



PowerLok™

PowerLok™ Features

- Voltage Rating : 1000V DC
- Current Rating: 90 A~500 A
- Low Contact Resistance
- IP67 & Shielding
- Automatic Secondary Lock
- HVIL
- 1 - 3 Positions Available
- 90° and 180° Plug
- 5 Keys

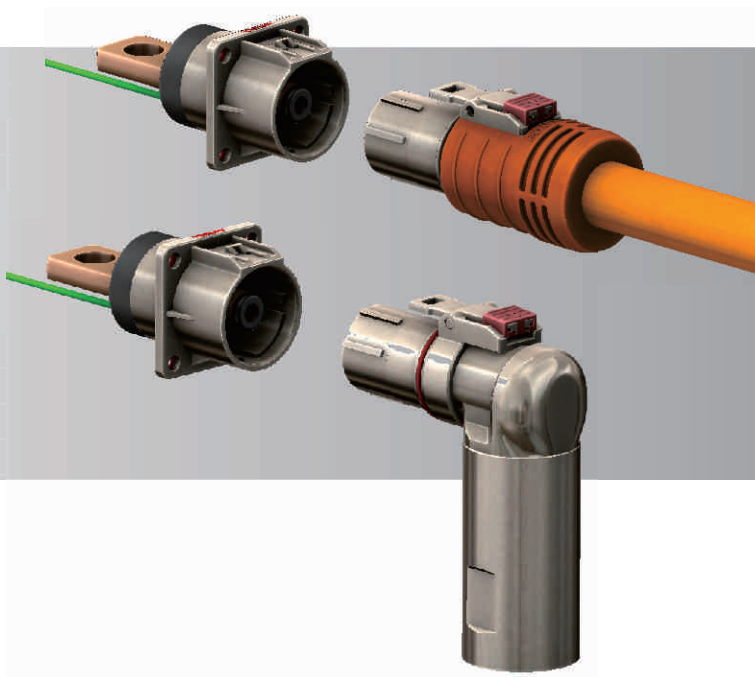
Technical Data and Features

DC Current Rating	90 A~500 A
DC Voltage Rating	1000V
Temperature Range	-40°C to +125°C
Flammability	UL94 V-0
Mating Cycle	Min. 500
Protection	IP67
Shielding	Fully Shielding
HVIL	Optional
Multi Polarization	5 Keys

PowerLok™

PowerLok™ Recommended Cable Size and Current Rating

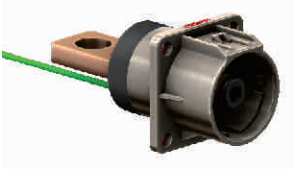
Series	Accepted Cbl Size (mm ²)	Current Rating of Cable (A)
120 Series	16	90
	25	120
300 Series	35	150
	50	200
	70	250
	95	300
500 Series	70	250
	95	300
	120	400
	150	500



PowerLok™ Products Overview

PowerLok™ 1-Position Products

Receptacle:



120 Series/300 Series/500 Series Available

Plug:



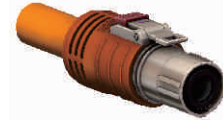
Straight



Right Angle

120 Series / 300 Series Available

Overmolded Plug:



Straight



Right Angle

120 Series / 300 Series / 500 Series Available

PowerLok™ 2-Position Products

Receptacle:



120 Series/300 Series Available

Plug:



Straight



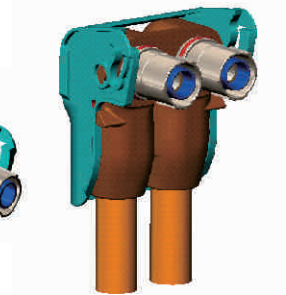
Right Angle

300 Series Available

Overmolded Plug:



Straight

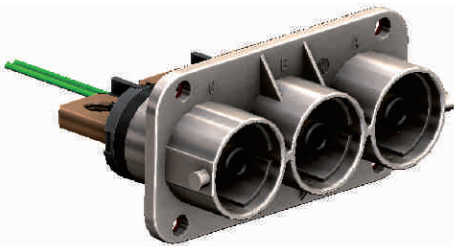


Right Angle

120 Series Available

PowerLok™ 3-Position Products

Receptacle:



300 Series Available

Straight Plug:



300 Series Available

Right Angle Plug:



300 Series Available

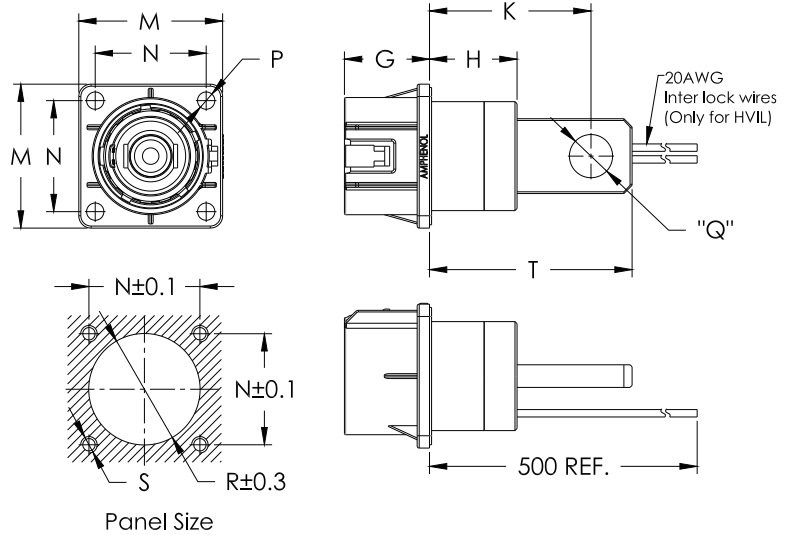
Amphenol

PowerLok™ 1 POS Products

PowerLok™ 1 POS Receptacle



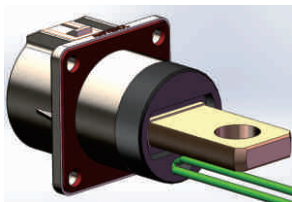
1 POS Receptacle



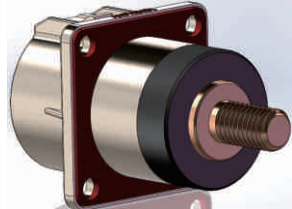
PowerLok™ 1 POS Receptacle Parameter

Series	PowerLok™ Receptacle Size									
	G (mm)	H (mm)	K (mm)	M (mm)	N (mm)	P (mm)	Q (mm)	R (mm)	S (mm)	T (mm)
120	18.0	13.0	25.5	28.0	20.0	3.6	TBD	Φ 20.5	M3	31.5
300	20.7	21.3	39.3	35.0	27.0	4.2		Φ 27.5	M4	49.3
500	27.2	25.0	46.0	43.0	33.5	4.3		Φ 35.6	M4	56.0

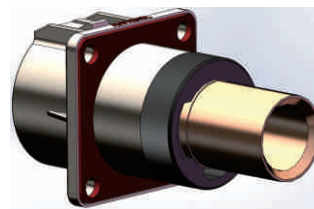
PowerLok™ 1 POS Receptacle Termination Type



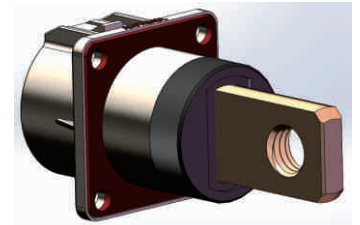
1 POS Receptacle
(Busbar Lug)



1 POS Receptacle
(Thread Pin)



1 POS Receptacle
(Tubular Lug)



1 POS Receptacle
(90 Degree Busbar Lug)

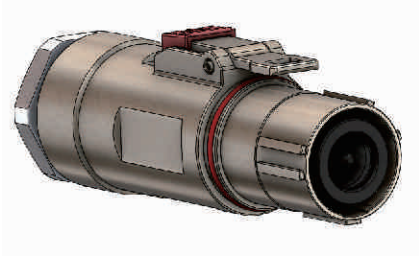
Ordering Example

Powerlok™		PL	00	X	-	120	-	10	M6
(A) Connector Type	:	1 POS Receptacle							
(B) Polarization & Color	:	1 POS Key "X", Orange							
(C) Series	:	120 Series							
(D) Termination Type	:	Lug							
(E) Termination Size	:	Screw Hole, M10							

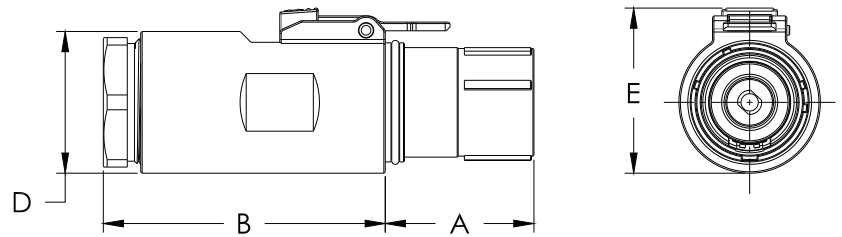
Amphenol

PowerLok™ 1 POS Products

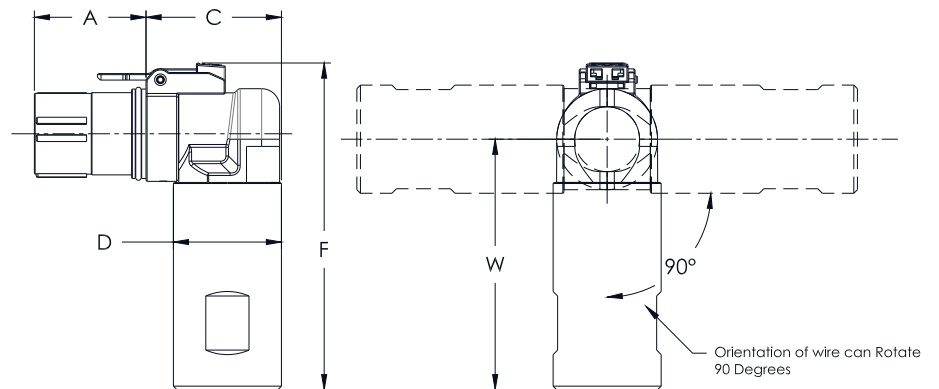
PowerLok™ 1POS Plug Connector



1 POS Plug Straight



1 POS Plug Right Angle



PowerLok™ 1POS Plug Connector Parameter

Series	PowerLok™ 1POS Plug Connector Size						
	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	W (mm)
120*	22.5	45.0	30.0	Φ 18.0	24.8	69.3	53.5
300	31.0	58.8	37.6	Φ 29.5	34.4	90.6	71.0

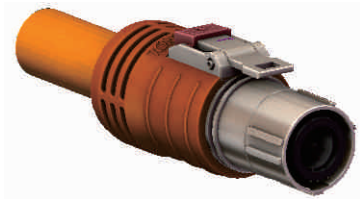
It means this series is not Available if there is a "*" behind.

Ordering Example

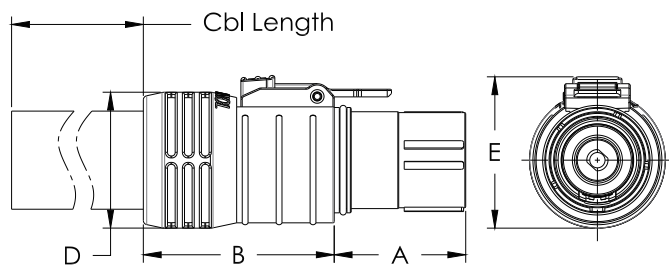
Powerlok™	PL	18	X	-	302	-	70
(A) Connector Type	: Plug Connector, Straight						
(B) Polarization & Color	: 1POS Key "X", Orange						
(C) Series	: 300 Series IP2X						
(D) Cable Size	: 70mm ²						

PowerLok™ 1 POS Products

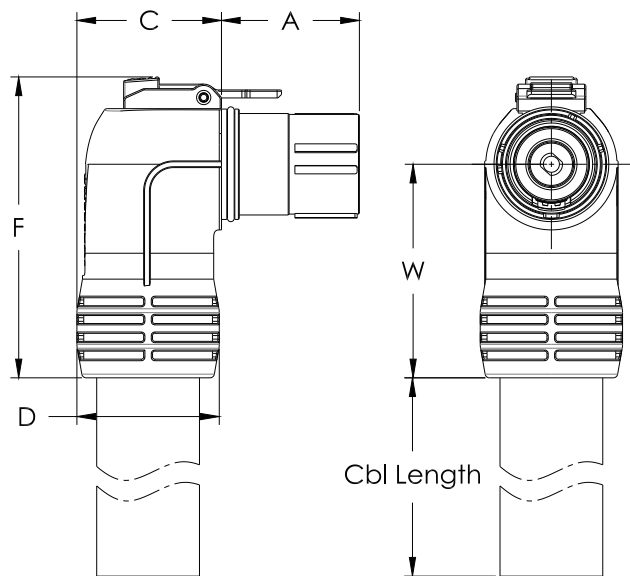
PowerLok™ 1POS Overmolded Plug



1 POS Overmolded Plug Straight



1 POS Overmolded Plug Right Angle



PowerLok™ 1 POS Overmolded Plug Parameter

Series	PowerLok™ 1POS Overmolded Plug Size							Cable Length
	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	W (mm)	
120	22.5	39.0	25.3	Φ 24.6	28.5	50.8	35.0	TBD
300	31.0	45.0	32.5	Φ 32.0	35.6	62.6	43.0	
500	41.1	52.0	43.0	Φ 40.0	43.6	78.6	55.0	

Ordering Example

Powerlok™									PL	20	X	-	121	-25
(A) Connector Type	:	Overmolded Plug, Right Angle												
(B) Polarization & Color	:	1POS Key "X", Orange												
(C) Series	:	120 Series with HVIL												
(D) Cable Size	:	25mm ²												

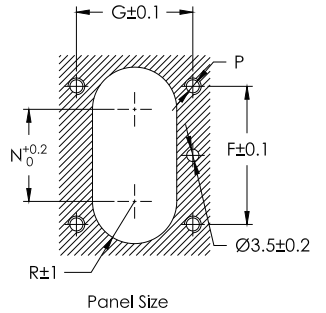
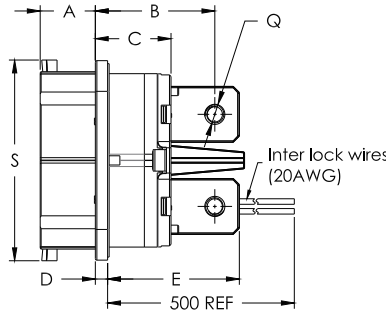
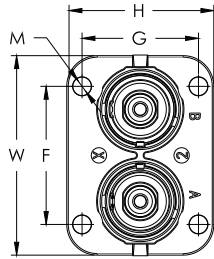
PowerLok™ 2 POS Products

PowerLok™ 2POS Receptacle



Touch Proof Cover

2 POS Receptacle



PowerLok™ 2 POS Receptacle Parameter

Series	PowerLok™ 2POS Receptacle Size															
	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	M (mm)	N (mm)	P	S (mm)	T (mm)	W (mm)	R (mm)	Q
120	18.0	23.5	14.6	3.0	29.5	35.0	25.5	34.0	Φ 3.6	22.0	M3	48.6	27.8	48.0	10.3	TBD
300	22.0	35.0	20.7	3.0	43.0	45.0	38.0	48.0	Φ 6.2	30.0	M6	65.4	44.7	65.0	13.8	

Ordering Example

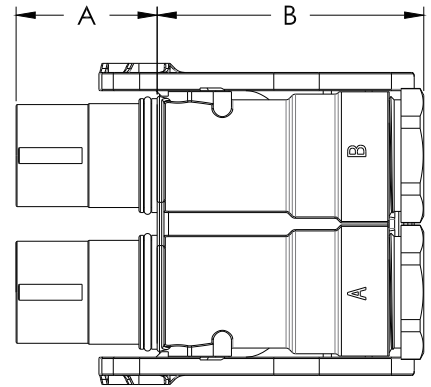
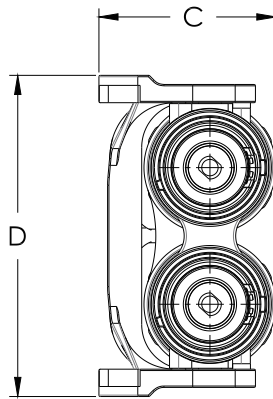
Powerlok™	PL	08	2X	-	303	-	10	M10
(A) Connector Type	: Receptacle							
(B) Polarization & Color	: 2 POS Key "X", Orange							
(C) Series	: 300 Series IP2X with HVIL							
(D) Termination Type	: Lug							
(E) Stud Size	: Screw Hole, M10							

PowerLok™ 2 POS Products

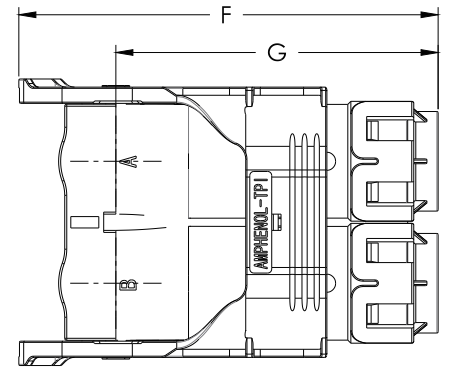
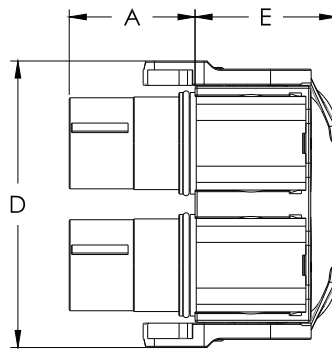
PowerLok™ 2POS Plug Connector



2 POS Plug Straight



2 POS Plug Right Angle



PowerLok™ 2POS Plug Connector Parameter

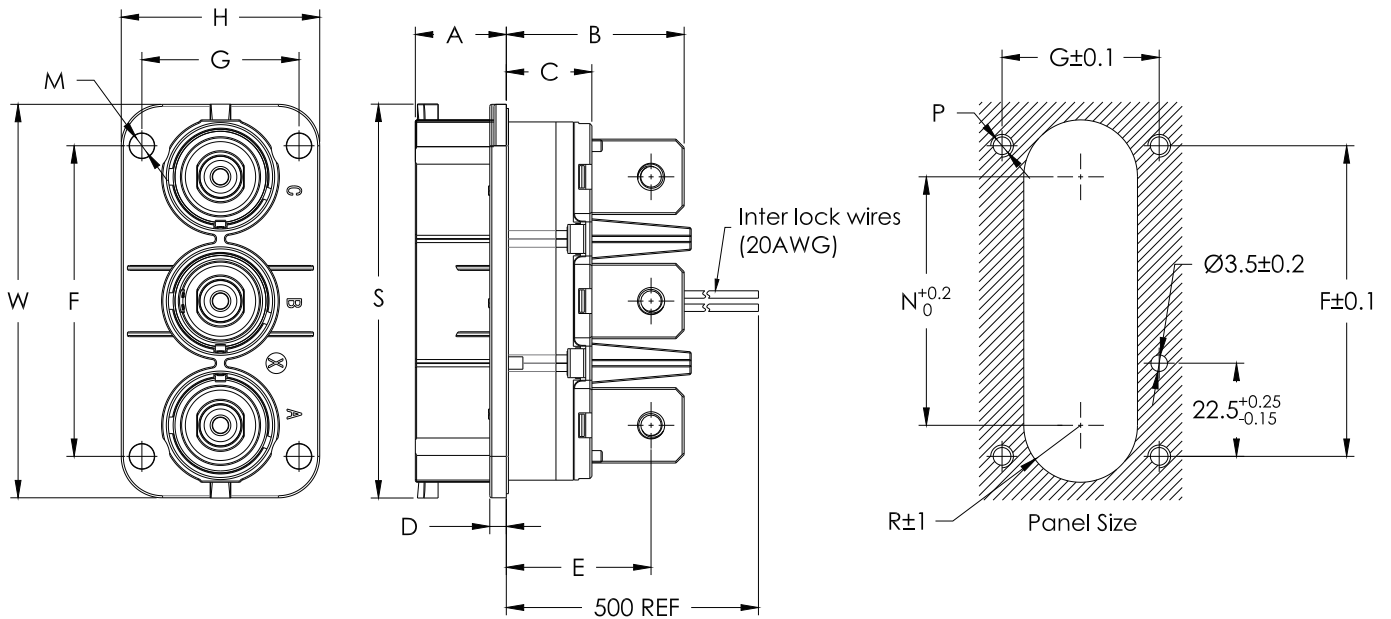
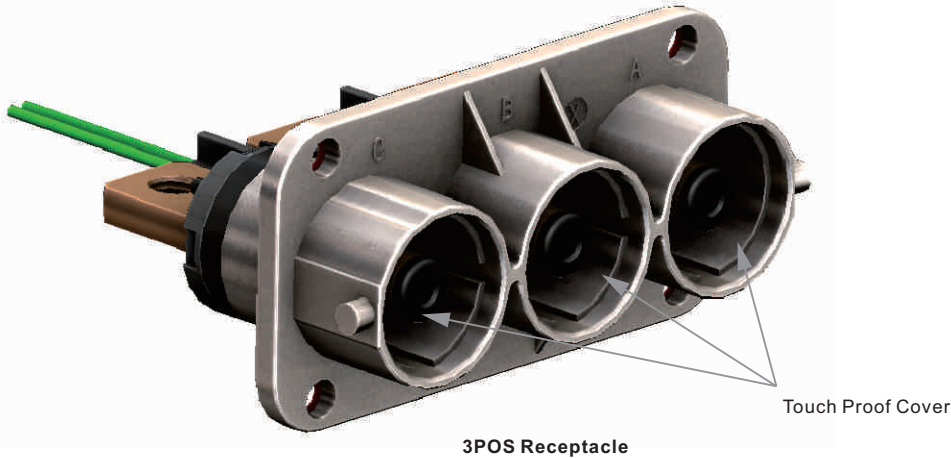
Series	PowerLok™ 2POS Plug Connector Size						
	D ± p ,	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)
120	22.5	51.0	29.7	51.5	31.2	64.0	43.0
300	31.0	58.6	38.8	70.5	34.9	103.3	79.4

Ordering Example

Powerlok™	PL	18	2X	-	302	-70
(A)Connector Type	: Plug Connector, Straight					
(B)Polarization & Color	: 2 POS Key "X"					
(C)Series	: 300 Series IP2X					
(D)Cable Size	: 70mm ²					

PowerLok™ 3 POS Products

PowerLok™ 3POS Receptacle



PowerLok™ 3 POS Receptacle Parameter

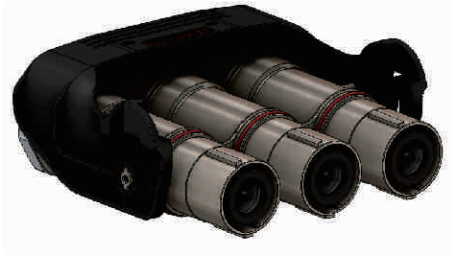
Series	PowerLok™ 3POS Receptacle Size															
	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	M (mm)	N (mm)	P	S (mm)	T (mm)	W (mm)	R (mm)	Q
300	22.0	43.0	21.2	3.0	35.0	75.0	38.0	48.0	Φ6.2	60.0	M6	95.1	44.7	95.0	13.8	TBD

Ordering Example

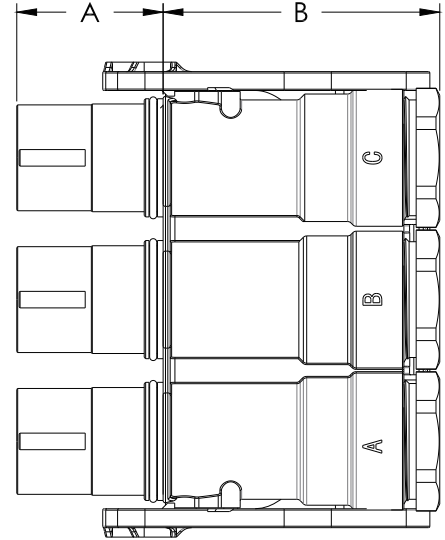
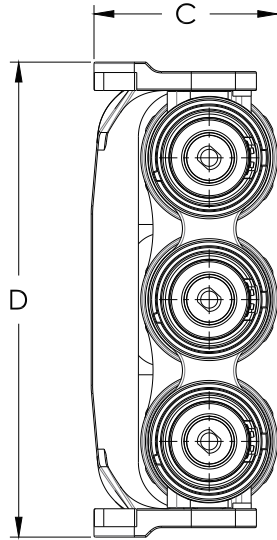
Powerlok™	PL	08	3X	-	303	-	10	M10
(A) Connector Type	: Receptacle							
(B) Polarization & Color	: 3 POS Key "X"							
(C) Series	: 300 Series IP2X with HVIL							
(D) Termination Type	: Lug							
(E) Stud Size	: Screw Hole, M10							

PowerLok™ 3 POS Products

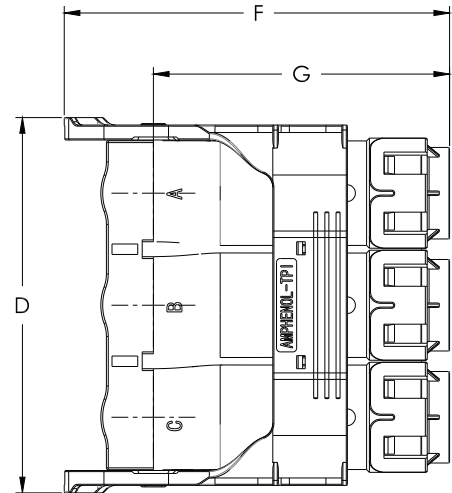
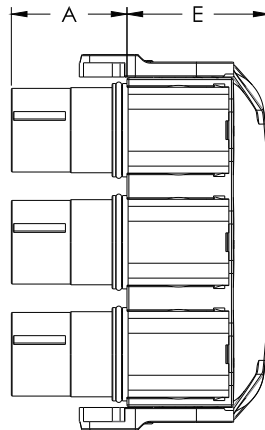
PowerLok™ 3POS Plug Connector



3 POS Plug Straight



3 POS Plug Right Angle



PowerLok™ 3POS Plug Connector Parameter

Series	PowerLok™ 3POS Plug Shielding Parameter						
	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)
300	31.0	58.6	38.9	100.5	38.0	103.3	79.4

Ordering Example

Powerlok™	PL	18	3X	-	303	-70
(A) Connector Type	: Plug Connector, Straight					
(B) Polarization & Color	: 3 POS Key "X"					
(C) Series	: 300 Series IP2X with HVIL					
(D) Cable Size	: 70mm ²					

PowerLok™ Ordering Information

PowerLok™ Receptacle Ordering Information

Product Type		(A) Connector Type		(B) Polarization & (Touch Proof Cover) color		(C) Series		(D) Termination Type		(E) Termination Size	
PL	PowerLok™	00	1 POS Receptacle	X	Key "X" Orange	120	120 Series	10	Lug	M+Stud Size	Screw Hole
		08	2 POS & 3 POS Receptacle	Y	Key "Y" Black	121	120 Series with HVIL	20	Thread Pin	D+Stud Size	Through Hole
				U	Key "U" Yellow	302	300 Series IP2X	30	Crimping Lug	M+Thread Size	Thread Size
				V	Key "V" Green	303	300 Series IP2X with HVIL	90	90D Lug		
				W	Key "W" Red	500	500 Series				
				2X	2 POS ,Key "X"	501	500 Series with HVIL				
				2Y	2 POS ,Key "Y"						
				3X	3 POS ,Key "X"						
		3Y	3 POS ,Key "Y"								

PowerLok™ Plug Ordering Information

Product Type		(A) Plug Type		(B) Polarization		(C) Series		(D) Cable Size (mm²)
PL	PowerLok™	10	Overmolded Cble Assembly, Straight	X	1 POS ,Key "X" Orange	120	120 Series	Refer to "PowerLok™ Recommended Cable Size & Current Rating" Chart
		20	Overmolded Cble Assembly, Right Angle	Y	1 POS ,Key "Y" Black	121	120 Series With HVIL	
		18	Plug Connector, Straight	U	1 POS ,Key "U" Yellow	302	300 Series IP2X	
		28	Plug Connector, Right Angle	V	1 POS ,Key "V" Green	303	300 Series IP2X with HVIL	
				W	1 POS ,Key "W" Red	500	500 Series	
				2X	2 POS ,Key "X"	501	500 Series with HVIL	
				2Y	2 POS ,Key "Y"			
				3X	3 POS ,Key "X"			
		3Y	3 POS ,Key "Y"					

PowerLok™ Receptacle Operate Announcements

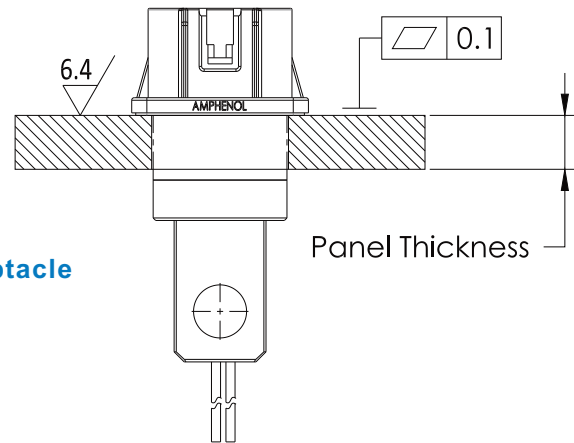
PowerLok™ Receptacle Install Panel Requirements

1. Panel Thickness should According Table

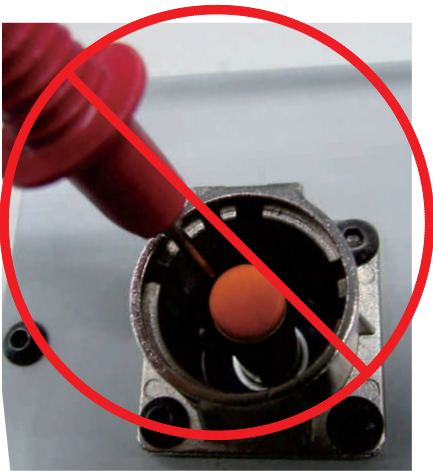
Series	Max. Panel Thickness
120 Series	7.2mm
300 Series	12mm
500 Series	17mm

2. The Area Where the Panel and the Gasket of the Receptacle Contact together should Fit the Requirements:

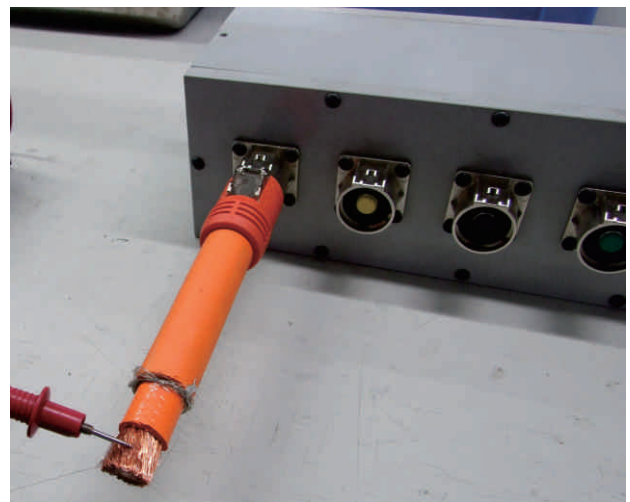
- Planeness should less than or equal to 0.1mm
- Surface should be $\nabla 6.4$ or Better



PowerLok™ Receptacle Test Announcements



Do not Make Electrical Test Like blow Picture



Please Take up Plug When Make Electrical Test

The information contained in this data sheet is for reference only.

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For further information on your individual application requirements, contact: Amphenol Corporation

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