

# HVSP

## High Voltage Small Plastic



## PRODUCT INTRODUCTION



HVSP series is High Voltage Small size Plastic connector, it has rotation and polarization integration, can be used in EV & Energy Storage. It's a prime solution for limited space and cost.

Polarization / Alternate positions

To avoid cross plugging problems in applications, we designed 2 types:

HVSPN - Alternate keyway no rotation

HVSP - Alternate keyway with rotation and polarization integration

Product Series	HVSPN R6	HVSP R6	HVSP R8	HVSP R10
Rated Current	100A	100A	150A to 180A	180A to 250A
Rated Voltage	1000V DC	1000V DC	1000V DC	1000V DC
IP Rating	IP67/IP6K9K	IP67/IP6K9K	IP67/IP6K9K	IP67/IP6K9K
Touch-Proof	Yes	Yes	Yes	No
Cable Type	25mm <sup>2</sup>	25mm <sup>2</sup>	35 to 50mm <sup>2</sup>	50 to 70mm <sup>2</sup>
Shielding	No	No	No	No

## HVSP PROFILE



### HVSP KEY FEATURES

Small in size with plastic housing

Broad wire range

Right angle plug

360° rotation & polarization intergation

Multiple alternate positions

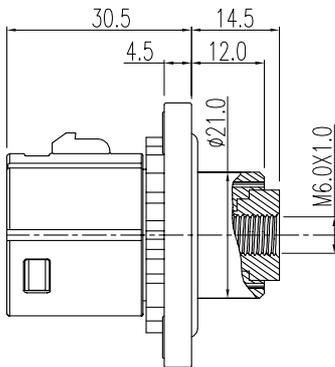
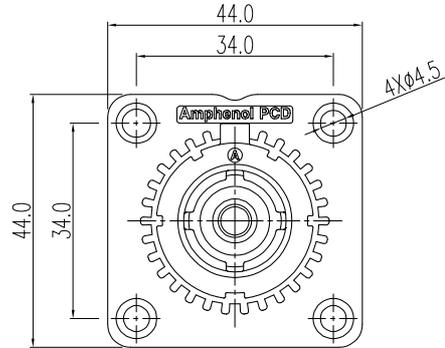
No tool required to unmate

Safe, sealed with touch proof

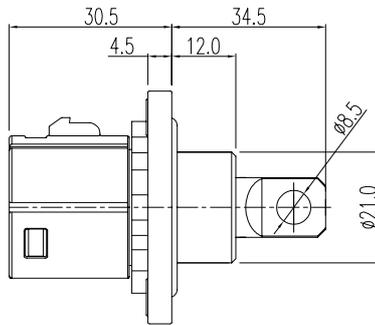
RoHS compliant

APPLICATIONS	
Battery	
Motor	
Inverter	
MECHANICAL	
Durability	≥ 50 mating cycles
Wire range	25mm <sup>2</sup> to 70mm <sup>2</sup>
Insertion and extraction force	< 100N
CPA	Aavailable
ELECTRICAL	
Rated voltage	1000V DC
Max rated current	up to 250A
Insulator resistance	> 2000MΩ
Dielectric withstand voltage	3000V AC
Shielding type	no shielding
ENVIRONMENTAL	
Sealing	IP67(mated), IP6K9K
Temperature range	-40°C to 125°C

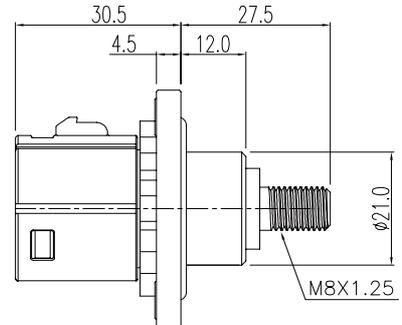
## RECEPTACLE R8



Screw termination- Internal  
MD Type

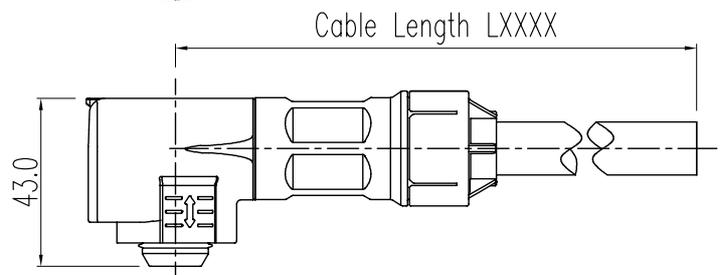
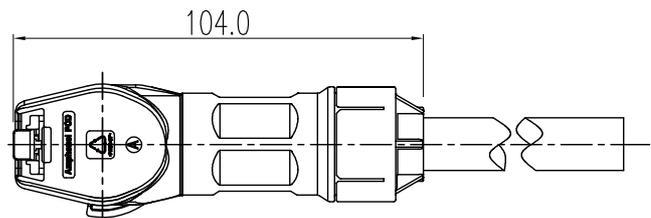
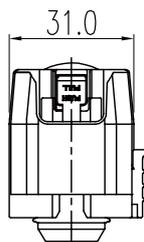


Through hole termination  
MH Type

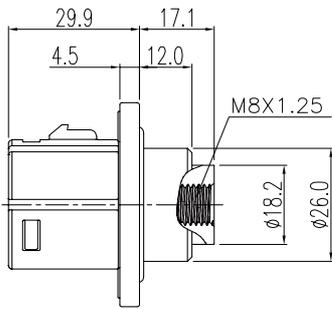
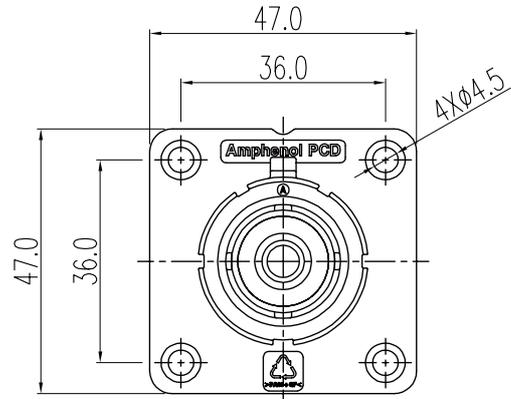


Screw termination - External  
MT Type

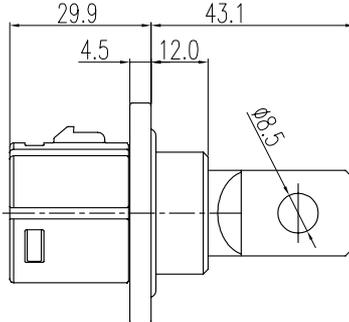
## PLUG R8



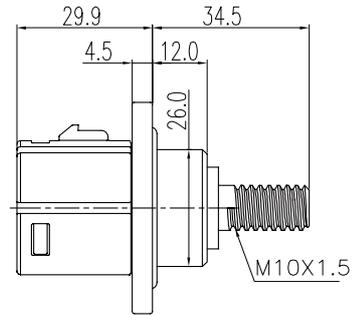
## RECEPTACLE R10



Screw termination - Internal  
MD Type

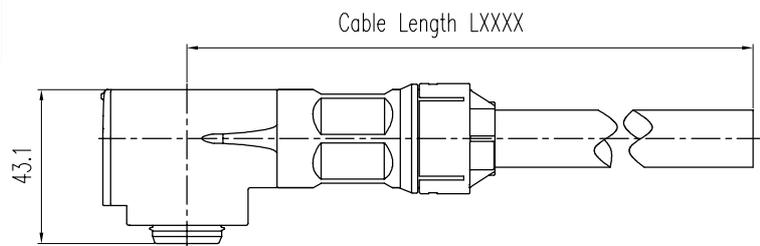
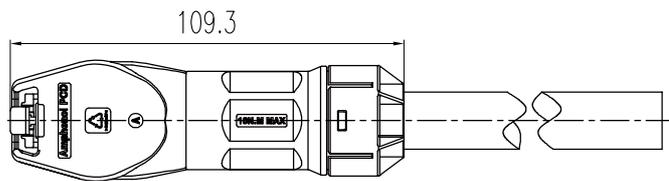
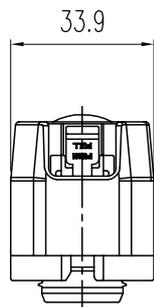


Through hole termination  
MH Type



Screw termination - External  
MT Type

## PLUG R10



## HOW TO ORDER RECEPTACLE

	HVSP	0	R8	MT	A	/	
<b>Shell type:</b>							
0: Box mounting receptacle							
<b>Insert size:</b>							
R6: 6mm pin contact							
R8: 8mm pin contact							
R10: 10mm pin contact							
<b>Termination:</b>							
MT: Screw tail							
MH: Through hole contact							
MD: Screw tail inside							
<b>Coding / Alternate position:</b>							
A: Alternate position A, please refer to page 6							
B: Alternate position B, please refer to page 6							
C: Alternate position C, please refer to page 6							
D: Alternate position D, please refer to page 6							
E: Alternate position E, please refer to page 6							
<b>Color of housing:</b>							
/: Omit, orange							
B: Black							

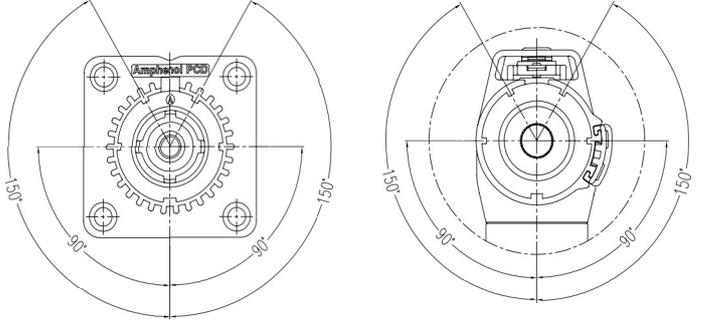
## HOW TO ORDER PLUG

	HVSP	9	R8	FC	X	/	35	LXXXX
<b>Shell type:</b>								
9: Right angle plug								
<b>Insert size:</b>								
R6: 6mm socket contact								
R8: 8mm socket contact								
R10: 10mm socket contact								
<b>Termination:</b>								
FC: Crimp								
<b>Coding / Alternate position:</b>								
A: Alternate position A, please refer to page 6								
B: Alternate position B, please refer to page 6								
C: Alternate position C, please refer to page 6								
D: Alternate position D, please refer to page 6								
E: Alternate position E, please refer to page 6								
<b>Color of housing:</b>								
/: Omit, orange								
B: Black								
<b>Cable diameter:</b>								
25: 25mm <sup>2</sup> cable (OD: 9.5mm to 11mm)								
35: 35mm <sup>2</sup> cable (OD: 11mm to 12.5mm)								
50: 50mm <sup>2</sup> cable (OD: 13mm to 14.5mm)								
70: 70mm <sup>2</sup> cable (OD: 15mm to 16.5mm)								
<b>Cable length :</b>								
LXXXX: (Unit in mm)								

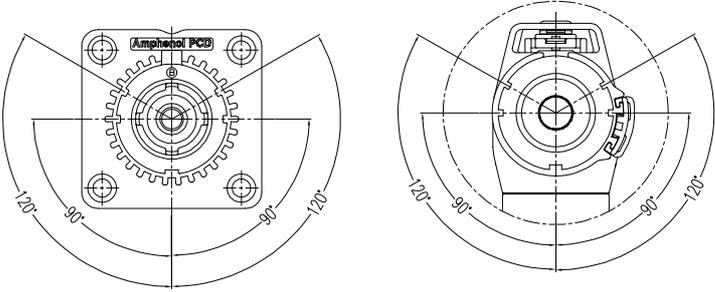
PART NUMBER REFERENCE	
Recetpacle	Plug
HVSP R6 PART NUMBER (TBD)	
HVSP-0R6-M D/H/T A	HVSP-9R6-FCA-XXLXXXX
HVSP-0R6-M D/H/T B	HVSP-9R6-FCB-XXLXXXX
HVSP-0R6-M D/H/T C	HVSP-9R6-FCC-XXLXXXX
HVSP-0R6-M D/H/T D	HVSP-9R6-FCD-XXLXXXX
HVSP-0R6-M D/H/T E	HVSP-9R6-FCE-XXLXXXX
HVSP R8 PART NUMBER	
HVSP-0R8-M D/H/T A	HVSP-9R8-FCA-XXLXXXX
HVSP-0R8-M D/H/T B	HVSP-9R8-FCB-XXLXXXX
HVSP-0R8-M D/H/T C	HVSP-9R8-FCC-XXLXXXX
HVSP-0R8-M D/H/T D	HVSP-9R6-FCD-XXLXXXX
HVSP-0R8-M D/H/T E	HVSP-9R6-FCE-XXLXXXX
HVSP R10 PART NUMBER	
HVSP-0R10-M D/H/T A	HVSP-9R10-FCA-XXLXXXX
HVSP-0R10-M D/H/T B	HVSP-9R10-FCB-XXLXXXX
HVSP-0R10-M D/H/T C	HVSP-9R10-FCC-XXLXXXX
HVSP-0R10-M D/H/T D	HVSP-9R10-FCD-XXLXXXX
HVSP-0R10-M D/H/T E	HVSP-9R10-FCE-XXLXXXX

CODING / ALTERNATE POSITION

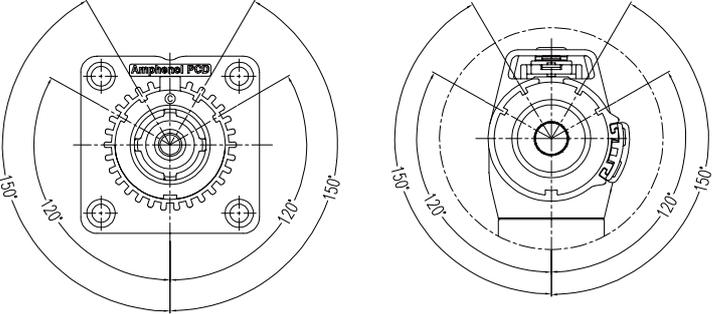
Coding A



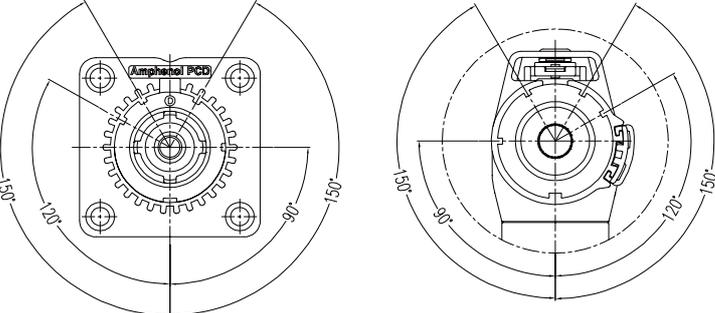
Coding B



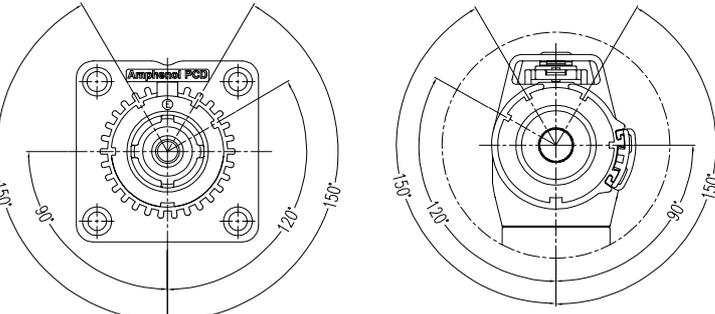
Coding C



Coding D



Coding E

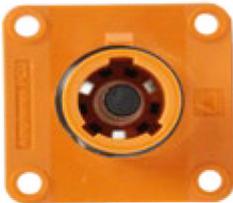
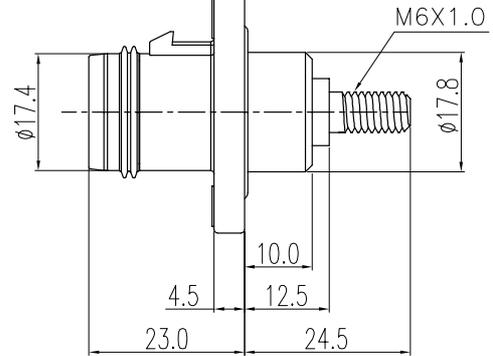
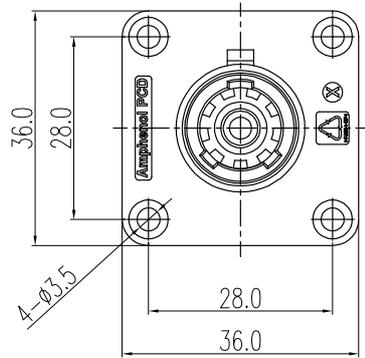


## HVSPN R6 PROFILE



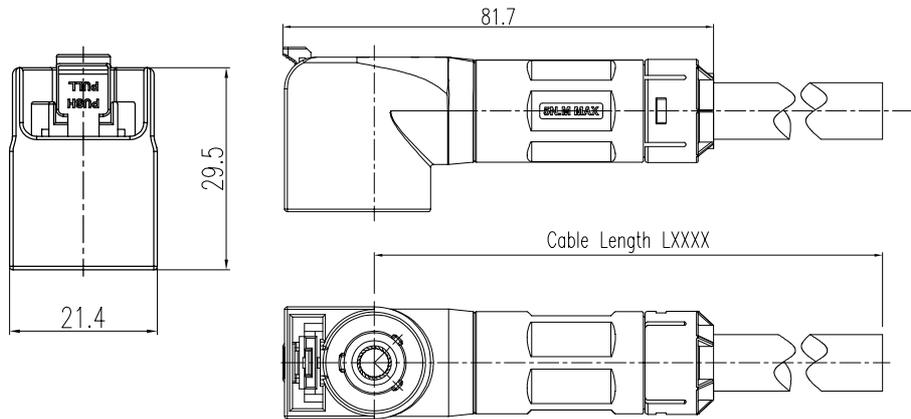
APPLICATIONS	
Battery	
Motor	
Inverter	
MECHANICAL	
Durability	≥ 50 mating cycles
Wire range	25mm <sup>2</sup>
Insertion and extraction force	< 100N
CPA	Aavailable
ELECTRICAL	
Rated voltage	1000V DC
Max rated current	100A
Insulator resistance	> 2000MΩ
Dielectric withstand voltage	3000V AC
Shielding type	no shielding
ENVIRONMENTAL	
Sealing	IP67(mated), IP6K9K
Temperature range	-40°C to 125°C

## RECEPTACLE



Receptacle	Part Number	Alternate Position
REP 1	HVSPN0 R6 MTX	135°
REP 2	HVSPN0 R6 MTY	120°

## PLUG



Plug	Part number	Alternate position
PLUG 1	HVSPN9 R6 FCX 25LXXXX	135°
PLUG 2	HVSPN9 R6 FCY 25LXXXX	120°

### Notes:

**25** means: cable diameter **25mm<sup>2</sup>** unshielded single core  
**XXXX** means: cable length, depends on customers request  
 (Unit in mm)

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