Amphenol

PowerLok™ Features

- Voltage Rating : 1000V DC
- Current Rating: 20 A~500 A
- Low Contact Resistance
- IP67 & Shielding
- Automatic Secondary Lock
- HVIL
- 1 - 3 Positions Available
- 90° and 180° Plug
- 5 Keys

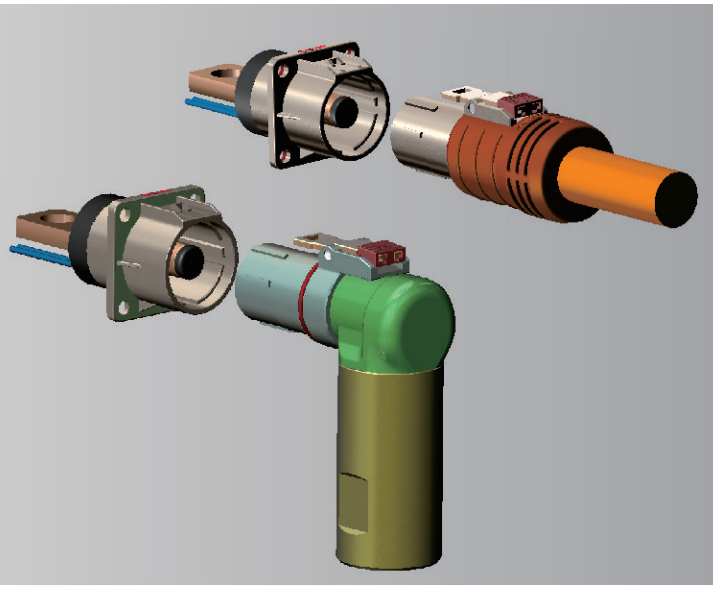
Technical Data and Features

DC Current Rating	20 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

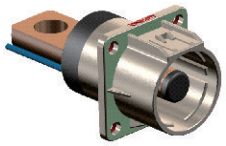
Current Rating of Connector (A)	Accepted Cbl Size (mm²)	Current Rating of Cable (A)
60 Series	2.5	20
	4	25
	6	35
	10	60
120 Series	16	90
	25	120
300 Series	35	150
	50	200
	70	250
	95	300
500 Series	70	250
	95	300
	120	400
	150	500



PowerLok™ Products Overview

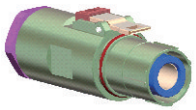
PowerLok™ 1-Position Products

Receptacle:



120 Series/300 Series/500 Series Available

Plug:

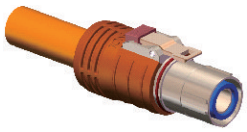


Straight

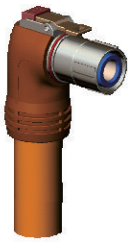
Right Angle

120 Series / 300 Series Available

Overmolded Plug:



Straight

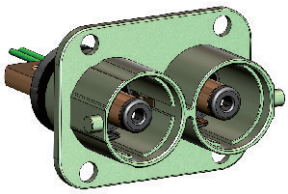


Right Angle

120 Series / 300 Series / 500 Series Available

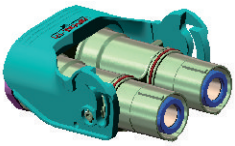
PowerLok™ 2-Position Products

Receptacle:

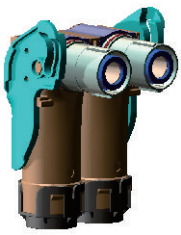


120 Series/300 Series Available

Plug:



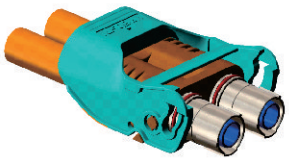
Straight



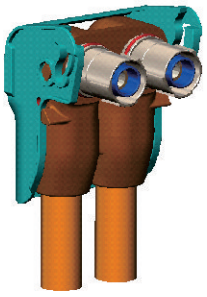
Right Angle

300 Series Available

Overmolded Plug:



Straight

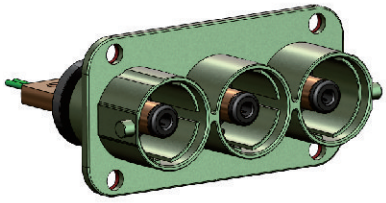


Right Angle

120 Series Available

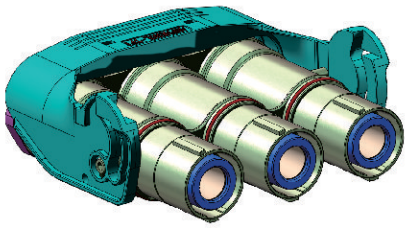
PowerLok™ 3-Position Products

Receptacle:



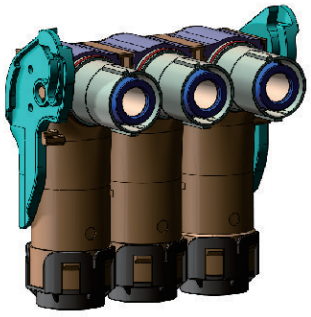
300 Series Available

Straight Plug:



300 Series Available

Right Angle Plug:



300 Series Available

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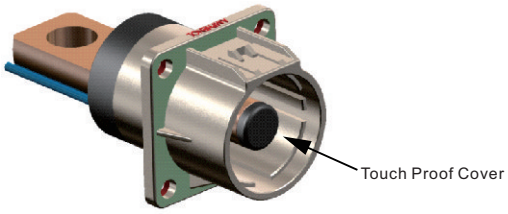
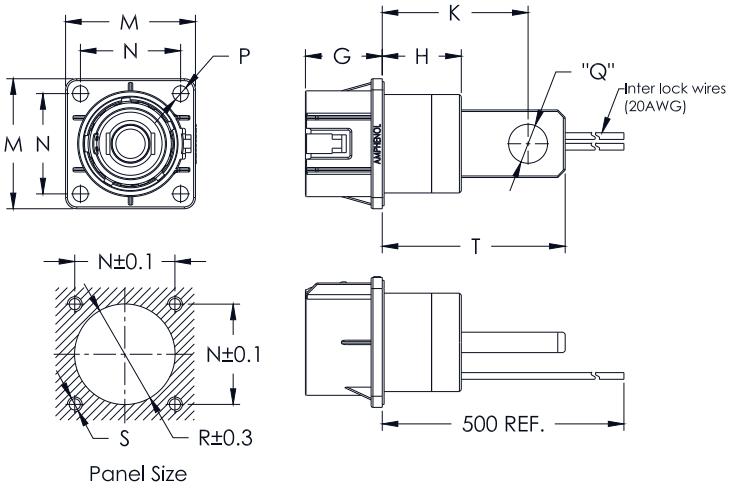
PowerLok™ 1 POS Products

PowerLok™ 1 POS Receptacle



1 POS Receptacle

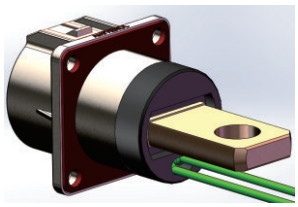


Panel Size

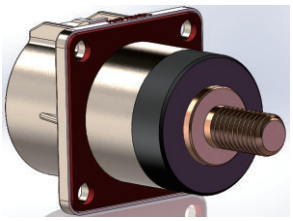
PowerLok™ 1POS Receptacle Parameter

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

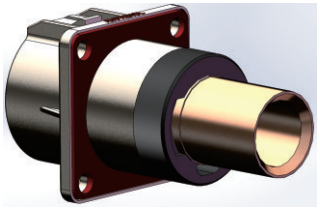
PowerLok™ 1 POS Receptacle Termination Type



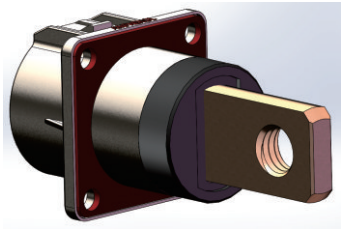
1 POS Receptacle
(Busbar Lug)



1 POS Receptacle
(Thread Pin)



1 POS Receptacle
(Tubular Lug)



1 POS Receptacle
(90 Degree Busbar Lug)

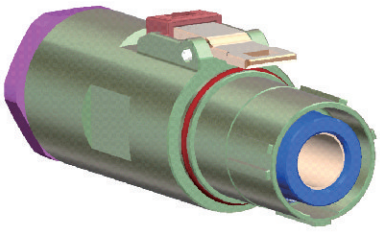
Ordering Example

PL 00 X - 300 - 10 M10

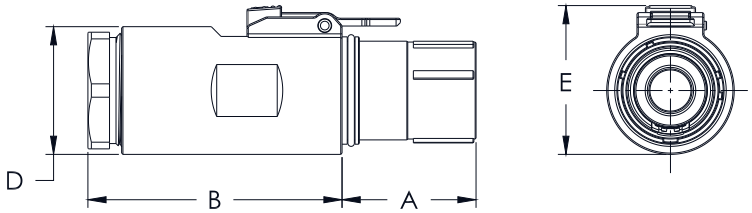
Powerlok™	
(A)Connector Type	: 1 POS Receptacle
(B)Polarization & Color	: 1 POS Key “X”, Orange
(C)Series	: 300 Series
(D)Termination Type	: Lug
(E)Termination Size	: Screw Hole, M10

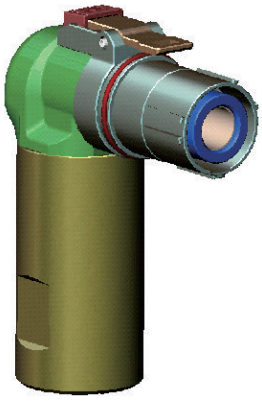
PowerLok™ 1 POS Products

PowerLok™ 1POS Plug Connector

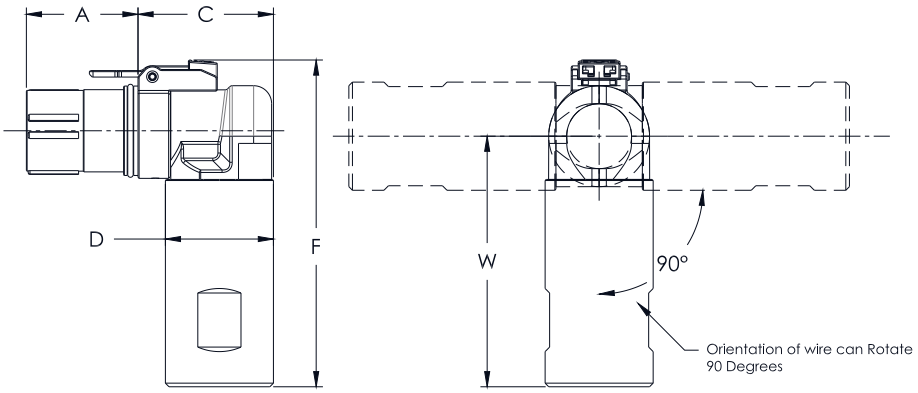


1 POS Plug Straight





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

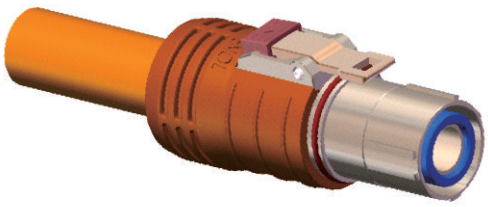
Ordering Example

PL 18 X - 300 -70

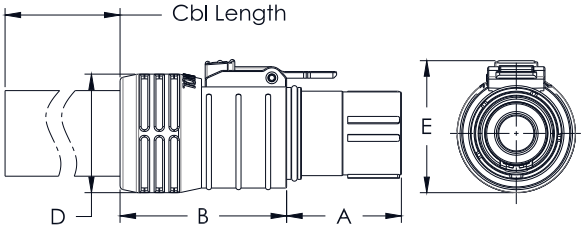
Powerlok™	
(A)Connector Type	: Plug Connector, Straight
(B)Polarization & Color	: 1POS Key "X", Orange
(C)Series	: 300
(D)Cable Size	: 70mm²

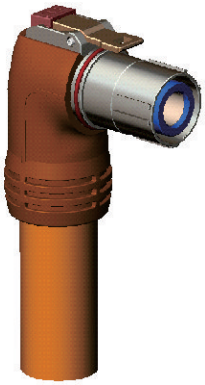
PowerLok™ 1 POS Products

PowerLok™ 1POS Overmolded Plug

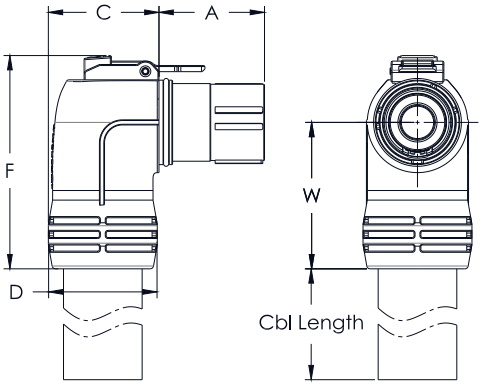


1 POS Overmolded Plug Straight





1 POS Overmolded Plug Right Angle



PowerLok™ 1 POS Overmolded Plug Parameter

Series	PowerLok™ 1POS Overmolded Plug Size							
	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	W (mm)	Cable Length
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	

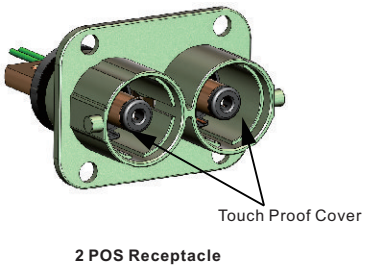
Ordering Example

PL 20 X - 300 -70

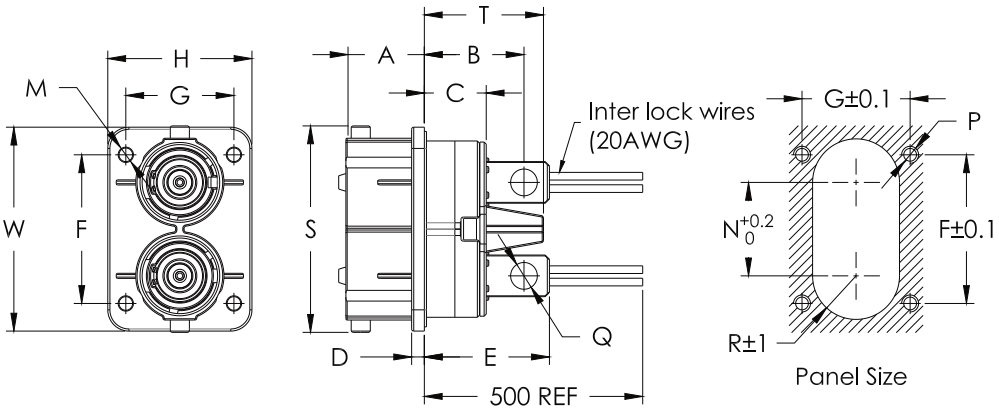
Powerlok™	
(A)Connector Type	: Overmolded Plug, Right Angle
(B)Polarization & Color	: 1POS Key "X", Orange
(C)Series	: 300
(D)Cable Size	: 70mm²

PowerLok™ 2 POS Products

PowerLok™ 2POS Receptacle



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	Φ3.6	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	Φ6.2	30.0	M6	65.4	44.7	65.0	13.8	

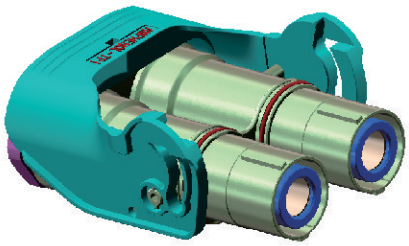
Ordering Example

PL 08 2X - 300 - 10 M10

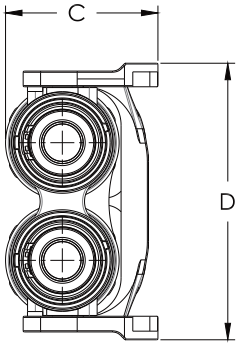
Powerlok™	
(A)Connector Type	: Receptacle
(B)Polarization & Color	: 2 POS Key "X", Orange
(C)Series	: 300
(D)Termination Type	: Lug
(E)Stud Size	: Screw Hole, M10

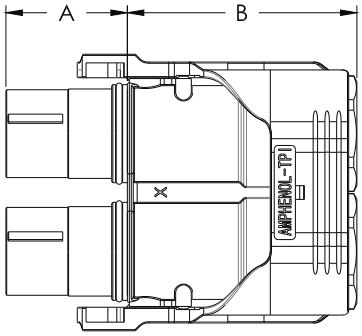
PowerLok™ 2 POS Products

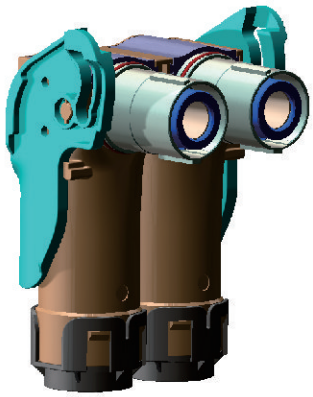
PowerLok™ 2POS Plug Connector



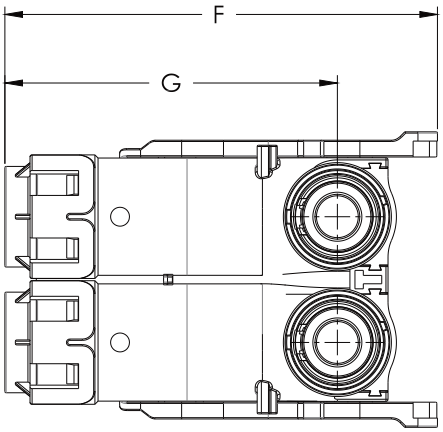
2 POS Plug Straight

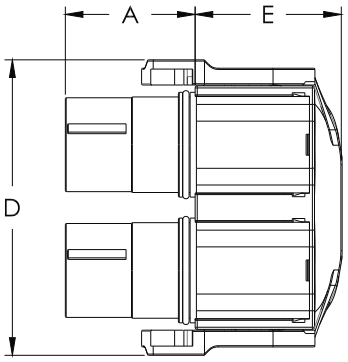






2 POS Plug Right Angle





PowerLok™ 2POS Plug Connector Parameter

Series	PowerLok™ 2POS Plug Connector Size						
	A (mm)	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

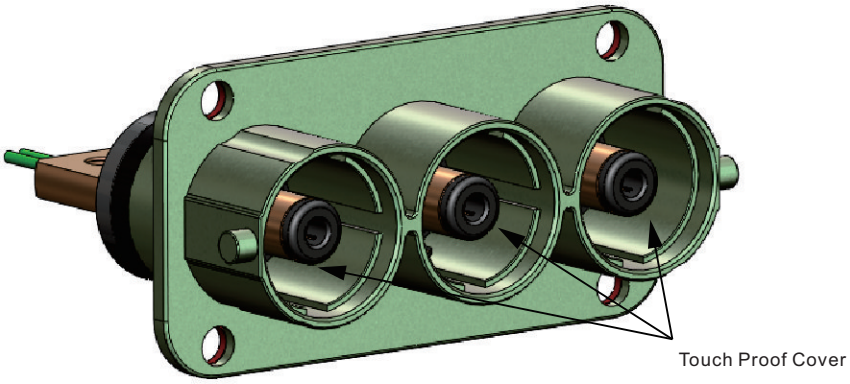
Ordering Example

PL 18 2X - 300 -70

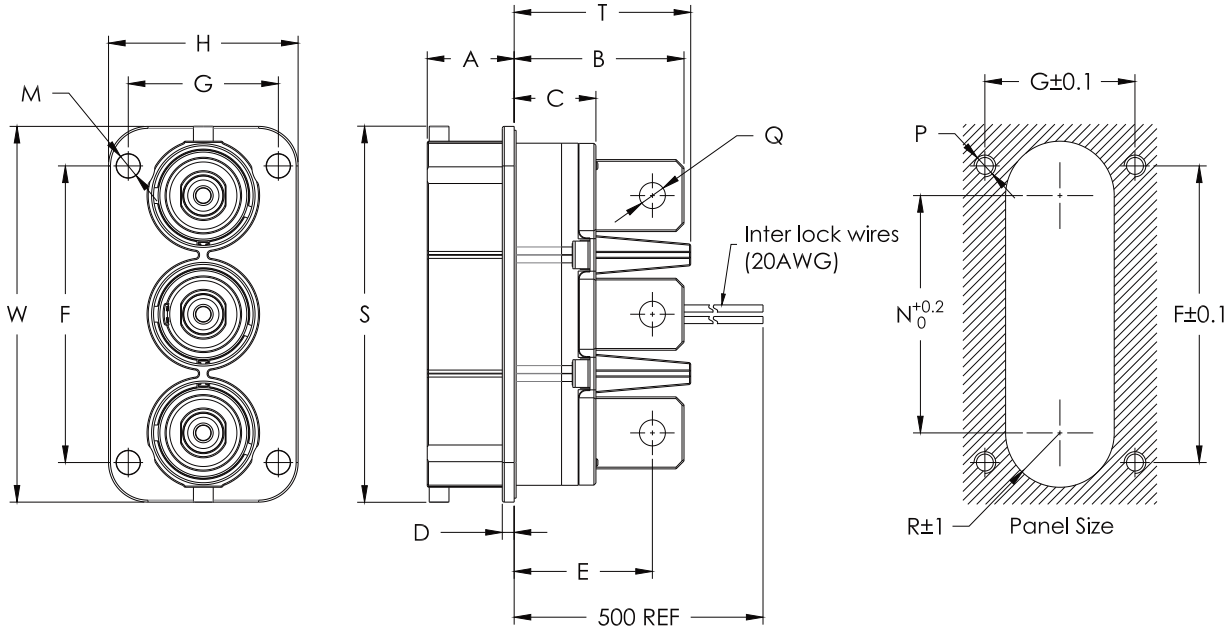
Powerlok™	
(A)Connector Type	: Plug Connector, Straight
(B)Polarization & Color	: 2 POS Key "X"
(C)Series	: 300
(D)Cable Size	: 70mm²

PowerLok™ 3 POS Products

PowerLok™ 3POS Receptacle



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

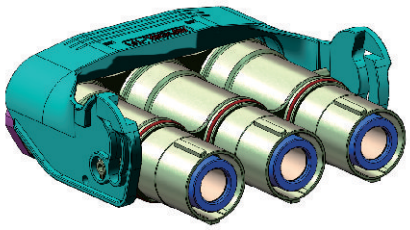
Ordering Example

PL 08 3X - 300 - 10 M10

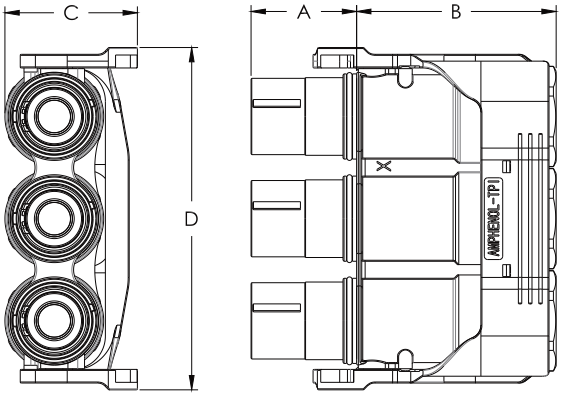
Powerlok™	
(A)Connector Type	: Receptacle
(B)Polarization & Color	: 3 POS Key "X"
(C)Series	: 300
(D)Termination Type	: Lug
(E)Stud Size	: Screw Hole, M10

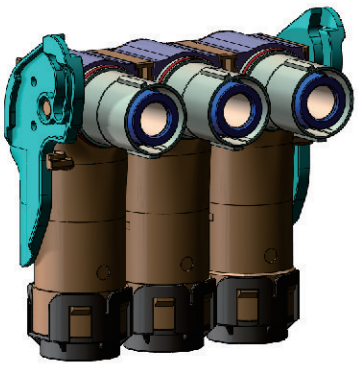
PowerLok™ 3 POS Products

PowerLok™ 3POS Plug Connector

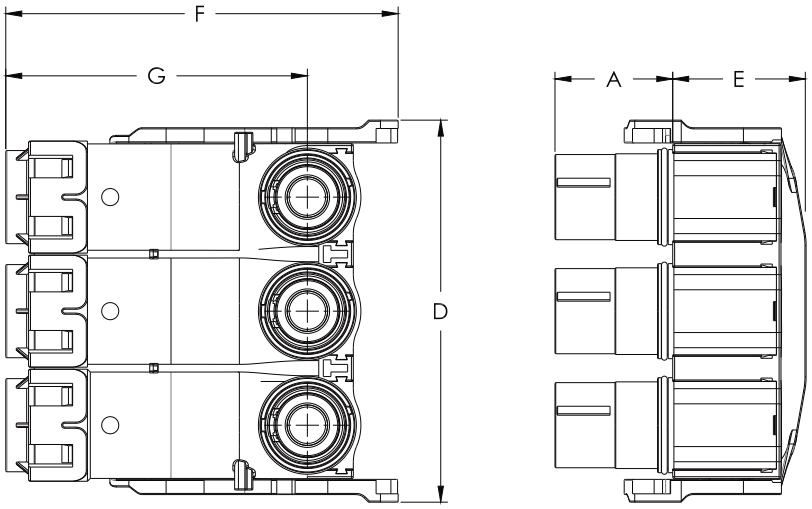


3 POS Plug Straight





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	34.9	103.3	79.4

Ordering Example

PL 18 3X - 300 -70

Powerlok™	
(A)Connector Type	: Plug Connector, Straight
(B)Polarization & Color	: 3 POS Key "X"
(C)Series	: 300
(D)Cable Size	: 70mm²

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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" Yellw	300	300 Series	30	Crimping Lug	M+Thread Size	Thread Size
				V	Key "V" Green	301	300 Series 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" Yellw	300	300 Series	
		28	Plug Connector, Right Angle	V	1 POS ,Key "V" Green	301	300 Series 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"			

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

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