

# Amphenol®



## UPC Connectors for HEV

UPC (Ultimate Power Connector) is a plastic power connector series especially designed to be used in the hybrid electric vehicle market. The 2-pole and 3-pole connectors incorporate the patented RADSOK® technology for higher amperage, lower T-rise and voltage drop, and less resistance. RADSOK's twisted grid configuration allows for up to 50% more current to pass through the same size pin, while providing increased reliability and cycle durability, as well as lower mating forces.

The compact, plastic shell structure is light weight with a small footprint, has continuous power at 250 A or 400 A, and is field installable and repairable. These attributes make UPC robust and the interconnect of choice for the EV and Hybrid markets.

### Features and Benefits:

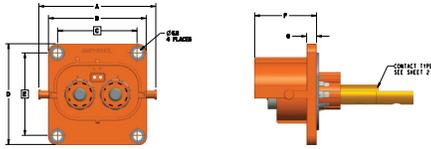
- Plastic shell, light weight
- Compact design for space considerations with EVs
- Wide amperage range (200-400A)
- Max continuous amperage for 9.1 mm system is 250A (50mm<sup>2</sup> cable)
- Low mating/un-mating force
- Durability: 2000 cycles
- Touch-Proof (UL 2251)
- Flammability: UL 94V-0
- HVIL
- EMI Shielding (60db/100M)
- IP67 & IP69k when mated
- RoHS Compliant

[www.amphenol-industrial.com](http://www.amphenol-industrial.com)



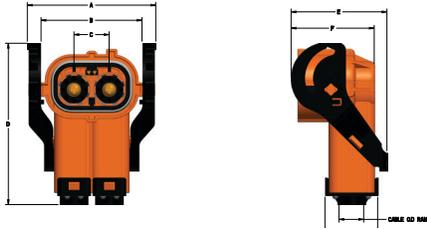
Technical Data							
Current Rating	Up to 400A (250A max 9.1mm w/50mm <sup>2</sup> cable)	Test Voltage (sea level)	3000 VAC RMS	Waterproof	IP67 & IP69k (Mated)	Finger Proof	YES
Contact Size	9.1mm / 12mm RADSOK®	Operating Temperature	-40 °C to 125°C	EMI	360° (60db/100M)	HVIL	Integrated

### 2-Pole Receptacle



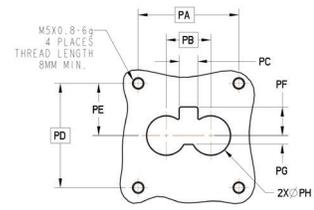
Size	Receptacle Dimensions						
	A	B	C	D	E	F	G
9.1mm	76.6	64	52	66	54	40.5	6.5

### 2-Pole Plug



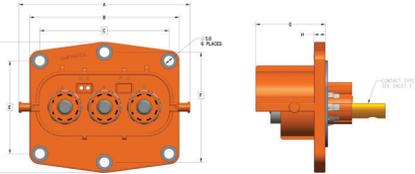
Size	Plug Dimensions							Cable O.D. Range
	A	B	C	D	E	F	G	
9.1mm	76.6	64	52	66	54	40.5	6.5	Ø15~16

### Cut-Out Panel Layout of 2-Pole



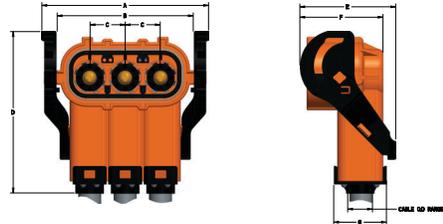
Size	Cut-Out Panel Dimensions							
	PA	PB	PC	PD	PE	PF	PG	PH
9.1mm	52	23	9.5	54	27	14.7	4.5	22.5

### 3-Pole Receptacle



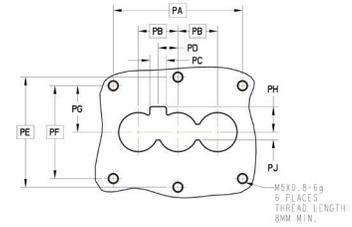
Size	Receptacle Dimensions							
	A	B	C	D	E	F	G	H
9.1mm	100	87	75	76	54	64	40.5	6.5

### 3-Pole Plug



Size	Plug Dimensions							Cable O.D. Range
	A	B	C	D	E	F	G	
9.1mm	109	89	23	106	63	54	34.5	Ø15~16

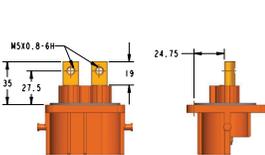
### Cut-Out Panel Layout of 3-Pole



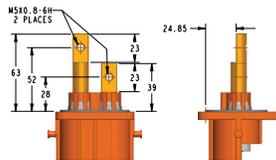
Size	Cut-Out Panel Dimensions								
	PA	PB	PC	PD	PE	PF	PG	PH	PJ
9.1mm	75	23	9.5	11.5	64	54	27	14.7	4.5

### 2-Pole Receptacle Termination

#### Busbar Type 1

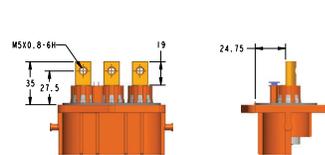


#### Busbar Type 2



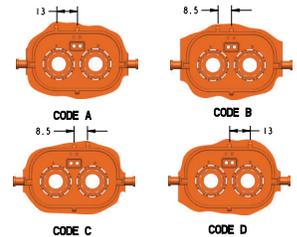
### 3-Pole Receptacle Termination

#### Busbar Type 1

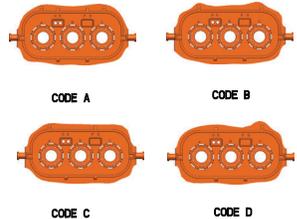


### Codings

#### 2-Hole Receptacle



#### 3-Hole Receptacle



### How To Order

PLUG	Product Series: UPC	Connector Type	RADSOK® Contact Size		Pole Number	Coding Selection	HVIL Selection	EMI Selection	Crimp Wire Size	
		P	90° Angular Plug	01	9.1mm	2	2-Pole	A Code A	L HVIL	S W/ Shielding Shell
			02	12.0mm	3	3-Pole	B Code B	N No HVIL	N W/O Shielding Shell	2 50mm <sup>2</sup> (9.1mm Only)
							C Code C			3 70mm <sup>2</sup> (9.1mm and 12.0mm)
							D Code D			4 95mm <sup>2</sup> (12.0mm Only)

RECEPTACLE	Product Series: UPC	Connector Type	RADSOK® Contact Size		Pole Number	Coding Selection	HVIL Selection	EMI Selection	Contact Type	
		R	Box Mount Receptacle	01	9.1mm	2	2-Pole	A Code A	L HVIL	S W/ Shielding Shell
			02	12.0mm	3	3-Pole	B Code B	N No HVIL	N W/O Shielding Shell	2 Busbar type 2
							C Code C			
							D Code D			

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