTC I SMC: 5A / 03~4Pin BMC: UL17A / TUV19A / 3~4Pin
<b>Material</b>	Contacts: Copper Alloy Connector Body: m-PPE
<b>Waterproof Rating</b>	IP67
<b>Temperature Range</b>	Ambient: -40°C ~ +85°C Upper Limited Temperature:+105°C
<b>Contact Resistance</b>	≤ 10mΩ
<b>Insulation Resistance</b>	≥ 100mΩ at DC500V
<b>Durability</b>	500 cycles
<b>Breakdown Voltage</b>	≥ DC6000V / 1 minute
<b>Certificate</b>	VTC I T-Junction: ETL: UL9703, TUV: 2 pfg 1915 VTC I SMC: ETL: UL6703A, TUV: 2 pfg 1915 BMC: ETL: UL6703A, TUV: 2 pfg 1915
<b>Voltage Rating</b>	AC 300V
<b>More to know</b>	Salt Spray Corrosion test: 48H Cable for Trunk: 14~10AWG or 2.5mm <sup>2</sup> ~4mm <sup>2</sup> Cable for Drop: 18AWG or 0.75mm <sup>2</sup> Trunk Cable Pitch: Upon request

# Ordering Information | VTC | T-Junction

1 — 2 3 4 5 — 6

## Specification

>PT Type

(PT) Trunk Cable with Receptacle

>PA Type

(PA) Trunk Cable Overmolded with Cable

## Number of Contacts

(3) 3 Contacts

(4) 4 Contacts

## Cable Style

>UL : TCER Cable Style

>TUV : EU Cable Style

(10) 10#

(4A) 4mm<sup>2</sup> 1940 Cable

(12) 12#

(4B) 4mm<sup>2</sup> HAR Cable

(14) 14#

(2A) 2.5mm<sup>2</sup> 1940Cable

## Cable pitch

(105) 1.05m pitch

(170) 1.7m pitch

(205) 2.05m pitch

\* More options available

> For Trunk Cable with Receptacle (PT)

(00) SMC connector

\* More options available (Upon request)

> For Trunk Cable Overmolded with Cable (PA)

(□)+(■): (Drop Cable Length) + (Cable type with or without connector)

EX. (07B) = 0.7m length + 18# without Connector

(□) : Drop Cable Length

(07) 0.7m length

(10) 1.0m length

(15) 1.5m length \* More options available

(■) : Cable type with or without connector

>UL : TCER Cable Style

(A) 18# With SMC connector

(B) 18# Without Connector (Open ended)

(C) 16# Without Connector (Open ended)

(D) 14# Without Connector (Open ended)

>TUV : EU Cable Style

(E) 0.75mm<sup>2</sup> HAR Cable With SMC

(F) 0.75mm<sup>2</sup> HAR Cable Without SMC

(G) 1.0mm<sup>2</sup> HAR Cable Without SMC

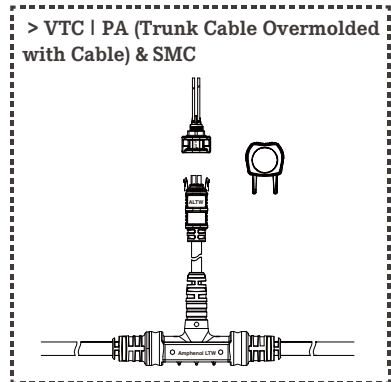
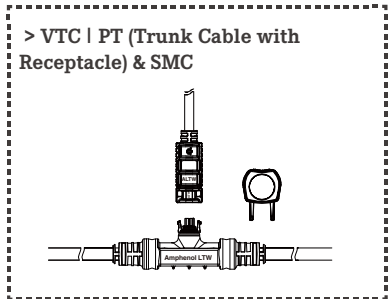
(H) 0.75mm<sup>2</sup> 1940 Cable With SMC

(I) 0.75mm<sup>2</sup> 1940 Cable Without SMC

(J) 1.0mm<sup>2</sup> 1940 Cable Without SMC

## Number of T-Junctions

008, 011, 017, ..., 999 EX. (008) = 8 T-Junctions



# Ordering Information | VTC | SMC

1 2 3 4 5 6 7 8 9 10

## Specification

(SPS) Solar Power AC (Small size)

### Number of Contacts

(03) 3 Contacts (04) 4 Contacts

### Connector Body (Style)

> Receptacle > Overmolded with Cable  
(R) ALTW Rear Fastened (A) With Strain Relief

### Connector Housing Gender

(M) Male (Plug) (F) Female (Socket)

### Contact Gender

(M) Male (F) Female

### Assemble Style

> Receptacle > Overmolded with Cable  
(C) Crimp Type (With Wire) (M) Overmolded with Cable

### Mating Style

(L) 2 Points Lock (Push & Pull)  
(With Unlocking Tool)

### Backshell

> Receptacle > Overmolded with Cable  
(C) Circular (L) Straight

### Waterproof Rating

(7) IP 67

### More Information

> For Receptacle

001, 002, 003.....

001 is US Spec, 002 is EU Spec

> For Overmolded with Cable

(□)+(■) : Cable Type + Cable Length

EX. (T01) = US Cable For TCER 18# Cable + 1M

(□) : Cable Type

(T) US Cable For TCER 18# Cable

(D) EU Cable For HAR 0.75mm<sup>2</sup> Cable

(E) EU Cable For 1940 0.75mm<sup>2</sup> Cable

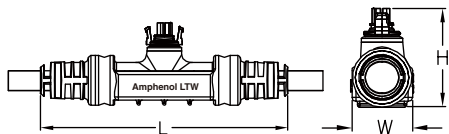
(■) : Cable Length

From 1M to 99M

EX. (01) = 1M

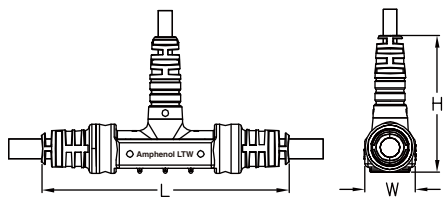
## Physical Dimension

### ∟ VTC | PT



AMP \ Dimension	L	H	W
30A (UL TCER 10#)	150.0	50.1	30.6
20A (UL TCER 12#)	150.0	50.1	30.6
15A (UL TCER 14#)	150.0	50.1	30.6
25A (TUV 2pfg 1915 4mm <sup>2</sup> )	150.0	50.1	30.6
17A (TUV 2pfg 1915 2.5mm <sup>2</sup> )	150.0	50.1	30.6

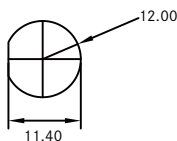
### ∟ VTC | PA



Dimension	L	H	W
30A (UL TCER 10#)	150.0	83.0	30.6
20A (UL TCER 12#)	150.0	83.0	30.6
15A (UL TCER 14#)	150.0	83.0	30.6
25A (TUV 2pfg 1915 4mm <sup>2</sup> )	150.0	83.0	30.6
17A (TUV 2pfg 1915 2.5mm <sup>2</sup> )	150.0	83.0	30.6

### ∟ SMC | Receptacle

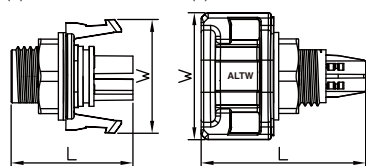
Panel Cut-Out



Connector Dimension

(A) Male

(B) Female



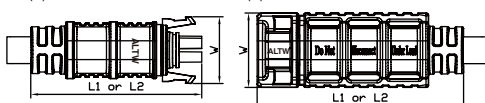
AMP \ Dimension	L		W	
Connector Gender	(B)	(A)	(B)	(A)
5A (SPS)	33.10	24.50	25.56	22.91

\* Maximum Panel Thickness: 4.0mm

### ∟ SMC | Overmolded with Cable

(A) Male

(B) Female



AMP \ Dimension	L 1		L 2		W	
Connector Gender	(B)	(A)	(B)	(A)	(B)	(A)
5A (SPS)	70.85	58.70	80.85	68.70	25.56	22.91



\* Design and specification are subject to change without notice.

# Contact Configuration

## ∟ VTC | T-Junction

	VTC (Output)			
	3Pin		4Pin	
	US	EU	US	EU
10#	●		●	
12#	●		●	
14#	●		●	
4.0mm		●		
2.5mm		●		

## ∟ VTC | SMC

	SPS (Input)	
	5A	
	MM or FF	MF or FM
3 Contacts		
		R   C
4 Contacts		
		R   C

**R:** receptacle  
**C:** overmolded with cable

● 5A

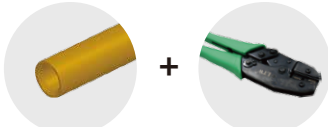
**Number of Contacts :** 2  
Ex.3 contacts (03)

**Connector (Housing) Gender:** 4  
Male(M) or Female(F)

**Contact Gender:** 5  
Male(M) or Female(F)

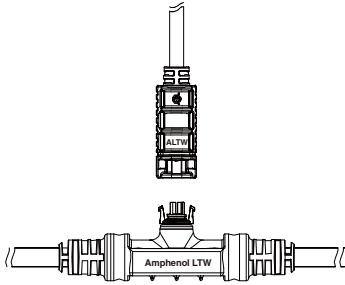
**More to Choose:** 6

- Crimped (C)

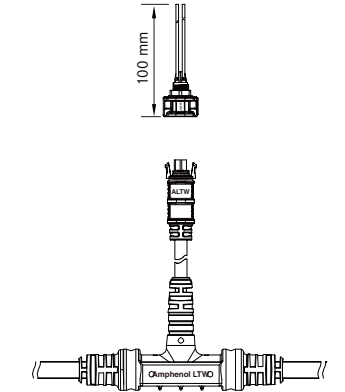


## Find Our Standard Products

### ∟ VTC (PT) and SMC (Overmolded with Cable)


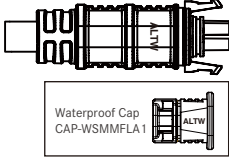
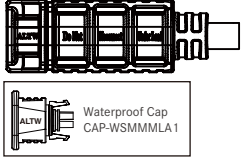
	SMC : Overmolded with cable				
		Cable type <b>10</b>	AMP (Code)	Contacts <b>2</b>	Female Connector (F) Male Contacts (M)
	US (UL TC-ER cable)	TCER 18# cable (T)	5A(SPS)	03,04	SPS- <b>2</b> AFMM-LL7T**
	EU (TUV 2pfg1940 cable)	HAR 0.75 mm <sup>2</sup> cable (D) 1940 0.75 mm <sup>2</sup> cable (E)		03	SPS-03AFMM-LL7 <b>10</b> **
(PT) Trunk Cable with Receptacle					
	Wire Size <b>3</b>	Contacts <b>2</b>	T-Junction Pitch <b>4</b>	Number of T-Junction <b>6</b>	P/N
US (UL TCER cable)	10# (30A) <b>(10)</b> 12# (20A) <b>(12)</b> 14# (15A) <b>(14)</b>	03,04	1.05M <b>(105)</b> 1.7M <b>(170)</b> 2.05M <b>(205)</b>	001	PT- <b>2 3 4</b> -00- <b>6</b>
EU (TUV 2pfg1940 cable)	4mm <sup>2</sup> <b>(4A/4B)</b> (25A) 2.5mm <sup>2</sup> <b>(2A)</b> (17A)	03		075	PT-3- <b>3 4</b> -00- <b>6</b>

### ∟ VTC (PA) and SMC (Receptacle)



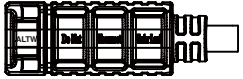
	SMC : Receptacle					
		AMP (Code)	Contacts <b>2</b>	Female Connector (F) Male Contacts (M)		
	US (UL TC-ER Cable)	5A (SPS)	03,04	SPS- <b>2</b> RFMC-LC7001		
	EU (TUV 2pfg1940 Cable)		03	SPS- <b>2</b> RFMC-LC7002		
(PA) Trunk Cable Overmolded With Cable						
	Wire Size <b>3</b>	Contacts <b>2</b>	T-Junction Pitch <b>4</b>	Number of T-Junction <b>6</b>	Drop Cable Length + Cable type <b>5</b>	P/N
US (UL TCER cable)	10# (30A) <b>(10)</b> 12# (20A) <b>(12)</b> 14# (15A) <b>(14)</b>	03,04	1.05M <b>(105)</b> 1.7M <b>(170)</b> 2.05M <b>(205)</b>	001	18#with SMC Conn 18#without Conn. 16#without Conn. 14#without Conn.	PA- <b>2 3 4</b> <b>5 6</b>
EU (TUV 2pfg1940 Cable)	4mm <sup>2</sup> <b>(4A/4B)</b> (25A) 2.5mm <sup>2</sup> <b>(2A)</b> (17A)	03		075	0.7M (07) 1.0M (10) 1.5M (15)	0.75mm <sup>2</sup> with SMC Conn. 0.75mm <sup>2</sup> without Cor 1.0mm <sup>2</sup> without Con

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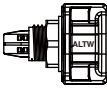
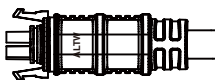


∟ SMC > In-line

<ul style="list-style-type: none"> <li>• Male Connector (Housing)</li> <li>• Female Contacts</li> <li>• Safety Lock (Unlock tool needed)</li> </ul> 		<p>Overmolded with Cable -----&gt;</p>  <p>Waterproof Cap CAP-WSMMFLA1</p> <p>**cable length:01-99m</p>		<p>Overmolded with Cable</p>  <p>Waterproof Cap CAP-WSMMMLA1</p> <p>**cable length:01-99m</p>	
	Contacts <b>2</b>	Cable type <b>10</b>	Male Connector (M) Female Contacts (F)	Female Connector (F) Male Contacts (M)	
5A(SPS)	03,04	T-TCER 18# cable (US)	SPS- <b>2</b> AMFM-LL7**	SPS- <b>2</b> AFMM-LL7**	
	03	D-HAR 0.75mm <sup>2</sup> Cable (EU)	SPS-03AMFM-LL7 <b>10</b> **	SPS-03AFMM-LL7 <b>10</b> **	
E-1940 0.75mm <sup>2</sup> Cable (EU)					

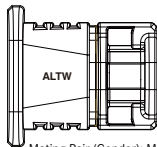
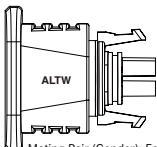
∟ SMC > Receptacle and Mating Pair

<ul style="list-style-type: none"> <li>• Male Connector (Housing)</li> <li>• Female Contacts</li> <li>• Safety Lock (Unlock tool needed)</li> </ul> 		<p>Receptacle -----&gt;</p>  <p>Waterproof Cap CAP-WSMMFLA1</p>		<p>Overmolded with Cable</p>  <p>Waterproof Cap CAP-WSMMMLA1</p> <p>**cable length:01-99m</p>	
AMP (Code)	Contacts <b>2</b>	Cable type <b>10</b>	Male Connector (M) Female Contacts (F)	Female Connector (F) Male Contacts (M)	
5A(SPS)	03,04	T-TCER 18# wire (US)	SPS- <b>2</b> RMFC-LC7001	SPS- <b>2</b> AFMM-LL7**	
	03	D-HAR 0.75mm <sup>2</sup> wire (EU)	SPS-03RMFC-LC7002	SPS-03AFMM-LL7 <b>10</b> **	
E-1940 0.75mm <sup>2</sup> wire (EU)					

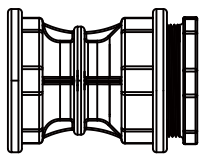
### ☒ SMC > Receptacle and Mating Pair

<ul style="list-style-type: none"> <li>• Female Connector (Housing)</li> <li>• Male Contacts</li> <li>• Safety Lock (Unlock tool needed) </li> </ul>			<p>Receptacle </p> <p>Overmolded with Cable </p>	
<p>Waterproof Cap CAP-WSMMLA1 </p> <p>Waterproof Cap CAP-WSMMFLA1 </p> <p>**cable length:01-99m</p>				
AMP (Code)	Contacts <b>2</b>	Cable type <b>10</b>	Female Connector (F) Male Contacts (M)	Male Connector (M) Female Contacts (F)
5A(SPS)	03,04	T-TCER 18# wire (US)	SPS- <b>2</b> RFMC-LC7001	SPS- <b>2</b> AMFM-LL7**
	03	D-HAR 0.75mm <sup>2</sup> wire (EU)	SPS-03RFMC-LC7002	SPS-03AMFM-LL7 <b>10</b> **
		E-1940 0.75mm <sup>2</sup> wire (EU)		

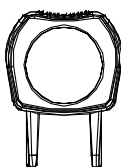
### ☒ Accessories > Waterproof Cap

 <p>Mating Pair (Gender): Male Connector</p>		 <p>Mating Pair (Gender): Female Connector</p>		
Size	Mating Pair	Mating Pair (Gender)	Mating Style	Part Number
SMC	Receptacle and Overmolded with Cable	Male Connector	2 point lock bayonet	CAP-WSMMFLA 1
	Receptacle and Overmolded with Cable	Female Connector	2 point lock bayonet	CAP-WSMMLA 1

### ☒ Accessories > End-Cap

	
Cable OD.	Part Number
16~12mm	CAP-WTCASMA 1
12~10mm	CAP-WTCASMA2
10~08mm	CAP-WTCASMA3

### ☒ Accessories > Tool

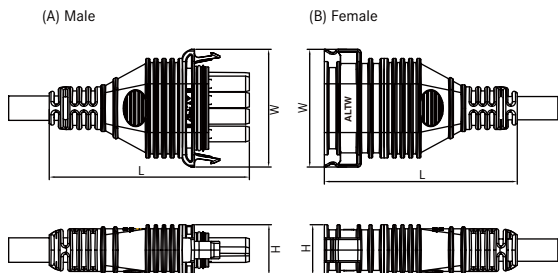
	
Size	Part Number
SMC	ULT-SSMC-01

\* Design and specification are subject to change without notice.



# Physical Dimension

## └ BMC | Overolded with Cable



Connector Gender	L		W		H	
	(B)	(A)	(B)	(A)	(B)	(A)
17A (SPB)	94.95	98.5	58.0	58.0	25.0	25.0
19A (SPB)	94.95	98.5	58.0	58.0	25.0	25.0

\* 17A: Comply to UL standard for USA      Dimensions are shown in millimeters  
 19A: Comply to TUV standard for Europe

# Contact Configuration

## └ BMC

	SPB (Output)			
	17A		19A	
	MM or FF	MM or FF	MM or FF	MM or FF
3 Contacts				
	C		C	
4 Contacts				
	C		C	

\* 17A: Comply to UL standard for USA  
 19A: Comply to TUV standard for Europe

**Number of Contacts :** 2  
 Ex.3 contacts (03)

**Connector (Housing) Gender:** 4  
 Male(M) or Female(F)  
 • For BMC & SMC


**Contact Gender:** 5  
 Male(M) or Female(F)  
 • For BMC & SMC

**More to Choose:** 6  
 • Crimped (C)

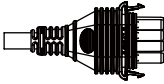
\* Design and specification are subject to change without notice.

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## ∟ BMC > Receptacle and Mating Pair

- Male Connector (Housing)
- Female Contacts
- Safety Lock (Unlock tool needed) 

Receptacle

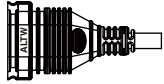


Waterproof Cap  
CAP-WBMCFLD 1




\*\*cable length:01-99m

Overmolded with Cable



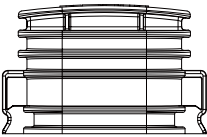
Waterproof Cap  
CAP-WBMCMLD 1




\*\*cable length:01-99m

AMP (Code)	Contacts <b>2</b>	Cable type <b>10</b>	Male Connector (M) Female Contacts (F)	Female Connector (F) Male Contacts (M)
17A(SPB)	03,04	R-TCER 12# cable (US)	SPB- <b>2</b> AMFM-LL7R**	SPB- <b>2</b> AFMM-LL7R**
19A(SPB)	03	C-HAR 4.0 mm <sup>2</sup> cable (EU)	SPB-03AMFM-LL7 <b>10</b> **	SPB-03AFMM-LL7 <b>10</b> **
		L-1940 4.0 mm <sup>2</sup> cable (EU)		

## ∟ Accessories > Waterproof Cap



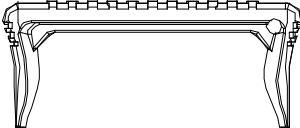
Mating Pair (Gender): Male Connector



Mating Pair (Gender): Female Connector

Size	Mating Pair	Mating Pair (Gender)	Mating Style	Part Number
BMC	Receptacle and Overmolded with Cable	Male Connector	2 point lock bayonet	CAP-WBMCFLD 1
	Receptacle and Overmolded with Cable	Female Connector	2 point lock bayonet	CAP-WBMCMLD 1

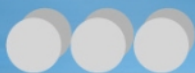
## ∟ Accessories > Tool



Size	Part Number
BMC	ULT-SBMC01

\* Design and specification are subject to change without notice.





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