

# HIVONEX CONNECTORS & CHARGING SOLUTIONS

FOR HIGH VOLTAGE E-MOBILITY APPLICATIONS



# HIVONEX Connectors & Charging Solutions

for High Voltage E-mobility Applications



## WE GO TO EXTREMES TO MAKE SURE **EVERY CONNECTION COUNTS**

TE Connectivity (TE) Industrial & Commercial Transportation (ICT) is a reliable provider of solutions for even the harshest environments. With a focus on employee expertise and durable products, we deliver the solutions and support our customers can count on.

Years ago, tractors, construction equipment, trucks, and boats had simple electrical systems that might have included electrical starting and a basic lighting package. Today, ECUs, joysticks, electric motors, LED lights, and CAN systems are standard equipment. The need to protect sensitive electrical systems from vibration, moisture, dust, dirt, salt, and airborne particles has never been greater. TE Industrial & Commercial Transportation is a leader in supporting today’s increasingly complex and sophisticated equipment and applications.

Our comprehensive line of products includes an unparalleled portfolio of rugged sensors, terminals, connectors, relays, and HIVONEX E-mobility solutions. They are designed to withstand the harshest environmental conditions and to help vehicles operate safer, cleaner, and smarter.

Our solutions adapt to virtually any **harsh environment application**, including:



E-Motor



ABS/EBS  
Brake Units



Telematics  
Units



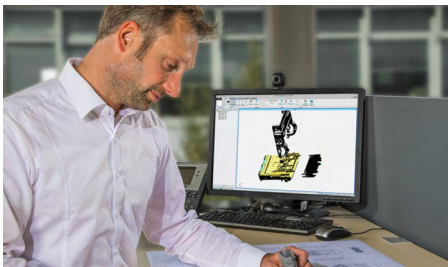
Sensors



Wire-To-Wire  
Coupling at  
the Chassis



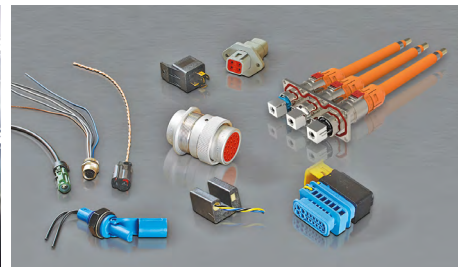
Infotainment  
Applications



**2,000+  
EMPLOYEES**



**10,000  
CUSTOMERS**



**20,000+  
DIFFERENT PARTS**



## MARKETS WE SERVE



**ON-HIGHWAY**

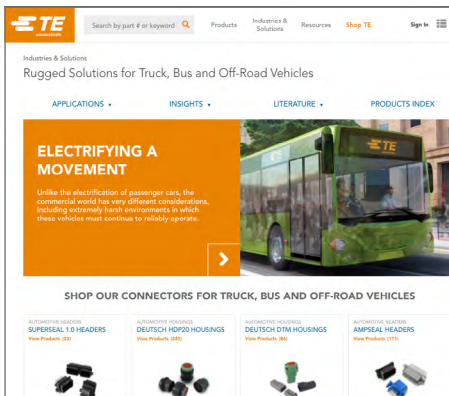


**OFF-HIGHWAY**

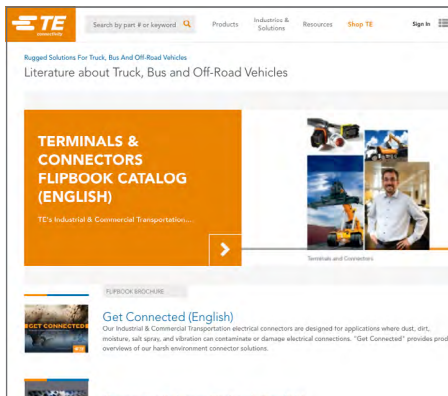


**RECREATIONAL  
TRANSPORTATION**

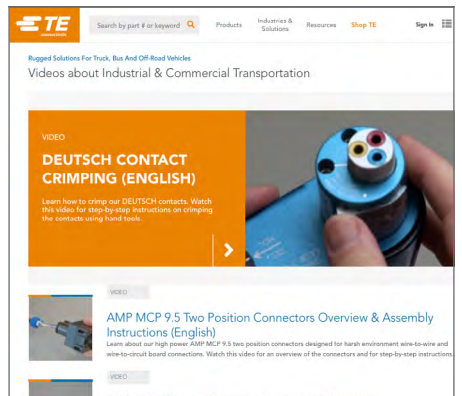
## ONLINE RESOURCES



**TE.COM/ICT**



**LITERATURE**



**VIDEOS**

## TE SOLUTION CENTER

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Connect with our Solution Center staff at:  
**te.com/support**

**PowerTube**

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 90 Degree ..... 10  
 Plug - 35-70 mm<sup>2</sup> (crimped version) ..... 11  
 Plug - 35 mm<sup>2</sup> - Finger & Tool (crimped version) ..... 12  
 Plug - 50 mm<sup>2</sup> - Finger & Tool (crimped version) ..... 13  
 Plug - 70 mm<sup>2</sup> - Finger & Tool (crimped version) ..... 14  
 Plug - 35 mm<sup>2</sup> - Finger & Tool (EMPT version) ..... 15  
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 Plug - 70 mm<sup>2</sup> - Finger & Tool ..... 22  
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**1 Position, 95 mm<sup>2</sup>, Individually Shielded Cable**

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Plug - 35 mm<sup>2</sup> - Finger & Tool (crimped version) . .12  
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**PowerTube 1400**

Part Numbers..... 18  
180 Degree..... .19  
90 Degree..... 20  
Plug- 70-120 mm<sup>2</sup> (With Spacer) ..... .21  
Plug - 70 mm<sup>2</sup> - Finger & Tool ..... 22  
Plug - 95 mm<sup>2</sup> - Finger & Tool ..... 23  
Plug - 120 mm<sup>2</sup> - Finger & Tool ..... 24  
Plug - 150 mm<sup>2</sup> (No Spacer)..... 25  
Plug - 150 mm<sup>2</sup> - Finger & Tool ..... 26



## PowerTube Design Overview

### Modular, Scalable and Immensely Powerful

Newest addition to our HIVONEX connectors and charging solutions, the PowerTube connector series is the right choice for high power applications in E-mobility industrial and commercial vehicles. Built to handle large electrical loads, these modular and scalable connectors are manufactured to adapt to your designs and hold up to intense environmental demands.

#### Key Features & Benefits:

##### High Performance

- IP6K9K protection and ISO 16750-3 profile vibration performance
- Connector Position Assurance (CPA) and High Voltage Interlock Loop (HVIL) for each pin
- Circular 360° shielding provides excellent EMI protection

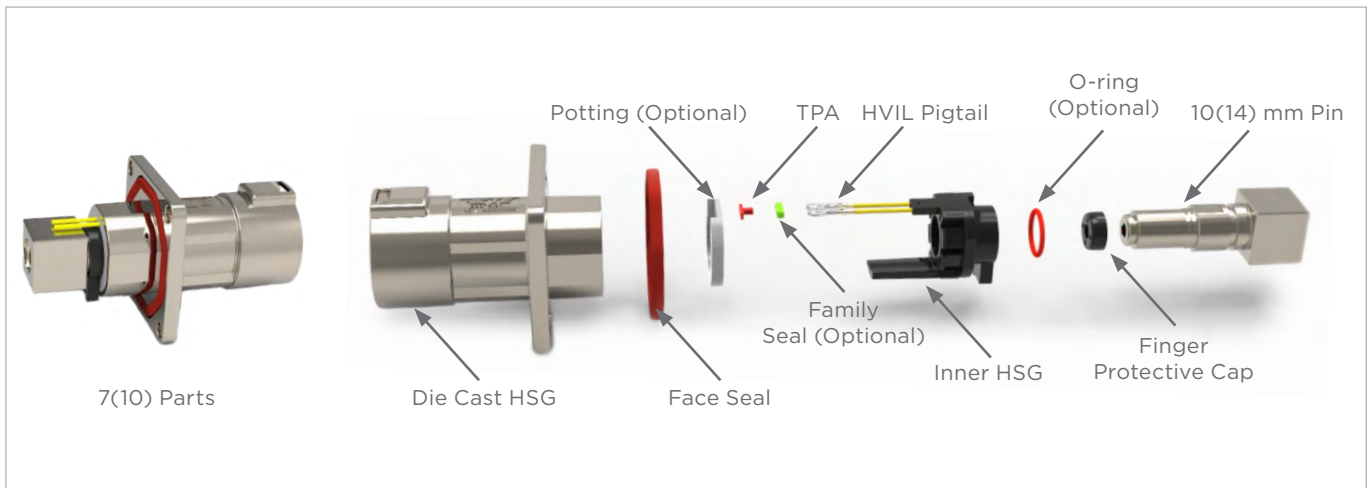
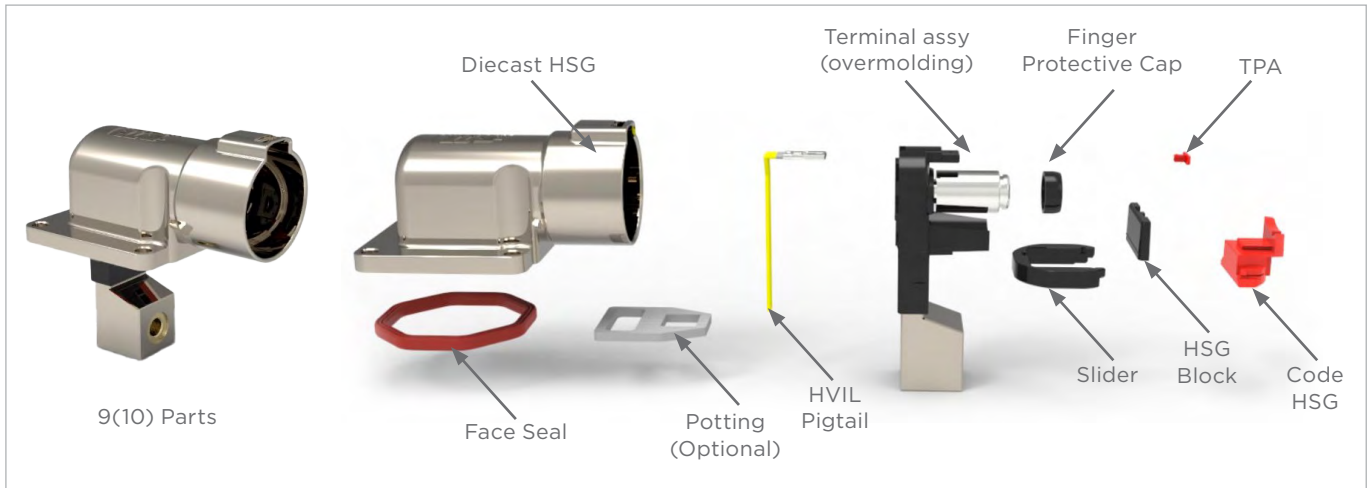
##### Modular and Scalable

- Up to 3 pins in one header connector and large cable range
- Cube-shaped bus bar enables multiple screw orientations for easier tool access
- Both 180° and 90° headers use the same size interface on the aggregate
- Unshielded (48 V) and shielded (high voltage) systems can be serviced with the same connector system

##### Reduced Total Applied Cost

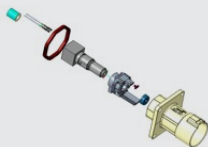
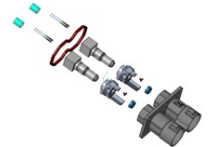
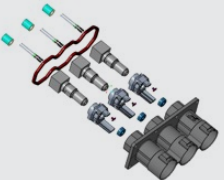


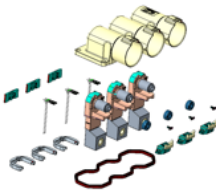
- Modularity reduces inventory cost
- Circular connector design enables simplified routing
- Decreases complexity of assembly and reduced number of components
- Single connector design enables improved serviceability in the field

**POWERTUBE HEADER DESIGN OVERVIEW**





**POWERTUBE 1000**

Basic Part Number	Description	Picture	With Nut (Y/N)
2394060	1POS,PIN DIA 14.0 HDR ASSY,180DEG.UNSEALED		Y
2394061	2POS,PIN DIA 14.0 HDR ASSY,1800DEG.UNSEALED		Y
2394062	3POS,PIN DIA 14.0 HDR ASSY,180DEG.UNSEALED		Y
2394070	1POS,PIN DIA 14.0 HDR ASSY,90DEG.UNSEALED		Y
2394071	2POS,PIN DIA 14.0 HDR ASSY,90DEG.UNSEALED		Y
2394072	3POS,PIN DIA 14.0 HDR ASSY,90DEG.UNSEALED		Y

**180 DEGREE**

1 POSITION					
Coding	Front	Right	Back	Left	Top
A	2394060-1	2-2394060-1	4-2394060-1	6-2394060-1	8-2394060-1
B	2394060-2	2-2394060-2	4-2394060-2	6-2394060-2	8-2394060-2
C	2394060-3	2-2394060-3	4-2394060-3	6-2394060-3	8-2394060-3
D	2394060-4	2-2394060-4	4-2394060-4	6-2394060-4	8-2394060-4
E	2394060-5	2-2394060-5	4-2394060-5	6-2394060-5	8-2394060-5
F	2394060-6	2-2394060-6	4-2394060-6	6-2394060-6	8-2394060-6
G	2394060-7	2-2394060-7	4-2394060-7	6-2394060-7	8-2394060-7
H	2394060-8	2-2394060-8	4-2394060-8	6-2394060-8	8-2394060-8
J	2394060-9	2-2394060-9	4-2394060-9	6-2394060-9	8-2394060-9
K	1-2394060-1	3-2394060-1	5-2394060-1	7-2394060-1	9-2394060-1
L	1-2394060-2	3-2394060-2	5-2394060-2	7-2394060-2	9-2394060-2
M	1-2394060-3	3-2394060-3	5-2394060-3	7-2394060-3	9-2394060-3

2 POSITIONS			
Coding	Front	Back	Top
A/B	2394061-1	1-2394061-1	2-2394061-1
C/D	2394061-2	1-2394061-2	2-2394061-2
E/F	2394061-3	1-2394061-3	2-2394061-3
G/H	2394061-4	1-2394061-4	2-2394061-4
J/K	2394061-5	1-2394061-5	2-2394061-5
L/M	2394061-6	1-2394061-6	2-2394061-6

3 POSITIONS			
Coding	Front	Back	Top
A/B/C	2394062-1	1-2399608-1	2-2399608-1
D/E/F	2394062-2	1-2399608-2	2-2399608-2
G/H/J	2394062-3	1-2399608-3	2-2399608-3
K/L/M	2394062-4	1-2399608-4	2-2399608-4

POWERTUBE 1000

**90 DEGREE**

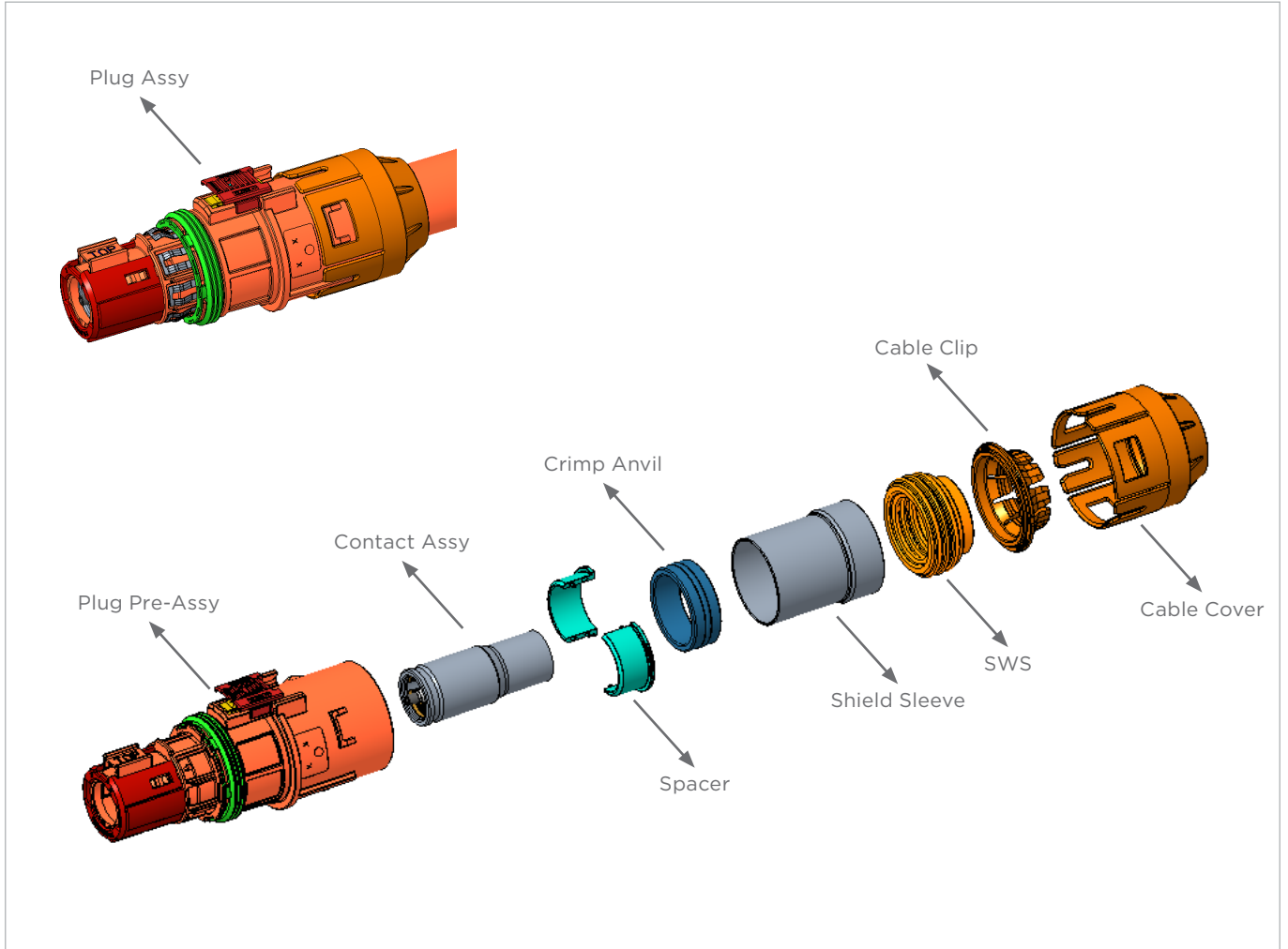
1 POSITION					
Coding	Front	Right	Back	Left	Top
A	2394070-1	2-2394070-1	4-2394070-1	6-2394070-1	8-2394070-1
B	2394070-2	2-2394070-2	4-2394070-2	6-2394070-2	8-2394070-2
C	2394070-3	2-2394070-3	4-2394070-3	6-2394070-3	8-2394070-3
D	2394070-4	2-2394070-4	4-2394070-4	6-2394070-4	8-2394070-4
E	2394070-5	2-2394070-5	4-2394070-5	6-2394070-5	8-2394070-5
F	2394070-6	2-2394070-6	4-2394070-6	6-2394070-6	8-2394070-6
G	2394070-7	2-2394070-7	4-2394070-7	6-2394070-7	8-2394070-7
H	2394070-8	2-2394070-8	4-2394070-8	6-2394070-8	8-2394070-8
J	2394070-9	2-2394070-9	4-2394070-9	6-2394070-9	8-2394070-9
K	1-2394070-1	3-2394070-1	5-2394070-1	7-2394070-1	9-2394070-1
L	1-2394070-2	3-2394070-2	5-2394070-2	7-2394070-2	9-2394070-2
M	1-2394070-3	3-2394070-3	5-2394070-3	7-2394070-3	9-2394070-3

2 POSITIONS			
Coding	Front	Back	Top
A/B	2394071-1	1-2394071-1	2-2394071-1
C/D	2394071-2	1-2394071-2	2-2394071-2
E/F	2394071-3	1-2394071-3	2-2394071-3
G/H	2394071-4	1-2394071-4	2-2394071-4
J/K	2394071-5	1-2394071-5	2-2394071-5
L/M	2394071-6	1-2394071-6	2-2394071-6

3 POSITIONS			
Coding	Front	Back	Top
A/B/C	2394072-1	1-2394072-1	2-2394072-1
D/E/F	2394072-2	1-2394072-2	2-2394072-2
G/H/J	2394072-3	1-2394072-3	2-2394072-3
K/L/M	2394072-4	1-2394072-4	2-2394072-4



**PLUG - 35-70 MM<sup>2</sup> (CRIMPED & EMPT VERSIONS)**



**PLUG - 35 MM<sup>2</sup> - FINGER & TOOL (CRIMPED VERSION)**

	Coding	Plug Pre-Assy	Contact Assy	Spacer	Crimp Anvil	Shield Sleeve	SWS	Cable Clip	Cable Cover
CABLE 35 mm <sup>2</sup> Finger access	Code A	2394085-1	2395861-1	2395861-1	2383855-1	2383853-6	2394111-1	2394112-1	2394113-1
	Code B	2394085-2							
	Code C	2394085-3							
	Code D	2394085-4							
	Code E	2394085-5							
	Code F	2394085-6							
	Code G	2394085-7							
	Code H	2394085-8							
	Code J	2394085-9							
	Code K	1-2394085-1							
	Code L	1-2394085-2							
	Code M	1-2394085-3							
	CABLE 35 mm <sup>2</sup> Tool access	Code A							
Code B		2-2394085-2							
Code C		2-2394085-3							
Code D		2-2394085-4							
Code E		2-2394085-5							
Code F		2-2394085-6							
Code G		2-2394085-7							
Code H		2-2394085-8							
Code J		2-2394085-9							
Code K		3-2394085-1							
Code L		3-2394085-2							
Code M		3-2394085-3							

**PLUG - 50 MM<sup>2</sup> - FINGER & TOOL (CRIMPED VERSION)**

	<b>Coding</b>	<b>Plug Pre-Assy</b>	<b>Contact Assy</b>	<b>Spacer</b>	<b>Crimp Anvil</b>	<b>Shield Sleeve</b>	<b>SWS</b>	<b>Cable Clip</b>	<b>Cable Cover</b>
CABLE 50 mm <sup>2</sup> Finger access	Code A	2394085-1	2383445-2	2395861-2	2383855-2	2383853-4	2394111-2	2394112-2	2394113-2
	Code B	2394085-2							
	Code C	2394085-3							
	Code D	2394085-4							
	Code E	2394085-5							
	Code F	2394085-6							
	Code G	2394085-7							
	Code H	2394085-8							
	Code J	2394085-9							
	Code K	1-2394085-1							
	Code L	1-2394085-2							
	Code M	1-2394085-3							
	CABLE 50 mm <sup>2</sup> Tool access	Code A							
Code B		2-2394085-2							
Code C		2-2394085-3							
Code D		2-2394085-4							
Code E		2-2394085-5							
Code F		2-2394085-6							
Code G		2-2394085-7							
Code H		2-2394085-8							
Code J		2-2394085-9							
Code K		3-2394085-1							
Code L		3-2394085-2							
Code M		3-2394085-3							



**PLUG - 70 MM<sup>2</sup> - FINGER & TOOL (CRIMPED VERSION)**

	Coding	Plug Pre-Assy	Contact Assy	Spacer	Crimp Anvil	Shield Sleeve	SWS	Cable Clip	Cable Cover
CABLE 70 mm <sup>2</sup> Finger access	Code A	2394085-1	2383445-3	2395861-3	2383855-3	2383853-2	2394111-3	2394112-3	2394113-3
	Code B	2394085-2							
	Code C	2394085-3							
	Code D	2394085-4							
	Code E	2394085-5							
	Code F	2394085-6							
	Code G	2394085-7							
	Code H	2394085-8							
	Code J	2394085-9							
	Code K	1-2394085-1							
	Code L	1-2394085-2							
	Code M	1-2394085-3							
	CABLE 70 mm <sup>2</sup> Tool access	Code A							
Code B		2-2394085-2							
Code C		2-2394085-3							
Code D		2-2394085-4							
Code E		2-2394085-5							
Code F		2-2394085-6							
Code G		2-2394085-7							
Code H		2-2394085-8							
Code J		2-2394085-9							
Code K		3-2394085-1							
Code L		3-2394085-2							
Code M		3-2394085-3							

**PLUG - 35 MM<sup>2</sup> - FINGER & TOOL (EMPT VERSION)**

	<b>Coding</b>	<b>Plug Pre-Assy</b>	<b>Contact Assy</b>	<b>Spacer</b>	<b>Crimp Anvil</b>	<b>Shield Sleeve</b>	<b>SWS</b>	<b>Cable Clip</b>	<b>Cable Cover</b>
CABLE 35 mm <sup>2</sup> Finger Access	Code A	2394085-1	2383445-4	2395861-1	2410636-1	2410635-1	2394111-1	2394112-1	2394113-1
	Code B	2394085-2							
	Code C	2394085-3							
	Code D	2394085-4							
	Code E	2394085-5							
	Code F	2394085-6							
	Code G	2394085-7							
	Code H	2394085-8							
	Code J	2394085-9							
	Code K	1-2394085-1							
	Code L	1-2394085-2							
	Code M	1-2394085-3							
	CABLE 35 mm <sup>2</sup> Tool Access	Code A							
Code B		2-2394085-2							
Code C		2-2394085-3							
Code D		2-2394085-4							
Code E		2-2394085-5							
Code F		2-2394085-6							
Code G		2-2394085-7							
Code H		2-2394085-8							
Code J		2-2394085-9							
Code K		3-2394085-1							
Code L		3-2394085-2							
Code M		3-2394085-3							

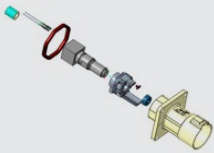
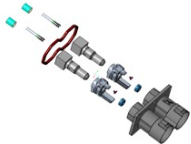
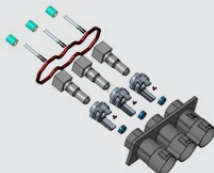
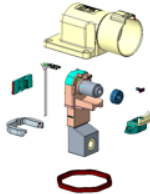
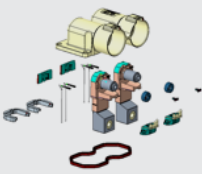
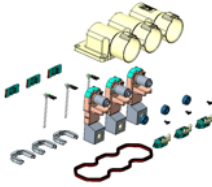
**PLUG - 50 MM<sup>2</sup> - FINGER & TOOL (EMPT VERSION)**

	<b>Coding</b>	<b>Plug Pre-Assy</b>	<b>Contact Assy</b>	<b>Spacer</b>	<b>Crimp Anvil</b>	<b>Shield Sleeve</b>	<b>SWS</b>	<b>Cable Clip</b>	<b>Cable Cover</b>
CABLE 50 mm <sup>2</sup> Finger access	Code A	2394085-1	2383445-5	2395861-2	2410636-2	2410635-1	2394111-2	2394112-2	2394113-2
	Code B	2394085-2							
	Code C	2394085-3							
	Code D	2394085-4							
	Code E	2394085-5							
	Code F	2394085-6							
	Code G	2394085-7							
	Code H	2394085-8							
	Code J	2394085-9							
	Code K	1-2394085-1							
	Code L	1-2394085-2							
	Code M	1-2394085-3							
	CABLE 50 mm <sup>2</sup> Tool access	Code A							
Code B		2-2394085-2							
Code C		2-2394085-3							
Code D		2-2394085-4							
Code E		2-2394085-5							
Code F		2-2394085-6							
Code G		2-2394085-7							
Code H		2-2394085-8							
Code J		2-2394085-9							
Code K		3-2394085-1							
Code L		3-2394085-2							
Code M		3-2394085-3							

**PLUG - 70 MM<sup>2</sup> - FINGER & TOOL (EMPT VERSION)**

	<b>Coding</b>	<b>Plug Pre-Assy</b>	<b>Contact Assy</b>	<b>Spacer</b>	<b>Crimp Anvil</b>	<b>Shield Sleeve</b>	<b>SWS</b>	<b>Cable Clip</b>	<b>Cable Cover</b>
CABLE 70 mm <sup>2</sup> Finger Access	Code A	2394085-1	2383445-6	2395861-3	2410636-3	2410635-1	2394111-3	2394112-3	2394113-3
	Code B	2394085-2							
	Code C	2394085-3							
	Code D	2394085-4							
	Code E	2394085-5							
	Code F	2394085-6							
	Code G	2394085-7							
	Code H	2394085-8							
	Code J	2394085-9							
	Code K	1-2394085-1							
	Code L	1-2394085-2							
	Code M	1-2394085-3							
	CABLE 70 mm <sup>2</sup> Tool Access	Code A							
Code B		2-2394085-2							
Code C		2-2394085-3							
Code D		2-2394085-4							
Code E		2-2394085-5							
Code F		2-2394085-6							
Code G		2-2394085-7							
Code H		2-2394085-8							
Code J		2-2394085-9							
Code K		3-2394085-1							
Code L		3-2394085-2							
Code M		3-2394085-3							

**POWERTUBE 1400**

Basic Part Number	Description	Picture	With Nut (Y/N)
2399606	1POS,PIN DIA 14.0 HDR ASSY,180DEG.UNSEALED		Y
2399607	2POS,PIN DIA 14.0 HDR ASSY,1800DEG.UNSEALED		Y
2399608	3POS,PIN DIA 14.0 HDR ASSY,180DEG.UNSEALED		Y
2399609	1POS,PIN DIA 14.0 HDR ASSY,90DEG.UNSEALED		Y
2399610	2POS,PIN DIA 14.0 HDR ASSY,90DEG.UNSEALED		Y
2399611	3POS,PIN DIA 14.0 HDR ASSY,90DEG.UNSEALED		Y



**180 DEGREE**

1 POSITION					
Coding	Front	Right	Back	Left	Top
A	2399606-1	2-2399606-1	4-2399606-1	6-2399606-1	8-2399606-1
B	2399606-2	2-2399606-2	4-2399606-2	6-2399606-2	8-2399606-2
C	2399606-3	2-2399606-3	4-2399606-3	6-2399606-3	8-2399606-3
D	2399606-4	2-2399606-4	4-2399606-4	6-2399606-4	8-2399606-4
E	2399606-5	2-2399606-5	4-2399606-5	6-2399606-5	8-2399606-5
F	2399606-6	2-2399606-6	4-2399606-6	6-2399606-6	8-2399606-6
G	2399606-7	2-2399606-7	4-2399606-7	6-2399606-7	8-2399606-7
H	2399606-8	2-2399606-8	4-2399606-8	6-2399606-8	8-2399606-8
J	2399606-9	2-2399606-9	4-2399606-9	6-2399606-9	8-2399606-9
K	1-2399606-1	3-2399606-1	5-2399606-1	7-2399606-1	9-2399606-1
L	1-2399606-2	3-2399606-2	5-2399606-2	7-2399606-2	9-2399606-2
M	1-2399606-3	3-2399606-3	5-2399606-3	7-2399606-3	9-2399606-3

2 POSITIONS			
Coding	Front	Back	Top
A/B	2399607-1	1-2399607-1	2-2399607-1
C/D	2399607-2	1-2399607-2	2-2399607-2
E/F	2399607-3	1-2399607-3	2-2399607-3
G/H	2399607-4	1-2399607-4	2-2399607-4
J/K	2399607-5	1-2399607-5	2-2399607-5
L/M	2399607-6	1-2399607-6	2-2399607-6

3 POSITIONS			
Coding	Front	Back	Top
A/B/C	2399608-1	1-2399608-1	2-2399608-1
D/E/F	2399608-2	1-2399608-2	2-2399608-2
G/H/J	2399608-3	1-2399608-3	2-2399608-3
K/L/M	2399608-4	1-2399608-4	2-2399608-4

POWERTUBE 1400

**90 DEGREE**

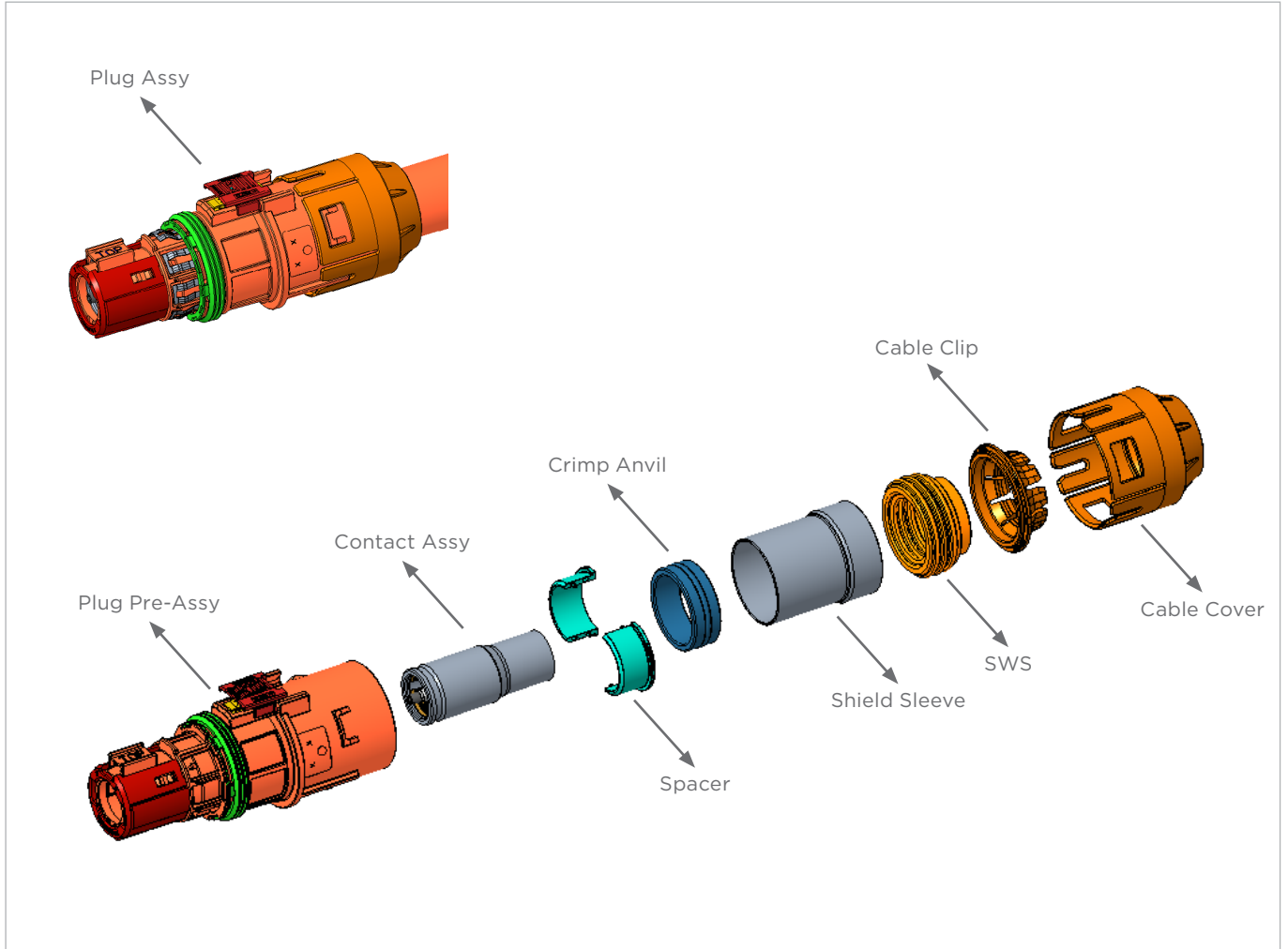
POWERTUBE 1400

1 POSITION					
Coding	Front	Right	Back	Left	Top
A	2399609-1	2-2399609-1	4-2399609-1	6-2399609-1	8-2399609-1
B	2399609-2	2-2399609-2	4-2399609-2	6-2399609-2	8-2399609-2
C	2399609-3	2-2399609-3	4-2399609-3	6-2399609-3	8-2399609-3
D	2399609-4	2-2399609-4	4-2399609-4	6-2399609-4	8-2399609-4
E	2399609-5	2-2399609-5	4-2399609-5	6-2399609-5	8-2399609-5
F	2399609-6	2-2399609-6	4-2399609-6	6-2399609-6	8-2399609-6
G	2399609-7	2-2399609-7	4-2399609-7	6-2399609-7	8-2399609-7
H	2399609-8	2-2399609-8	4-2399609-8	6-2399609-8	8-2399609-8
J	2399609-9	2-2399609-9	4-2399609-9	6-2399609-9	8-2399609-9
K	1-2399609-1	3-2399609-1	5-2399609-1	7-2399609-1	9-2399609-1
L	1-2399609-2	3-2399609-2	5-2399609-2	7-2399609-2	9-2399609-2
M	1-2399609-3	3-2399609-3	5-2399609-3	7-2399609-3	9-2399609-3

2 POSITIONS			
Coding	Front	Back	Top
A/B	2399610-1	1-2399610-1	2-2399610-1
C/D	2399610-2	1-2399610-2	2-2399610-2
E/F	2399610-3	1-2399610-3	2-2399610-3
G/H	2399610-4	1-2399610-4	2-2399610-4
J/K	2399610-5	1-2399610-5	2-2399610-5
L/M	2399610-6	1-2399610-6	2-2399610-6

3 POSITIONS			
Coding	Front	Back	Top
A/B/C	2399611-1	1-2399611-1	2-2399611-1
D/E/F	2399611-2	1-2399611-2	2-2399611-2
G/H/J	2399611-3	1-2399611-3	2-2399611-3
K/L/M	2399611-4	1-2399611-4	2-2399611-4

**PLUG - 70-120 MM<sup>2</sup> (WITH SPACER)**



**PLUG - 70 MM<sup>2</sup> - FINGER & TOOL**

	Coding	Plug Pre- Assy	Contact Assy	Spacer	Shield Sleeve	Crimp Anvil	SWS	Cable Clip	Cable Cover
CABLE 70 mm <sup>2</sup> Finger Access	Code A	2399663-1	2386340-1	2399666-1	2387548-1	2387549-1	2399667-1	2399668-1	2399669-1
	Code B	2399663-2							
	Code C	2399663-3							
	Code D	2399663-4							
	Code E	2399663-5							
	Code F	2399663-6							
	Code G	2399663-7							
	Code H	2399663-8							
	Code J	2399663-9							
	Code K	1-2399663-1							
	Code L	1-2399663-2							
	Code M	1-2399663-3							
	CABLE 70 mm <sup>2</sup> Tool Access	Code A							
Code B		2-2399663-2							
Code C		2-2399663-3							
Code D		2-2399663-4							
Code E		2-2399663-5							
Code F		2-2399663-6							
Code G		2-2399663-7							
Code H		2-2399663-8							
Code J		2-2399663-9							
Code K		3-2399663-1							
Code L		3-2399663-2							
Code M		3-2399663-3							

**PLUG - 95 MM<sup>2</sup> - FINGER & TOOL**

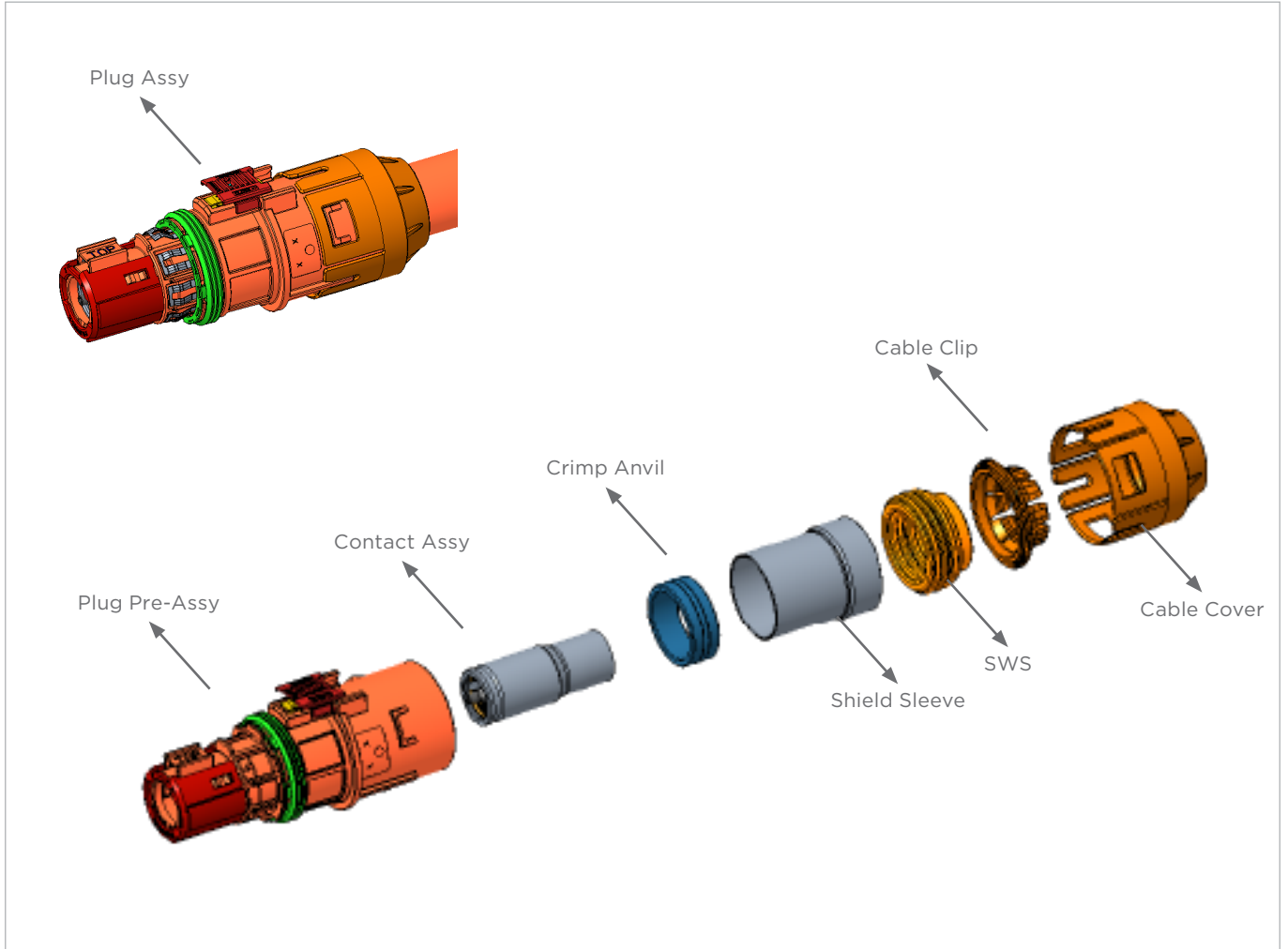
	<b>Coding</b>	<b>Plug Pre-Assey</b>	<b>Contact Assy</b>	<b>Spacer</b>	<b>Shield Sleeve</b>	<b>Crimp Anvil</b>	<b>SWS</b>	<b>Cable Clip</b>	<b>Cable Cover</b>
CABLE 95 mm <sup>2</sup> Finger Access	Code A	2399663-1	2386340-2	2399666-2	2387548-1	2387549-2	2399667-2	2399668-2	2399669-2
	Code B	2399663-2							
	Code C	2399663-3							
	Code D	2399663-4							
	Code E	2399663-5							
	Code F	2399663-6							
	Code G	2399663-7							
	Code H	2399663-8							
	Code J	2399663-9							
	Code K	1-2399663-1							
	Code L	1-2399663-2							
	Code M	1-2399663-3							
	CABLE 95 mm <sup>2</sup> Tool Access	Code A							
Code B		2-2399663-2							
Code C		2-2399663-3							
Code D		2-2399663-4							
Code E		2-2399663-5							
Code F		2-2399663-6							
Code G		2-2399663-7							
Code H		2-2399663-8							
Code J		2-2399663-9							
Code K		3-2399663-1							
Code L		3-2399663-2							
Code M		3-2399663-3							



**PLUG - 120MM<sup>2</sup> - FINGER & TOOL**

	Coding	Plug Pre- Assy	Contact Assy	Spacer	Shield Sleeve	Crimp Anvil	SWS	Cable Clip	Cable Cover
CABLE 120 mm <sup>2</sup> Finger Access	Code A	2399663-1	2386340-3	2399666-1	2387548-1	2387549-1	2399667-1	2399668-1	2399669-1
	Code B	2399663-2							
	Code C	2399663-3							
	Code D	2399663-4							
	Code E	2399663-5							
	Code F	2399663-6							
	Code G	2399663-7							
	Code H	2399663-8							
	Code J	2399663-9							
	Code K	1-2399663-1							
	Code L	1-2399663-2							
	Code M	1-2399663-3							
	CABLE 120 mm <sup>2</sup> Tool Access	Code A							
Code B		2-2399663-2							
Code C		2-2399663-3							
Code D		2-2399663-4							
Code E		2-2399663-5							
Code F		2-2399663-6							
Code G		2-2399663-7							
Code H		2-2399663-8							
Code J		2-2399663-9							
Code K		3-2399663-1							
Code L		3-2399663-2							
Code M		3-2399663-3							

**PLUG - 150 MM<sup>2</sup> (NO SPACER)**



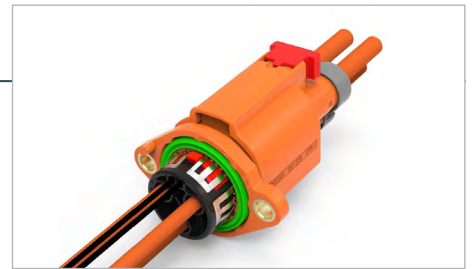
**PLUG - 150 MM<sup>2</sup> - FINGER & TOOL**

	<b>Coding</b>	<b>Plug Pre-Assy</b>	<b>Contact Assy</b>	<b>Shield Sleeve</b>	<b>Crimp Anvil</b>	<b>SWS</b>	<b>Cable Clip</b>	<b>Cable Cover</b>
CABLE 150 mm <sup>2</sup> Finger Access	Code A	2399663-1	2386340-4	2387548-1	2387549-1	2399667-1	2399668-1	2399669-1
	Code B	2399663-2						
	Code C	2399663-3						
	Code D	2399663-4						
	Code E	2399663-5						
	Code F	2399663-6						
	Code G	2399663-7						
	Code H	2399663-8						
	Code J	2399663-9						
	Code K	1-2399663-1						
	Code L	1-2399663-2						
	Code M	1-2399663-3						
	CABLE 150 mm <sup>2</sup> Tool Access	Code A						
Code B		2-2399663-2						
Code C		2-2399663-3						
Code D		2-2399663-4						
Code E		2-2399663-5						
Code F		2-2399663-6						
Code G		2-2399663-7						
Code H		2-2399663-8						
Code J		2-2399663-9						
Code K		3-2399663-1						
Code L		3-2399663-2						
Code M		3-2399663-3						



**HVA HD400**

Key Features & Benefits .....	28
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HVA HD400 Plug .....	30



## HVA HD400

### High performance and versatility in a compact package

TE's HIVONEX HVA HD400 high voltage accessories connector is just the connectivity system for the job. Compact and adaptable, the design allows for either 2 or 3 conductors in the same interface, handling 2.5, 4 and 6 mm<sup>2</sup> LV216 conductor cross sections single-core cabling (multi-core and ISO cabling on the way). Capable of handling up to 1000 VDC, and 60 A (at 80°C). With an operating temperature of -40°C to +140°C, dust and water ingress protection rating of IP68 and IP6K9K, contact position assurance (CPA), as well as ability to withstand transmission-level vibrations, the HVA HD400 connector can perform reliably in the most extreme of environments. Regardless of where in the vehicle the high voltage accessory is, you can deploy the HIVONEX HVA HD400 connector.

#### Key Features & Benefits

##### High Level of Performance

- Capable of handling up to 1000 VDC, and 60 A (at 80°C)
- Can withstand transmission-level vibrations
- Connector Position Assurance (CPA) for additional security
- High protection level - IP68 IP6K9K and sand and dust protection on lock structure

##### Form and Function

- 2 or 3 positions in same interface for compact design

##### Adaptability

- Designed for use with nearly any high voltage accessory in the vehicle
- Wide array of cable sizing: can handle 2.5, 4 and 6 mm<sup>2</sup> LV216 conductor cross-sections single-core cabling (multi-core and ISO cabling on the way)
- Available for automation cable assembly





## HVA HD400 Header

### DIMENSIONS



### PRODUCT FEATURES

<b>Contact System</b>	4 mm DIA
<b>Mounting Styles</b>	Cable to Panel
<b>Flammability Rating</b>	UL94-V0
<b>Positions</b>	2 or 3
<b>Coding</b>	A
<b>IP Rating</b>	IP68 / IP6K9K
<b>Operating Temp. Range</b>	-40°C to +140°C
<b>Product Specification</b>	108-160170
<b>Application Specification</b>	114-160095

### ORDER INFORMATION

	Cavities	Part Number	# / Assembly	
<b>Header</b>				
	2	2-2371113-1/-2/-3 3-2371113-1/-2	1	
	3	2371113-1/-2/-3 1-2371113-1/-2	1	
<b>Pin Terminal</b>	<b>Cable Size</b>			# / Assembly
	2.5 mm <sup>2</sup>	4.0 mm <sup>2</sup>	6.0 mm <sup>2</sup>	
	2349180-1	2349180-2	2349180-2	2 or 3
<b>Cap</b>	2389821-1			1



## HVA HD400 Plug

### DIMENSIONS



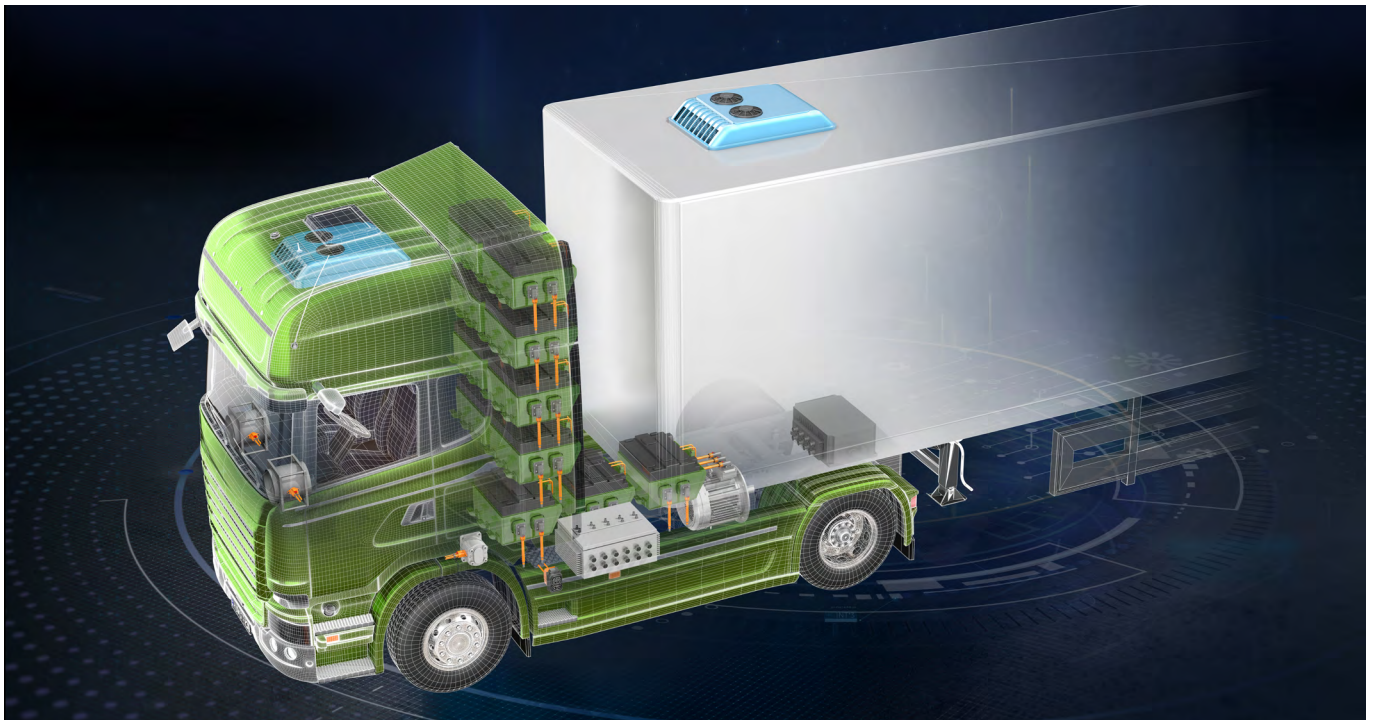
### PRODUCT FEATURES

<b>Contact System</b>	4 mm DIA
<b>Mounting Styles</b>	Cable to Panel
<b>Flammability Rating</b>	UL94-V0
<b>Positions</b>	2 or 3
<b>Coding</b>	A
<b>IP Rating</b>	IP68 / IP6K9K
<b>Operating Temp. Range</b>	-40°C to +140°C
<b>Product Specification</b>	108-160170
<b>Application Specification</b>	114-160093

### ORDER INFORMATION

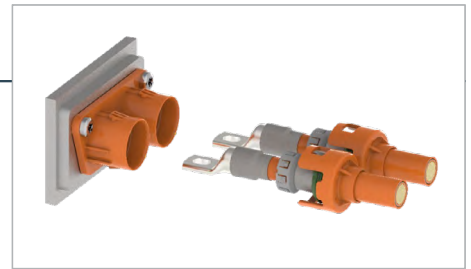
	Cavity	Part Number	# / Assembly	Picture
<b>Housing</b>	2	1-2371035-1/-2/-3	1	
	2	2371035-1/-2/-3	1	

	Cable Size			# / Assembly
	2.5 mm <sup>2</sup>	4.0 mm <sup>2</sup>	6.0 mm <sup>2</sup>	
<b>Socket Terminal</b>	2-2349177-1	2-2349177-2	2-2349177-2	2 or 3
<b>Outer Ferrule</b>	2371243-1	2371243-1	2371243-1	2 or 3
<b>Inner Ferrule</b>	2371242-1	2371242-2	2371242-3	2 or 3
<b>Single Wire Seal</b>	2371244-1	2371244-2	2371244-3	2 or 3
<b>Seal Retainer</b>	2371245-1	2371245-2	2371245-3	2 or 3
<b>Cap</b>	2420809-1			
<b>Blind</b>	2-2371035-1			



**IPT-HD**

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## IPT-HD

### Power Bolt High Voltage Connector

Part of the HIVONEX product suite for high voltage E-mobility, the IPT-HD power bolt connector is a bolted solution aimed at MCU (Motor Control Unit), E-axle, and E-motor applications. Designed to withstand extreme temperatures, and engine-level vibrations, it also offers a new shielding design to improve electromagnetic compatibility (EMC) performance. With support for up to 3 positions, 50, 70, and 95 mm<sup>2</sup> wire size, as well availability as pre-made wire harnesses, the IPT-HD power bolt connector can help increase assembly flexibility.

#### Key Features & Benefits:

##### Enhanced EMC Performance

- Low-contact resistance shielding – even after the vibration
- Handles excessive engine-level vibrations
- IP67, IP68 and IP6K9K sealing rated

##### Increased Assembly Efficiency

- Flexible assembly with single wiring harness
- Quick, easy machining of mounting holes

##### Broader Range of Applications

- 50/70/95 mm<sup>2</sup> conductor cross-sections
- ISO compliant / LV216
- MCU (Motor Control Unit), E-axle and E-motor applications

##### Enhanced EMC Performance

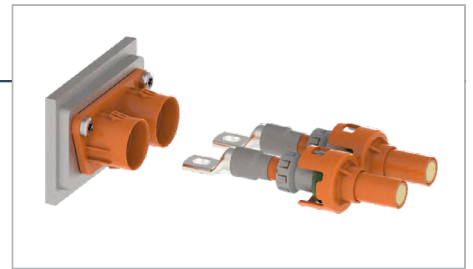
- Low-contact resistance shielding
- Handles excessive engine-level vibrations
- IP67, IP68 and IP6K9K sealing rated

##### Increased Assembly Efficiency

- Flexible assembly with single wiring harness
- Quick, easy machining of mounting holes

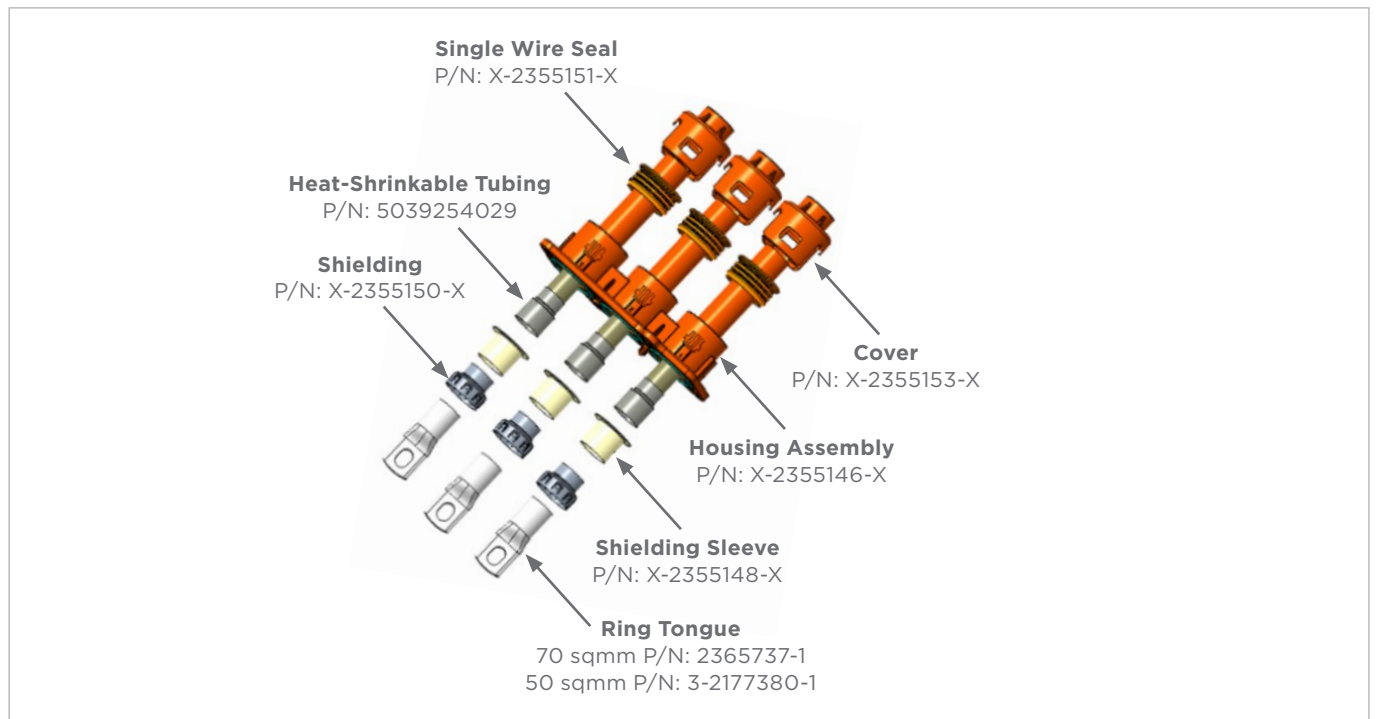
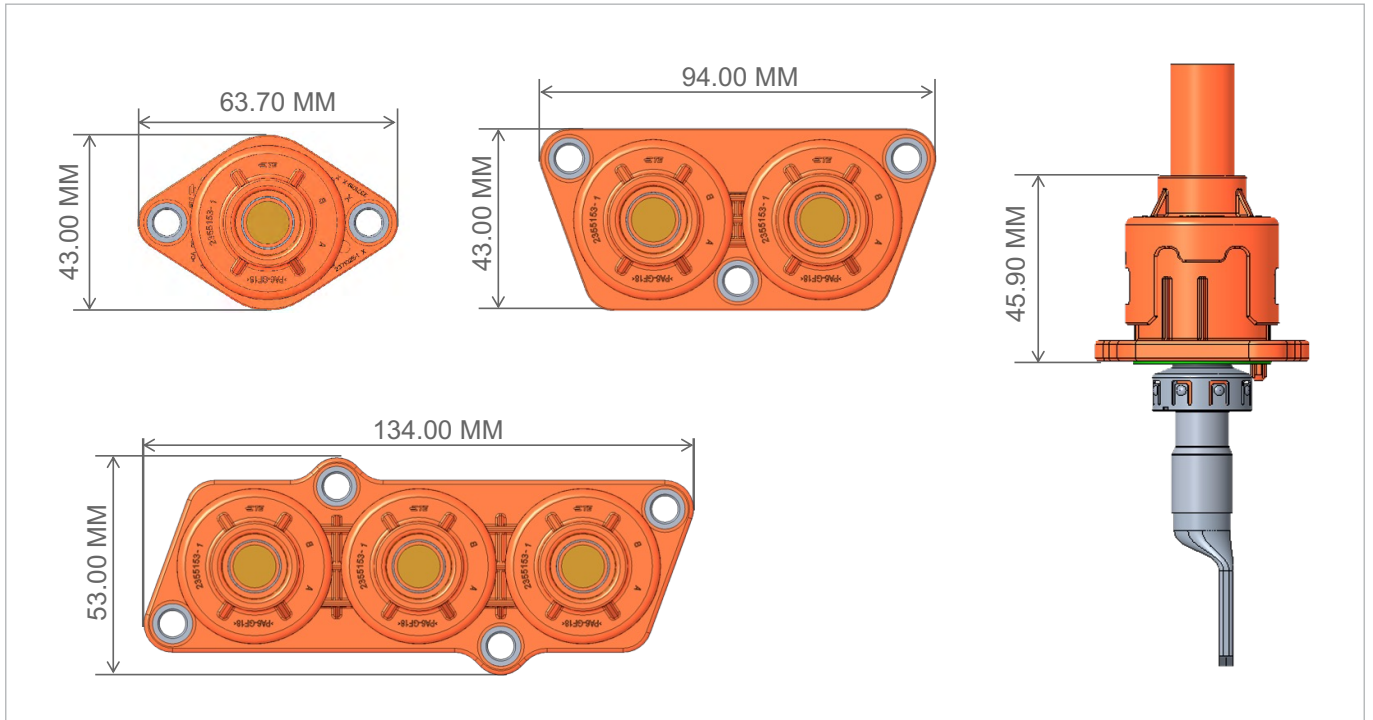
##### Broader Range of Applications

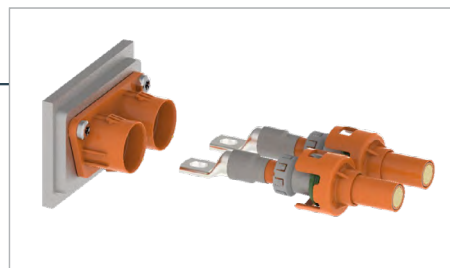
- 50/70/95 mm conductor cross-sections
- ISO Compliant/LV216
- MCU, E-axle, and E-motor applications



## IPT-HD

### DIMENSIONS





## IPT-HD

### PART NUMBERS

IPT-HD Power Bolt Connector Housing					Cable Assembly Components							
Cavity	Picture	With Shipping Cap	Without Shipping Cap	QPA	Description	QPA	LV216 Cable			ISO Cable		
							50 mm <sup>2</sup> Solution	70 mm <sup>2</sup> Solution	95 mm <sup>2</sup> Solution	50 mm <sup>2</sup> Solution	70 mm <sup>2</sup> Solution	95 mm <sup>2</sup> Solution
3		2355146-1	2355146-2	1	Shielding	3	2355150-4	2355150-2	2355148-4	2355150-4	2355150-2	2355150-8
					Shielding Sleeve	3	2355148-2	2355148-1	2355151-3	2355148-3	2355148-1	2355148-5
					Single Wire Seal	3	2355151-2	2355151-1	2355153-5	2355151-2	2355151-1	2355151-3
					Seal Cover	3	2355153-2	2355153-1	2365737-2	2355153-4	2355153-3	2355153-6
					Ring Tongue Terminal	3	3-2177380-1	2365737-1	2355150-8	3-2177380-1	2365737-1	2365737-2
2		2371017-1	2371017-2	1	Shielding	2	2355150-4	2355150-2	2355148-4	2355150-4	2355150-2	2355150-8
					Shielding Sleeve	2	2355148-2	2355148-1	2355151-3	2355148-3	2355148-1	2355148-5
					Single Wire Seal	2	2355151-2	2355151-1	2355153-5	2355151-2	2355151-1	2355151-3
					Seal Cover	2	2355153-2	2355153-1	2365737-2	2355153-4	2355153-3	2355153-6
					Ring Tongue Terminal	2	3-2177380-1	2365737-1	2355150-8	3-2177380-1	2365737-1	2365737-2
1		2371019-1	2371019-2	1	Shielding	1	2355150-4	2355150-2	2355148-4	2355150-4	2355150-2	2355150-8
					Shielding Sleeve	1	2355148-2	2355148-1	2355151-3	2355148-3	2355148-1	2355148-5
					Single Wire Seal	1	2355151-2	2355151-1	2355153-5	2355151-2	2355151-1	2355151-3
					Seal Cover	1	2355153-2	2355153-1	2365737-2	2355153-4	2355153-3	2355153-6
					Ring Tongue Terminal	1	3-2177380-1	2365737-1	2365737-2	3-2177380-1	2365737-1	2365737-2





**Charging Inlets**

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**Charging Inlet Pigtail Cable Assemblies**

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## Charging Inlets

### High performance and versatility in a compact package

As hybrid and electric vehicles claim their share of the industrial and commercial transportation market, it's vital to ensure that designs enable fast, secure charging without compromising on the ruggedness required on the field. TE Connectivity's HIVONEX charging inlets are ready to meet these challenges. While connectivity inside a hybrid or electric vehicle requires high standards and safety, none are as likely to be interacted with as much as the charging port. Ensuring that it's easy, safe, and reliable even in extreme conditions is a necessity, for the good of the vehicle, as well as everyone that operates or maintains it. TE's HIVONEX charging inlets, built specifically for industrial and commercial vehicles, are the right choice for facing the challenge.

#### Key Features & Benefits:

##### Modular Design

- Cable exits to left and right side
- Optional LED charging indicator for end-user ease of use
- Optional snap-on protective flaps with choice of opening direction

##### Built for Industrial and Commercial Vehicle Applications

- Capable of 10,000 mating cycles, while charging at 250 VAC (at 32 A), and 1000 VDC (at 250 A)
- Larger cable sizes than what's seen in the Automotive market – DC 70 mm<sup>2</sup>/PE 25 mm<sup>2</sup>/AC 6 mm<sup>2</sup>
- Enhanced safety features: integrated actuator for end position sensing, integrated PT1000 temperature sensors for enhanced temperature monitoring

##### Simplify Your Supply Chain

- Pre-made kits available from TE and key distributors
- Pigtail cable assemblies available in 1.5 m or 3 m length



## Charging Inlets

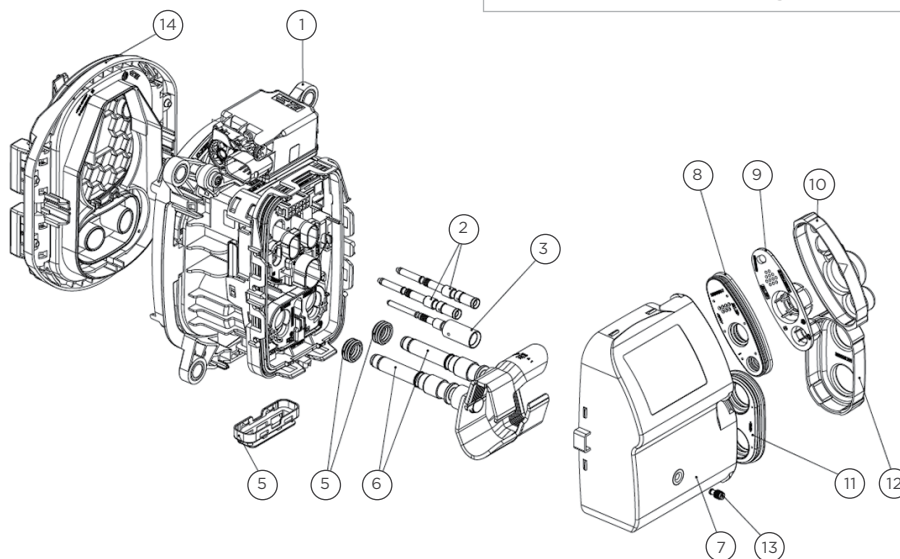
### Charging Inlets CCS1 Kit without LED indicator

**Cable Size** DC 70 mm<sup>2</sup>  
PE 25 mm<sup>2</sup>  
AC 6 mm<sup>2</sup>

**Application Specification** 114-94674

**Product Specification** 108-94803

**Pigtail PN** See **pigtail PN ordering information pages** for details



### BILL OF MATERIALS

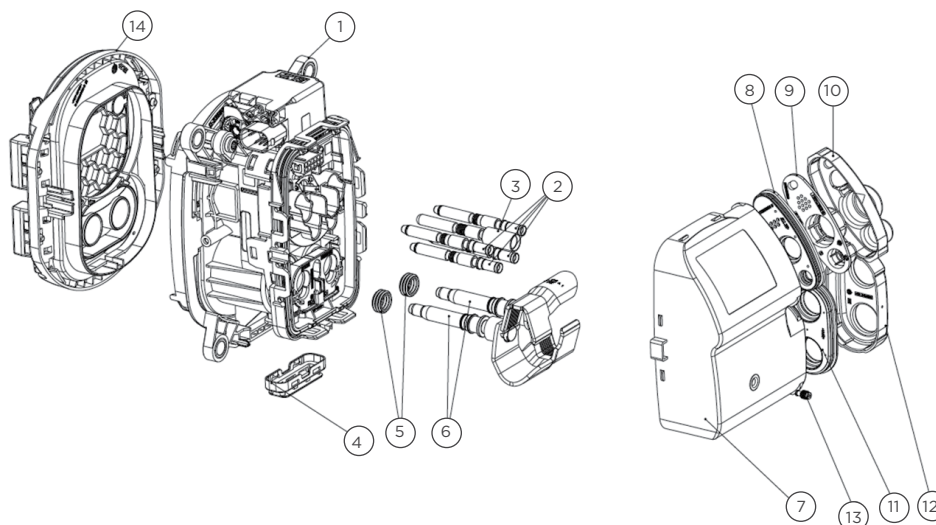
Flap Opening Direction	Right	Right	Left	Left	No Flap	No Flap	Part Number	Description	Item	
	Cable Exits Direction	Right	Left	Right	Left	Right				Left
Quantity required per assembly		1	1	-	-	-	-	2358664-3	Flap, Assy, Inlet Combo 1, right	14
		-	-	1	1	-	-	2358664-1	Flap, Assy, Inlet Combo 1, left	14
		1	1	1	1	1	1	963143-1	MQS Sealing Plug	13
		1	1	1	1	1	1	2366667-1	Cover, Cable Seal, Combo DC	12
		1	1	1	1	1	1	2366539-1	Family Seal, Combo DC	11
		1	1	1	1	1	1	2296057-2	Cover, Cable Seal, AC	10
		1	1	1	1	1	1	2367140-2	Strain Relief, AC	9
		1	1	1	1	1	1	2350592-7	Family Seal, AC	8
		1	-	1	-	1	-	1-2303200-2	Cable Exit, Rec, Combo right	7
		-	1	-	1	-	1	1-2303200-1	Cable Exit, Rec, Combo left	7
		2	2	2	2	2	2	2306180-1	ø 8 mm, Pin Terminal	6
		2	2	2	2	2	2	2120571-1	Sealing	5
		1	1	1	1	1	1	2292534-1	Protection Cap Charge Inlets	4
		1	1	1	1	1	1	2293267-5	ø 2.8 mm, Pin Terminal, PE 25 mm <sup>2</sup>	3
		2	2	2	2	2	2	2293266-3	ø 3.6 mm, Pin Terminal	2
	1	1	1	1	1	1	2366402-1	Combo 1, Charge Inlet Assy, without LED	1	
<b>Kit Part Number</b>	2375501-6	2375501-5	2375501-4	2375501-3	2375501-2	2375501-1				



## Charging Inlets

### Charging Inlets CCS2 Kit without LED indicator

<b>Cable Size</b>	DC 70 mm <sup>2</sup> PE 25 mm <sup>2</sup> AC 6 mm <sup>2</sup>
<b>Application Specification</b>	114-94675
<b>Product Specification</b>	108-94804
<b>Pigtail PN</b>	See <b>pigtail PN ordering information pages</b> for details



### BILL OF MATERIALS

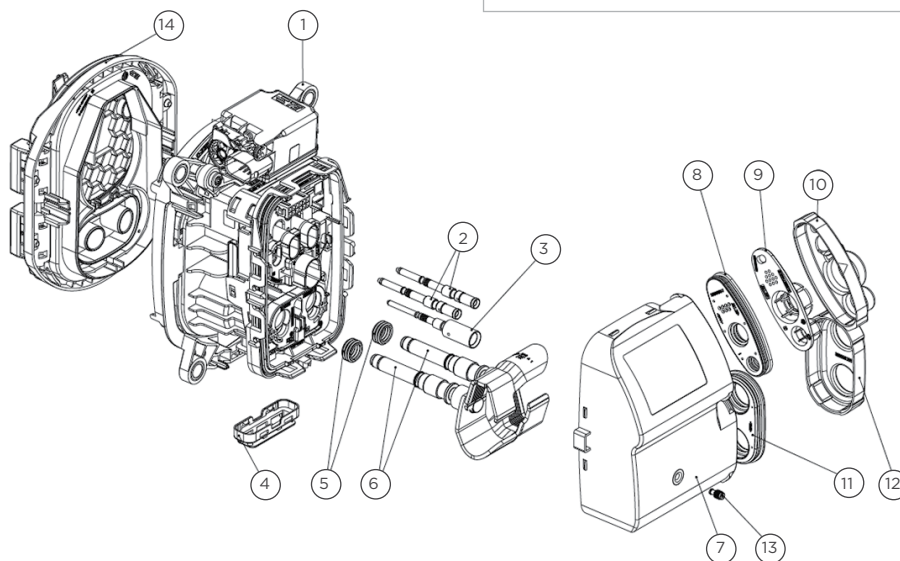
Flap Opening Direction	Right	Right	Left	Left	No Flap	No Flap	Part Number	Description	Item	
	Cable Exits Direction	Right	Left	Right	Left	Right				Left
Quantity required per assembly		1	1	-	-	-	2358664-4	Flap, Assy, Inlet Combo 1, right	14	
		-	-	1	1	-	2358664-2	Flap, Assy, Inlet Combo 1, left	14	
		1	1	1	1	1	963143-1	MQS Sealing Plug	13	
		1	1	1	1	1	2366667-1	Cover, Cable Seal, Combo DC	12	
		1	1	1	1	1	2366539-1	Family Seal, Combo DC	11	
		1	1	1	1	1	2296057-2	Cover, Cable Seal, AC	10	
		1	1	1	1	1	2367140-1	Strain Relief, AC	9	
		1	1	1	1	1	1-2350592-5	Family Seal, AC	8	
		1	-	1	-	1	-	1-2303200-2	Cable Exit, Rec, Combo right	7
		-	1	-	1	-	1	1-2303200-1	Cable Exit, Rec, Combo left	7
		2	2	2	2	2	2	2306177-1	ø 8 mm, Pin Terminal	6
		2	2	2	2	2	2	2120571-1	Sealing	5
		1	1	1	1	1	1	2292534-1	Protection Cap Charge Inlets	4
		1	1	1	1	1	1	2293270-5	Pin ø 6 mm, rigid, Power PE	3
		4	4	4	4	4	4	2293269-3	ø.6 mm, Pin Terminal	2
	1	1	1	1	1	1	2377400-1	Combo 2, Charge Inlet Assy, without LED	1	
<b>Kit Part Number</b>	2375502-6	2375502-5	2375502-4	2375502-3	2375502-2	2375502-1				



## Charging Inlets

### Charging Inlets CCS1 Kit with LED indicator

<b>Cable Size</b>	DC 70 mm <sup>2</sup> PE 25 mm <sup>2</sup> AC 6 mm <sup>2</sup>
<b>Application Specification</b>	114-94722
<b>Product Specification</b>	108-94838
<b>Pigtail PN</b>	See <b>pigtail PN ordering information pages</b> for details



### BILL OF MATERIALS

Flap Opening Direction	Right	Right	Left	Left	No Flap	No Flap	Part Number	Description	Item	
	Cable Exits Direction	Right	Left	Right	Left	Right				Left
Quantity required per assembly		1	1	-	-	-	-	2358664-7	Flap, Assy, Inlet Combo 1, right	14
		-	-	1	1	-	-	2358664-5	Flap, Assy, Inlet Combo 1, left	14
		1	1	1	1	1	1	963143-1	MQS Sealing Plug	13
		1	1	1	1	1	1	2366667-1	Cover, Cable Seal, Combo DC	12
		1	1	1	1	1	1	2366539-1	Family Seal, Combo DC	11
		1	1	1	1	1	1	2296057-2	Cover, Cable Seal, AC	10
		1	1	1	1	1	1	2367140-2	Strain Relief, AC	9
		1	1	1	1	1	1	2366865-4	Family Seal, AC	8
		1	-	1	-	1	-	1-2303200-2	Cable Exit, Rec, Combo right	7
		-	1	-	1	-	1	1-2303200-1	Cable Exit, Rec, Combo left	7
		2	2	2	2	2	2	2306180-1	ø 8 mm, Pin Terminal	6
		2	2	2	2	2	2	2120571-1	Sealing	5
		1	1	1	1	1	1	2292534-1	Protection Cap Charge Inlets	4
		1	1	1	1	1	1	2293267-5	ø 2.8 mm, Pin Terminal, PE 25 mm <sup>2</sup>	3
		2	2	2	2	2	2	2293266-3	ø 3.6 mm, Pin Terminal	2
	1	1	1	1	1	1	2381070-1	Combo 1, Charge Inlet Assy, with LED	1	
<b>Kit Part Number</b>	2388501-6	2388501-5	2388501-4	2388501-3	2388501-2	2388501-1				





## Charging Inlets

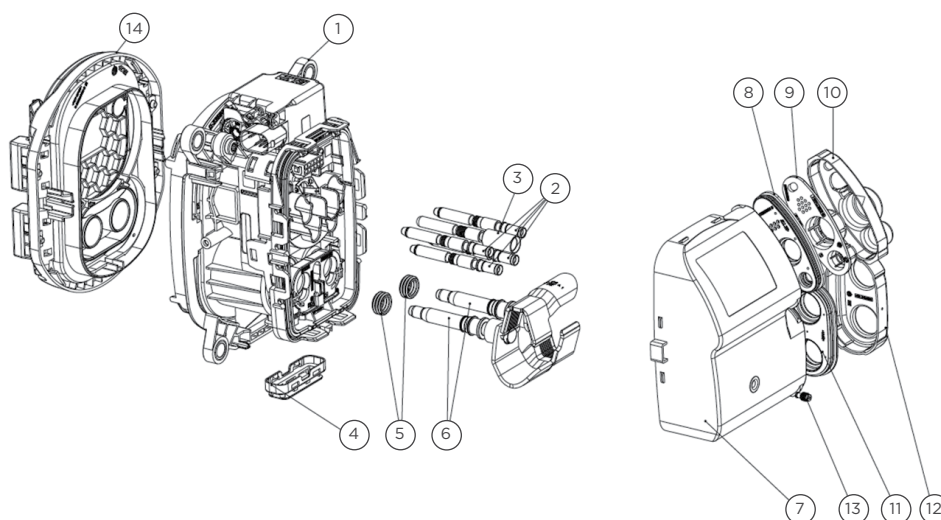
### Charging Inlets CCS2 Kit with LED indicator

**Cable Size** DC 70 mm<sup>2</sup>  
PE 25 mm<sup>2</sup>  
AC 6 mm<sup>2</sup>

**Application Specification** 114-94723

**Product Specification** 108-94839

**Pigtail PN** See **pigtail PN ordering information pages** for details



### BILL OF MATERIALS

Flap Opening Direction	Right	Right	Left	Left	No Flap	No Flap	Part Number	Description	Item	
	Cable Exits Direction	Right	Left	Right	Left	Right				Left
Quantity required per assembly		1	1	-	-	-	-	2358664-8	Flap, Assy, Inlet Combo 1, right	14
		-	-	1	1	-	-	2358664-6	Flap, Assy, Inlet Combo 1, left	14
		1	1	1	1	1	1	963143-1	MQS Sealing Plug	13
		1	1	1	1	1	1	2366667-1	Cover, Cable Seal, Combo DC	12
		1	1	1	1	1	1	2366539-1	Family Seal, Combo DC	11
		1	1	1	1	1	1	2296057-2	Cover, Cable Seal, AC	10
		1	1	1	1	1	1	2367140-1	Strain Relief, AC	9
		1	1	1	1	1	1	2366865-3	Family Seal, AC	8
		1	-	1	-	1	-	1-2303200-2	Cable Exit, Rec, Combo right	7
		-	1	-	1	-	1	1-2303200-1	Cable Exit, Rec, Combo left	7
		2	2	2	2	2	2	2306177-1	ø 8 mm, Pin Terminal	6
		2	2	2	2	2	2	2120571-1	Sealing	5
		1	1	1	1	1	1	2292534-1	Protection Cap Charge Inlets	4
		1	1	1	1	1	1	2293270-5	Pin ø 6 mm, rigid, Power PE	3
		4	4	4	4	4	4	2293269-3	ø.6 mm, Pin Terminal	2
	1	1	1	1	1	1	2379769-1	Combo 2, Charge Inlet Assy, without LED	1	
<b>Kit Part Number</b>	2388502-6	2388502-5	2388502-4	2388502-3	2388502-2	2388502-1				

## Charging Inlet Pigtail Cable Assemblies

### LED Version

PN	Variant	Pigtail Length	LED?	Flap Direction	Cable Exit Direction
2393947-1	CCS1	1.5 m	Yes	No Flap	Left
2393947-2				No Flap	Right
2393947-3				Left Flap	Left
2393947-4				Left Flap	Right
2393947-5				Right Flap	Left
2393947-6				Right Flap	Right
1-2393947-1		3 m	Yes	No Flap	Left
1-2393947-2				No Flap	Right
1-2393947-3				Left Flap	Left
1-2393947-4				Left Flap	Right
1-2393947-5				Right Flap	Left
1-2393947-6				Right Flap	Right
2393949-1	CCS2	1.5 m	Yes	No Flap	Left
2393949-2				No Flap	Right
2393949-3				Left Flap	Left
2393949-4				Left Flap	Right
2393949-5				Right Flap	Left
2393949-6				Right Flap	Right
1-2393949-1		3 m	Yes	No Flap	Left
1-2393949-2				No Flap	Right
1-2393949-3				Left Flap	Left
1-2393949-4				Left Flap	Right
1-2393949-5				Right Flap	Left
1-2393949-6				Right Flap	Right



## Charging Inlet Pigtail Cable Assemblies

### Non-LED Version

PN	Variant	Pigtail Length	LED?	Flap Direction	Cable Exit Direction
2377168-1	CCS1	1.5 m	N/A	No Flap	Left
2377168-2				No Flap	Right
2377168-3				Left Flap	Left
2377168-4				Left Flap	Right
2377168-5				Right Flap	Left
2377168-6				Right Flap	Right
1-2377168-1		3 m		No Flap	Left
1-2377168-2				No Flap	Right
1-2377168-3				Left Flap	Left
1-2377168-4				Left Flap	Right
1-2377168-5				Right Flap	Left
1-2377168-6				Right Flap	Right
2377698-1	CCS2	1.5 m	N/A	No Flap	Left
2377698-2				No Flap	Right
2377698-3				Left Flap	Left
2377698-4				Left Flap	Right
2377698-5				Right Flap	Left
2377698-6				Right Flap	Right
1-2377698-1		3 m		No Flap	Left
1-2377698-2				No Flap	Right
1-2377698-3				Left Flap	Left
1-2377698-4				Left Flap	Right
1-2377698-5				Right Flap	Left
1-2377698-6				Right Flap	Right



**AMP+ IPT Shielded Ring Tongue Kits**

**1 Position, 70 mm<sup>2</sup>, Individually Shielded Cable**

A Keying .....	44
B Keying .....	45

**1 Position, 95 mm<sup>2</sup>, Individually Shielded Cable**

A Keying .....	46
A Keying .....	47
B Keying .....	48

**1 Position, 120 mm<sup>2</sup>, Individually Shielded Cable**

A Keying .....	49
----------------	----

**2 Position, 50 mm<sup>2</sup>, Individually Shielded Cable**

A Keying .....	50
----------------	----

**3 Position, 50 mm<sup>2</sup>, Individually Shielded Cable**

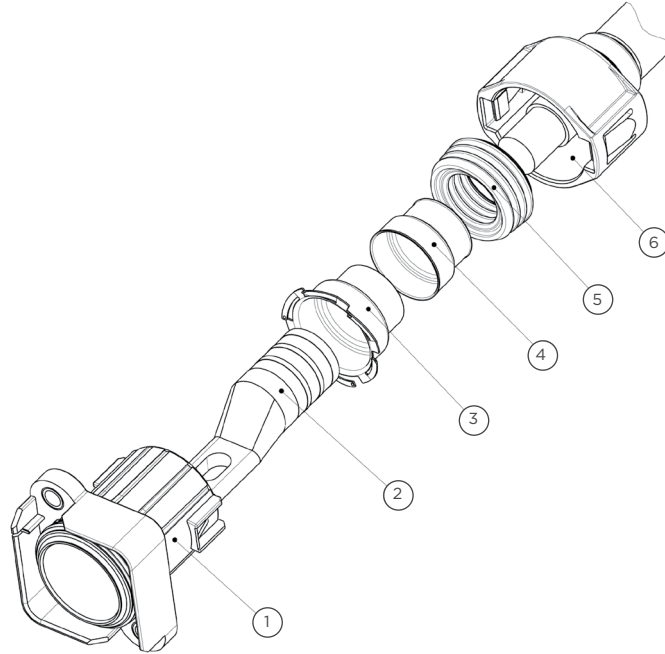
Keying N/A .....	51
------------------	----



## AMP+ High Current Connectors and Headers

### AMP+ IPT

Kit Number **YIPT-1PXI-70MM-000**



#### AMP+ IPT CONNECTOR SERIES

<b>Position</b>	1
<b>Cable Size</b>	70 mm <sup>2</sup>
<b>Wire Type</b>	Individually Shielded
<b>HVIL</b>	Not present
<b>Key Coding</b>	A
<b>Validated Cables</b>	HEW-KABEL 50560
	Gebauer & Griller 88910
	Huber+Suhner 84 100 298
<b>Application Specification</b>	114-18769
<b>Product Specification</b>	108-94026
<b>Interface Specification</b>	114-18737

#### BILL OF MATERIALS

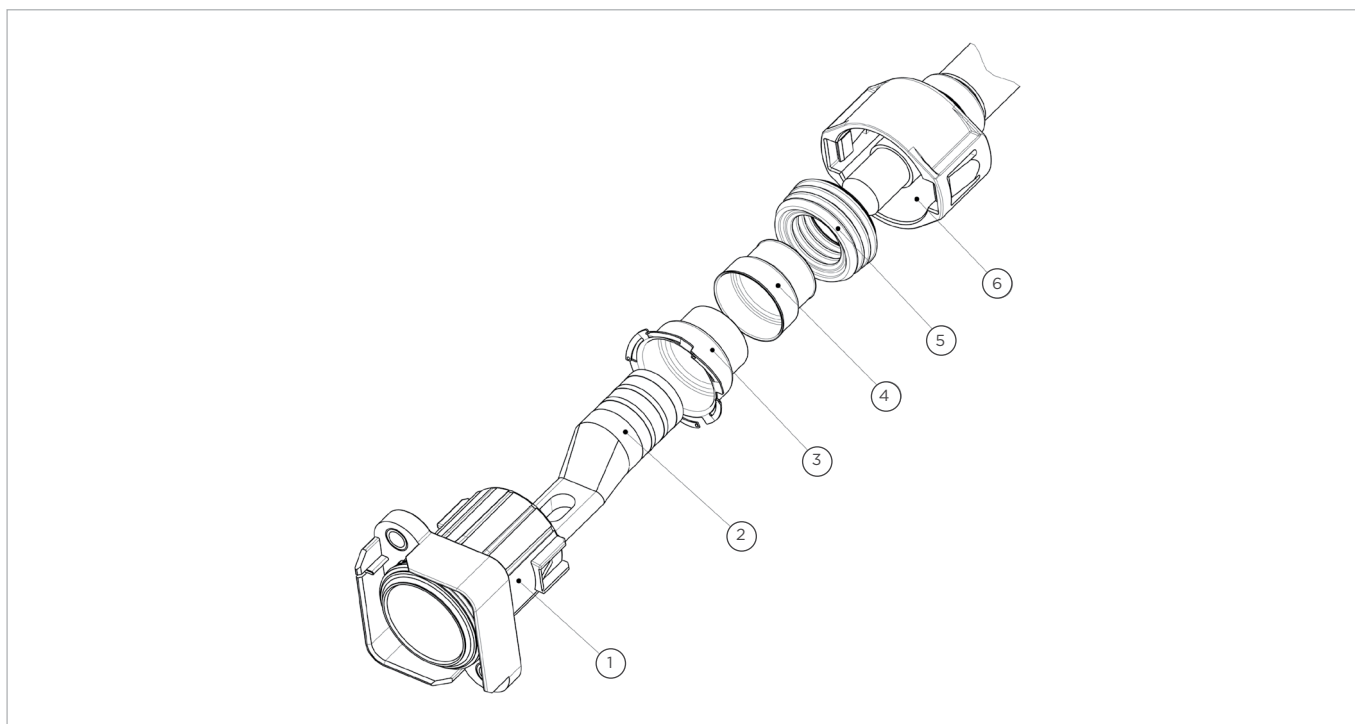
Item No	Part Number	Description	Quantity
①	1-1670816-1	1 Pos. Ring Tongue Housing Assembly, Key A	1
②	1670815-1	Ring Tongue	1
③	1670814-1	EMC Crimp Contact	1
④	1670813-2	EMC Crimp Sleeve	1
⑤	1670820-2	Single Wire Seal	1
⑥	1670821-2	Protection Cap	1



## AMP+ High Current Connectors and Headers

### AMP+ IPT

Kit Number **YIPT-1PXI-70MM-B-0**



### AMP+ IPT CONNECTOR SERIES

<b>Position</b>	1
<b>Cable Size</b>	70 mm <sup>2</sup>
<b>Wire Type</b>	Individually Shielded
<b>HVIL</b>	Not present
<b>Key Coding</b>	B
<b>Validated Cables</b>	HEW-KABEL 50560
	Gebauer & Griller 88910
	Huber+Suhner 84 100 298
<b>Application Specification</b>	114-18769
<b>Product Specification</b>	108-94026
<b>Interface Specification</b>	114-18737

### BILL OF MATERIALS

Item No	Part Number	Description	Quantity
①	2-1670816-1	1 Pos. Ring Tongue Housing Assembly, Key B	1
②	1670815-1	Ring Tongue	1
③	1670814-1	EMC Crimp Contact	1
④	1670813-2	EMC Crimp Sleeve	1
⑤	1670820-2	Single Wire Seal	1
⑥	1670821-2	Protection Cap	1

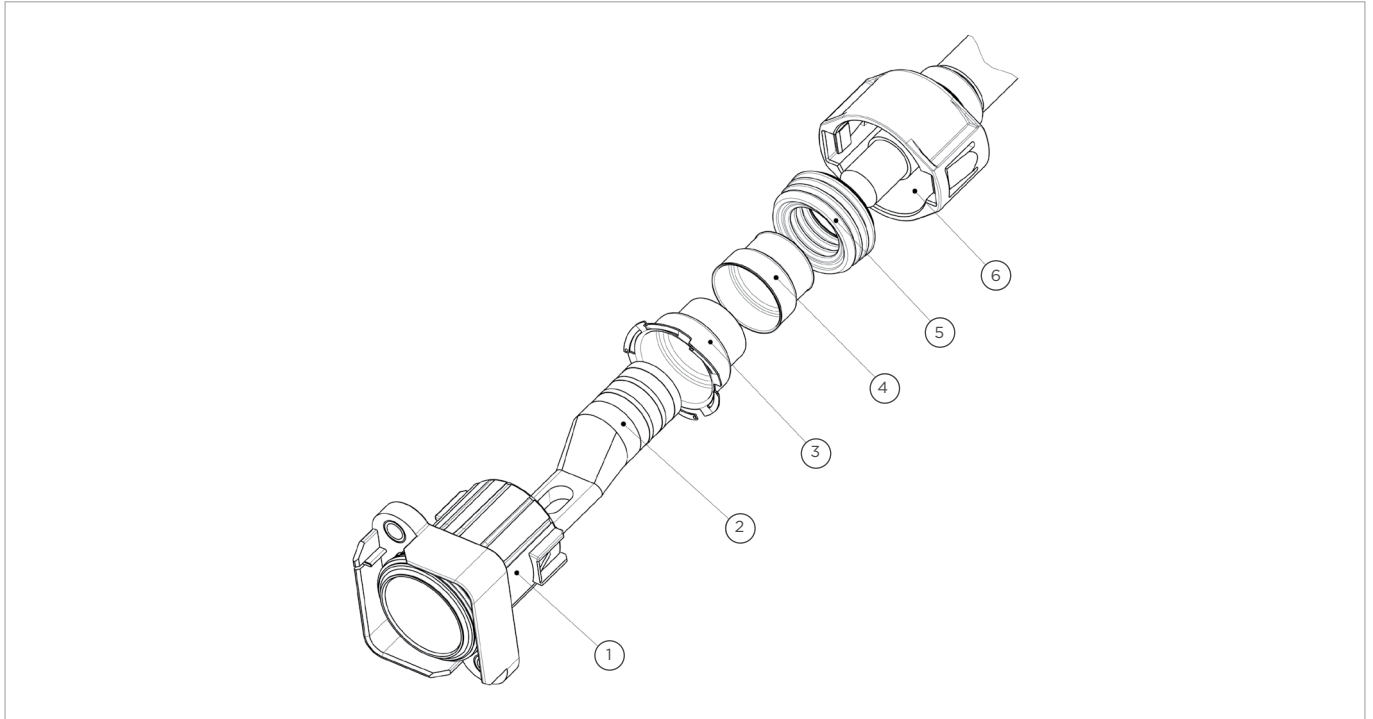


## AMP+ High Current Connectors and Headers

### AMP+ IPT

Kit Number **YIPT-1PXI-95MM-000**

AMP+ IPT



### AMP+ IPT CONNECTOR SERIES

<b>Position</b>	1
<b>Cable Size</b>	95 mm <sup>2</sup>
<b>Wire Type</b>	Individually Shielded
<b>HVIL</b>	Not present
<b>Key Coding</b>	A
<b>Validated Cables</b>	HEW-KABEL 45733 Gebauer & Griller 64995305
<b>Application Specification</b>	114-18769
<b>Product Specification</b>	108-94026
<b>Interface Specification</b>	114-18737

### BILL OF MATERIALS

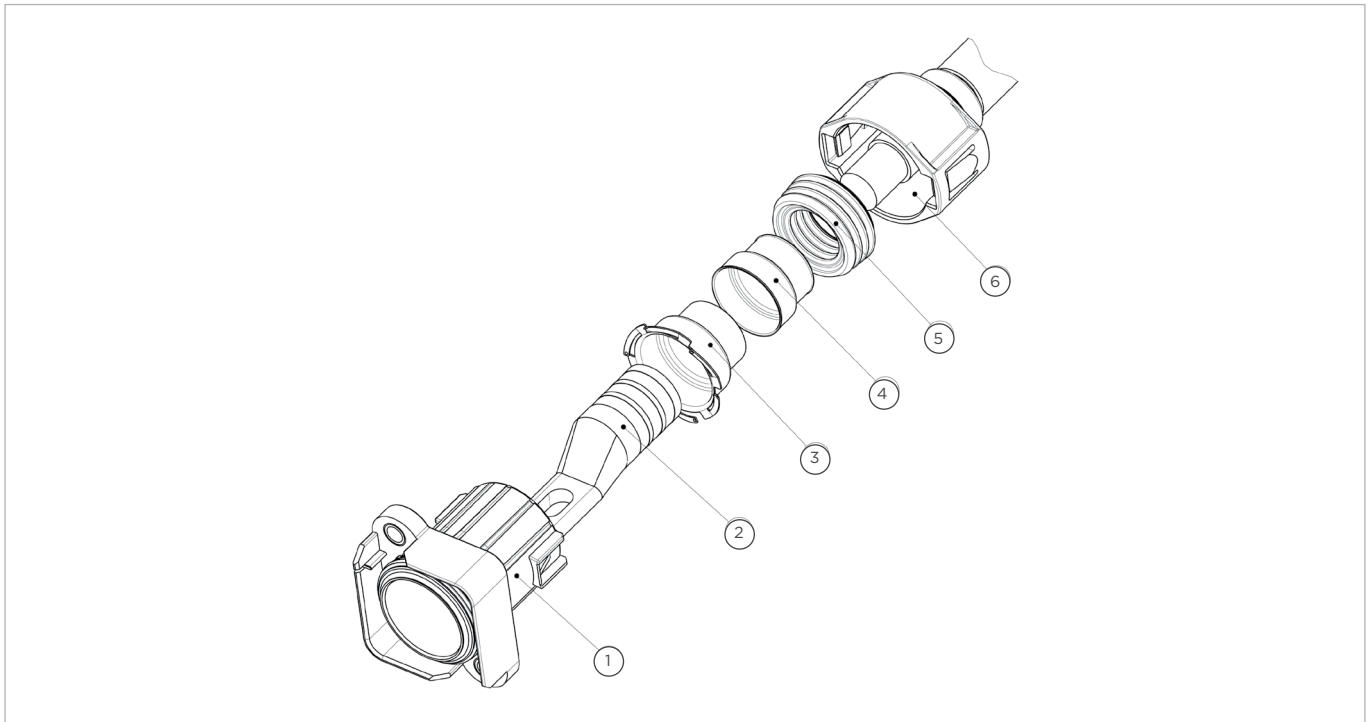
Item No	Part Number	Description	Quantity
①	1-1670816-1	1 Pos. Ring Tongue Housing Assembly, Key A	1
②	1670815-2	Ring Tongue	1
③	1670814-1	EMC Crimp Contact	1
④	1670813-1	EMC Crimp Sleeve	1
⑤	1670820-1	Single Wire Seal	1
⑥	1670821-1	Protection Cap	1



## AMP+ High Current Connectors and Headers

### AMP+ IPT

Kit Number **YIPT-1PXI-70MM-B-0**



### AMP+ IPT CONNECTOR SERIES

<b>Position</b>	1
<b>Cable Size</b>	95 mm <sup>2</sup>
<b>Wire Type</b>	Individually Shielded
<b>HVIL</b>	Not present
<b>Key Coding</b>	A
<b>Validated Cables</b>	Huber+Suhner 84 100 299
<b>Application Specification</b>	114-18769
<b>Product Specification</b>	108-94026
<b>Interface Specification</b>	114-18737

### BILL OF MATERIALS

Item No	Part Number	Description	Quantity
①	1-1670816-1	1 Pos. Ring Tongue Housing Assembly, Key A	1
②	1670815-2	Ring Tongue	1
③	1670814-1	EMC Crimp Contact	1
④	1670813-1	EMC Crimp Sleeve	1
⑤	0-2364891-1	Single Wire Seal	1
⑥	0-1670821-3	Protection Cap	1

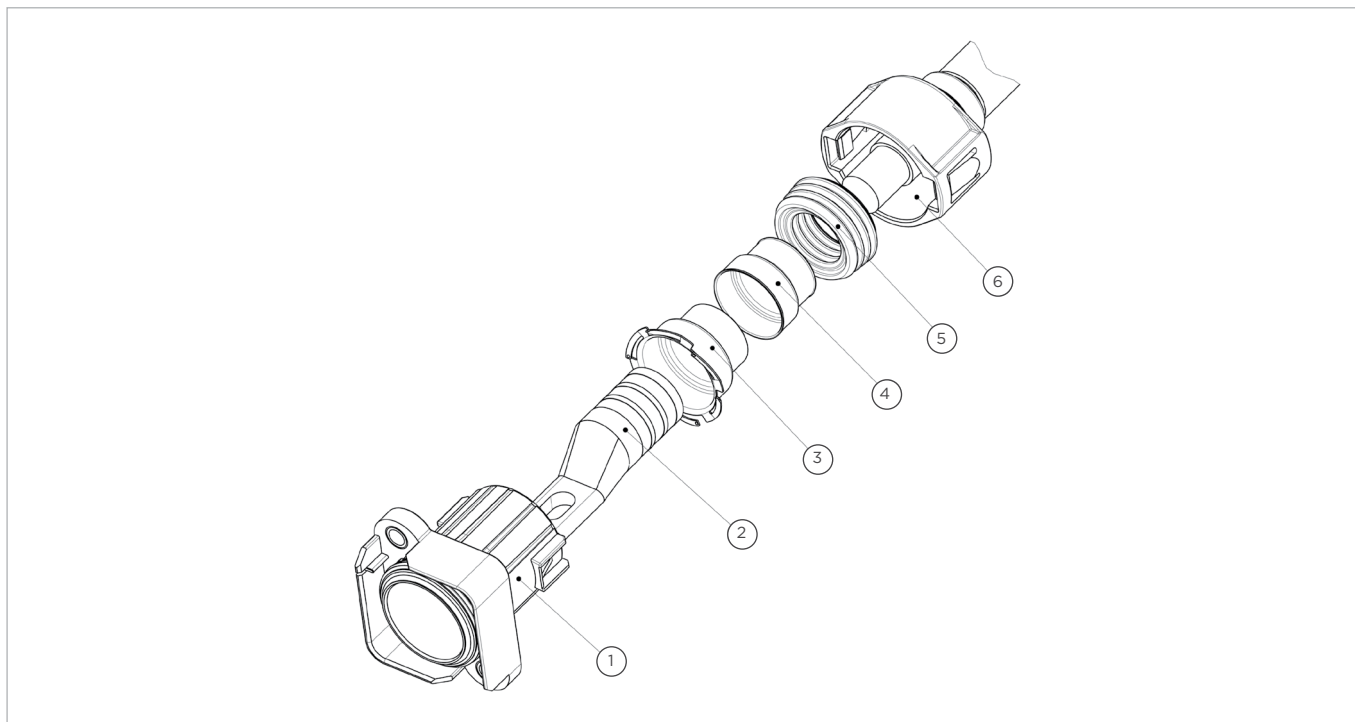


## AMP+ High Current Connectors and Headers

### AMP+ IPT

Kit Number **YIPT-1PXI-95MM-B-0**

AMP+ IPT



### AMP+ IPT CONNECTOR SERIES

<b>Position</b>	1
<b>Cable Size</b>	95 mm <sup>2</sup>
<b>Wire Type</b>	Individually Shielded
<b>HVIL</b>	Not present
<b>Key Coding</b>	B
<b>Validated Cables</b>	Huber+Suhner 84 100 299
<b>Application Specification</b>	114-18769
<b>Product Specification</b>	108-94026
<b>Interface Specification</b>	114-18737

### BILL OF MATERIALS

Item No	Part Number	Description	Quantity
①	2-1670816-1	1 Pos. Ring Tongue Housing Assembly, Key B	1
②	1670815-2	Ring Tongue	1
③	1670814-1	EMC Crimp Contact	1
④	1670813-1	EMC Crimp Sleeve	1
⑤	0-2364891-1	Single Wire Seal	1
⑥	0-1670821-3	Protection Cap	1



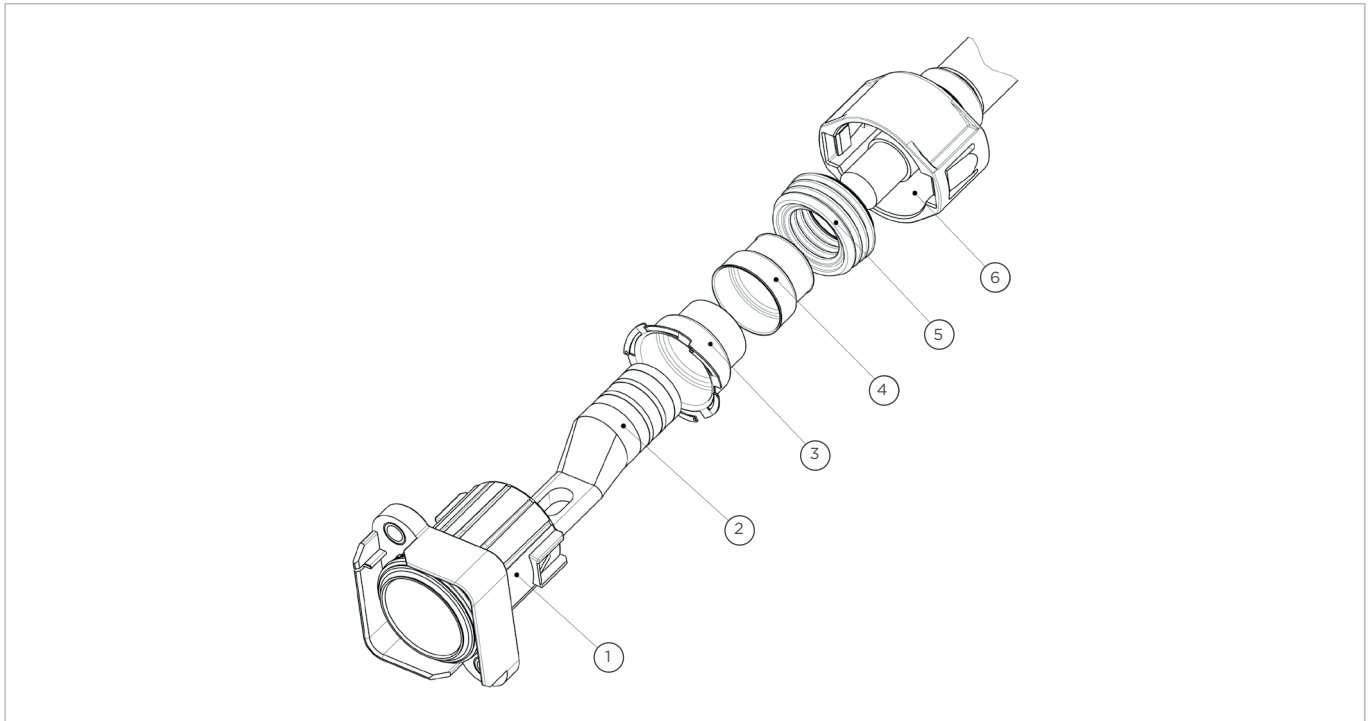


## AMP+ High Current Connectors and Headers

### AMP+ IPT

Kit Number **YIPT-1PXI-120MM-00**

AMP+ IPT



### AMP+ IPT CONNECTOR SERIES

<b>Position</b>	1
<b>Cable Size</b>	120 mm <sup>2</sup>
<b>Wire Type</b>	Individually Shielded
<b>HVIL</b>	Not present
<b>Key Coding</b>	A
<b>Validated Cables</b>	HEW-KABEL 45734
<b>Application Specification</b>	114-18769
<b>Product Specification</b>	108-94026
<b>Interface Specification</b>	114-18737

### BILL OF MATERIALS

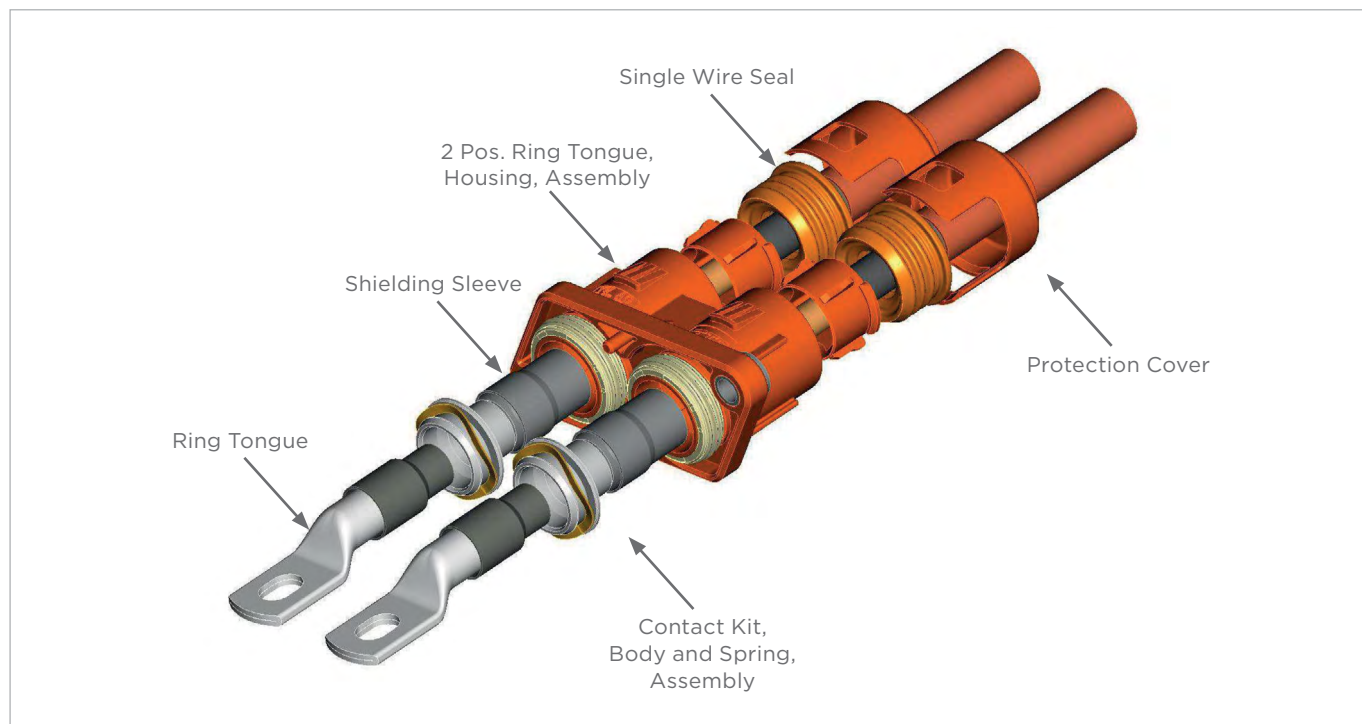
Item No	Part Number	Description	Quantity
①	1-1670816-1	1 Pos. Ring Tongue Housing Assembly, Key A	1
②	1670815-3	Ring Tongue	1
③	1670814-1	EMC Crimp Contact	1
④	1670813-1	EMC Crimp Sleeve	1
⑤	1670820-1	Single Wire Seal	1
⑥	1670821-1	Protection Cap	1



## AMP+ High Current Connectors and Headers

### AMP+ IPT

Kit Number **YIPT-2pxi-00000000**



#### AMP+ IPT CONNECTOR SERIES

<b>Position</b>	2
<b>Cable Size</b>	50 mm <sup>2</sup>
<b>Wire Type</b>	Individually Shielded
<b>HVIL</b>	Not present
<b>Key Coding</b>	N/A
<b>Validated Cables</b>	Coroplast 9-2611
<b>Application Specification</b>	114-94133
<b>Product Specification</b>	108-94293
<b>Interface Specification</b>	114-94132-2

#### BILL OF MATERIALS

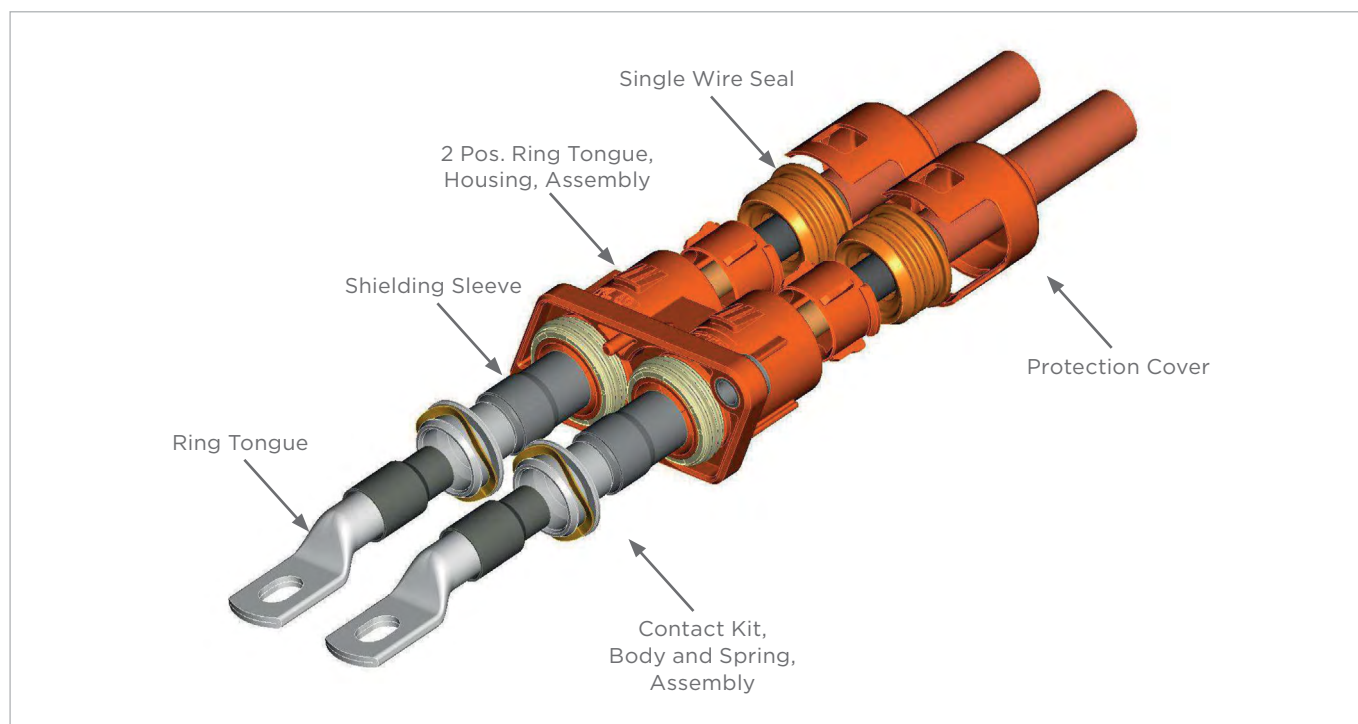
Part Number	Description	Quantity
2141784-2	2 Pos. Ring Tongue, Housing Assembly	1
1719826-7	Single Wire Seal	2
2141810-4	Shielding Sleeve	2
2141809-3	Contact Kit, Body and Spring, Assembly	2
1-1991225-7	Protective Cover	2
3-2177380-1	Ring Tongue	2



## AMP+ High Current Connectors and Headers

### AMP+ IPT

Kit Number **YIPT-2pxi-00000000**

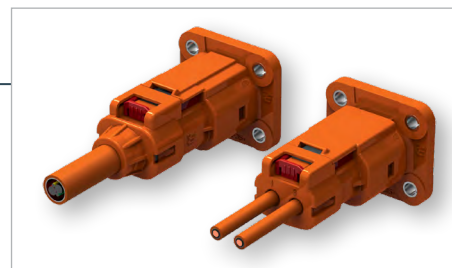


### AMP+ IPT CONNECTOR SERIES

<b>Position</b>	3
<b>Cable Size</b>	50 mm <sup>2</sup>
<b>Wire Type</b>	Individually Shielded
<b>HVIL</b>	Not present
<b>Key Coding</b>	N/A
<b>Validated Cables</b>	Coroplast 9-2611
<b>Application Specification</b>	114-94133
<b>Product Specification</b>	108-94293
<b>Interface Specification</b>	114-94132-3

### BILL OF MATERIALS

Part Number	Description	Quantity
2141783-2	3 Pos. Ring Tongue, Housing Assembly	1
1719826-7	Single Wire Seal	3
2141810-4	Shielding Sleeve	3
2141809-3	Contact Kit, Body and Spring, Assembly	3
1-1991225-7	Protective Cover	3
3-2177380-1	Ring Tongue	3

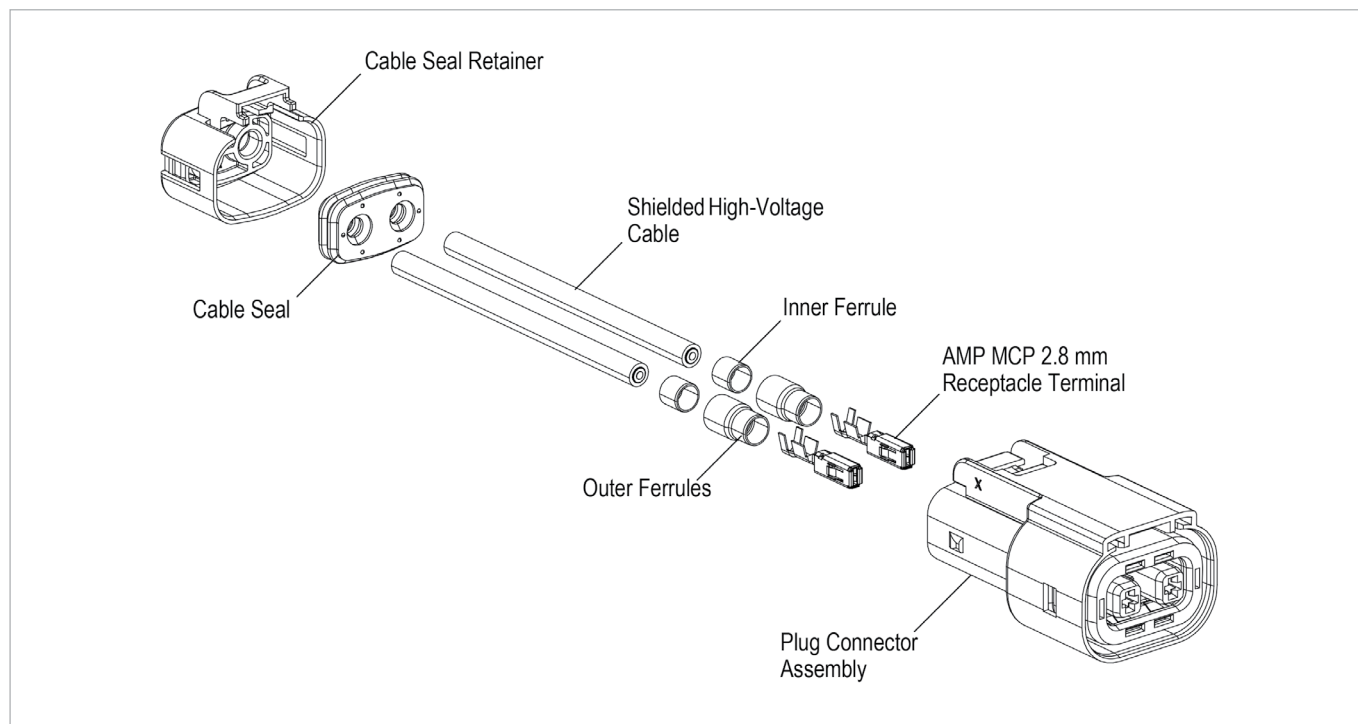


## AMP+ High Current Connectors and Headers

### AMP+ HVA 280

Kit Number **YHVA280-2phi-4mm-A**

AMP+ HVA 280

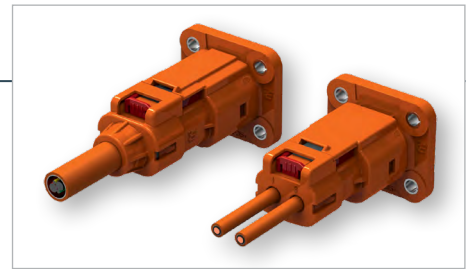


#### AMP+ HVA 280 CONNECTOR SERIES

<b>Position</b>	2
<b>Cable Size</b>	4 mm <sup>2</sup>
<b>Wire Type</b>	Individually Shielded
<b>HVIL</b>	Present, Shunt Version
<b>Key Coding</b>	A
<b>Validated Cables</b>	Huber+Suhner 12582674
	Leoni 76231175A
<b>Application Specification</b>	114-13259
<b>Product Specification</b>	108-2394
<b>Mating Header PN</b>	2103124-1

#### BILL OF MATERIALS

Part Number	Description	Quantity
4-2103177-1	Plug subassy, finger accessible with CPA, Key A	1
1587828-3	Inner ferrule	2
1587829-3	Outer ferrule	2
1587826-3	Seal, cable	1
2103181-3	Cable seal retainer	1
1-968853-3	AMP MCP 2.8 terminal, female, 4 mm <sup>2</sup>	2

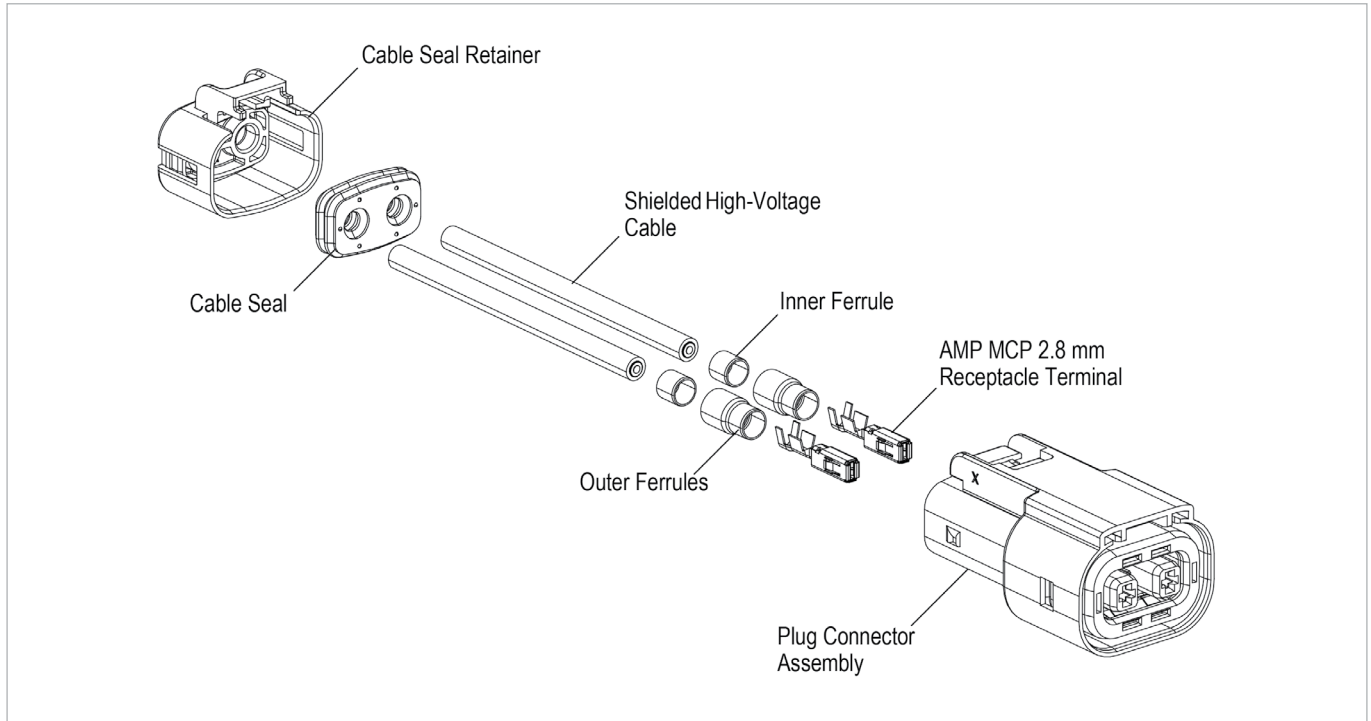


## AMP+ High Current Connectors and Headers

### AMP+ HVA 280

Kit Number **YHVA280-2phi-4mm-B**

AMP+ HVA 280

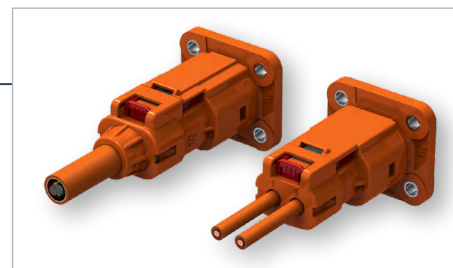


### AMP+ HVA 280 CONNECTOR SERIES

<b>Position</b>	2
<b>Cable Size</b>	4 mm <sup>2</sup>
<b>Wire Type</b>	Individually Shielded
<b>HVIL</b>	Present, Shunt Version
<b>Key Coding</b>	B
<b>Validated Cables</b>	Huber+Suhner 12582674
	Leoni 76231175A
<b>Application Specification</b>	114-13259
<b>Product Specification</b>	108-2394
<b>Mating Header PN</b>	2103124-2

### BILL OF MATERIALS

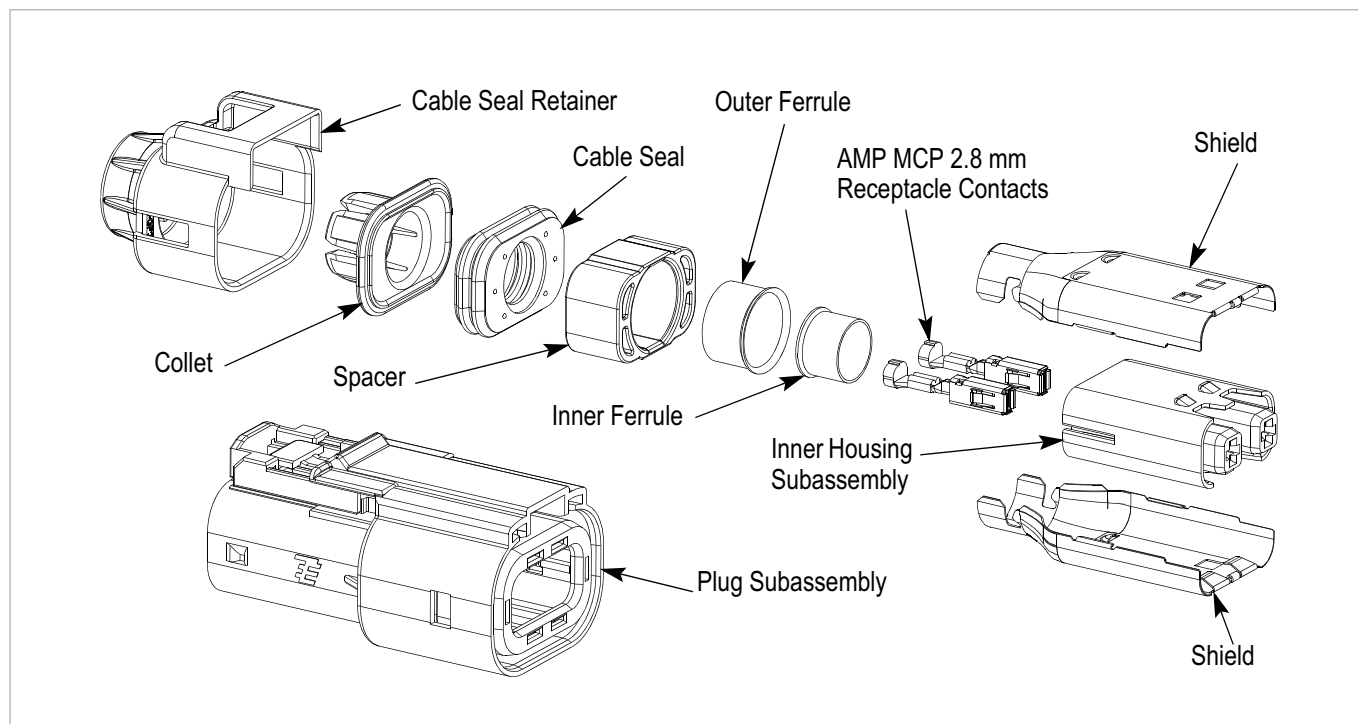
Part Number	Description	Quantity
4-2103177-2	Plug subassy, finger accessible with CPA, Key B	1
1587828-3	Inner ferrule	2
1587829-3	Outer ferrule	2
1587826-3	Seal, cable	1
2103181-3	Cable seal retainer	1
1-968853-3	AMP MCP 2.8 terminal, female, 4 mm <sup>2</sup>	2



## AMP+ High Current Connectors and Headers

### AMP+ HVA 280

Kit Number **YHV280-2pm-s-4mm-A**

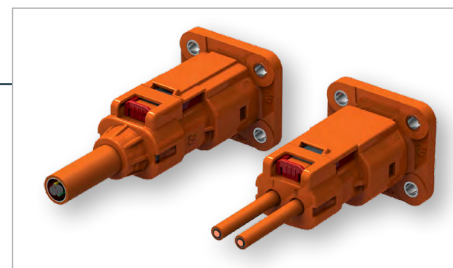


#### AMP+ HVA 280 CONNECTOR SERIES

<b>Position</b>	2
<b>Cable Size</b>	4 mm <sup>2</sup>
<b>Wire Type</b>	Multicore
<b>HVIL</b>	Present, Shunt Version
<b>Key Coding</b>	A
<b>Validated Cables</b>	Coroplast 9-2641
<b>Application Specification</b>	114-13305
<b>Product Specification</b>	108-32020
<b>Mating Header PN</b>	2103124-1

#### BILL OF MATERIALS

Part Number	Description	Quantity
4-2103015-1	Plug subassy, finger latch, with CPA, Key A	1
1587985-1	Inner housing subassy, shunted	1
1-2103157-1	Shield	2
1587723-3	Inner ferrule	1
1587724-3	Outer ferrule	1
2103153-1	Spacer	1
2103154-1	Cable seal	1
2103155-1	Collet	1
2103013-1	Cable seal retainer	1
1-968853-3	AMP MCP 2.8, 2.5 - 4.0 mm <sup>2</sup>	2

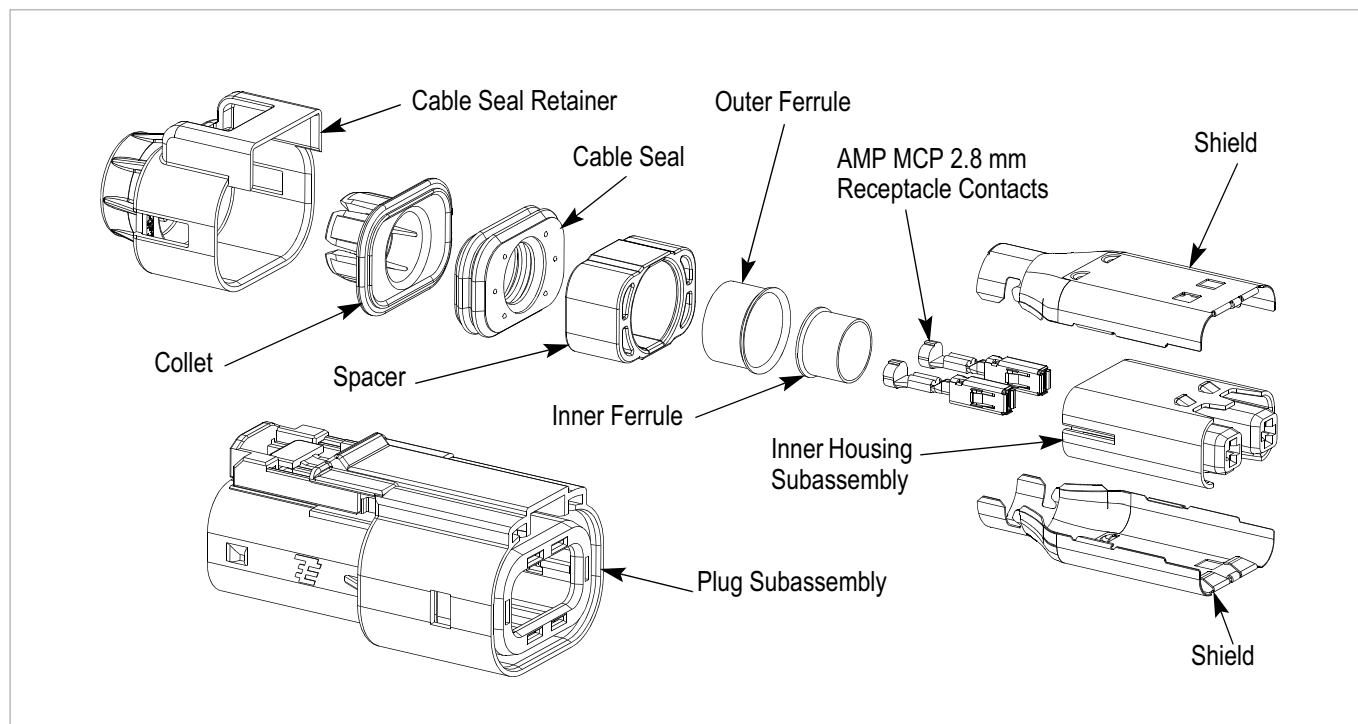


## AMP+ High Current Connectors and Headers

### AMP+ HVA 280

Kit Number **YHV280-2pm-s-4mm-B**

AMP+ HVA 280



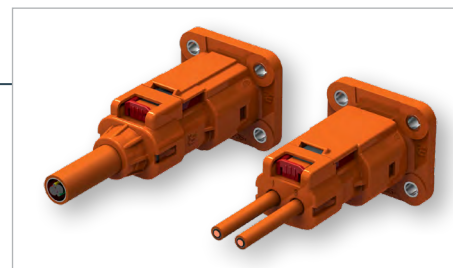
### AMP+ HVA 280 CONNECTOR SERIES

<b>Position</b>	2
<b>Cable Size</b>	4 mm <sup>2</sup>
<b>Wire Type</b>	Multicore
<b>HVIL</b>	Present, Shunt Version
<b>Key Coding</b>	B
<b>Validated Cables</b>	Coroplast 9-2641
<b>Application Specification</b>	114-13305
<b>Product Specification</b>	108-32020
<b>Mating Header PN</b>	2103124-2

### BILL OF MATERIALS

Part Number	Description	Quantity
4-2103015-2	Plug subassy, finger latch, with CPA, Key B	1
1587985-1	Inner housing subassy, shunted	1
1-2103157-1	Shield	2
1587723-3	Inner ferrule	1
1587724-3	Outer ferrule	1
2103153-1	Spacer	1
2103154-1	Cable seal	1
2103155-1	Collet	1
2103013-1	Cable seal retainer	1
1-968853-3	AMP MCP 2.8, 2.5 - 4.0 mm <sup>2</sup>	2

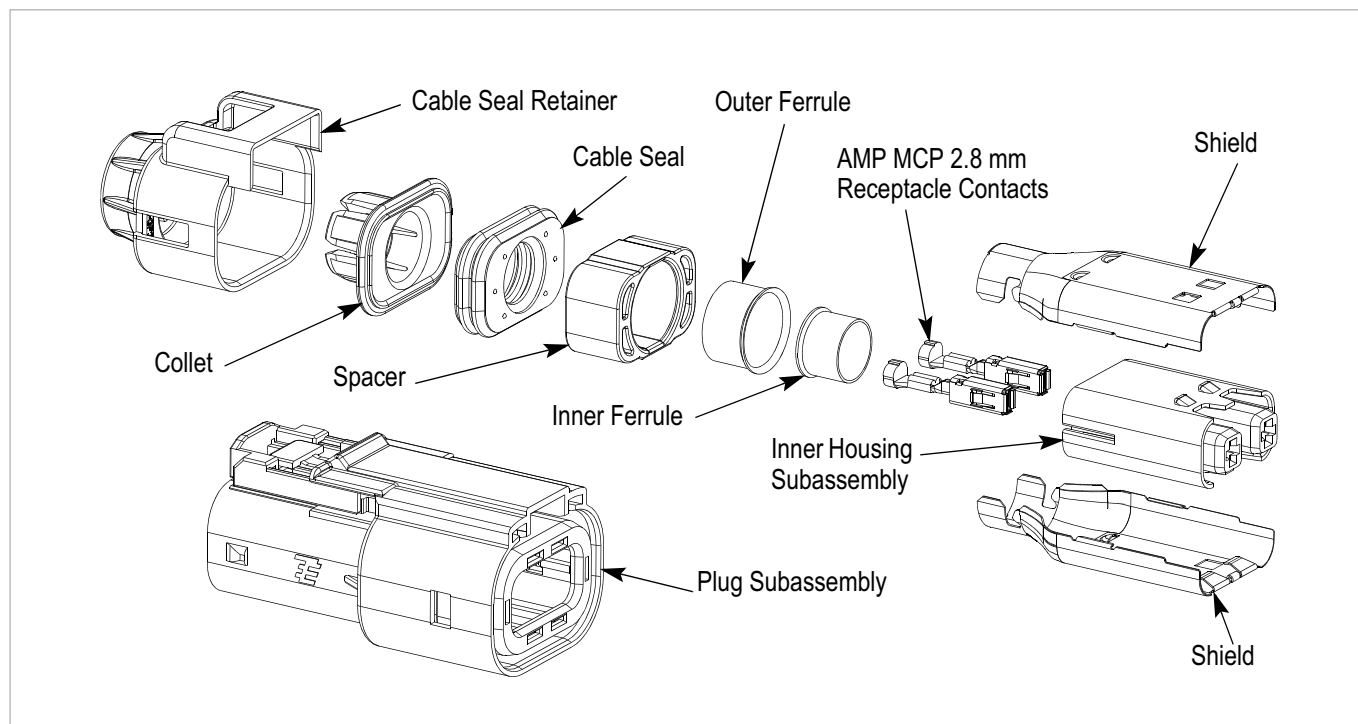




## AMP+ High Current Connectors and Headers

### AMP+ HVA 280

Kit Number **YHV280-2pm-s-4mm-D**

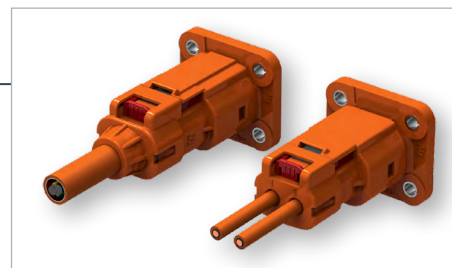


### AMP+ HVA 280 CONNECTOR SERIES

<b>Position</b>	2
<b>Cable Size</b>	4 mm <sup>2</sup>
<b>Wire Type</b>	Multicore
<b>HVIL</b>	Present, Shunt Version
<b>Key Coding</b>	D
<b>Validated Cables</b>	Coroplast 9-2641
<b>Application Specification</b>	114-13305
<b>Product Specification</b>	108-32020
<b>Mating Header PN</b>	2103124-4

### BILL OF MATERIALS

Part Number	Description	Quantity
4-2103015-4	Plug subassy, finger latch, with CPA, Key D	1
1587985-1	Inner housing subassy, shunted	1
1-2103157-1	Shield	2
1587723-3	Inner ferrule	1
1587724-3	Outer ferrule	1
2103153-1	Spacer	1
2103154-1	Cable seal	1
2103155-1	Collet	1
2103013-1	Cable seal retainer	1
1-968853-3	AMP MCP 2.8, 2.5 - 4.0 mm <sup>2</sup>	2

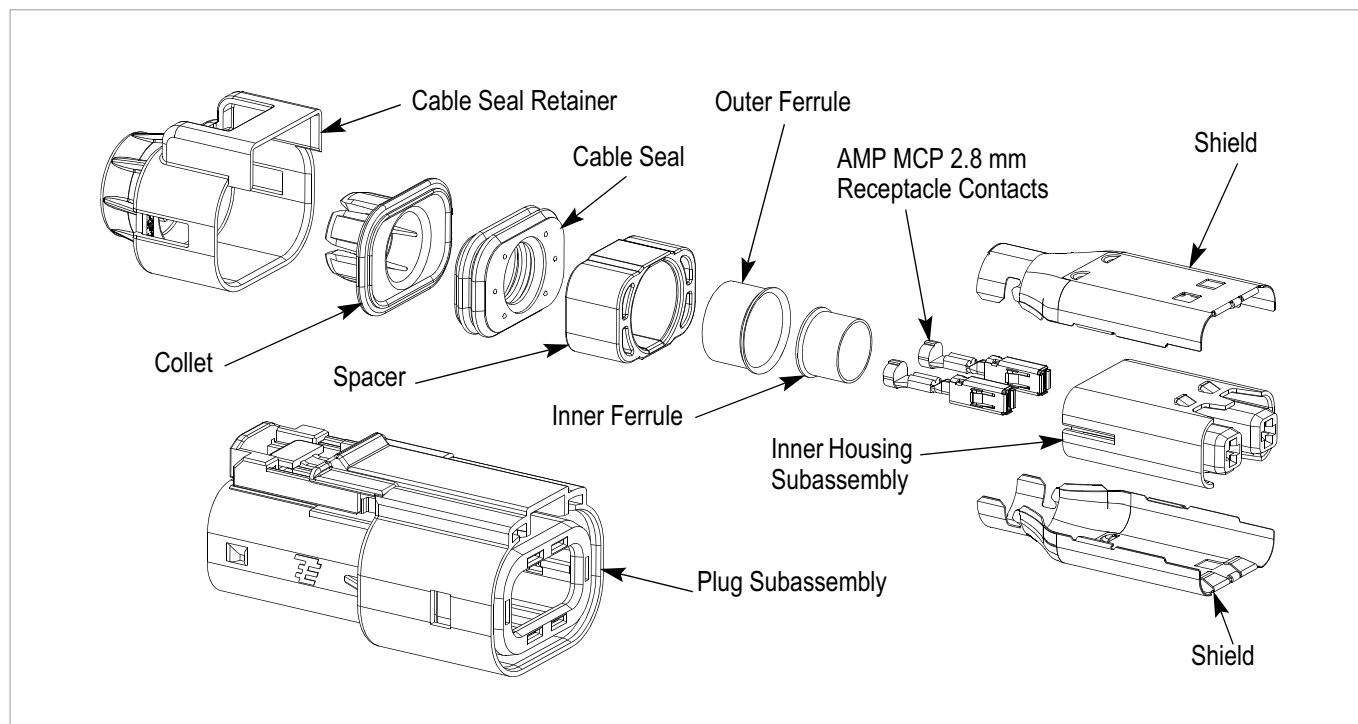


## AMP+ High Current Connectors and Headers

### AMP+ HVA 280

Kit Number **YHV280-2pm-s-4mm-E**

AMP+ HVA 280

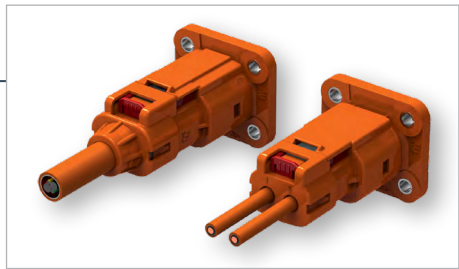


### AMP+ HVA 280 CONNECTOR SERIES

<b>Position</b>	2
<b>Cable Size</b>	4 mm <sup>2</sup>
<b>Wire Type</b>	Multicore
<b>HVIL</b>	Present, Shunt Version
<b>Key Coding</b>	E
<b>Validated Cables</b>	Coroplast 9-2641
<b>Application Specification</b>	114-13305
<b>Product Specification</b>	108-32020
<b>Mating Header PN</b>	2103124-5

### BILL OF MATERIALS

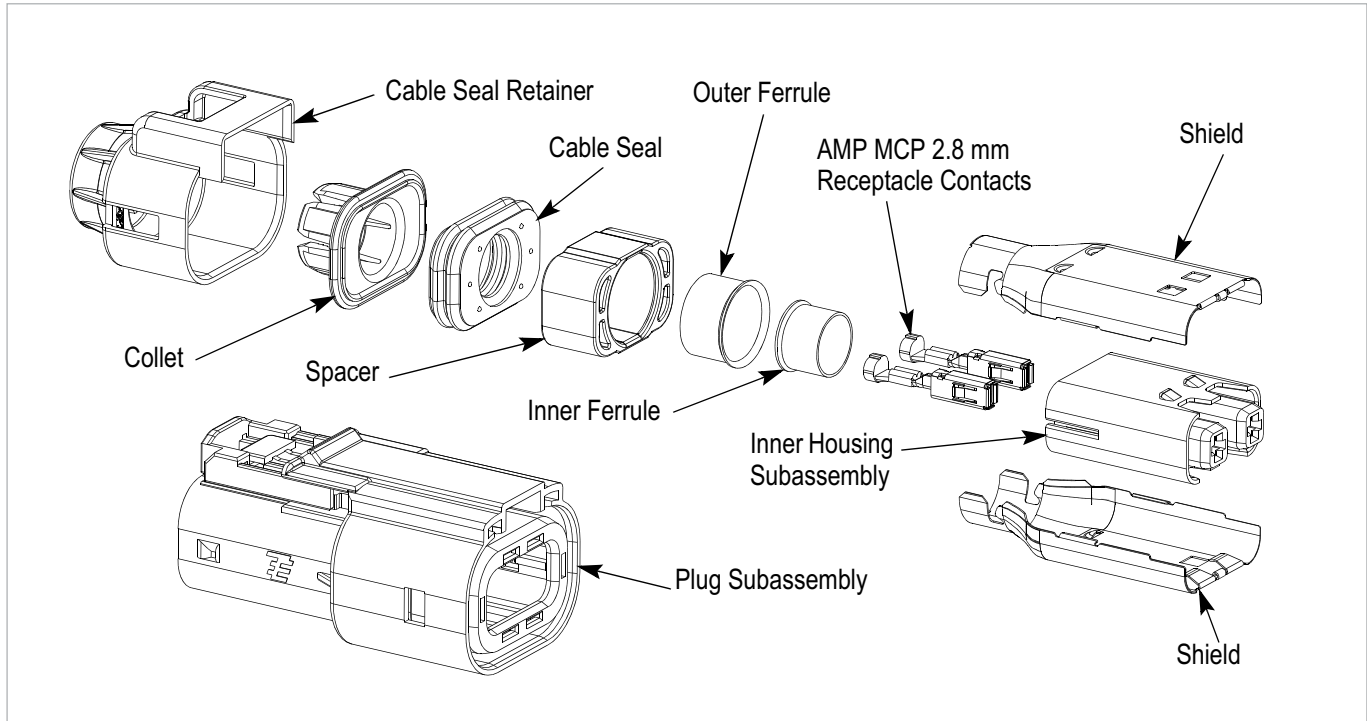
Part Number	Description	Quantity
4-2103015-5	Plug subassy, finger latch, with CPA, Key E	1
1587985-1	Inner housing subassy, shunted	1
1-2103157-1	Shield	2
1587723-3	Inner ferrule	1
1587724-3	Outer ferrule	1
2103153-1	Spacer	1
2103154-1	Cable seal	1
2103155-1	Collet	1
2103013-1	Cable seal retainer	1
1-968853-3	AMP MCP 2.8, 2.5 - 4.0 mm <sup>2</sup>	2



## AMP+ High Current Connectors and Headers

### AMP+ HVA 280

Kit Number **YHVA280-2PHM-4MM-A**

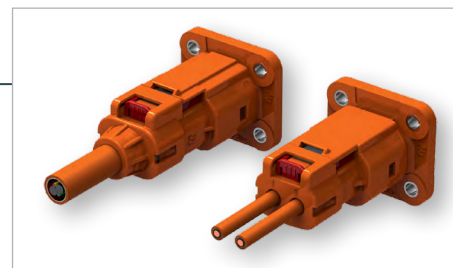


#### AMP+ HVA 280 CONNECTOR SERIES

<b>Position</b>	2
<b>Cable Size</b>	4 mm <sup>2</sup>
<b>Wire Type</b>	Multicore
<b>HVIL</b>	Present, Shunt Version
<b>Key Coding</b>	A
<b>Validated Cables</b>	Huber+Suhner 12 582 308
<b>Application Specification</b>	114-13305
<b>Product Specification</b>	108-32020
<b>Mating Header PN</b>	2103124-5

#### BILL OF MATERIALS

Part Number	Description	Quantity
4-2103015-1	Plug subassy, finger latch, with CPA, Key A	1
1587985-1	Inner Housing	1
1-968853-3	Contact	2
1-2103157-2	Shield	1
1587723-2	Inner ferrule	1
1587724-2	Outer ferrule	1
2103153-1	Spacer	1
2103154-2	Cable seal	1
2103155-2	Collet	1
2103013-2	Cable seal retainer	2

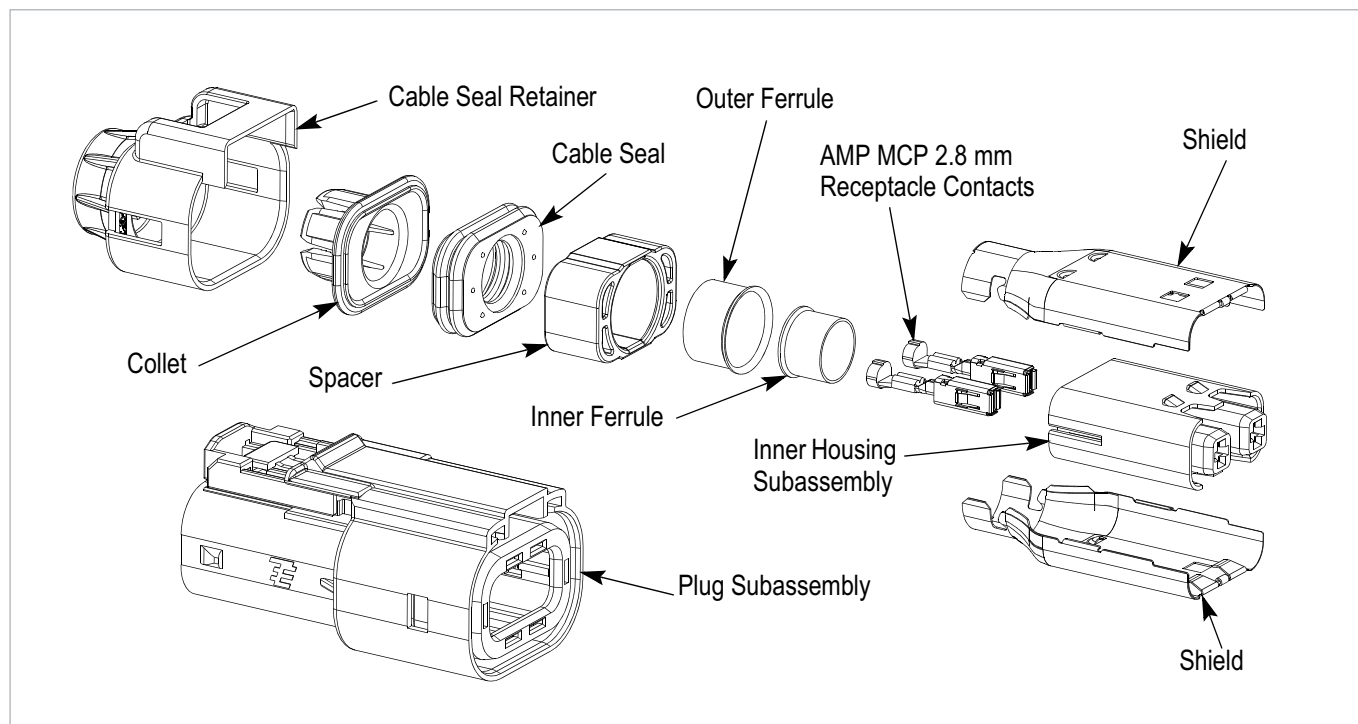


## AMP+ High Current Connectors and Headers

### AMP+ HVA 280

Kit Number **YHVA280-2PHM-4MM-A**

AMP+ HVA 280

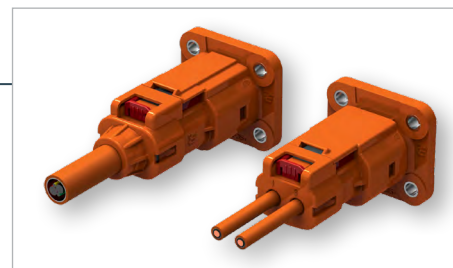


### AMP+ HVA 280 CONNECTOR SERIES

<b>Position</b>	2
<b>Cable Size</b>	4 mm <sup>2</sup>
<b>Wire Type</b>	Multicore
<b>HVIL</b>	Present, Shunt Version
<b>Key Coding</b>	E
<b>Validated Cables</b>	Huber+Suhner 12 582 308
<b>Application Specification</b>	114-13305
<b>Product Specification</b>	108-32020
<b>Mating Header PN</b>	2103124-5

### BILL OF MATERIALS

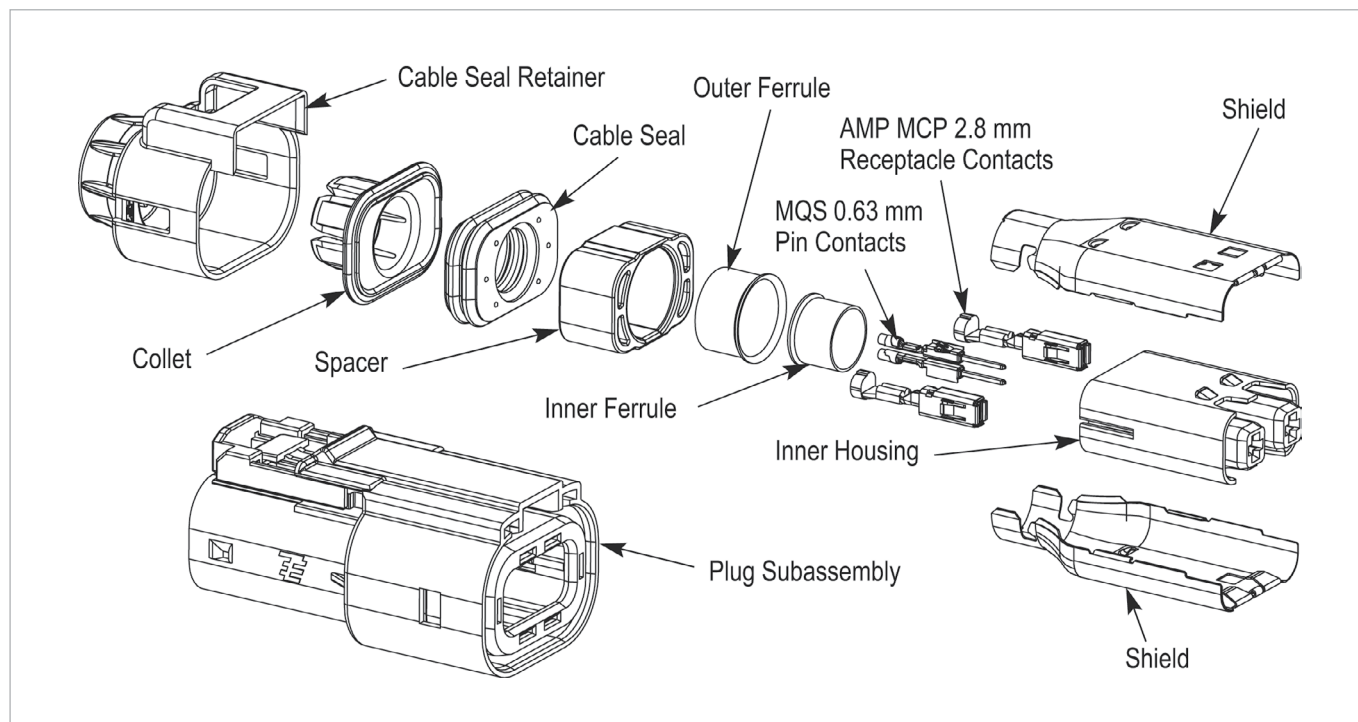
Part Number	Description	Quantity
4-2103015-5	Plug subassy, finger latch, with CPA, Key E	1
1587985-1	Inner Housing	1
1-968853-3	Contact	2
1-2103157-2	Shield	1
1587723-2	Inner Ferrule	1
1587724-2	Outer Ferrule	1
2103153-1	Spacer	1
2103154-2	Cable seal	1
2103155-2	Collet	1
2103013-2	Cable seal retainer	2



## AMP+ High Current Connectors and Headers

### AMP+ HVA 280

Kit Number **YHV280-2pm-p-4mm-A**

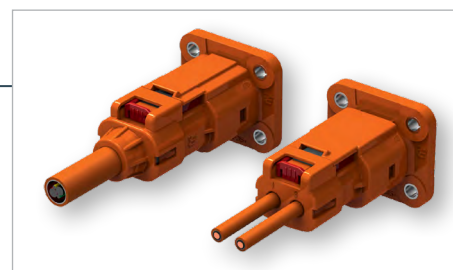


#### AMP+ HVA 280 CONNECTOR SERIES

<b>Position</b>	2
<b>Cable Size</b>	4 mm <sup>2</sup>
<b>Wire Type</b>	Multicore
<b>HVIL</b>	Present, Pass-Through
<b>Key Coding</b>	A
<b>Validated Cables</b>	Kromberg & Schubert 64994093
<b>Application Specification</b>	114-13310
<b>Product Specification</b>	108-32020
<b>Mating Header PN</b>	2103124-1

#### BILL OF MATERIALS

Part Number	Description	Quantity
4-2103015-1	Plug subassy, finger latch, with CPA, Key A	1
1587977-2	Inner housing, pass-through HVIL	1
5-963716-2	MQS terminal, .5-.75 mm <sup>2</sup>	2
1-968853-3	AMP MCP 2.8, 2.5 -4.0 mm <sup>2</sup>	2
1-2103157-1	Shield	2
1587723-3	Inner ferrule	1
1587724-3	Outer ferrule	1
2103153-1	Spacer	1
2103154-1	Cable seal	1
2103155-1	Collet	1
2103013-1	Cable seal retainer	1

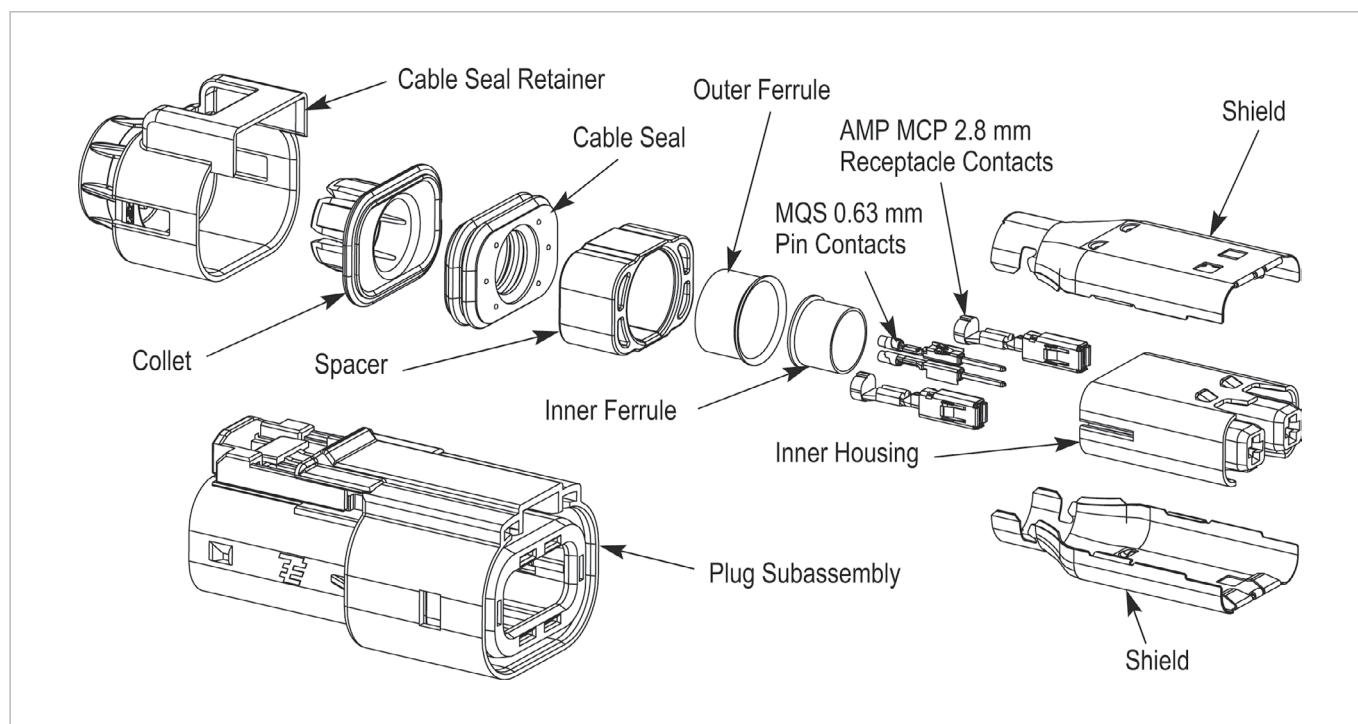


## AMP+ High Current Connectors and Headers

### AMP+ HVA 280

Kit Number **YHV280-2pm-p-4mm-B**

AMP+ HVA 280



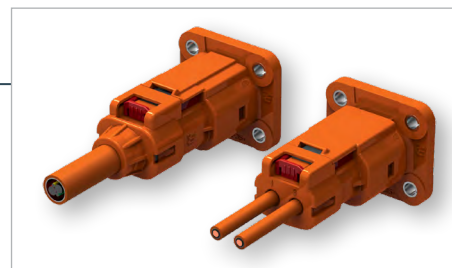
### AMP+ HVA 280 CONNECTOR SERIES

<b>Position</b>	2
<b>Cable Size</b>	4 mm <sup>2</sup>
<b>Wire Type</b>	Multicore
<b>HVIL</b>	Present, Pass-Through
<b>Key Coding</b>	B
<b>Validated Cables</b>	Kromberg & Schubert 64994093
<b>Application Specification</b>	114-13310
<b>Product Specification</b>	108-32020
<b>Mating Header PN</b>	2103124-2

### BILL OF MATERIALS

Part Number	Description	Quantity
4-2103015-2	Plug subassy, finger latch, with CPA, Key B	1
1587977-2	Inner housing, pass-through HVIL	1
5-963716-2	MQS terminal .5 - .75 mm <sup>2</sup>	2
1-968853-3	AMP MCP 2.8, 2.5 - 4.0 mm <sup>2</sup>	2
1-2103157-1	Shield	2
1587723-3	Inner ferrule	1
1587724-3	Outer ferrule	1
2103153-1	Spacer	1
2103154-1	Cable seal	1
2103155-1	Collet	1
2103013-1	Cable seal retainer	1

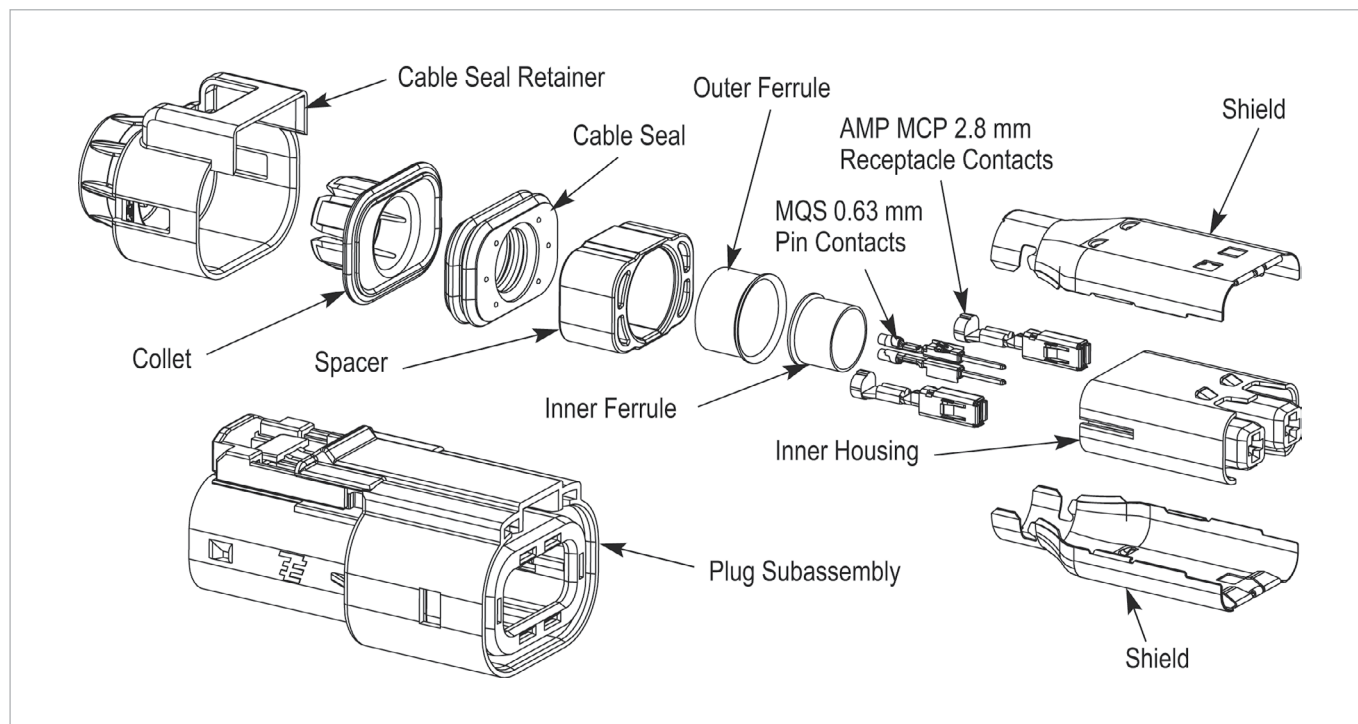




## AMP+ High Current Connectors and Headers

### AMP+ HVA 280

Kit Number **YHV280-2pm-p-4mm-D**



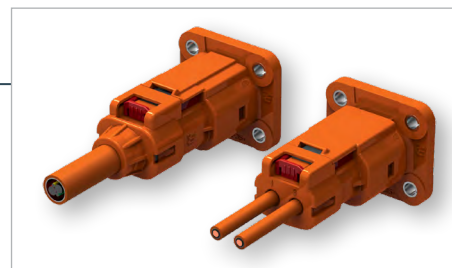
#### AMP+ HVA 280 CONNECTOR SERIES

<b>Position</b>	2
<b>Cable Size</b>	4 mm <sup>2</sup>
<b>Wire Type</b>	Multicore
<b>HVIL</b>	Present, Pass-Through
<b>Key Coding</b>	D
<b>Validated Cables</b>	Kromberg & Schubert 64994093
<b>Application Specification</b>	114-13310
<b>Product Specification</b>	108-32020
<b>Mating Header PN</b>	2103124-4

#### BILL OF MATERIALS

Part Number	Description	Quantity
4-2103015-4	Plug subassy, finger latch, with CPA, Key D	1
1587977-2	Inner housing, pass-through HVIL	1
5-963716-2	MQS terminal, .5-.75 mm <sup>2</sup>	2
1-968853-3	AMP MCP 2.8, 2.5-4.0 mm <sup>2</sup>	2
1-2103157-1	Shield	2
1587723-3	Inner ferrule	1
1587724-3	Outer ferrule	1
2103153-1	Spacer	1
2103154-1	Cable seal	1
2103155-1	Collet	1
2103013-1	Cable seal retainer	1



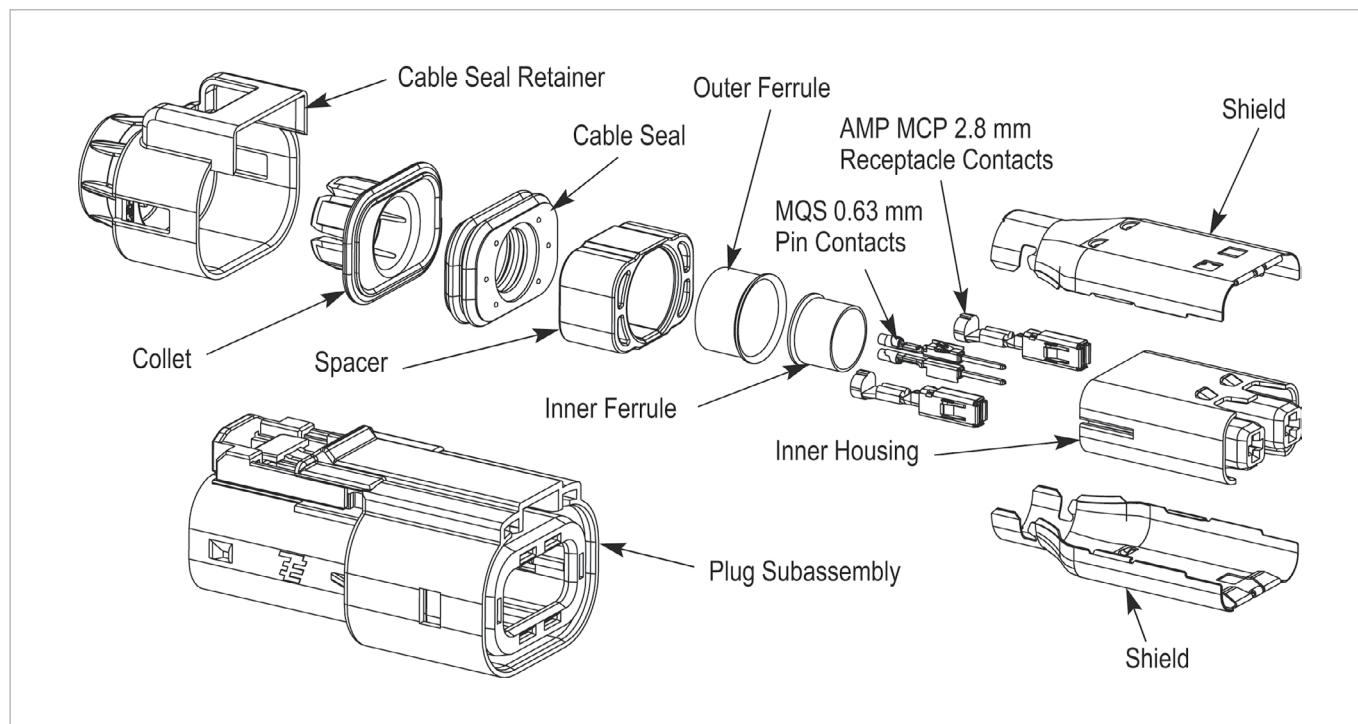


## AMP+ High Current Connectors and Headers

### AMP+ HVA 280

Kit Number **YHV280-2pm-p-4mm-E**

AMP+ HVA 280

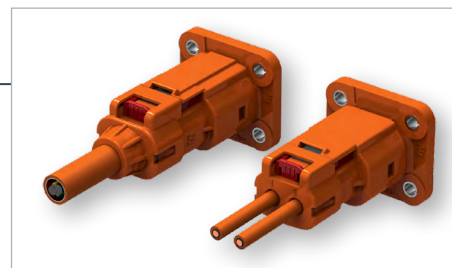


### AMP+ HVA 280 CONNECTOR SERIES

<b>Position</b>	2
<b>Cable Size</b>	4 mm <sup>2</sup>
<b>Wire Type</b>	Multicore
<b>HVIL</b>	Present, Pass-Through
<b>Key Coding</b>	E
<b>Validated Cables</b>	Kromberg & Schubert 64994093
<b>Application Specification</b>	114-13310
<b>Product Specification</b>	108-32020
<b>Mating Header PN</b>	2103124-5

### BILL OF MATERIALS

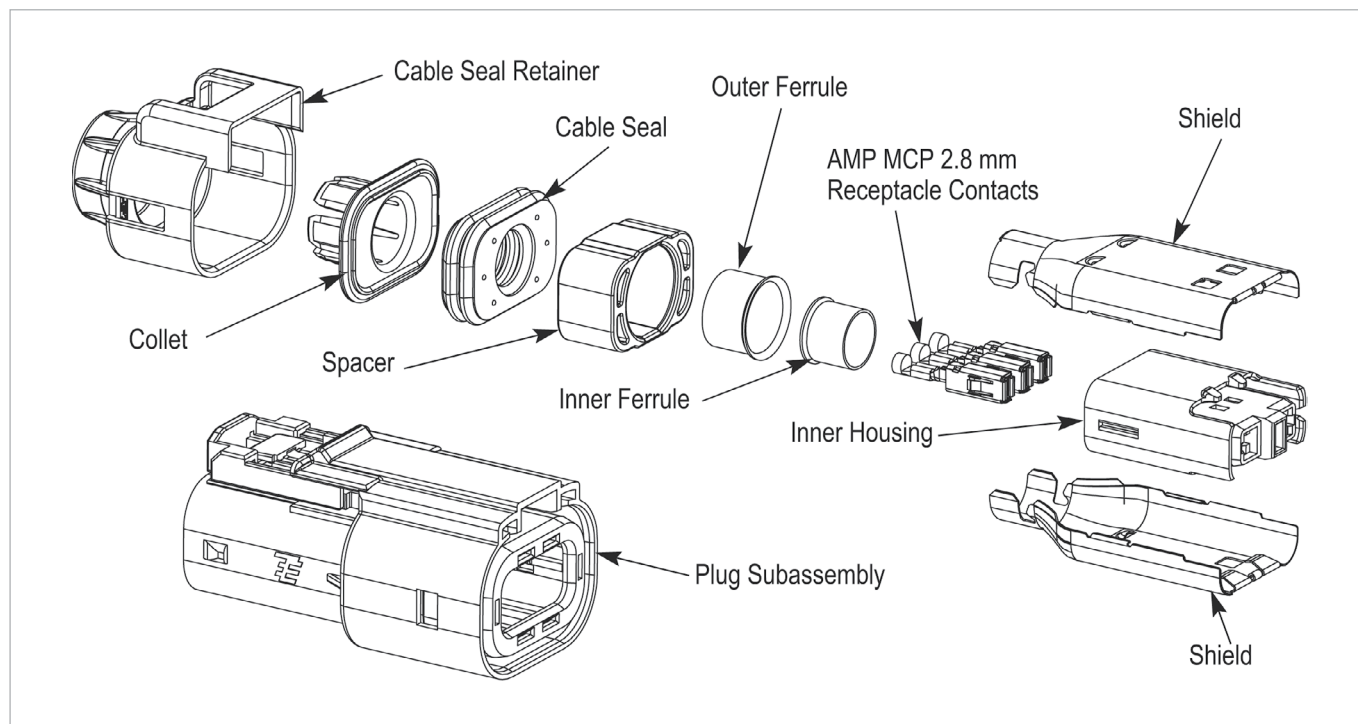
Part Number	Description	Quantity
4-2103015-5	Plug subassy, finger latch, with CPA, Key E	1
1587977-2	Inner housing, pass-through HVIL	1
5-963716-2	MQS terminal, .5-.75 mm <sup>2</sup>	2
1-968853-3	AMP MCP 2.8, 2.5-4.0 mm <sup>2</sup>	2
1-2103157-1	Shield	2
1587723-3	Inner ferrule	1
1587724-3	Outer ferrule	1
2103153-1	Spacer	1
2103154-1	Cable seal	1
2103155-1	Collet	1
2103013-1	Cable seal retainer	1



## AMP+ High Current Connectors and Headers

### AMP+ HVA 280

Kit Number **YHVA280-3pxm-A-000**

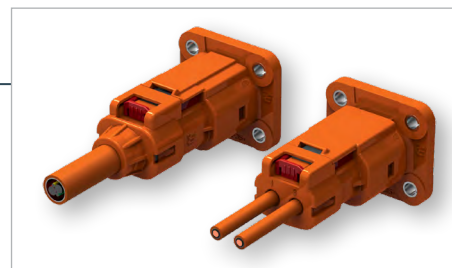


#### AMP+ HVA 280 CONNECTOR SERIES

<b>Position</b>	3
<b>Cable Size</b>	2.5 mm <sup>2</sup>
<b>Wire Type</b>	Multicore
<b>HVIL</b>	Not present
<b>Key Coding</b>	A
<b>Validated Cables</b>	Coroplast 9-2641
<b>Application Specification</b>	114-32056
<b>Product Specification</b>	108-32020
<b>Mating Header PN</b>	
Outer Housing	2103247-1
Inner Housing	2103321-1

#### BILL OF MATERIALS

Part Number	Description	Quantity
4-2103015-1	Plug subassy, finger accessible with CPA, Key A	1
2103306-1	Inner housing	1
1-2103157-2	Shield, plug, Ag	2
1587723-2	Inner ferrule	1
1587724-2	Outer ferrule	1
2103153-1	Spacer	1
2103154-2	Cable seal	1
2103155-2	Collet	1
2103013-2	Cable seal retainer	1
1-968851-3	AMP MCP 2.8 terminal female, Ag, >1.0-2.5 mm <sup>2</sup>	3

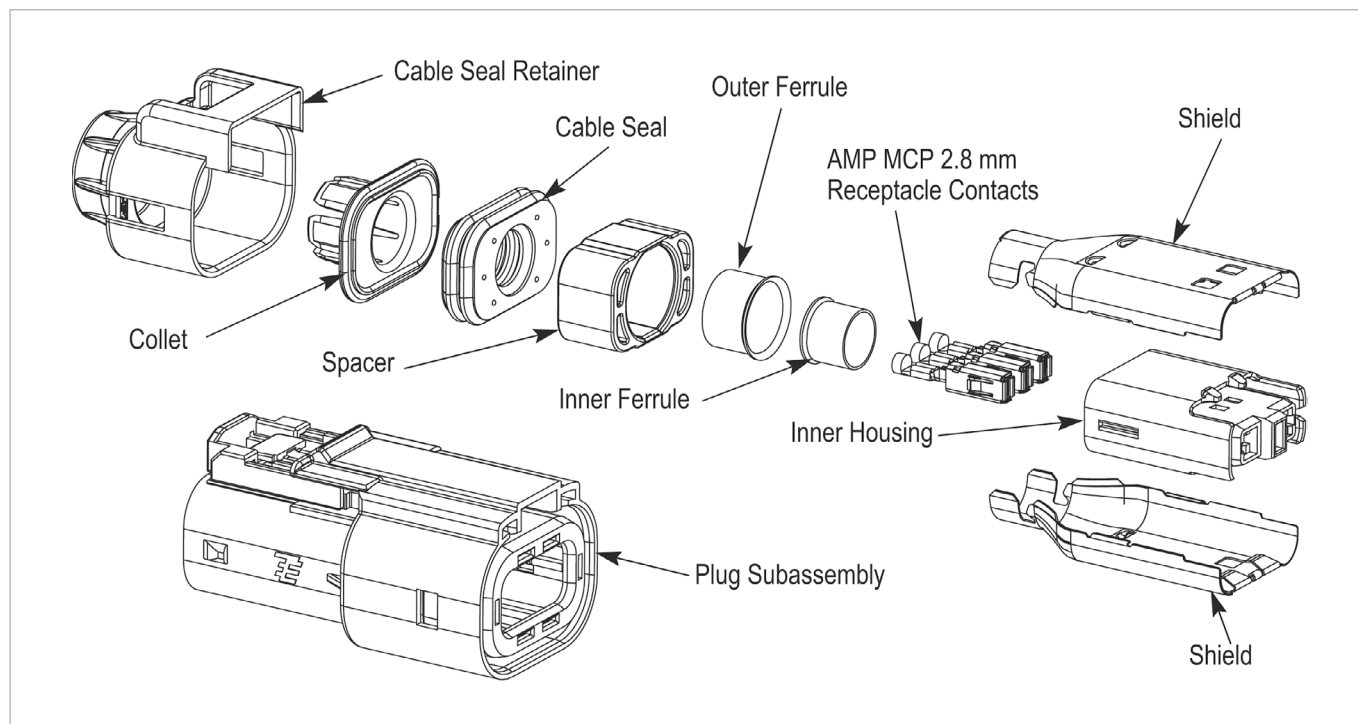


## AMP+ High Current Connectors and Headers

### AMP+ HVA 280

Kit Number **YHVA280-3pxm-B-000**

AMP+ HVA 280

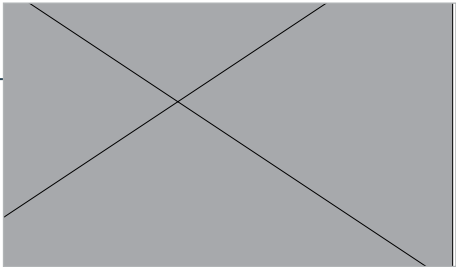


### AMP+ HVA 280 CONNECTOR SERIES

<b>Position</b>	3
<b>Cable Size</b>	2.5 mm <sup>2</sup>
<b>Wire Type</b>	Multicore
<b>HVIL</b>	Not present
<b>Key Coding</b>	B
<b>Validated Cables</b>	Coroplast 9-2641
<b>Application Specification</b>	114-32056
<b>Product Specification</b>	108-32020
<b>Mating Header PN</b>	
Outer Housing	2103247-2
Inner Housing	2103321-2

### BILL OF MATERIALS

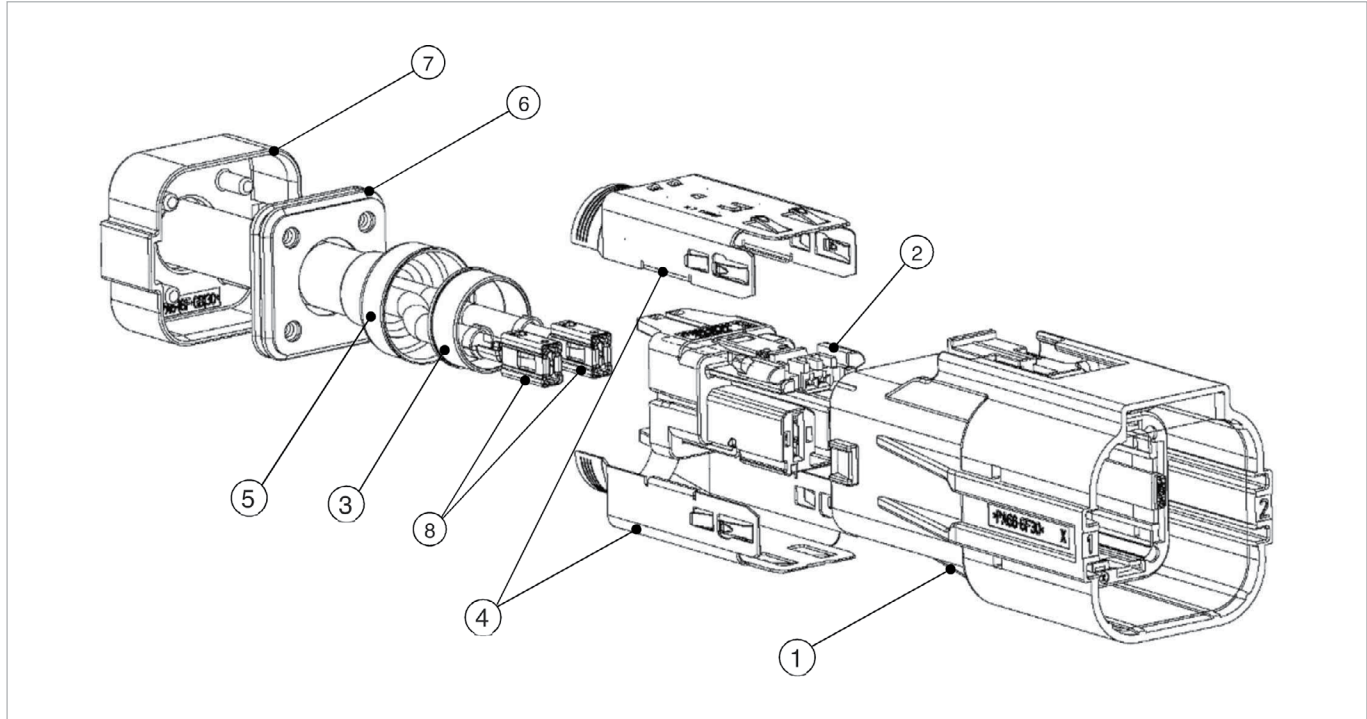
Part Number	Description	Quantity
4-2103015-2	Plug subassy, finger accessible with CPA, Key B	1
2103306-1	Inner housing	1
1-2103157-2	Shield, plug, Ag	2
1587723-2	Inner ferrule	1
1587724-2	Outer ferrule	1
2103153-1	Spacer	1
2103154-2	Cable seal	1
2103155-2	Collet	1
2103013-2	Cable seal retainer	1
1-968851-3	AMP MCP 2.8 terminal female, Ag, >1.0-2.5 mm <sup>2</sup>	3



## AMP+ High Current Connectors and Headers

### AMP+ HVA 630

Kit Number **YHVA630-2phm-4mm-A**



#### AMP+ HVA 630 CONNECTOR SERIES

<b>Position</b>	2
<b>Cable Size</b>	4 mm <sup>2</sup>
<b>Wire Type</b>	Multicore
<b>HVIL</b>	Bridge in the connector
<b>Key Coding</b>	A
<b>Validated Cables</b>	Coroplast 9-2641
<b>Application Specification</b>	114-94100
<b>Product Specification</b>	108-94264
<b>Mating Header PN</b>	
90°	1-2141272-1
180°	2-2141272-1

#### BILL OF MATERIALS

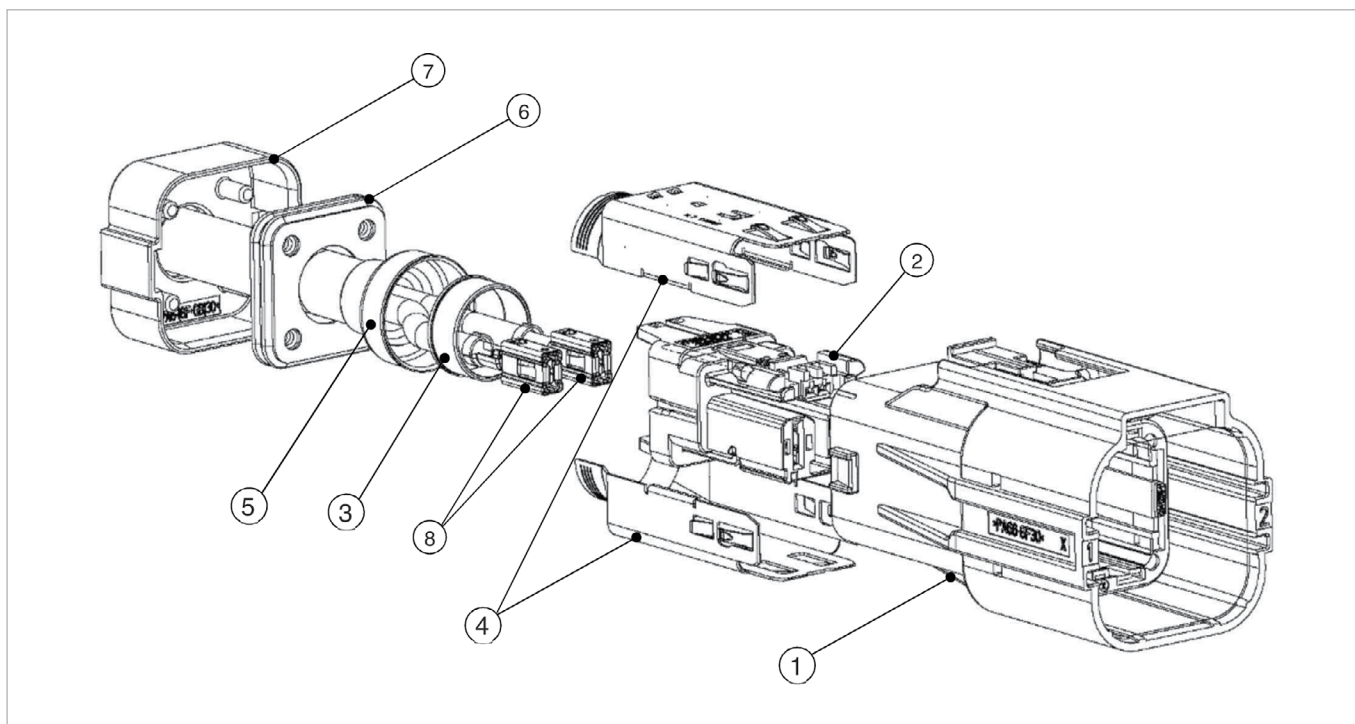
Item No	Part Number	Description	Quantity
①	2141256-1	Plug housing assy, Code A	1
②	2141259-1	Receptacle housing assy	1
③	2141261-1	Shield crimp ferrule, inner	1
④	2141262-3	Shielding	2
⑤	2141263-3	Outer crimp ferrule	1
⑥	2141264-3	Cable seal	1
⑦	2141265-3	Cover	1
⑧	2-1241408-3	AMP MCP 6.3/4.8 contact	2



## AMP+ High Current Connectors and Headers

### AMP+ HVA 630

Kit Number **YHVA630-2phm-6mm-A**



#### AMP+ HVA 630 CONNECTOR SERIES

<b>Position</b>	2
<b>Cable Size</b>	6 mm <sup>2</sup>
<b>Wire Type</b>	Multicore
<b>HVIL</b>	Bridge in the connector
<b>Key Coding</b>	A
<b>Validated Cables</b>	Coroplast 9-2641
<b>Application Specification</b>	114-94100
<b>Product Specification</b>	108-94264
<b>Mating Header PN</b>	
90°	1-2141272-1
180°	2-2141272-1

#### BILL OF MATERIALS

Item No	Part Number	Description	Quantity
①	2141256-1	Plug housing assy, Code A	1
②	2141259-1	Receptacle housing assy	1
③	2141261-1	Shield crimp ferrule, inner	1
④	2141262-3	Shielding	2
⑤	2141263-4	Outer crimp ferrule	1
⑥	2141264-4	Cable seal	1
⑦	2141265-4	Cover	1
⑧	2-1241408-3	AMP MCP 6.3/4.8 contact	2

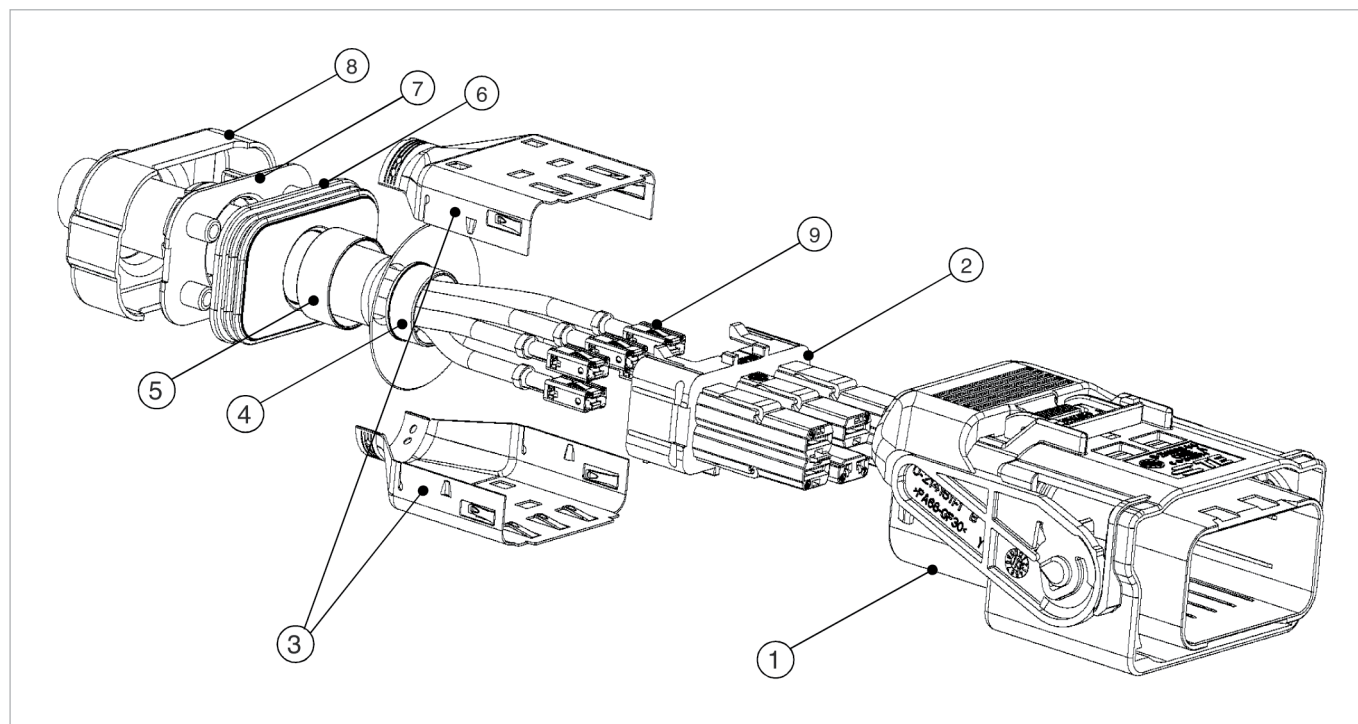




## AMP+ High Current Connectors and Headers

### AMP+ HVA 630

Kit Number **YHVA630-3phm-4mm-A**



#### AMP+ HVA 630 CONNECTOR SERIES

<b>Position</b>	3
<b>Cable Size</b>	4 mm <sup>2</sup>
<b>Wire Type</b>	Multicore
<b>HVIL</b>	Bridge in the connector
<b>Key Coding</b>	A
<b>Validated Cables</b>	Coroplast 9-2641
<b>Application Specification</b>	114-94114
<b>Product Specification</b>	108-94235
<b>Mating Header PN</b>	
90°	2141269-1
180°	2236454-1

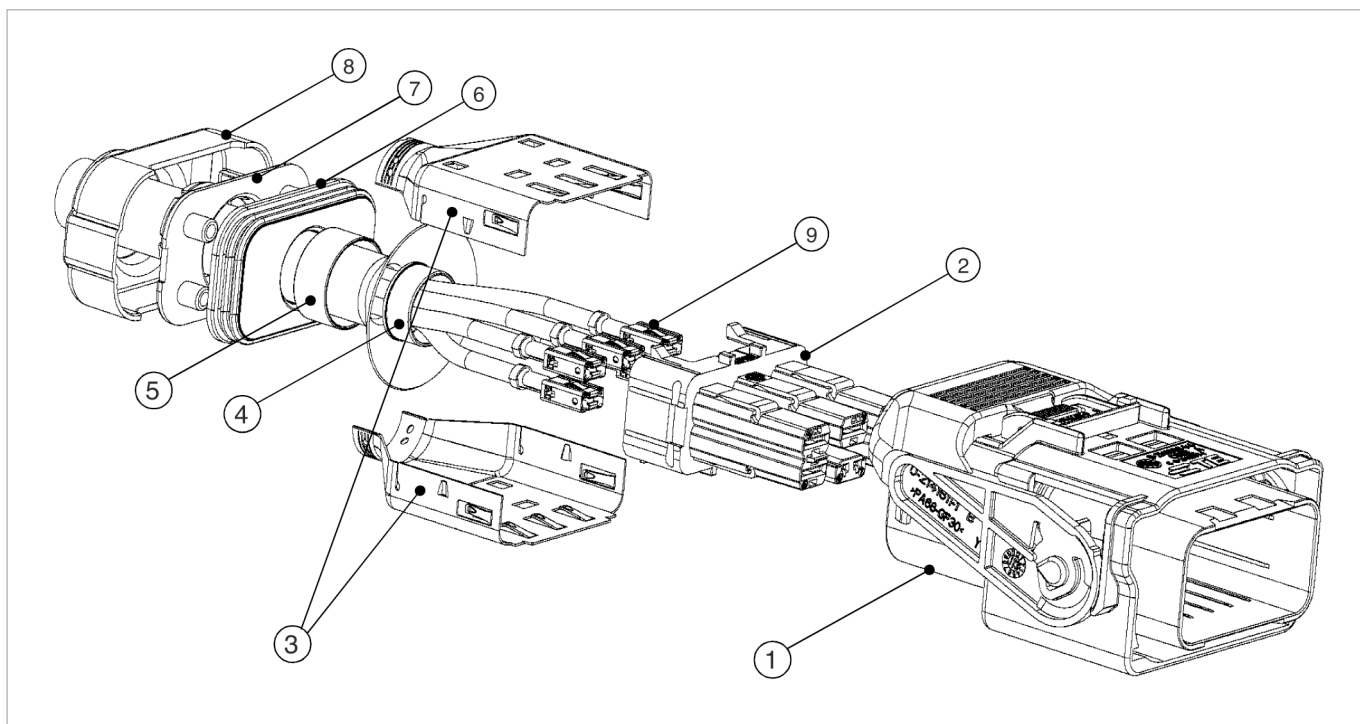
#### BILL OF MATERIALS

Item No	Part Number	Description	Quantity
①	2141608-4	Outer housing assy with CPA, Code A	1
②	2141630-1	Receptacle housing assy with HVIL	1
③	2141616-1	Shielding	2
④	2141261-1	Shield crimp ferrule, inner	1
⑤	2141617-1	Outer crimp ferrule	1
⑥	2141612-3	Cable seal	1
⑦	2141613-3	Carrier cable seal	1
⑧	2141614-3	Cover cable seal	1
⑨	2-1241408-3	AMP MCP 6.3/4.8 contact	3

## AMP+ High Current Connectors and Headers

### AMP+ HVA 630

Kit Number **YHVA630-4phm-4mm-A**



### AMP+ HVA 630 CONNECTOR SERIES

<b>Position</b>	4
<b>Cable Size</b>	4 mm <sup>2</sup>
<b>Wire Type</b>	Multicore
<b>HVIL</b>	Bridge in the connector
<b>Key Coding</b>	A
<b>Validated Cables</b>	Coroplast 9-2641
<b>Application Specification</b>	114-94114
<b>Product Specification</b>	108-94235
<b>Mating Header PN</b>	
90°	2141269-1
180°	2236454-1

### BILL OF MATERIALS

Item No	Part Number	Description	Quantity
①	2141608-4	Outer housing assy with CPA, Code A	1
②	2141630-1	Receptacle housing assy with HVIL	1
③	2141616-1	Shielding	2
④	2141261-1	Shield crimp ferrule, inner	1
⑤	2141617-1	Outer crimp ferrule	1
⑥	2141612-4	Cable seal	1
⑦	2141613-4	Carrier cable seal	1
⑧	2141614-4	Cover cable seal	1
⑨	2-1241408-3	AMP MCP 6.3/4.8 contact	4

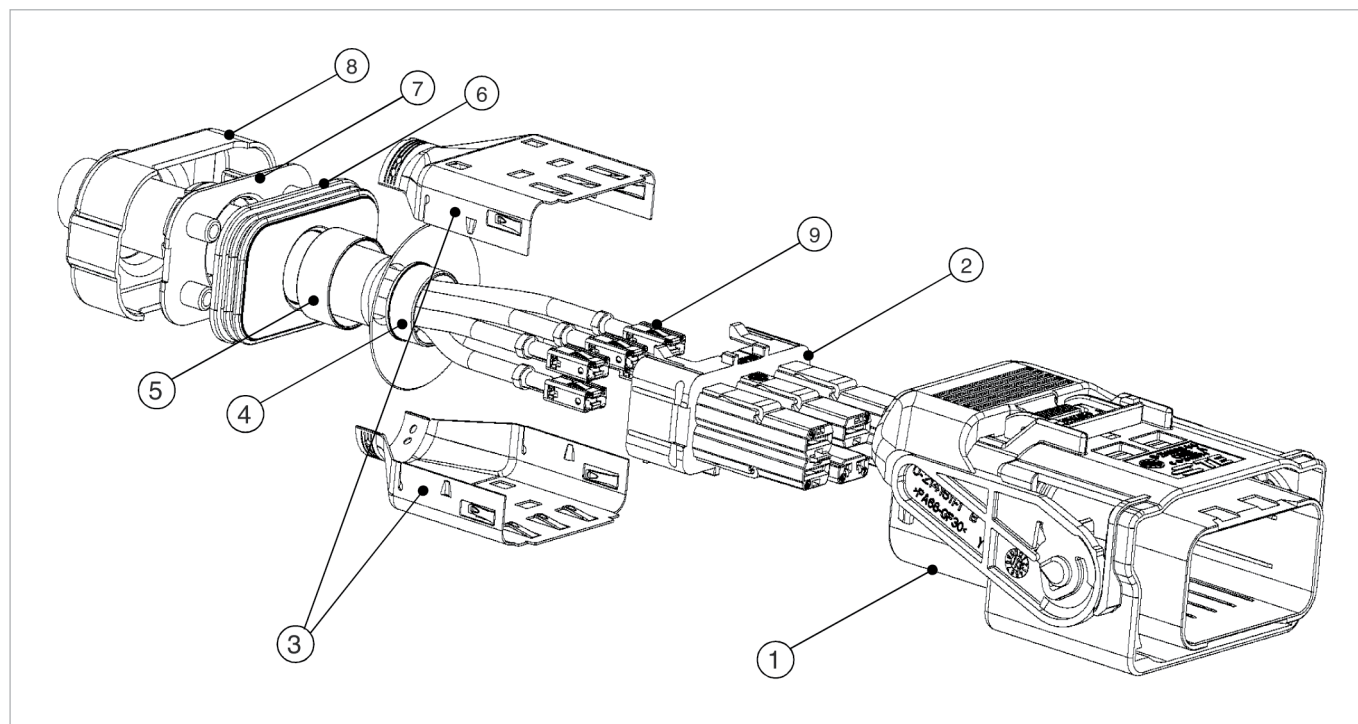




## AMP+ High Current Connectors and Headers

### AMP+ HVA 630

Kit Number **YHVA630-5phm-6mm-A**



#### AMP+ HVA 630 CONNECTOR SERIES

<b>Position</b>	5
<b>Cable Size</b>	6 mm <sup>2</sup>
<b>Wire Type</b>	Multicore
<b>HVIL</b>	Bridge in the connector
<b>Key Coding</b>	A
<b>Validated Cables</b>	Coroplast 9-2641
	Huber+Suhner 84 130 729
<b>Application Specification</b>	114-94114
<b>Product Specification</b>	108-94235
<b>Mating Header PN</b>	
90°	2141269-1
180°	2236454-1

#### BILL OF MATERIALS

Item No	Part Number	Description	Quantity
①	2141608-4	Outer housing assy with CPA, Code A	1
②	2141630-1	Receptacle housing assy with HVIL	1
③	2141616-1	Shielding	2
④	2141261-1	Shield crimp ferrule, inner	1
⑤	2141617-1	Outer crimp ferrule	1
⑥	2141612-5	Cable seal	1
⑦	2141613-5	Carrier cable seal	1
⑧	2141614-5	Cover cable seal	1
⑨	2-1241408-3	AMP MCP 6.3/4.8 contact	5

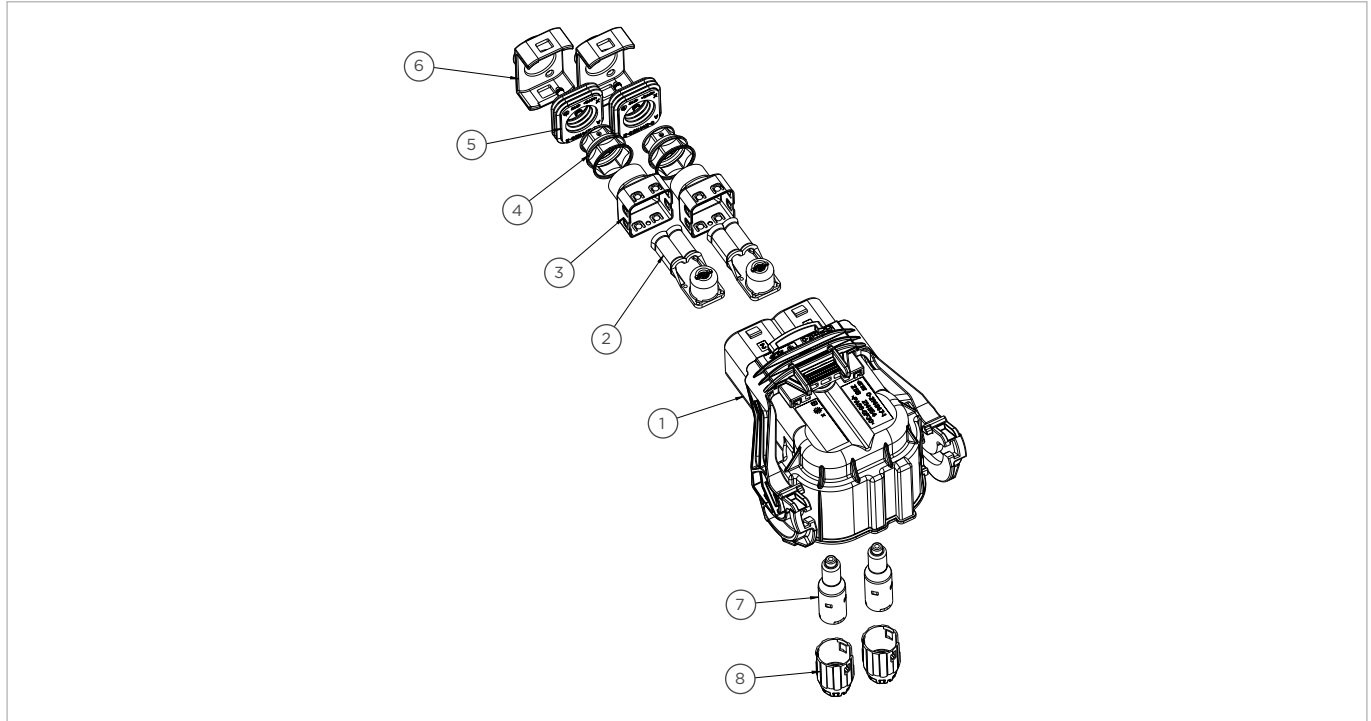


## AMP+ High Current Connectors and Headers

### AMP+ HVP 800

Kit Number **YHV800-2p-90-50m-A**

AMP+ HVP 800



#### AMP+ HVP 800 CONNECTOR SERIES

<b>Position</b>	2
<b>Cable Size</b>	50 mm <sup>2</sup>
<b>Connector Orientation</b>	90°
<b>Wire Type</b>	Individually Shielded
<b>HVIL</b>	Bridge in the connector
<b>Key Coding</b>	A
<b>Validated Cables</b>	Coroplast 9-2611
<b>Application Specification</b>	114-94052
<b>Product Specification</b>	108-94268
<b>Mating Header PN</b>	2141227-1

#### BILL OF MATERIALS

Item No	Part Number	Description	Quantity
①	1-2141154-1	2Pos, Rec Hsg 90° Assy, Key A	1
②	2141211-2	Deep drawn socket, 90°, Assy	2
③	9-2141158-2	Shielding sleeve, 90°	2
④	9-2141157-1	Shield crimp ferrule, 90°	2
⑤	2141156-1	Single wire seal	2
⑥	2141155-1	Cover, seal	2
⑦	2141212-1	Deep drawn socket, Pin 90°, Assy	2
⑧	2141159-1	Finger protection cap	2

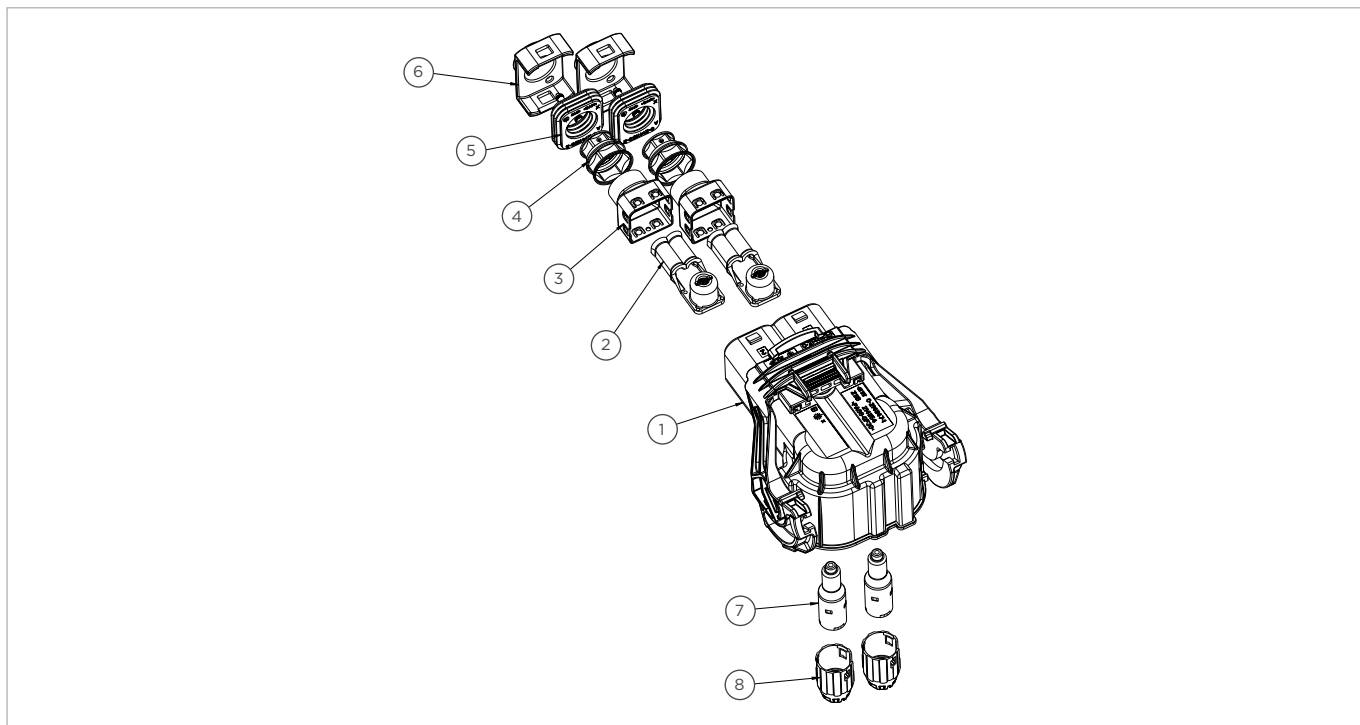


## AMP+ High Current Connectors and Headers

### AMP+ HVP 800

Kit Number **YHV800-2p-90-50m-B**

AMP+ HVP 800



#### AMP+ HVP 800 CONNECTOR SERIES

<b>Position</b>	2
<b>Cable Size</b>	50 mm <sup>2</sup>
<b>Connector Orientation</b>	90°
<b>Wire Type</b>	Individually Shielded
<b>HVIL</b>	Bridge in the connector
<b>Key Coding</b>	B
<b>Validated Cables</b>	Coroplast 9-2611
<b>Application Specification</b>	114-94052
<b>Product Specification</b>	108-94268
<b>Mating Header PN</b>	2141227-2

#### BILL OF MATERIALS

Item No	Part Number	Description	Quantity
①	1-2141154-2	2Pos, Rec Hsg 90° Assy, Key B	1
②	2141211-2	Deep drawn socket, 90°, Assembly	2
③	9-2141158-2	Shielding sleeve, 90°	2
④	9-2141157-1	Shield crimp ferrule, 90°	2
⑤	2141156-1	Single wire seal	2
⑥	2141155-1	Cover, seal	2
⑦	2141212-1	Deep drawn socket, Pin 90°, Assembly	2
⑧	2141159-1	Finger protection cap	2

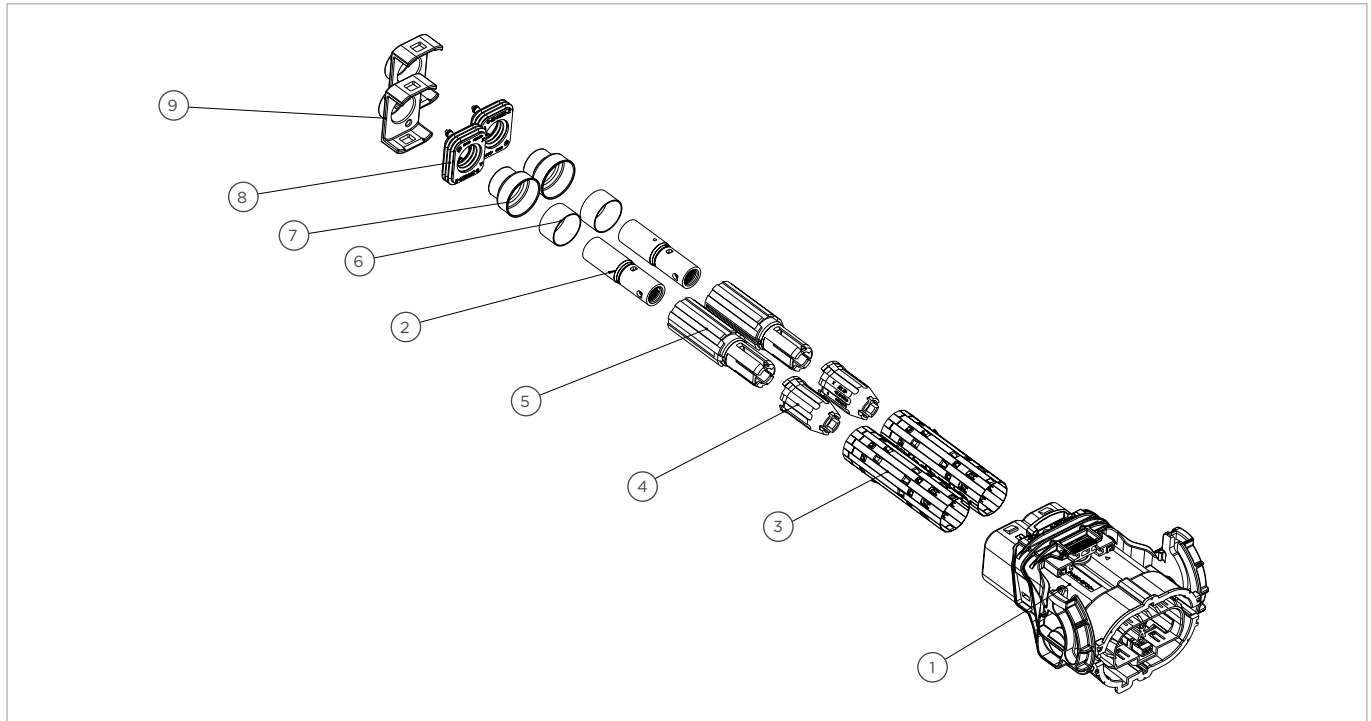


## AMP+ High Current Connectors and Headers

### AMP+ HVP 800

Kit Number **YH800-2p-180-50m-A**

AMP+ HVP 800



### AMP+ HVP 800 CONNECTOR SERIES

<b>Position</b>	2
<b>Cable Size</b>	50 mm <sup>2</sup>
<b>Connector Orientation</b>	180°
<b>Wire Type</b>	Individually Shielded
<b>HVIL</b>	Bridge in the connector
<b>Key Coding</b>	A
<b>Validated Cables</b>	Coroplast 9-2611
<b>Application Specification</b>	114-94130
<b>Product Specification</b>	108-94297
<b>Mating Header PN</b>	2141227-1

### BILL OF MATERIALS

Item No	Part Number	Description	Quantity
①	1-2177053-1	2Pos, Rec Hsg 180° Assy, Key A	1
②	2208608-3	Stamped contact, 50 mm <sup>2</sup> , 180°, Assy	2
③	2177060-3	Shielding Sleeve, 180°	2
④	2177059-1	Finger Protection Cap, 180°	2
⑤	2177058-1	Insulation insert, 180°	2
⑥	2177061-2	Inner crimp ferrule, 180°	2
⑦	2177090-1	Shield crimp ferrule, 180°	2
⑧	2141156-1	Single wire seal	2
⑨	2141155-1	Cover, seal	2

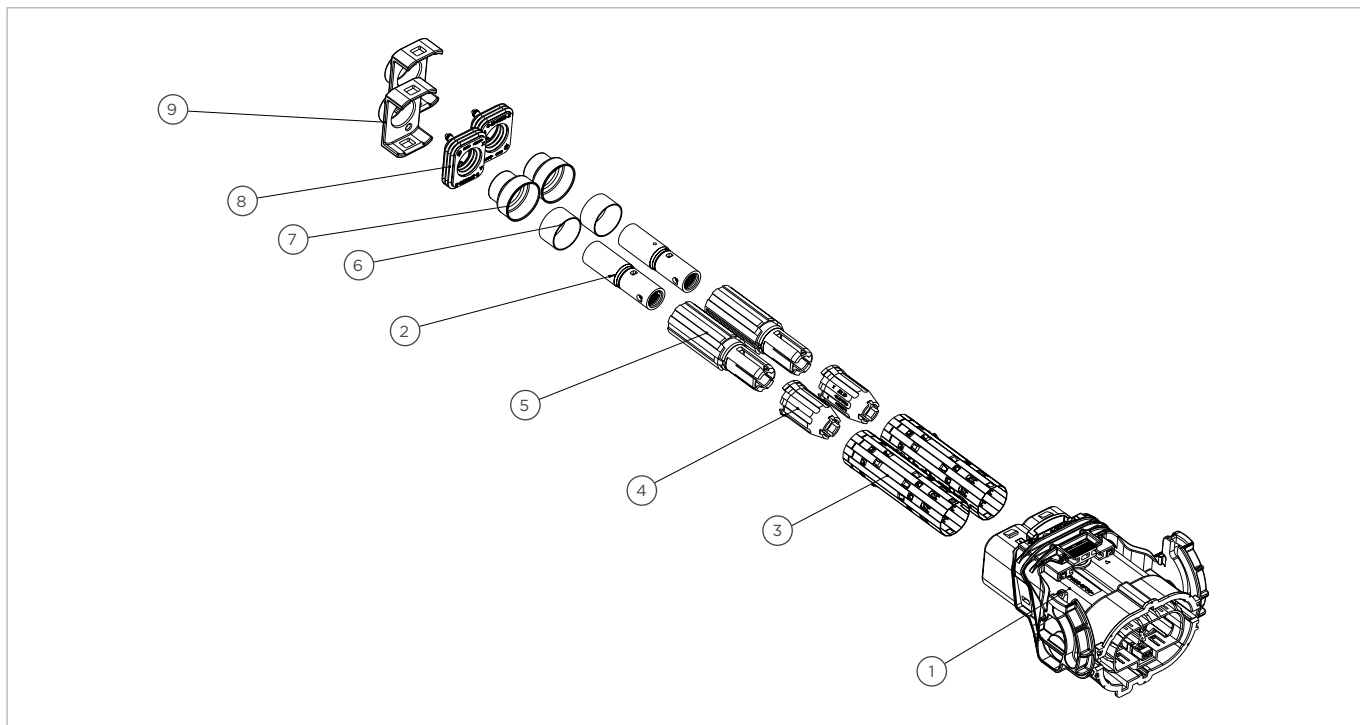


## AMP+ High Current Connectors and Headers

### AMP+ HVP 800

Kit Number **YH800-2p-180-50m-B**

AMP+ HVP 800



#### AMP+ HVP 800 CONNECTOR SERIES

<b>Position</b>	2
<b>Cable Size</b>	50 mm <sup>2</sup>
<b>Connector Orientation</b>	180°
<b>Wire Type</b>	Individually Shielded
<b>HVIL</b>	Bridge in the connector
<b>Key Coding</b>	B
<b>Validated Cables</b>	Coroplast 9-2611
<b>Application Specification</b>	114-94130
<b>Product Specification</b>	108-94297
<b>Mating Header PN</b>	2141227-2

#### BILL OF MATERIALS

Item No	Part Number	Description	Quantity
①	1-2177053-3	2Pos, Rec Hsg 180° Assy, Key B	1
②	2208608-3	Stamped contact, 50 mm <sup>2</sup> , 180°, Assy	2
③	2177060-3	Shielding Sleeve, 180°	2
④	2177059-1	Finger Protection Cap, 180°	2
⑤	2177058-1	Insulation insert, 180°	2
⑥	2177061-2	Inner crimp ferrule, 180°	2
⑦	2177090-1	Shield crimp ferrule, 180°	2
⑧	2141156-1	Single wire seal	2
⑨	2141155-1	Cover, seal	2

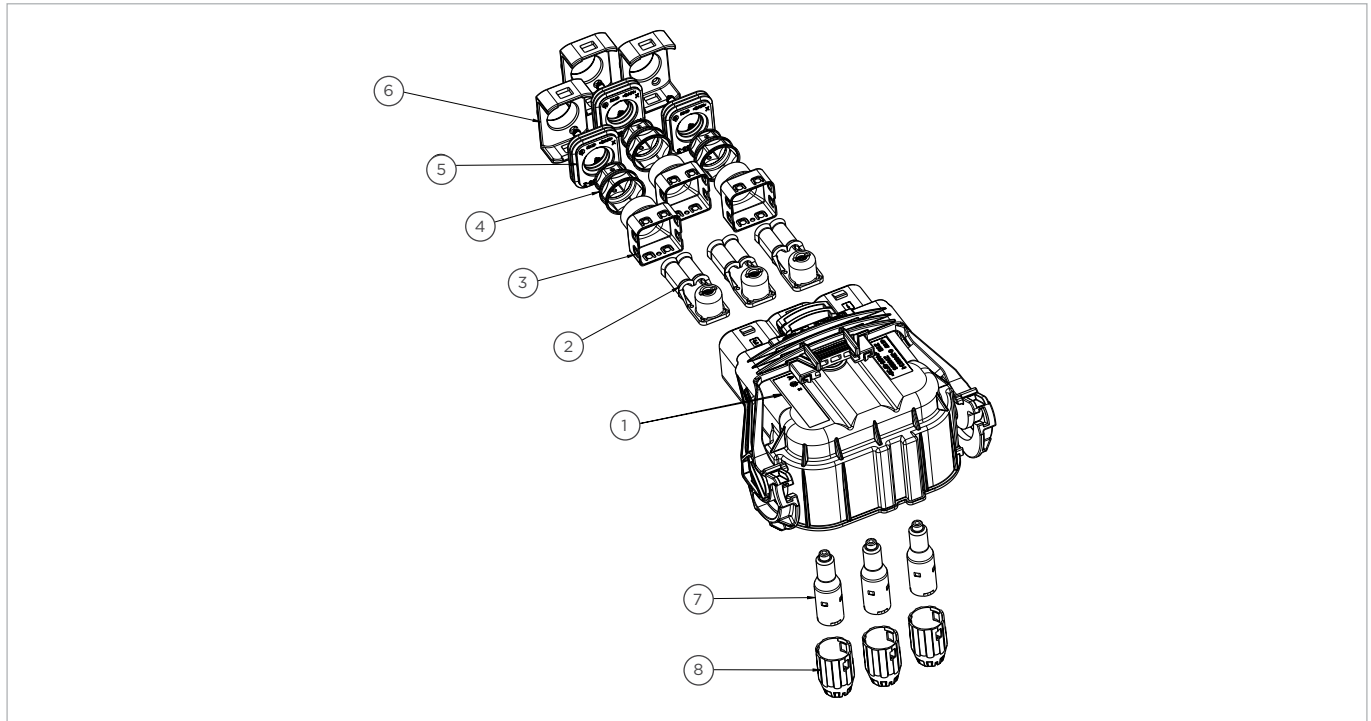


## AMP+ High Current Connectors and Headers

### AMP+ HVP 800

Kit Number **YHV800-3p-90-50m-A**

AMP+ HVP 800



### AMP+ HVP 800 CONNECTOR SERIES

<b>Position</b>	3
<b>Cable Size</b>	50 mm <sup>2</sup>
<b>Connector Orientation</b>	90°
<b>Wire Type</b>	Individually Shielded
<b>HVIL</b>	Bridge in the connector
<b>Key Coding</b>	A
<b>Validated Cables</b>	Coroplast 9-2611
<b>Application Specification</b>	114-94052
<b>Product Specification</b>	108-94268
<b>Mating Header PN</b>	2141230-1

### BILL OF MATERIALS

Item No	Part Number	Description	Quantity
①	1-2141166-1	3 Pos, Rec Hsg 90° Assy, Key A	1
②	2141211-2	Deep drawn socket, 90°, Assy	3
③	9-2141158-2	Shielding Sleeve, 90°	3
④	9-2141157-1	Shield crimp ferrule, 90°	3
⑤	2141156-1	Single wire seal	3
⑥	2141155-1	Cover, seal	3
⑦	2141212-1	Deep drawn socket, Pin 90°, Assy	3
⑧	2141159-1	Finger Protection Cap	3

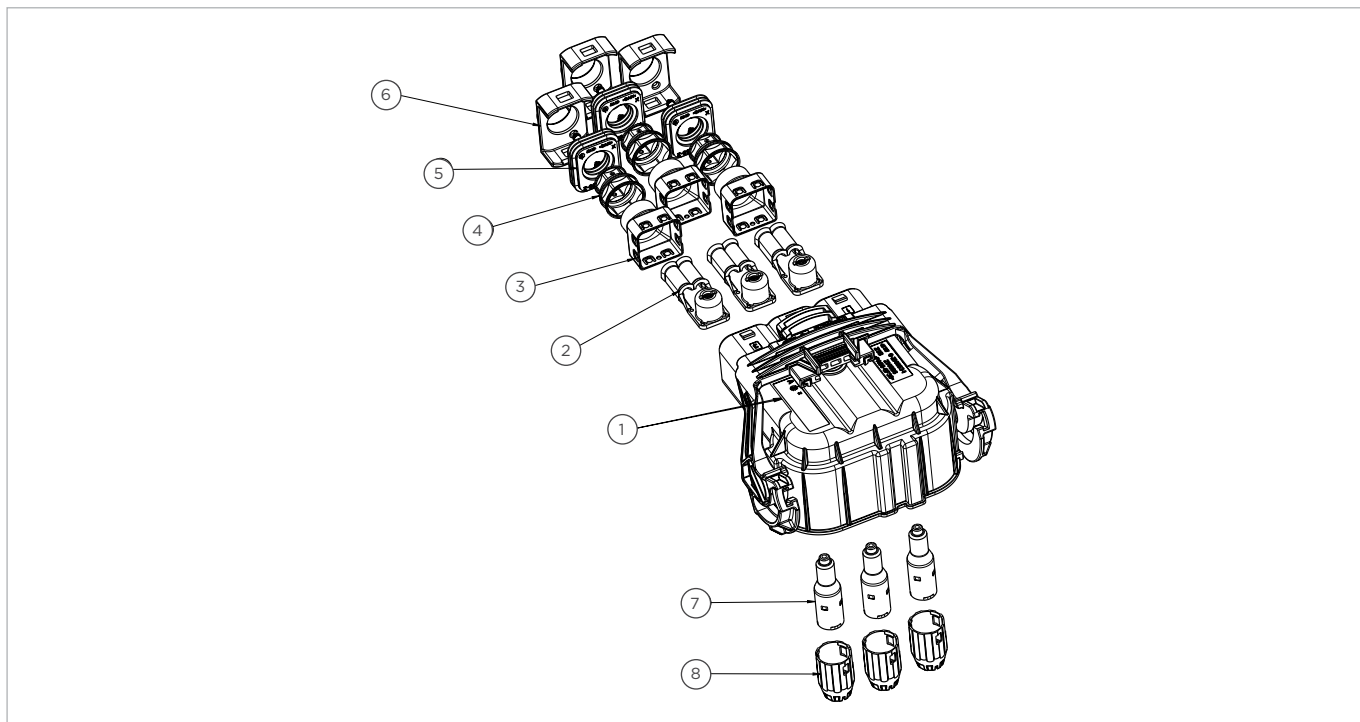


## AMP+ High Current Connectors and Headers

### AMP+ HVP 800

Kit Number **YHV800-3p-90-50m-B**

AMP+ HVP 800



### AMP+ HVP 800 CONNECTOR SERIES

<b>Position</b>	3
<b>Cable Size</b>	50 mm <sup>2</sup>
<b>Connector Orientation</b>	90°
<b>Wire Type</b>	Individually Shielded
<b>HVIL</b>	Bridge in the connector
<b>Key Coding</b>	B
<b>Validated Cables</b>	Coroplast 9-2611
<b>Application Specification</b>	114-94052
<b>Product Specification</b>	108-94268
<b>Mating Header PN</b>	2141230-2

### BILL OF MATERIALS

Item No	Part Number	Description	Quantity
①	1-2141166-2	3 Pos, Rec Hsg 90° Assy, Key B	1
②	2141211-2	Deep drawn socket, 90°, Assy	3
③	9-2141158-2	Shielding Sleeve, 90°	3
④	9-2141157-1	Shield crimp ferrule, 90°	3
⑤	2141156-1	Single wire seal	3
⑥	2141155-1	Cover, seal	3
⑦	2141212-1	Deep drawn socket, Pin 90°, Assy	3
⑧	2141159-1	Finger Protection Cap	3



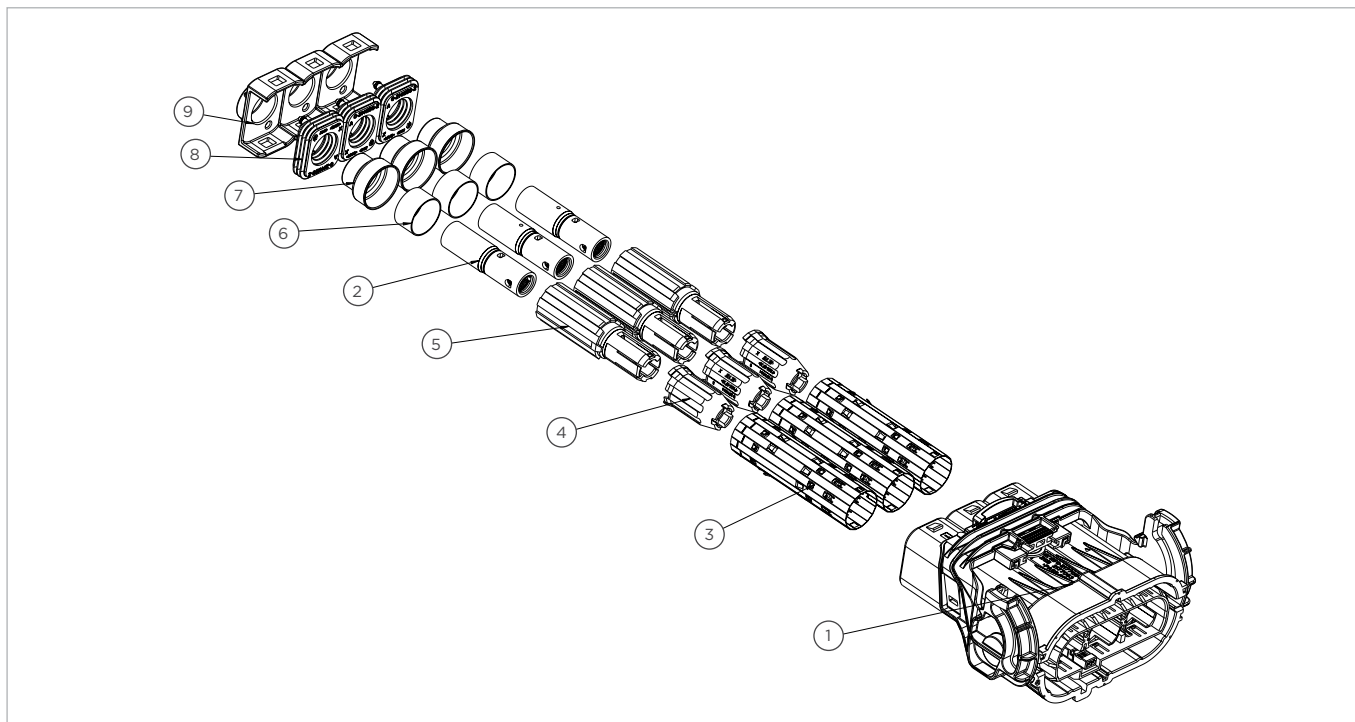


## AMP+ High Current Connectors and Headers

### AMP+ HVP 800

Kit Number **YH800-3p-180-50m-A**

AMP+ HVP 800



#### AMP+ HVP 800 CONNECTOR SERIES

<b>Position</b>	3
<b>Cable Size</b>	50 mm <sup>2</sup>
<b>Connector Orientation</b>	180°
<b>Wire Type</b>	Individually Shielded
<b>HVIL</b>	Bridge in the connector
<b>Key Coding</b>	A
<b>Validated Cables</b>	Coroplast 9-2611
<b>Application Specification</b>	114-94130
<b>Product Specification</b>	108-94297
<b>Mating Header PN</b>	2141230-1

#### BILL OF MATERIALS

Item No	Part Number	Description	Quantity
①	1-2177063-1	3 Pos, Rec Hsg 180° Assy, Key A	1
②	2208608-3	Stamped contact, 50 mm <sup>2</sup> , 180°, Assy	3
③	2177060-3	Shielding Sleeve, 180°	3
④	2177059-1	Finger Protection Cap, 180°	3
⑤	2177058-1	Insulation insert, 180°	3
⑥	2177061-2	Inner crimp ferrule, 180°	3
⑦	2177090-1	Shield crimp ferrule, 180°	3
⑧	2141156-1	Single wire seal	3
⑨	2141155-1	Cover, seal	3

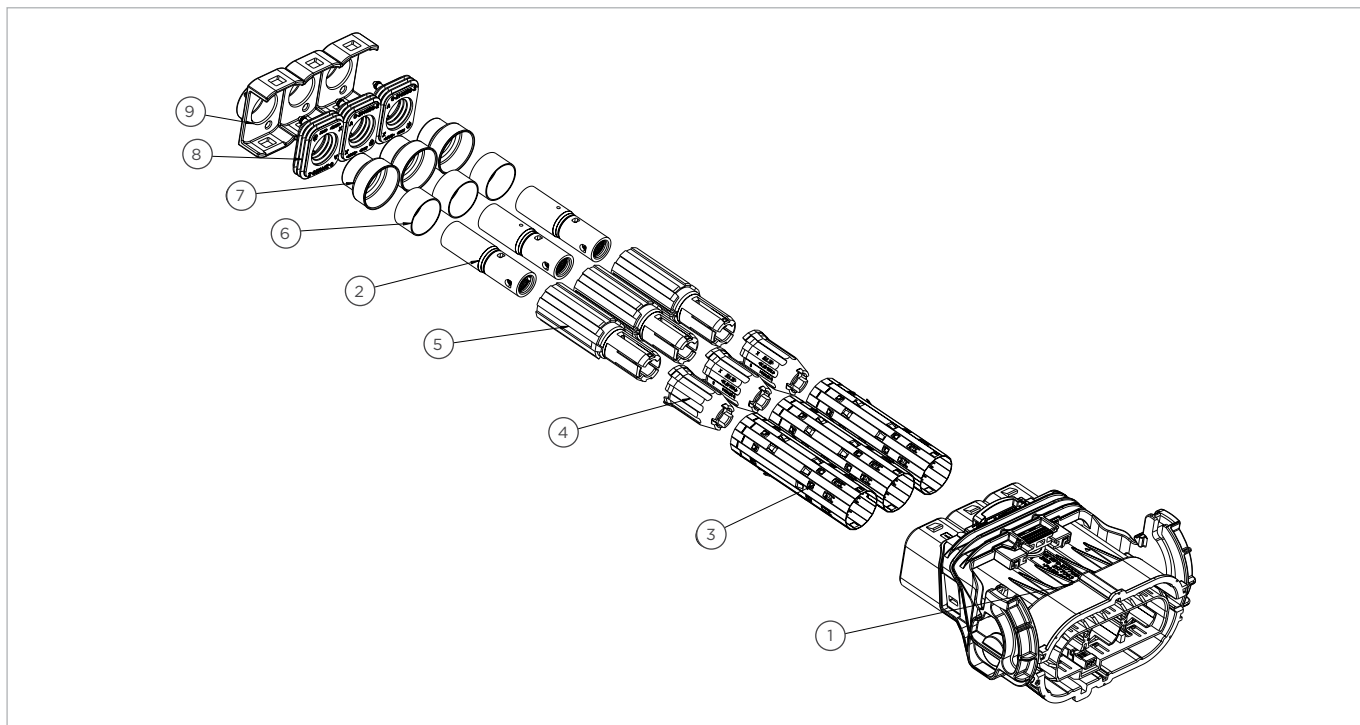


## AMP+ High Current Connectors and Headers

### AMP+ HVP 800

Kit Number **YH800-3p-180-50m-B**

AMP+ HVP 800



#### AMP+ HVP 800 CONNECTOR SERIES

<b>Position</b>	3
<b>Cable Size</b>	50 mm <sup>2</sup>
<b>Connector Orientation</b>	180°
<b>Wire Type</b>	Individually Shielded
<b>HVIL</b>	Bridge in the connector
<b>Key Coding</b>	B
<b>Validated Cables</b>	Coroplast 9-2611
<b>Application Specification</b>	114-94130
<b>Product Specification</b>	108-94297
<b>Mating Header PN</b>	2141230-2

#### BILL OF MATERIALS

Item No	Part Number	Description	Quantity
①	1-2177063-3	3 Pos, Rec Hsg 180° Assy, Key B	1
②	2208608-3	Stamped contact, 50 mm <sup>2</sup> , 180°, Assy	3
③	2177060-3	Shielding Sleeve, 180°	3
④	2177059-1	Finger Protection Cap, 180°	3
⑤	2177058-1	Insulation insert, 180°	3
⑥	2177061-2	Inner crimp ferrule, 180°	3
⑦	2177090-1	Shield crimp ferrule, 180°	3
⑧	2141156-1	Single wire seal	3
⑨	2141155-1	Cover, seal	3



NOTES



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**NOTES**



A large grid of 20 columns and 30 rows of dots. Several dots are highlighted in orange, while the rest are grey. The highlighted dots are located at the following approximate coordinates (row, column): (1, 6), (2, 15), (3, 11), (4, 1), (5, 14), (6, 19), (7, 15), (8, 10), (9, 14), (10, 1), (11, 15), (12, 19), (13, 14), (14, 19), (15, 1), (16, 15), (17, 19), (18, 1), (19, 15), (20, 19), (21, 1), (22, 15), (23, 19), (24, 1), (25, 15), (26, 19), (27, 1), (28, 15), (29, 19), (30, 1).

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TE Connectivity is a global industrial technology leader creating a safer, sustainable, productive, and connected future. Our broad range of connectivity and sensor solutions, proven in the harshest environments, enable advancements in transportation, industrial applications, medical technology, energy, data communications, and the home. With more than 85,000 employees, including over 8,000 engineers, working alongside customers in approximately 140 countries, TE ensures that EVERY CONNECTION COUNTS. Learn more at [www.te.com](http://www.te.com) and on LinkedIn, Facebook, WeChat and Twitter.

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