

# MCON INTERCONNECTION SYSTEM

for the Automotive Industry

# INNOVATIVE TECHNOLOGIES

TE Connectivity (TE) is a leader in automotive connectivity and sensor technology. Our engineers are always working to meet complex requirements. We connect nearly every electronic function in the vehicle - from alternative power systems to infotainment and sensor technologies. Our technologies withstand harsh environments and tolerate high temperature, vibration, shock, pressure and long-life in electronic control systems.



## INTERCONNECTION SYSTEMS

Our electrical and electronic interconnection products and solutions are used to electrically and mechanically connect wires and cables, printed circuit boards, integrated circuit packages, batteries and more.



## CABLE ASSEMBLIES

TE is your partner for vehicle-specific cable assemblies. We offer research and development capabilities, prototypes and samples, as well as manufacturing facilities.



## HYBRID & ELECTRIC MOBILITY SOLUTIONS

Our technologies leverage decades of innovation and experience with high-voltage transmission and distribution. Our hybrid and electric mobility solutions include a complete line of connectors, terminals, sensors, cable assemblies, contactors, and battery connection protection to help safeguard the flow of power in hybrid and electric vehicles. Connection after connection, you can count on TE for smaller, greener, lighter and smarter solutions you can trust.



## SENSOR SOLUTIONS

Data is critical for making vehicles safer, greener, smarter and more connected. Customers rely on our sensor technology to provide data for control, adaptation and response of vehicle functions and features that increase safety, comfort, efficiency, and more. We collaborate to provide solutions for demanding and harsh applications such as automated transmissions, engines, chassis, clutch, brake and exhaust. Our products can be found in vehicles traveling the world's roads and highways.





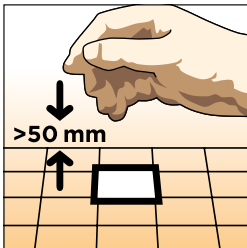

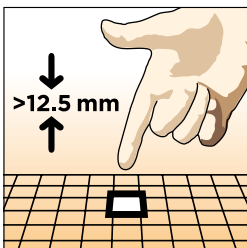
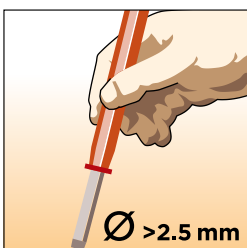
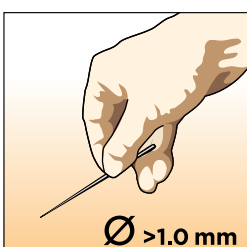
## INFOTAINMENT


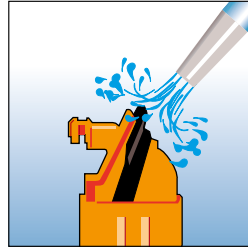
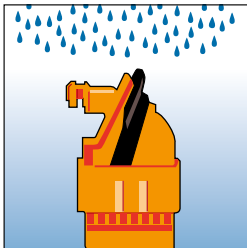

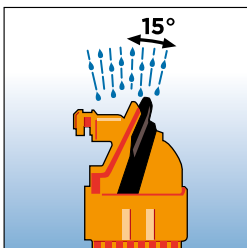

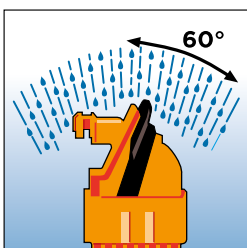
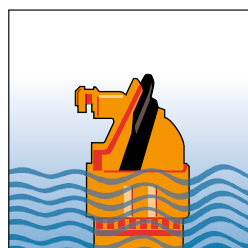
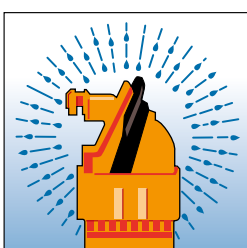
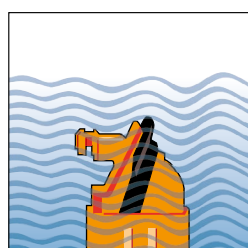
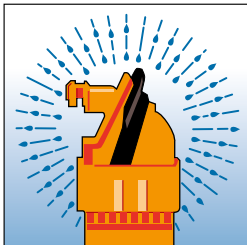

Our wide range of infotainment solutions are ideal for consumer port connections, high data rate applications, next-generation harness architecture, board-to-board connections and vehicle-to-vehicle communication.



## RELAYS

From passenger comfort and infotainment to higher DC voltages and power levels to harsh environments, our relays and contactors provide critical switching functions in multiple vehicle applications. With increased contact gaps and other key design features, our relays are ideal for harsh environments such as shock and vibration.

1st Digit	Against Foreign Objects (incl. Dust)	1st Digit	Against Foreign Objects (incl. Dust)
0	 <p>Not protected.</p>	5K	 <p>Dust protected.</p>
1	 <p>Protected against solid objects greater than 50 mm (ex. back of hand).</p>	6K	 <p>Dust tight.</p>
2	 <p>Protected against solid objects greater than 12.5 mm (ex. finger).</p>		
3	 <p>Protected against solid objects greater than 2.5 mm (ex. tool).</p>		
4	 <p>Protected against solid objects greater than 1.0 mm (ex. wire).</p>		

2nd Digit	Against Water	2nd Digit	Against Water
0	 <p>Not protected.</p>	5	 <p>Protected against jetting water.</p>
1	 <p>Protected against vertically dripping water.</p>	6	 <p>Protected against powerfully jetting water.</p>
2	 <p>Protected against dripping water when tilted up to 15°.</p>	6K	 <p>Protected against powerfully jetting water with increased pressure (Automotive).</p>
3	 <p>Protected against spraying water (up to 60° inclination).</p>	7	 <p>Protected against the temporary effects of immersion up to 1 meter.</p>
4	 <p>Protected against splashing water.</p>	8	 <p>Protected against continuous submersion agreed with customer, but more severe than code 7.</p>
4K	 <p>Protected against splashing water with increased pressure.</p>	9K	 <p>Protected against high-pressure/steam-jet cleaning (Automotive).</p>

# Good Crimp Quality

<p>Bellmouth permissible</p> <p>Bellmouth must always be present</p> <p>Cut-off tab present</p>	<p>F-CRIMP</p>	<p>Crimp barrel closed</p> <p>Insulation is securely held</p>
<p>Insulation visible</p> <p>Conductor visible</p> <p>Locking lances and terminal body not deformed</p>	<p>OVERLAP CRIMP</p>	<p>Crimp legs overlap</p> <p>Insulation is securely held</p>
<p>Anvil imprint symmetrical</p>	<p>WRAP OVER CRIMP</p>	<p>Crimp legs must pass each other</p> <p>Insulation is securely held</p>
<p>Correct selection</p> <p><b>of wire, terminal and applicator</b></p> <p>Crimp barrel is closed, legs support each other, sufficient gap between legs and bottom of crimp, all strands are equally distributed and deformed</p>		

## Test

<p>WIRE CRIMP</p>	<p>Crimp heights and tolerances</p> <p>For crimp height tolerances for any given contact, please refer to the relevant application specification.</p> <p><b>Examples</b></p> <table border="1"> <thead> <tr> <th>Contact</th> <th>P/N</th> <th>Wire Range</th> <th>Tolerance</th> <th>Spec.</th> </tr> </thead> <tbody> <tr> <td>JJPT</td> <td>927775</td> <td>0.50-1.00 mm<sup>2</sup></td> <td>±0.05 mm</td> <td>114-18050</td> </tr> <tr> <td>JPT</td> <td>927773</td> <td>1.50-2.50 mm<sup>2</sup></td> <td>±0.05 mm</td> <td>114-18050</td> </tr> <tr> <td>MQS</td> <td>962885</td> <td>0.20-0.50 mm<sup>2</sup></td> <td>±0.03 mm</td> <td>114-18025</td> </tr> </tbody> </table>	Contact	P/N	Wire Range	Tolerance	Spec.	JJPT	927775	0.50-1.00 mm <sup>2</sup>	±0.05 mm	114-18050	JPT	927773	1.50-2.50 mm <sup>2</sup>	±0.05 mm	114-18050	MQS	962885	0.20-0.50 mm <sup>2</sup>	±0.03 mm	114-18025	<p>WIRE CRIMP</p>
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<p>INSULATION CRIMP</p>	<p>Wire crimp without conductor</p> <p>Insulation must be securely held after bend test (one bend cycle)</p>	<p>Digital crimp height micrometer (0.001 mm increments) according to DIN ISO 9001 Part number: 547203-1</p>																				

# Incorrect Crimp Quality

<p>Terminal body damaged</p>	<p>F-CRIMP</p>	<p>Crimp legs are not closed</p> <p>Insulation is pierced</p>
<p>Single core crimped on terminal</p>	<p>INSULATION CRIMP OVERLAP CRIMP</p>	<p>Crimp legs do not overlap</p> <p>Insulation is pierced</p>
<p>Terminal twisted</p>	<p>WRAP OVER CRIMP</p>	<p>Insulation is not securely held</p> <p>Insulation is over crimped</p>
<p>Cut off tab too long</p>	<p>Conductor brush protrudes into terminal body</p> <p>Insulation inside the wire crimp</p>	
<p>Crimp barrel distorted</p>	<p>Wire bent</p>	
<p>Terminal bent</p>	<p>Terminal bent</p>	

Correct  
Incorrect  
Test

At TE Connectivity, we support your RoHS requirements. We've assessed more than 1.5 million end items/components for RoHS compliance, and issued new part numbers where any change was required to eliminate the restricted materials. Part numbers in this catalog are identified as:

### **RoHS Compliant**

Part numbers in this catalog are RoHS Compliant, unless marked otherwise. These products comply with European Union Directive 2002/95/EC as amended 1 January 2006 that restricts the use of lead, mercury, cadmium, hexavalent chromium, PBB, and PBDE in certain electrical and electronic products sold into the EU as of 1 July 2006.

Note: For purposes of this Catalog, included within the definition of RoHS Compliant are products that are clearly "Out of Scope" of the RoHS Directive such as hand tools and other non-electrical accessories.

### **Non-RoHS Compliant**

These part numbers are identified with a "t" symbol. These products do not comply with the material restrictions of the European Union Directive 2002/95/EC.

### **5 of 6 Compliant**

A "l" symbol identifies these part numbers. These products do not fully comply with the European Union Directive 2002/95/EC because they contain lead in solderable interfaces (they do not contain any of the other five restricted substances above allowable limits). However, these products may be suitable for use in RoHS applications where there is an application-based exception for lead in solders, such as the server, storage, or networking infrastructure exemption.

Note: Information regarding RoHS compliance is provided based on reasonable inquiry of our suppliers and represents our current actual knowledge based on the information provided by our suppliers. This information is subject to change. For latest compliance status, refer to our website referenced below. So whatever your questions when it comes to RoHS, we've got the answers at <http://www.TE.com/customersupport/rohssupportcenter/>

### **Getting the information you need**

Our comprehensive on-line RoHS Customer Support Center provides a forum to answer your questions and support your RoHS needs. A RoHS FAQ (Frequently Asked Questions) is available with links to more detailed information. You can also submit RoHS questions and receive a response within 24 hours during a normal work week. The Support Center also provides:

- Cross-Reference from Non-compliant to Compliant Products
- Ability to browse RoHS Compliant Products in our on-line catalog:  
[www.TE.com/commerce/alt/RohsAltHome.do](http://www.TE.com/commerce/alt/RohsAltHome.do)
- Downloadable Technical Data Customer Information Presentation
- More detailed information regarding the definitions used above



**Conversion Tables**  
**AWG Conversion Table (Average Value)**

AWG Code	Diameter (Inch)	Diameter (mm)	F (mm <sup>2</sup> )
000000	0.5800	14.733	170.0
00000	0.5165	13.13	135.0
0000	0.4600	11.684	103.8
000	0.4096	10.40	79.0
00	0.3648	9.27	67.5
0	0.3249	8.25	53.4
1	0.2893	7.34	42.2
2	0.2576	6.55	33.7
3	0.2294	5.82	26.6
4	0.2043	5.18	21.0
5	0.1819	4.62	16.9
6	0.1620	4.115	13.25
7	0.1443	3.66	10.25
8	0.1285	3.26	8.34
9	0.1144	2.90	6.6
10	0.1019	2.59	5.27
11	0.0907	2.30	4.15
12	0.0808	2.05	3.3
13	0.0720	1.83	2.63
14	0.0641	1.63	2.08
15	0.0571	1.45	1.65
16	0.0508	1.29	1.305
17	0.0453	1.14	1.01
18	0.0403	1.02	0.79
19	0.0359	0.91	0.65
20	0.0320	0.81	0.51
21	0.0285	0.72	0.407
22	0.0253	0.64	0.32
23	0.0226	0.57	0.255
24	0.0201	0.51	0.205
25	0.0179	0.455	0.162
26	0.0159	0.40	0.125
27	0.0142	0.36	0.102
28	0.0126	0.320	0.08
29	0.0113	0.287	0.0646
30	0.0100	0.254	0.0516
31	0.0089	0.226	0.04
32	0.0080	0.203	0.0324
33	0.0071	0.180	0.0255
34	0.0063	0.160	0.02
35	0.0056	0.142	0.0158
36	0.0050	0.127	0.0127
37	0.0045	0.114	0.01
38	0.0040	0.101	0.008
39	0.0035	0.089	0.0062
40	0.0031	0.079	0.0049
41	0.0028	0.071	0.00395
42	0.0025	0.064	0.00321
43	0.0022	0.056	0.00246
44	0.00198	0.050	0.00196
45	0.00176	0.045	
46	0.00157	0.040	
47	0.00140	0.036	
48	0.00124	0.031	
49	0.00110	0.028	
50	0.00099	0.025	

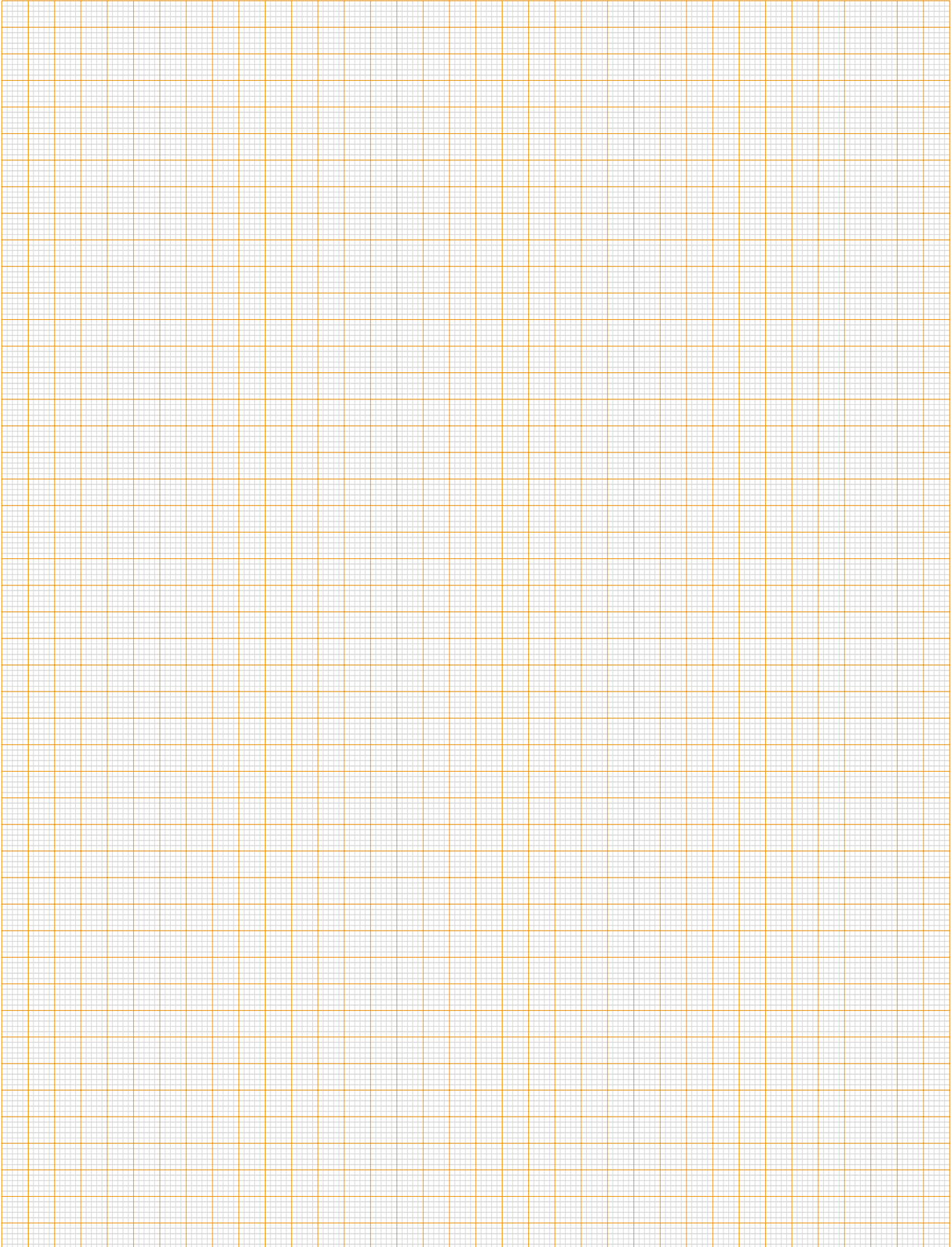
Remark: Starting from 0.03 mm<sup>2</sup> (AWG 32) a wire can be crimped.

**MCON  
Interconnection  
System**

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**MCON  
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POWERTRAIN SYSTEMS



SAFETY & SECURITY SYSTEMS



CONVENIENCE



DRIVER INFORMATION



BODY & CHASSIS SYSTEMS



## MCON TAB AND RECEPTACLE CONTACTS

### MCON INTERCONNECTION SYSTEM INTRODUCTION

MCON is a series of contact systems commonly used for electrical and electronic applications for passenger cars and commercial vehicles. The contact design meets standardized blade sizes and interface requirements of the automotive industry.

Except the miniaturized MCON 0.50 contact system, all contacts follow the two-piece contact design strategy to separate the electrical from the mechanical performance.

The MCON contact series is available for sealed and unsealed applications. For a fast and economic termination process, TE Application Tooling is offering a vast portfolio of application equipment.

#### The MCON advantages:

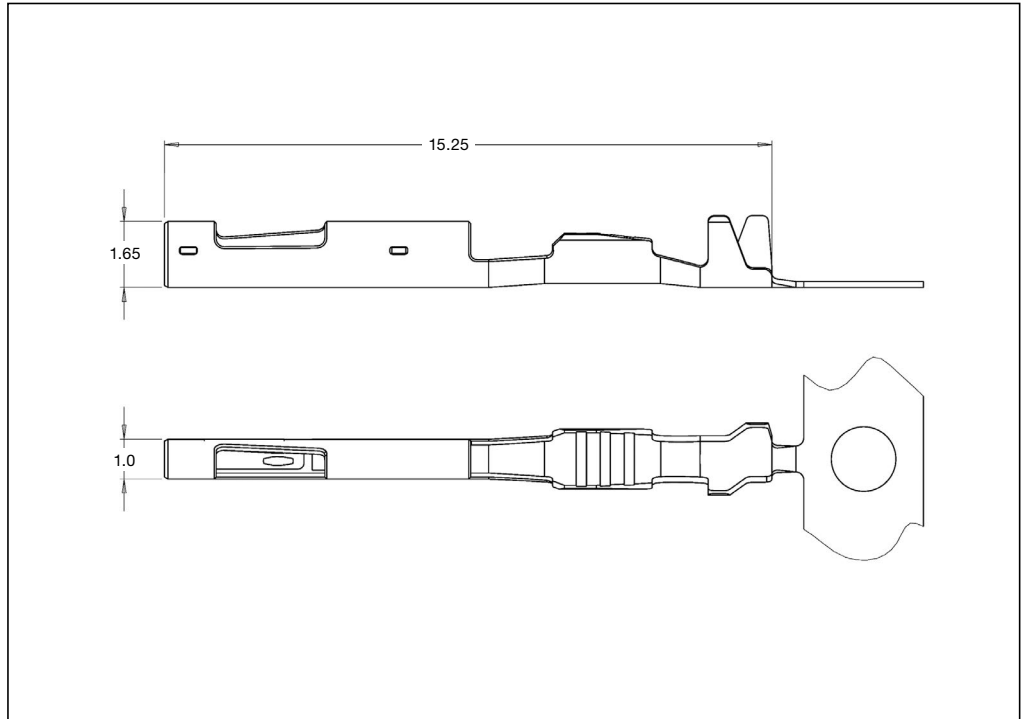
- High performance copper alloy
- Redundant contact point technology for higher reliability
- High vibration level support to meet future requirements
- Overstress protection of the contact springs
- Contact box with polarization and secondary locking feature\*
- Protected locking lance\*\*
- Sealed and unsealed version
- -40 °C up to 150 °C temperature range\*\*\*
- 3 directional secondary locking access

\* MCON 0.50, MCON 1.2, MCON 2.8 and MCON 6.3  
- same level for locking lance and secondary feature

\*\* Except clean body version

\*\*\* -40 °C to 180 °C with innovative surface technology available

**Receptacle Contacts**



**Technical Features**

**Contact Material:**

CuNiSi/CuSn

**Wire Size Range :**

0.13 – 0.35 mm<sup>2</sup>

**Current Carrying Capacity :**

up to 3 Ampere  
(@ 80 °C ambient temperature)

**Total Temperature Range :**

-40 °C ... +105 °C (tin plated)  
-40 °C ... +150 °C (gold plated)  
-40 °C ... +170 °C (silver plated)

**Insertion Force :**

Max 3.5 N

**Extraction Force:**

Max 3 N

**Extraction Tool\*:**

8-1579007-9

**Product Drawing:**

2208562

**Product Specification:**

108-94342

**Application Specification:**

114-94191

\* The option which extraction tool is the right tool for the application is dependent on the assembly of the contact and the connector.

**Standard Receptacle Contact (SRC)**

Wire Size Range (mm <sup>2</sup> )	Insulation Diameter (mm) FLR	Part Number	Material and Finish *)	Applicator ♦)	Hand Tool complete ◇)
0.13 – 0.17	0.85 – 1.10	2177908	-1 / -3	2151332-x	
0.22 – 0.35	0.95 – 1.20	2177909	-1 / -3	2151523-x	4-1579014-1
	1.20 – 1.30		-1 / -3	2151524-x	

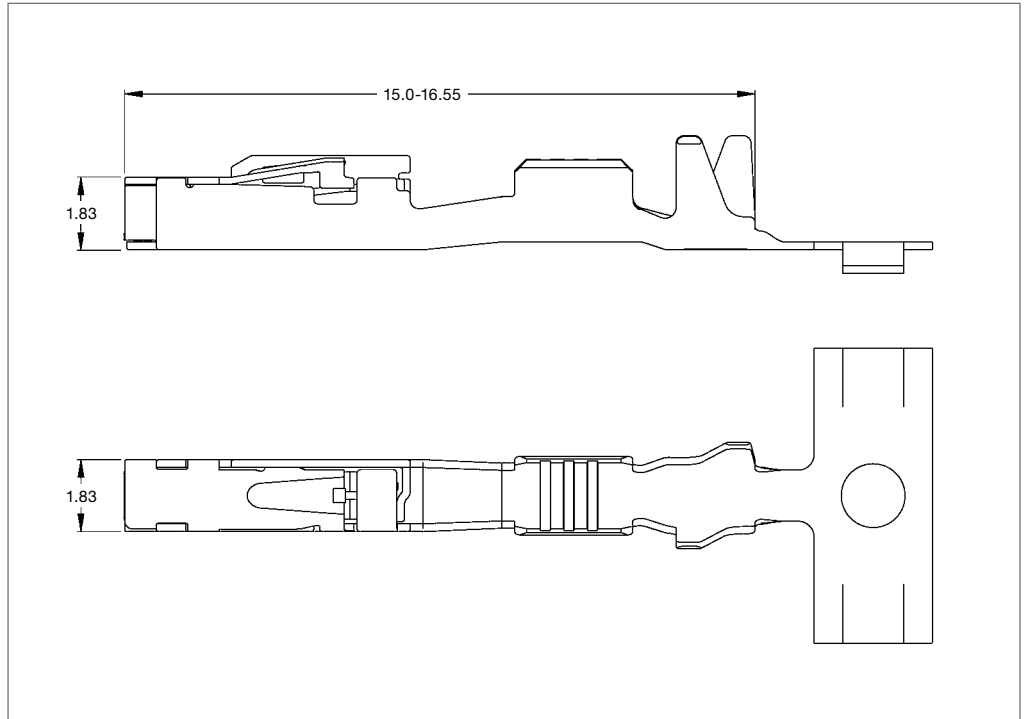
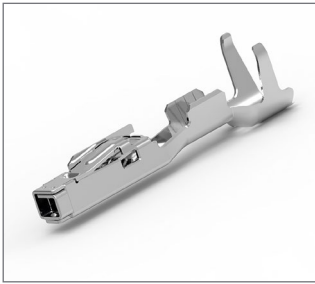
\*) **Material and Finish:** xxx-1 = CuNiSi, pre-tin plated  
xxx-3 = CuNiSi, selective silver plated

**Note:** All part numbers are RoHS and ELV compliant

♦) The pre- and suffix for the applicators depends on the applied termination equipment

◇) In case of Tooling query please contact your local TE Connectivity representative

**Receptacle Contacts – Locking Lance (LL)**



**Technical Features**

**Contact Material:**

CuSn / CuNiSi

**Wire Size Range:**

0.13 – 1.5 mm<sup>2</sup>

**Current Carrying Capacity:**

up to 17 Ampere  
(@ 80 °C ambient temperature)

**Total Temperature Range:**

-40 °C ... +130 °C (tin plated)  
-40 °C ... +150 °C (gold plated)  
-40 °C ... +150 °C (silver plated)

**Insertion Force:**

Max 4 N

**Extraction Force:**

Max 2.5 N

**Extraction Tool\*:**

5-1579007-3

**Product Drawing:**

1452674

**Product Specification:**

108-18782

**Application Specification:**

114-18464

\* The option which extraction tool is the right tool for the application is dependent on the assembly of the contact and the connector.

**Standard Receptacle Contact (SRC)**

Wire Size Range (mm <sup>2</sup> )	Insulation Diameter (mm) FLR	Part Number	Material and Finish *)	Applicator ♦)	Hand Tool	Die Set	Mating Tab Contact
0.13 – 0.22	0.85 – 1.05	2141861	-1 / -2 / -3	x-2151333-x	On request ◇)	On request ◇)	2141864
0.25 – 0.35	1.10 – 1.75	7-1452653	-1 / -2 / -3	x-2151042-x	539635-1	4-1579001-3	5-1418758
0.50 – 0.75	1.4 – 1.9	7-1452656	-1 / -2 / -3	x-2151037-x		4-1579001-2	5-1418760
1.0 – 1.5	1.9 – 2.4	7-1452659	-1 / -2 / -3	x-2151353-x		4-1579001-1	1418762

**Receptacle Contact with Single Wire Sealing (SWS) System**

Wire Size Range (mm <sup>2</sup> )	Insulation Diameter (mm) FLR	Part Number	Material and Finish *)	Applicator ♦)	Hand Tool	Die Set	Mating Tab Contact
0.13 – 0.22	0.85 – 1.05	2141970	-1 / -2 / -3	x-2151585-x	On request ◇)	On request ◇)	2141868
0.25 – 0.35	1.10 – 1.75	7-1452665	-1 / -2 / -3	x-2151041-x <sup>a)</sup> x-2266276-x <sup>b)</sup>	539635-1	4-1579001-7	1718758
0.50 – 0.75	1.4 – 1.9	7-1452668	-1 / -2 / -3	x-2151036-x		4-1579001-6	1718760
1.0 – 1.5	1.9 – 2.4	7-1452671	-1 / -2 / -3	x-2151049-x		4-1579001-5	1718762

a) Sealed Application

b) Sealed Application – Insulation crimp width 3.05mm [.120"], applies insulation diameter range of 1.10-1.75mm [.043-.069"]

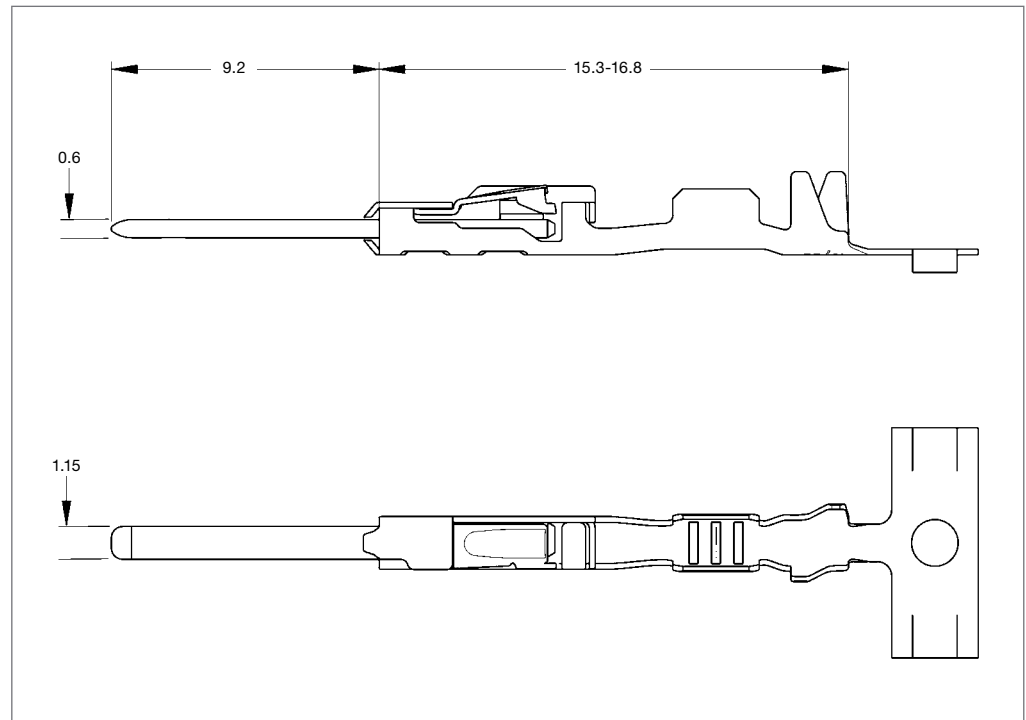
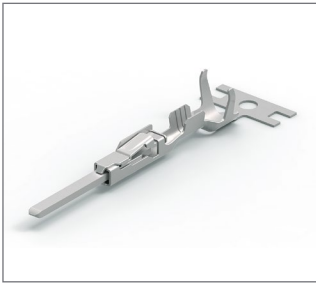
\*) **Material and Finish:** xxx-1 = CuNiSi, pre-tin plated  
xxx-2 = CuNiSi, selective gold plated  
xxx-3 = CuNiSi, selective silver plated

**Note:** All part numbers are RoHS and ELV compliant

♦) The pre- and suffix for the applicators depends on the applied termination equipment

◇) In case of Tooling query please contact your local TE Connectivity representative

**Tab Contacts – Locking Lance (LL)**



**Technical Features**

**Contact Material:**

CuSn/CuNiSi

**Wire Size Range:**

0.13-1.5 mm<sup>2</sup>

**Current Carrying Capacity:**

up to 17 Ampere  
(@ 80 °C ambient temperature)

**Total Temperature Range:**

-40 °C ... +130 °C (tin plated)  
-40 °C ... +150 °C (gold plated)  
-40 °C ... +150 °C (silver plated)

**Extraction Tool\*:**  
5-1579007-3

**Product Drawing:**  
1418754

**Product Specification:**  
108-18782

**Application Specification:**  
114-18464

\* The option which extraction tool is the right tool for the application is dependent on the assembly of the contact and the connector.

**Standard Tab Contact**

Wire Size Range (mm <sup>2</sup> )	Insulation Diameter (mm) FLR	Part Number	Material and Finish *)	Applicator ♦	Hand Tool	Die Set	Mating Rec Contact
0.13 – 0.17	0.85 – 1.2	2141864	-1 /-2/ -3	x-2151657-x	On request ◊	On request ◊	2141861
0.25 – 0.35	1.1 – 1.75	5-1418758	-1 /-2/ -3	x-2151311-x		4-1579001-3	7-1452653
0.50 – 0.75	1.4 – 1.9	5-1418760	-1 /-2/ -3	x-2151300-x	539635-1	4-1579001-2	7-1452656
1.0 – 1.5	1.9 – 2.4	1418762	-1 /-2/ -3	x-2151479-x		4-1579001-1	7-1452659

**Tab Contact with Single Wire Sealing (SWS) System**

Wire Size Range (mm <sup>2</sup> )	Insulation Diameter (mm) FLR	Part Number	Material and Finish *)	Applicator ♦	Hand Tool ◊	Die Set ◊	Mating Rec Contact
0.13 – 0.17	0.85 – 1.2	2141868	-1 /-2/ -3	x-2151658-x	On request	On request	2141970
0.25 – 0.35	1.1 – 1.6	1718758	-1 /-2/ -3	x-2151596-x		4-1579001-7	7-1452665
0.50 – 0.75	1.4 – 1.9	1718760	-1 /-2/ -3	x-2151477-x	539635-1	4-1579001-6	7-1452668
1.0 – 1.5	1.9 – 2.4	1718762	-1 /-2/ -3	x-2151480-x		4-1579001-5	7-1452671

**\*) Material and Finish:** xxx-1 = CuNiSi, pre-tin plated  
xxx-2 = CuNiSi, selective gold plated  
xxx-3 = CuNiSi, selective silver plated

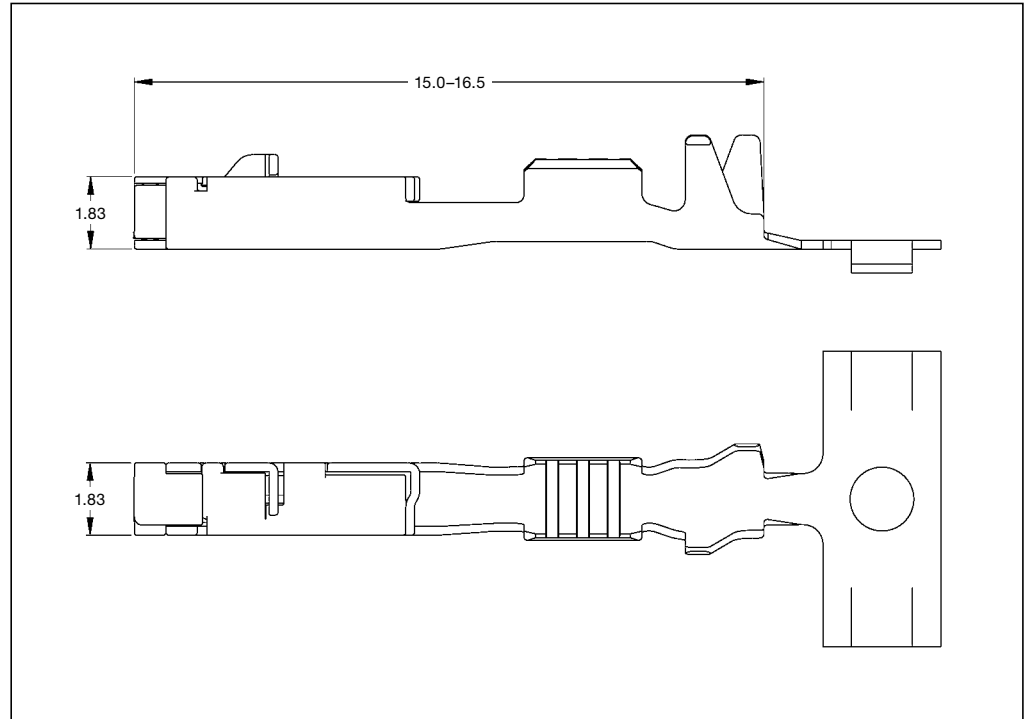
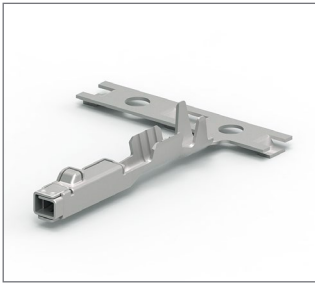
**Note:** All part numbers are RoHS and ELV compliant

♦ The pre- and suffix for the applicators depends on the applied termination equipment

◊ In case of Tooling query please contact your local TE Connectivity representative



**Receptacle Contacts – Clean Body (CB)**



**Technical Features**

**Contact Material:**

CuSn / CuNiSi

**Wire Size Range:**

0.25 – 1.5 mm<sup>2</sup>

**Current Carrying Capacity:**

up to 17 Ampere  
(@ 80 °C ambient temperature)

**Total Temperature Range:**

-40 °C ... +130 °C (tin plated)  
-40 °C ... +150 °C (gold plated)  
-40 °C ... +150 °C (silver plated)

**Insertion Force:**

Max 4 N

**Extraction Force:**

Max 2.5 N

**Extraction Tool\*:**

1-1579028-1

**Product Drawing:**

1534326

**Product Specification:**

108-18782

**Application Specification:**

114-18464

\* The option which extraction tool is the right tool for the application is dependent on the assembly of the contact and the connector.

**Standard Receptacle Contact (SRC)**

Wire Size Range (mm <sup>2</sup> )	Insulation Diameter (mm) FLR	Part Number	Material and Finish *)	Applicator ♦	Hand Tool ◇	Die Set ◇	Mating Tab Contact
0.25 – 0.35	1.10 – 1.75	1534594	-1 /-2/ -3	x-2151470-x	539635-1	1579001-6	1718348-x
0.50 – 0.75	1.4 – 1.9	1670144	-1 /-2/ -3	x-2151068-x	2-1579016-1	-	1718350-x
1.0 – 1.5	1.9 – 2.4	1452503	-1 /-2/ -3	x-2151468-x	1-1579001-3	-	N/A

**Receptacle Contact with Single Wire Sealing (SWS) System**

Wire Size Range (mm <sup>2</sup> )	Insulation Diameter (mm) FLR	Part Number	Material and Finish *)	Applicator ♦	Hand Tool ◇	Die Set ◇	Mating Tab Contact
0.25 – 0.35	1.10 – 1.75	1418844	-1 /-2/ -3	x-2266013-x	-	3-1579001-9	2121114-x
0.50 – 0.75	1.4 – 1.9	1670146	-1 /-2/ -3	x-2151981-x	539635-1	2-1579016-2	2141116-x
1.0 – 1.5	1.9 – 2.4	1418850	-1 /-2/ -3	x-2266515-x	-	3-1579001-7	2177610-x

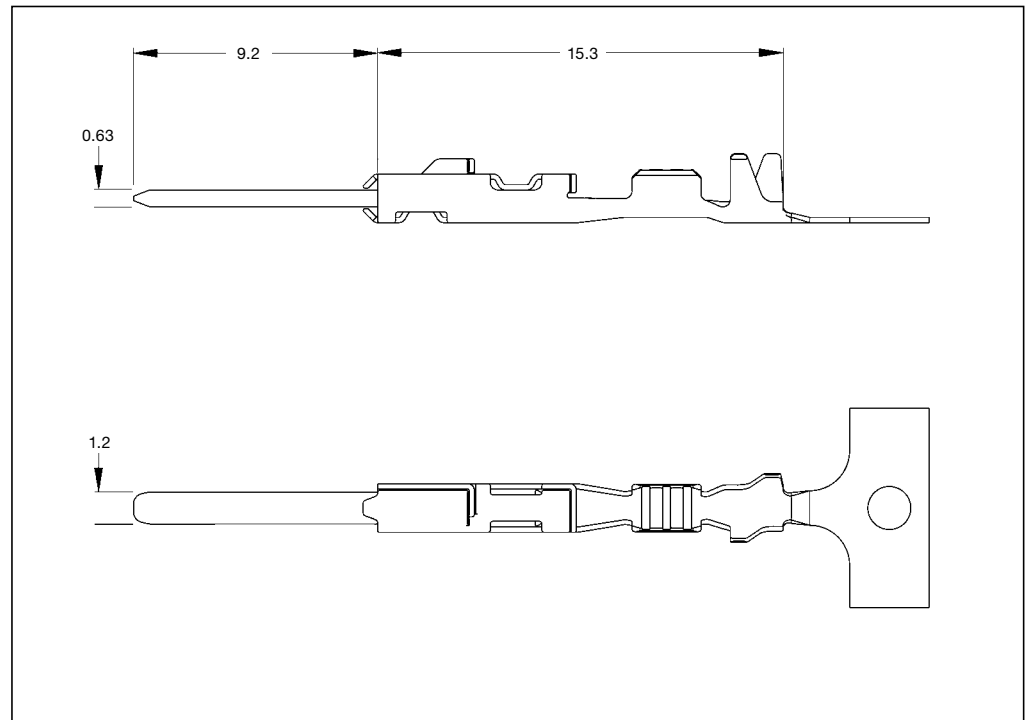
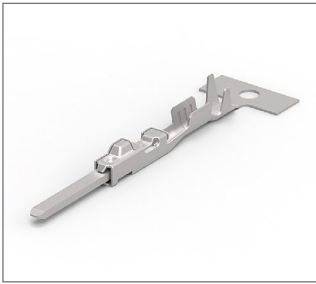
\*) **Material and Finish:** xxx-1 = CuNiSi, pre-tin plated  
xxx-2 = CuNiSi, selective gold plated  
xxx-3 = CuNiSi, selective silver plated

**Note:** All part numbers are RoHS and ELV compliant

♦ The pre- and suffix for the applicators depends on the applied termination equipment

◇ In case of Tooling query please contact your local TE Connectivity representative

**Tab Contacts – Clean Body (CB)**



**Technical Features**

**Contact Material:**

CuSn

**Wire Size Range:**

0.25 – 0.75 mm<sup>2</sup>

**Current Carrying Capacity:**

up to 17 Ampere  
(@ 80 °C ambient temperature)

**Total Temperature Range:**

-40 °C ... +130 °C (tin plated)  
-40 °C ... +150 °C (gold plated)  
-40 °C ... +150 °C (silver plated)

**Extraction Tool\*:**

8-1579008-4

**Product Drawing:**

1718398

**Product Specification:**

108-18782

**Application Specification:**

114-18464

\* The option which extraction tool is the right tool for the application is dependent on the assembly of the contact and the connector.

**Standard Tab Contact**

Wire Size Range (mm <sup>2</sup> )	Insulation Diameter (mm) FLR	Part Number	Material and Finish *)	Applicator ♦)	Hand Tool	Die Set	Mating Rec Contact
0.25 – 0.35	1.1 – 1.6	1718348	-1 /-2 /-3	x-2151042-x	539635-1	4-1579001-3	1534594-x
0.50 – 0.75	1.4 – 1.9	1718350	-1 /-2 /-3	x-2151037-x		4-1579001-2	1670144-x

**Tab Contact with Single Wire Sealing (SWS) System**

Wire Size Range (mm <sup>2</sup> )	Insulation Diameter (mm) FLR	Part Number	Material and Finish *)	Applicator ♦)	Hand Tool	Die Set	Mating Rec Contact
0.25 – 0.35	1.1 – 1.6	2141114	-3	x-2266516-x	539635-1	4-1579001-7	1418844-x
0.50 – 0.75	1.4 – 1.9	2141116	-3	x-2151477-x		On request ◇)	On request ◇)
1.0 – 1.5	1.9 – 2.4	2177610	-3	x-2151480-x			1418850-x

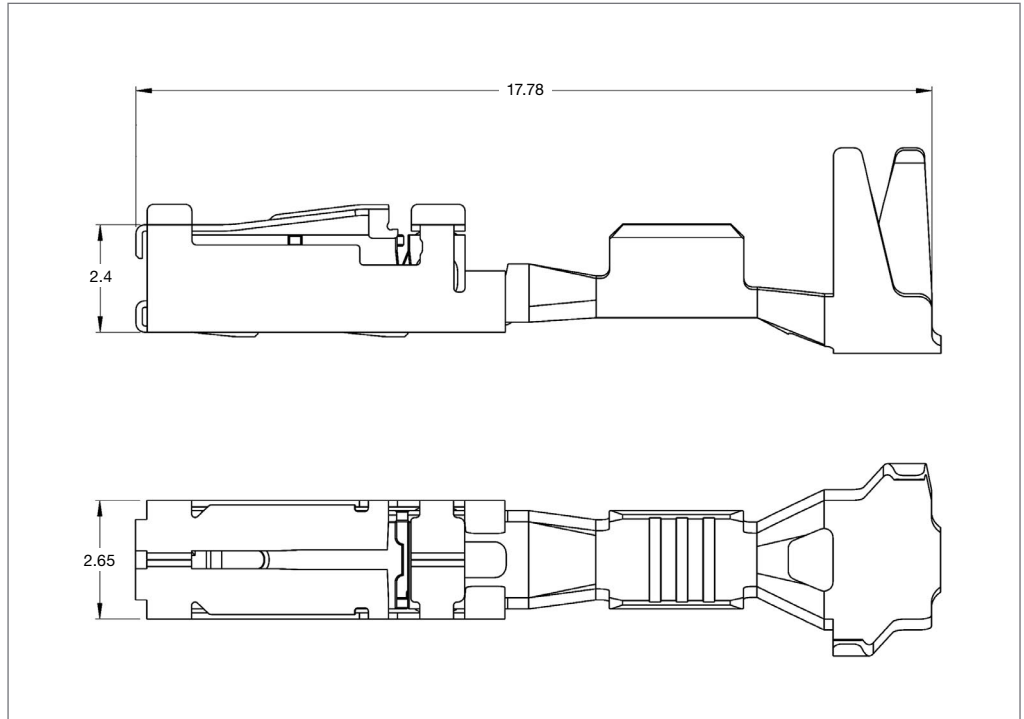
\*) **Material and Finish:** xxx-1 = CuNiSi, pre-tin plated  
xxx-2 = CuNiSi, selective gold plated  
xxx-3 = CuNiSi, selective silver plated

**Note:** All part numbers are RoHS and ELV compliant

♦) The pre- and suffix for the applicators depends on the applied termination equipment

◇) In case of Tooling query please contact your local TE Connectivity representative

**Receptacle Contacts – Locking Lance (LL)**



**Technical Features**

**Wire Size Range:**

0.35 – 1.0 mm<sup>2</sup>

**Current Carrying Capacity:**

up to 17 Ampere  
(@ 80 °C ambient temperature)

**Total Temperature Range:**

-40 °C ... +150 °C (silver plated)

**Extraction Tool\*:**  
3-1579018-4

**Product Drawing:**  
C-2282325

**Product Specification:**  
108-94432

**Application Specification:**  
114-18912

\* The option which extraction tool is the right tool for the application is dependent on the assembly of the contact and the connector.

**Receptacle Contacts with Single Wire Sealing (SWS) System**

Wire Size Range (mm <sup>2</sup> )	Insulation Diameter (mm) FLR	Part Number	Material and Finish *)	Applicator ♦)	Hand Tool	Die Set
0.35	0.9 – 1.4mm	2208363	-3	x-2151518-x		
0.50	1.4 – 2.1mm	2208362	-3	x-2151519-x	6-1579016-5	On request ◇)
0.75 – 1.00	1.4 – 2.1mm	2208360	-3	x-2151520-x		

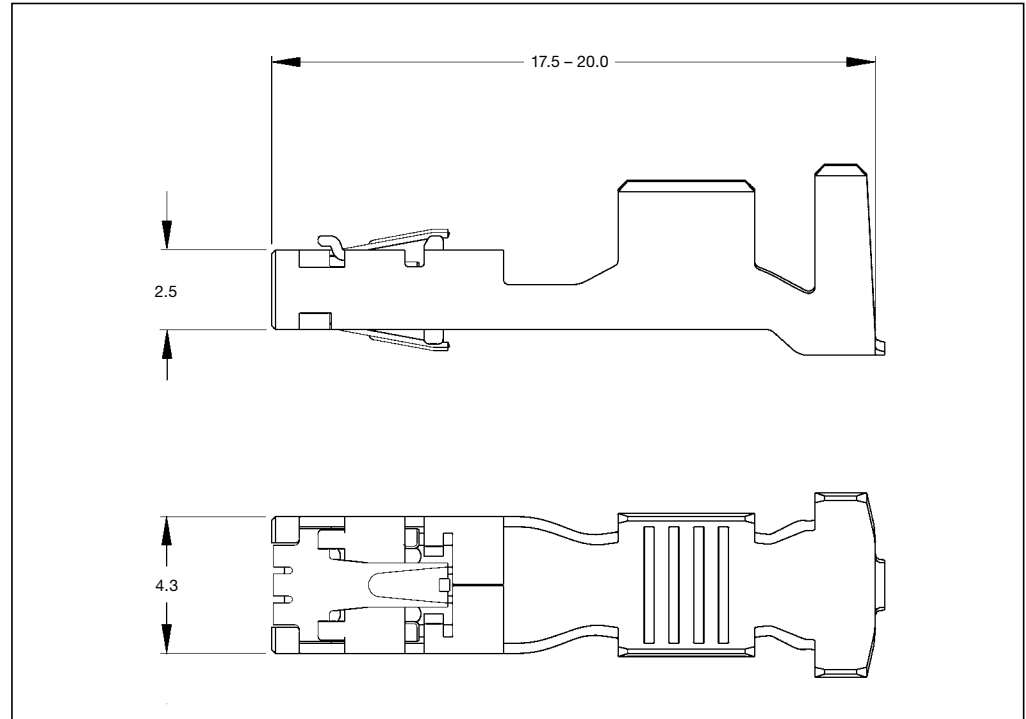
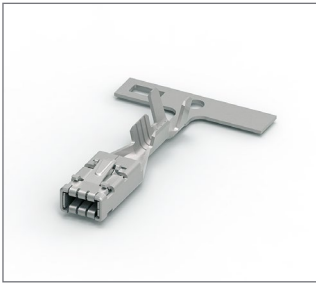
\*) **Material and Finish:** xxx-3 = CuNiSi, selective silver plated

**Note:** All part numbers are RoHS and ELV compliant

♦) The pre- and suffix for the applicators depends on the applied termination equipment

◇) In case of Tooling query please contact your local TE Connectivity representative

**Receptacle Contacts – Locking Lance (LL)**



**Technical Features**

- Contact Material:**  
CuSn/CuNiSi
- Wire Size Range:**  
0.20 – 4.0 mm<sup>2</sup>
- Current Carrying Capacity:**  
up to 36 Ampere  
(at 80 °C ambient temperature)
- Total Temperature Range:**  
-40 °C ... +130 °C (tin plated)  
-40 °C ... +150 °C (silver plated)
- Insertion Force:**  
Max. 7 N
- Extraction Force:**  
Max. 6 N

**Extraction Tool\*:**  
5-1579008-2

**Product Drawing:**  
1719797

**Product Specification:**  
108-94002

**Application Specification:**  
114-18718

\* The option which extraction tool is the right tool for the application is dependent on the assembly of the contact and the connector.

**Standard Receptacle Contacts (SRC)**

Wire Size Range (mm <sup>2</sup> )	Insulation Diameter (mm) FLR	Part Numbers				
		Strip Form	Material and Finish *)	Applicator ♦)	Hand Tool	Die Set
0.20 – 0.35	1.15 – 1.40	1719836	-1 / -3	x-2151590-x	539635-1	9-1579004-6
0.50	1.4 – 1.6	1563719	-1 / -3	x-2151566-x		9-1579004-7
0.75 – 1.00	1.7 – 2.1	1719838	-1 / -3	x-2151390-x		9-1579004-7
>1.0 – 2.50	2.2 – 3.0	1719840	-1 / -3	x-2151509-x <sup>a)</sup> x-2151604-x <sup>b)</sup>		9-1579004-8
>2.5 – 4.00	3.4 – 3.7	1718475	-1 / -3	x-2151389-x		9-1579004-9

a) all wire sizes except for 2.5 ACOMÉ      b) for 2.5 mm<sup>2</sup> ACOMÉ Wire only (preliminary)

**Receptacle Contacts with Single Wire Seal (SWS) System**

Wire Size Range (mm <sup>2</sup> )	Insulation Diameter (mm) FLR	Part Numbers				
		Strip Form	Material and Finish *)	Applicator ♦)	Hand Tool	Die Set
0.50	1.4 – 1.6	1563935	-1 / -3	x-2151513-x	On request ◇)	6-1579014-7
0.75 – 1.00	1.7 – 2.1	1670802	-1 / -3	x-2151561-x	539635-1	6-1579014-1
>1.0 – 2.50	2.2 – 3.0	1670804	-1 / -3	x-2151570-x <sup>a)</sup> x-2151582-x <sup>b)</sup>		6-1579014-2
>2.5 – 4.00	3.4 – 3.7	1670806	-1 / -3	x-2266517-x		6-1579014-3

a) all wire sizes except for 2.5 ACOMÉ      b) for 2.5mm<sup>2</sup> ACOMÉ Wire only

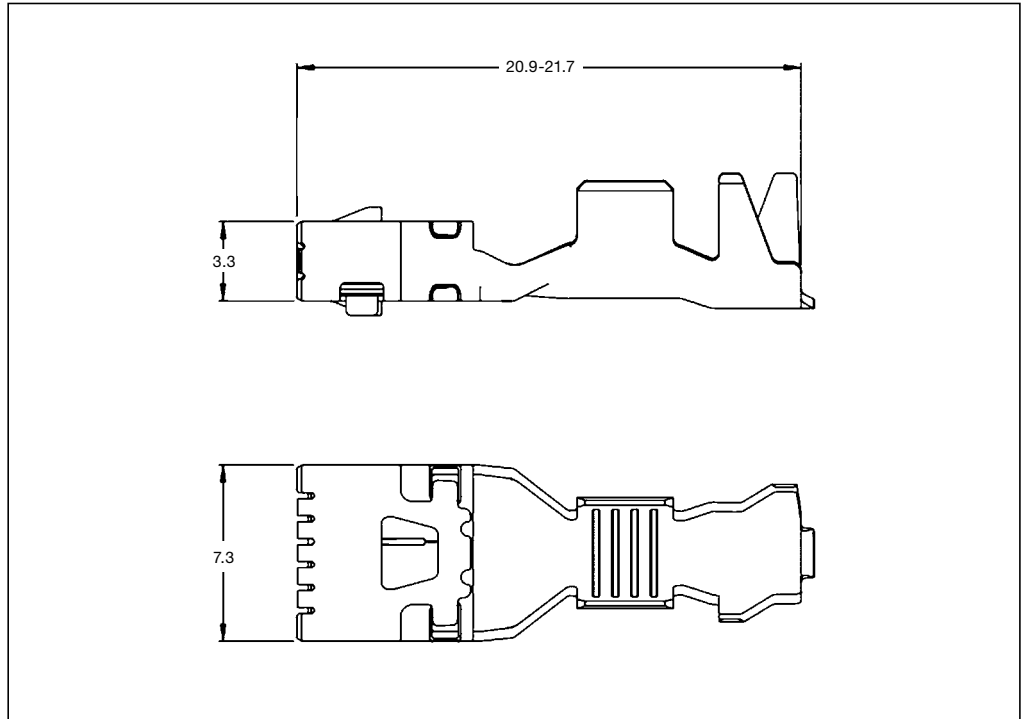
**\*) Material and Finish:** xxx-1 = CuNiSi, pre-tin plated  
xxx-3 = CuNiSi, selective silver plated

**Note:** All part numbers are RoHS and ELV compliant

**♦)** The pre- and suffix for the applicators depends on the applied termination equipment

**◇)** In case of Tooling query please contact your local TE Connectivity representative

**Receptacle Contacts – Clean Body (CB)**



**Technical Features**

**Contact Material:**

CuSn/CuNiSi

**Wire Size Range:**

>2.5 – 6.0 mm<sup>2</sup>

**Current Carrying Capacity:**

up to 54 Ampere  
(at 80 °C ambient temperature)

**Total Temperature Range:**

–40 °C ... +130 °C (tin plated)  
–40 °C ... +150 °C (silver plated)

**Insertion Force:**

Max. 15 N

**Extraction Force:**

Max. 10 N

**Extraction Tool\*:**

1579028-1

**Product Drawing:**

2177772

**Product Specification:**

108-94149

**Application Specification:**

114-18944

\* The option which extraction tool is the right tool for the application is dependent on the assembly of the contact and the connector.

**Standard Receptacle Contacts (SRC) in Clean Body**

Wire Size Range (mm <sup>2</sup> )	Insulation Diameter (mm) FLR	Strip Form	Material and Finish *)	Part Numbers		
				Applicator ◆)	Hand Tool	Die Set
>2.5 – 4.0	3.4 – 3.7	2177770	-1 / -3	x-2266096-x	On request ◇)	On request ◇)
>4.0 – 6.0	4.0 – 4.3	2177771	-1 / -3	x-2266095-x		

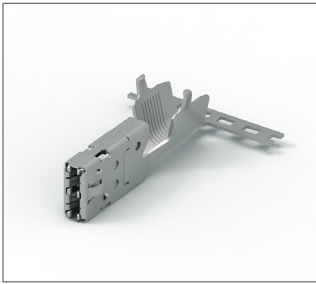
\*) **Material and Finish:** xxx-1 = CuNiSi, pre-tin plated  
xxx-3 = CuNiSi, selective silver plated

**Note:** All part numbers are RoHS and ELV compliant

◆) The pre- and suffix for the applicators depends on the applied termination equipment

◇) In case of Tooling query please contact your local TE Connectivity representative

**Receptacle Contacts**



**Technical Features**

**Wire Size Range:**

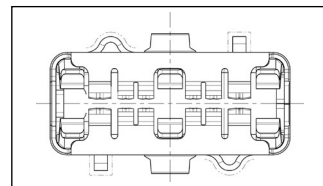
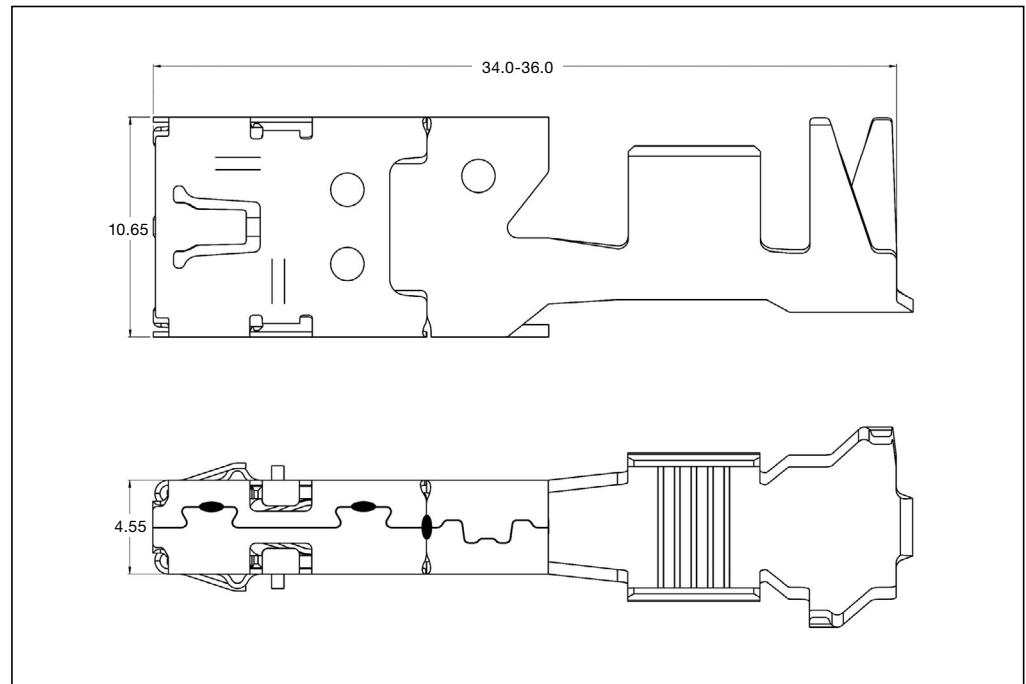
>2.5 – 16 mm<sup>2</sup>

**Current Carrying Capacity:**

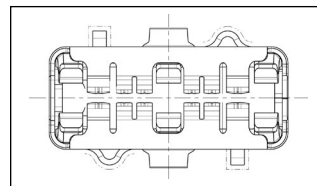
up to 90 Ampere  
(@ 80 °C ambient temperature)

**Total Temperature Range:**

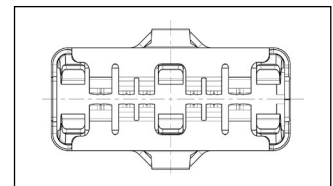
–40 °C ... +180 °C (silver plated)



Coding 1



Coding 2



Coding 5

**Extraction Tool\*:**  
2-1579028-2

**Product Drawing:**  
2208761

**Product Specification:**  
108-94421

**Application Specification:**  
114-94285

\* The option which extraction tool is the right tool for the application is dependent on the assembly of the contact and the connector.

**Standard Receptacle Contact (SRC)**

Wire Size Range (mm <sup>2</sup> )	Insulation Diameter (mm) FLR	Coding ●)	Part Number	Material and Finish *)	Applicator ◆)	Hand Tool	Die Set
>2.5 – 4.0	2.7 – 3.7	1- / 2- / 5-	2208762	-3	x-2266457-x		
6.0 – 10.0	4.0 – 6.5	1- / 2- / 5-	2208763	-3	x-2266456-x	2-1579028-2	On request ◇)
16	8.3 max.	1- / 2- / 5-	2208764	-3	x-2276053-x		

**Receptacle Contact with Single Wire Seal (SWS) System**

Wire Size Range (mm <sup>2</sup> )	Insulation Diameter (mm) FLR	Coding ●)	Part Number	Material and Finish *)	Applicator ◆)	Hand Tool	Die Set
>2.5 – 4.0	2.7 – 3.7	1- / 2-	2208765	-3	x-2266455-x		
6.0 – 10.0	4.0 – 6.5	1- / 2-	2208766	-3	x-2266457-x	2-1579028-2	On request ◇)

●) **Coding:**  
1-xxx = Coding 1  
2-xxx = Coding 2  
5-xxx = Coding 5

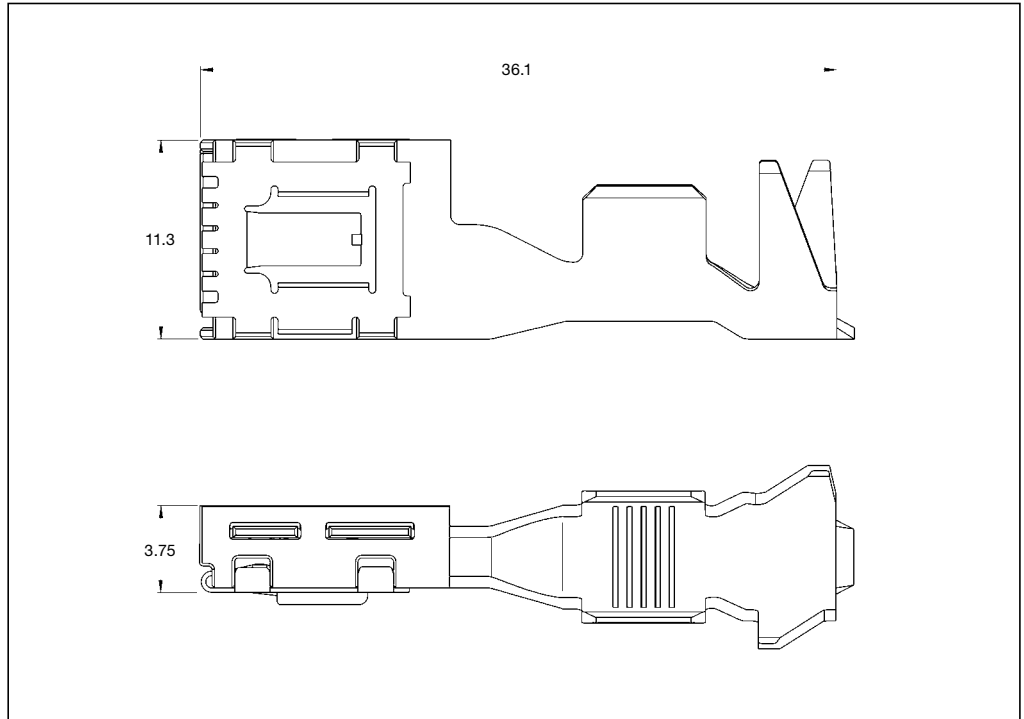
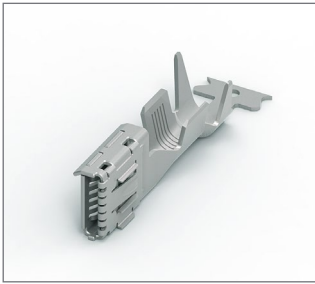
\*) **Material and Finish:** xxx-3 = CuNiSi, selective silver plated

**Note:** All part numbers are RoHS and ELV compliant

◆) The pre- and suffix for the applicators depends on the applied termination equipment

◇) In case of Tooling query please contact your local TE Connectivity representative

**Receptacle Contacts**



**Technical Features**

**Contact Material:**

CuNiSi/CuSn

**Wire Size Range:**

>10 – 16 mm<sup>2</sup>

**Current Carrying Capacity:**

up to 100 Ampere  
(at 80 °C ambient temperature)

**Total Temperature Range:**

–40 °C ... +130 °C (tin plated)  
–40 °C ... +150 °C (silver plated)

**Insertion Force:**

Max. 35 N

**Extraction Force:**

Max. 10 N

**Product Drawing:**

1823044

**Product Specification:**

108-94150

**Application Specification:**

114-18945

**Standard Receptacle Contact (SRC)**

Wire Size Range (mm <sup>2</sup> )	Insulation Diameter (mm) FLR	Part Number	Material and Finish *)	Applicator ◆)	Hand Tool	Die Set
>10	5.8 – 6.8	1-1823032	-1 /-3	x-1893256-x	On request ◇)	On request ◇)
16	7.5 – 8.1	1-1823034	-1 /-3	x-1893255-x		

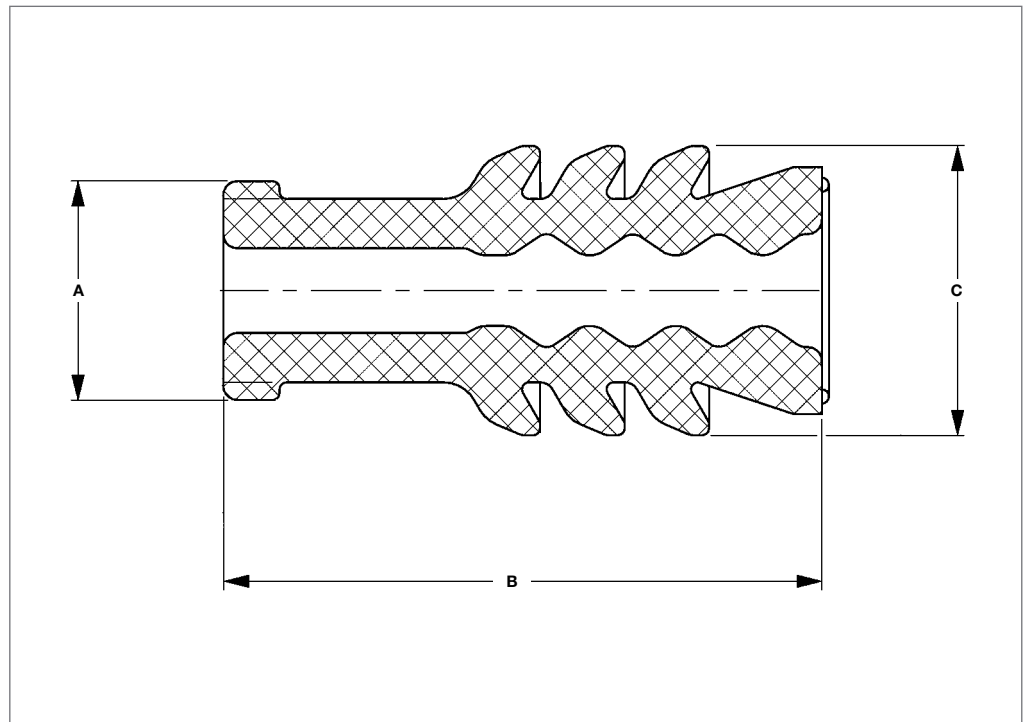
\*) **Material and Finish:** xxx-1 = CuNiSi, pre-tin plated  
xxx-3 = CuNiSi, selective silver plated

**Note:** All part numbers are RoHS and ELV compliant

◆) The pre- and suffix for the applicators depends on the applied termination equipment

◇) In case of Tooling query please contact your local TE Connectivity representative

**Single Wire Seals and Sealing Plugs for MCON Contacts**



**Single Wire Seals and Sealing Plugs for MCON Contacts**

Cavity Diameter (mm)	Insulation Diameter (mm) FLR	Color	Part Number	Dimensions (mm)			Used for
				A	B	C	
3.55	0.9-1.4	Yellow	967067-2	3.1	8.5	4.1	MCON 1.2
	1.4-2.1	Green	967067-1				
	Sealing Plug	Blue	967056-1				
3.58	1.2-1.4	White	2297816-1	3.2	13.0	3.9	HPF 1.2
	1.4-1.6	Green	2297817-1				
	1.7-1.9	Orange	2297818-1				
	1.9-2.1	Yellow	2297819-1				
3.95	0.9-1.9	Gray	963142-1	3.1	8.6	4.7	MCON 1.2
	1.9-2.4	Green	967067-1				
	Sealing Plug	White	963143-1				
4.9	1.4-2.1	Blue	828904-2	3.4	7.8	5.6	MCON 2.8
	2.2-3.0	White	828905-1				
	Sealing Plug	Natural	828922-1				
6.4	3.4-3.7	Green	828985-1	3.4	7.8	7.2	MCON 2.8
	Sealing Plug	Brown	828986-1				
8.5	3.4-3.7	Green	967608-1	4.1	9.3	9.4	MCON 6.3
	4.0-4.3	Blue	1719972-1	5.5			
	5.7-6.5	White	2300588-1				
14.4	5.4-6.0	Brown	2300588-2*	9.95	16.5	15.5	MCON 8
	4.4-5.0	Gray	2300588-3*				
	4.0-4.4	Yellow	2300588-4*				
	3.3-3.7	Blue	2300588-5*				
	2.7-3.0	Green	2300588-6*				

\*) On request



#### POWERTRAIN SYSTEMS



#### SAFETY & SECURITY SYSTEMS



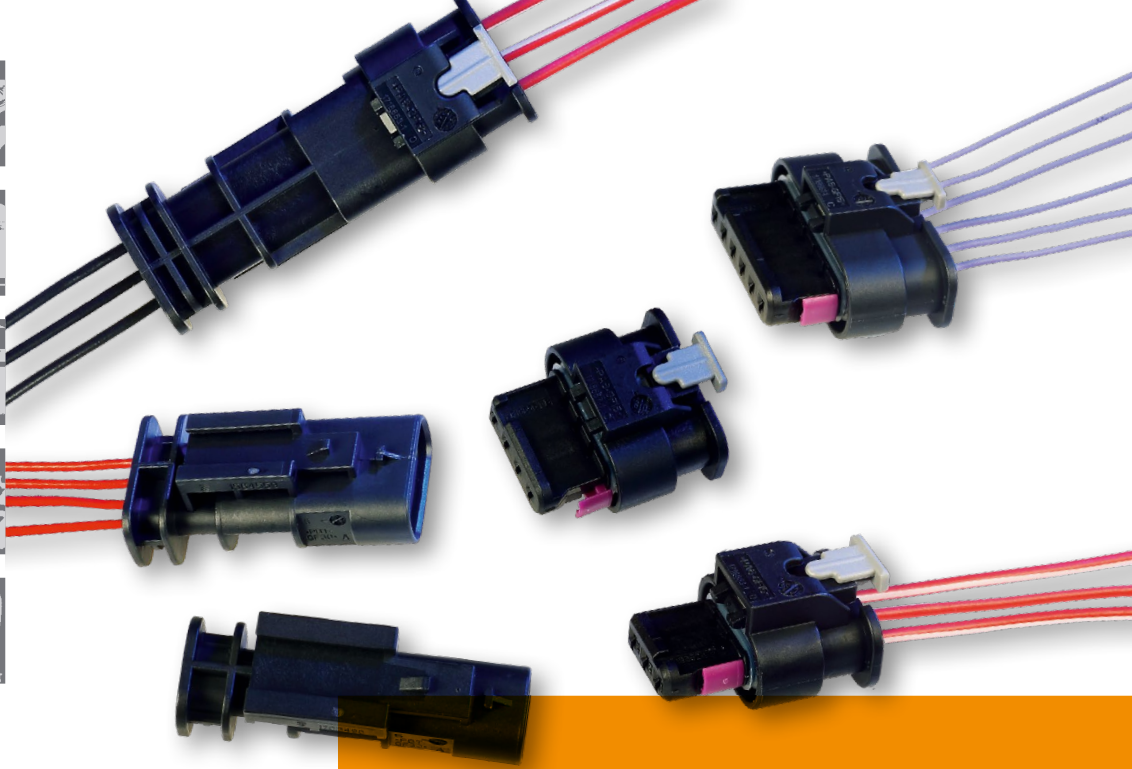
#### CONVENIENCE



#### DRIVER INFORMATION



#### BODY & CHASSIS SYSTEMS



## HOUSINGS AND CONNECTORS

### MCON Interconnection System INTRODUCTION

#### MCON connectors offer high reliability for use in the automotive industry

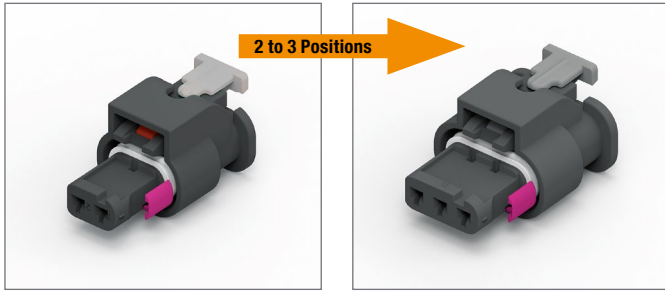
The new generation MCON connector system offers receptacle and tab housings with capability for waterproofing and resistance to conditions of extreme vibration.

The system is designed for electronic and electrical applications in motor vehicles, where vibrations and mechanical stress, in the long term, can affect the quality on the contact system.

#### Features

- CPA (Connector Position Assurance) capability
- High reliability status - supported for long term use
- High vibration level supported
- Perfect design to avoid quality problems, reduce manufacturing and service cost
- Integrated secondary locking device delivered in pre-locked position
- Wire-to-Wire sealed and un-sealed connectors (SWS)
- Polarization, several keyings
- Locking mechanism for smaller connectors/ mating aid for higher numbers of ways

**Sealed MCON 1.2 Receptacle Housing for Locking Lance Contacts - 2 to 3 Positions – up to 130 °C**



**Technical Features**

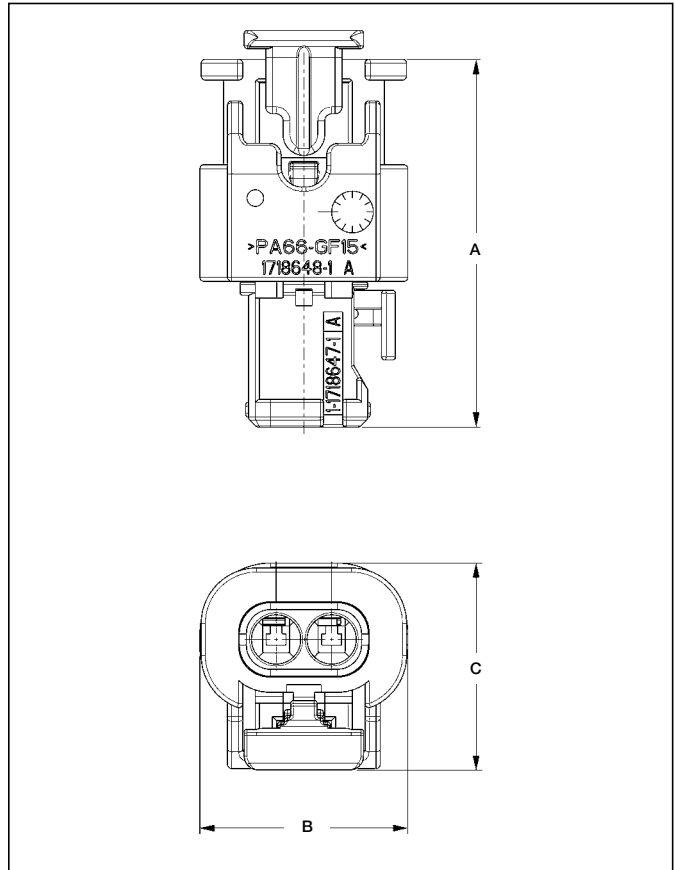
**Wire Size Range:**  
max. 1.0 mm<sup>2</sup>

**Total Temperature Range:**  
130 °C

**Product Specification:**  
108-18969

**Application Specification:**  
114-18861

**Extraction Tool:**  
5-1579007-3

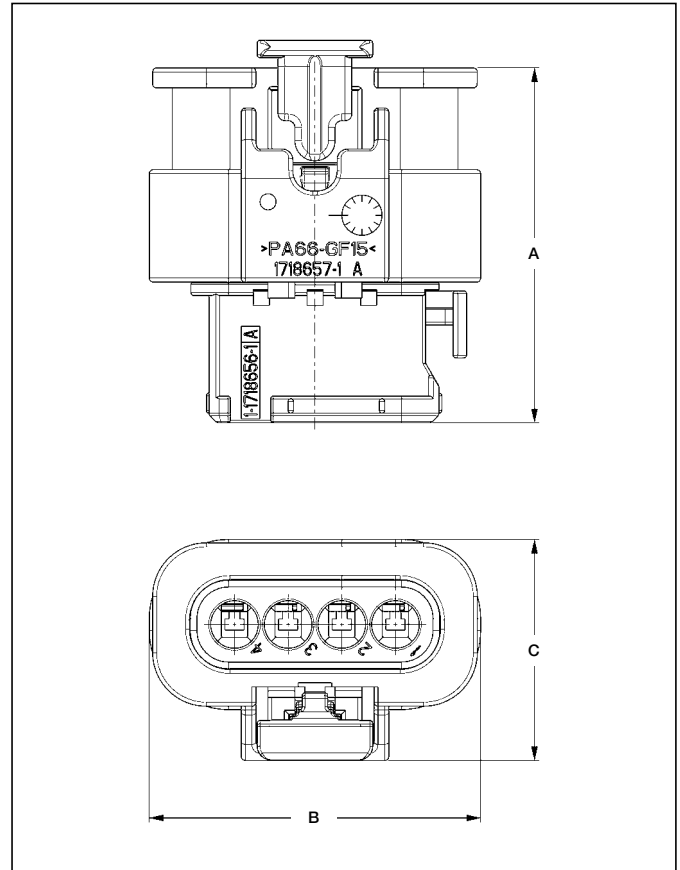
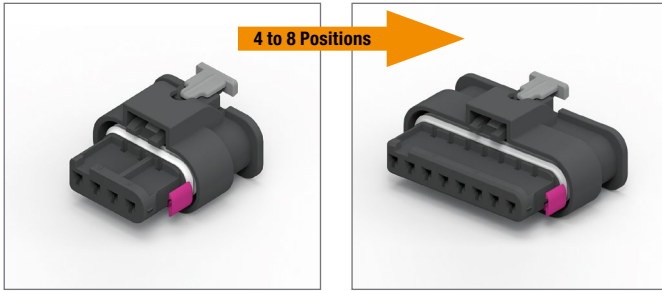


**Sealed MCON 1.2 Receptacle Housing for Locking Lance Contacts - 2 to 3 Positions**

No. of Positions	Keying Options	Housing Color	CPA Yes / No	180° turned Outer Housing	Part Number	Dimensions (mm)			Mating Tab Housing
						A	B	C	
2	A	Black	Yes	–	1-1718643-1	26.5	15	14.8	1-1703498-x
			No	–	1-1670916-1				1-1703498-x
			Yes	Yes	1-1718888-1				N/A
			No	Yes	1-1670915-1				N/A
	B	Natural	Yes	–	1-1718643-4				1-1703498-x
			Yes	–	2-1718643-1				2-1703498-x
			No	–	2-1670916-1				2-1703498-x
			Yes	Yes	2-1718888-1				N/A
2	C	Blue	No	–	2-1670915-1*	N/A			
			Yes	–	2-1718643-4	2-1703498-x			
			Yes	–	3-1718643-1	N/A			
			No	–	3-1670916-1*	N/A			
	A	Black	Yes	Yes	3-1718888-1	N/A			
			No	–	3-1670915-1*	N/A			
			Yes	–	3-1718643-4	N/A			
			Yes	–	1-1718644-1	1-1703494-x			
3	B	Natural	No	–	1-1670917-1	1-1703494-x			
			Yes	–	2-1718644-1	2-1703494-x			
	C	Blue	Yes	–	2-1670917-1	2-1703494-x			
			No	–	3-1718644-1*	N/A			
	A	Black	Yes	–	3-1670917-1*	N/A			
			No	–	1-1718644-1	1-1703494-x			

\* on request

**Sealed MCON 1.2 Receptacle Housing for Locking Lance contacts - 4 to 8 Positions – up to 130 °C**



**Technical Features**

**Wire Size Range:**  
max. 1.0 mm<sup>2</sup>

**Total Temperature Range:**  
130 °C

**Product Specification:**  
108-18969

**Application Specification:**  
114-18861

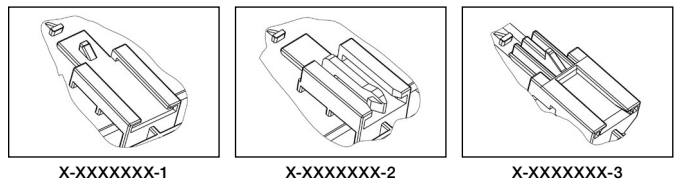
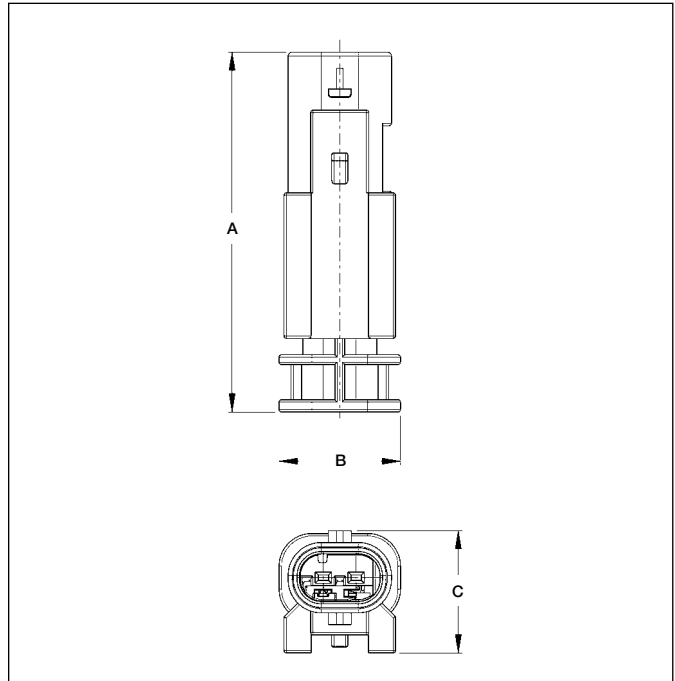
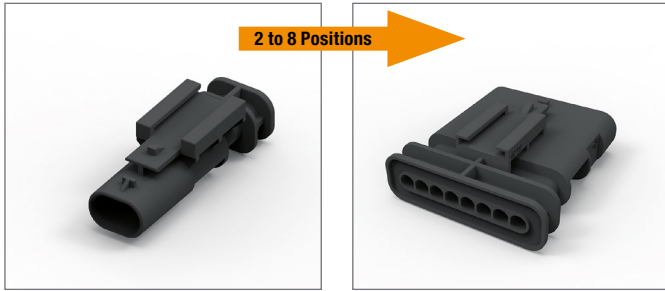
**Extraction Tool:**  
5-1579007-3

**Sealed MCON 1.2 Receptacle Housing for Locking Lance Contacts - 4 to 8 Positions**

No. of Positions	Keying Options	Housing Color	CPA Yes / No	180° turned Outer Housing	Part Number	Dimensions (mm)			Mating Tab Housing
						A	B	C	
4	A	Black	Yes	–	1-1718645-1	26.5	24.7	16.5	1-1564559-x
			No	–	1-1670918-1				1-1564559-x
			No	Yes	1-2286471-1				N/A
	B	Natural	Yes	–	1-2289107-1				N/A
			No	–	2-1718645-1				2-1564559-x
			No	–	2-1670918-1				2-1564559-x
C	Blue	Yes	–	3-1718645-1*	N/A				
		No	–	3-1670918-1*	N/A				
5	A	Black	Yes	–	1-1718806-1	26.5	28.7	16.5	1-2141520-x
			No	–	1-1670921-1				1-2141520-x
			Yes	Yes	1-2177255-1				N/A
	B	Natural	Yes	–	2-1718806-1				2-2141520-x
			No	–	2-1670921-1				2-2141520-x
			Yes	–	3-1718806-1*				N/A
C	Blue	No	–	3-1670921-1*	N/A				
		–	–	–	N/A				
6	A	Black	Yes	–	1-1718646-1	26.5	32.7	16.5	1-2141324-x
			No	–	1-1670919-1				1-2141324-x
	B	Natural	Yes	–	2-1718646-1*				N/A
			No	–	2-1670919-1*				N/A
8	A	Black	Yes	–	1-1719393-1	26.5	40.7	16.5	1-1703506-1
			No	–	1-1670920-1				1-1703506-1
	B	Natural	Yes	–	2-1719393-1*				N/A
			No	–	2-1670920-1*				N/A

\* on request

**Sealed MCON 1.2 Tab Housing for Locking Lance Contacts - 2 to 8 Positions – up to 130 °C**



**Technical Features**

**Wire Size Range:**  
max. 1.0 mm<sup>2</sup>

**Total Temperature Range:**  
130 °C

**Product Specification:**  
168-94177-1

**Application Specification:**  
114-18910-1

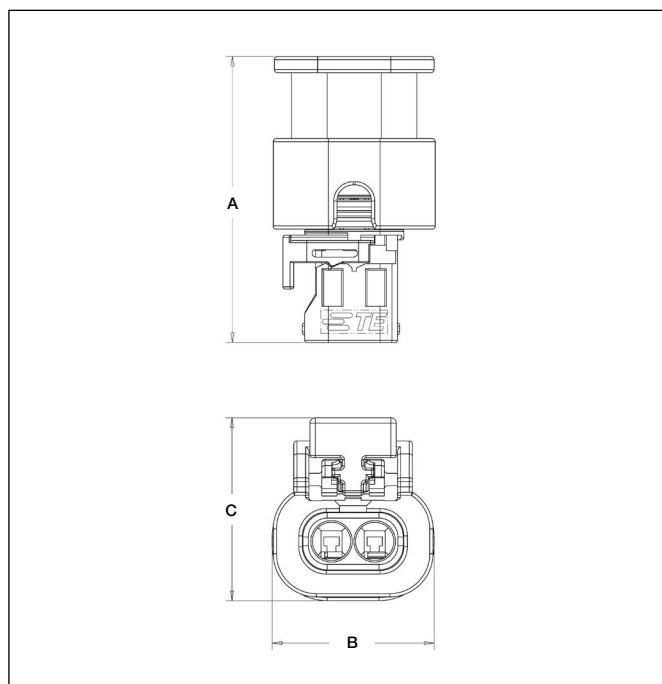
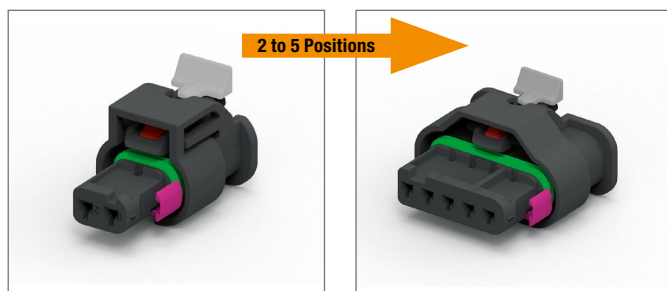
**Extraction Tool:**  
1-1579028-5

**Sealed MCON 1.2 Tab Housing for Locking Lance Contacts - 2 to 8 Positions**

No. of Positions	Keying Options	Housing Color	Part Number	Dimensions (mm)			Mating Rec Housing	
				A	B	C		
2	A	Black	1-1703498-1	44	14.8	14.95	1-1718643-1 or 1-1670916-1	
			1-1703498-2			17.05		
			1-1703498-3			17.1		
	B	Gray	2-1703498-1			14.95		
			2-1703498-2			17.05		2-1718643-1 or 2-1670916-1
			2-1703498-3			17.1		
3	A	Black	1-1703494-1	44	18.8	14.95	1-1718644-1 or 1-1670917-1	
			1-1703494-2			17.05		
			2-1703494-1			14.95		
	B	Gray	2-1703494-2			17.05		2-1718644-1 or 2-1670917-1
			2-1703494-1			17.05		
			2-1703494-2			17.05		
4	A	Black	1-1564559-1	44	24.4	16.3	1-1718645-1 or 1-1670918-1	
			1-1564559-2			18.1		
			2-1564559-1			16.3		
	B	Gray	2-1564559-2*			18.1		2-1718645-1 or 2-1670918-1
			1-2141520-1			16.3		
			1-2141520-2*			18.1		
5	A	Black	2-2141520-1	44	28.2	16.3	1-1718806-1 or 1-1670921-1	
			1-2141520-2*			18.1		
	B	Gray	2-2141520-1			16.3		
			2-2141520-2*			18.1		
6	A	Black	1-2141324-1	44	32.2	16.3	1-1718646-1 or 1-1670919-1	
			1-2141324-2*			18.1		
			2-2141324-1*			16.3		
	B	Gray	2-2141324-2*			18.1		2-1718646-1 or 2-1670919-1
			1-1703506-1			16.6		
			1-1703506-2			18.7		
8	A	Black	2-1703506-1*	44	40.2	16.6	1-1719393-1 or 1-1670920-1	
			2-1703506-2*			18.7		
	B	Gray	1-1703506-1			16.6		
			2-1703506-2*			18.7		

\* on request

**Sealed MCON 1.2 Gen2 Receptacle Housing for Locking Lance Contacts – up to 150 °C**



**Technical Features**

**Wire Size Range:**  
max. 1.0 mm<sup>2</sup>

**Total Temperature Range:**  
150 °C

**Product Specification:**  
108-18969-3

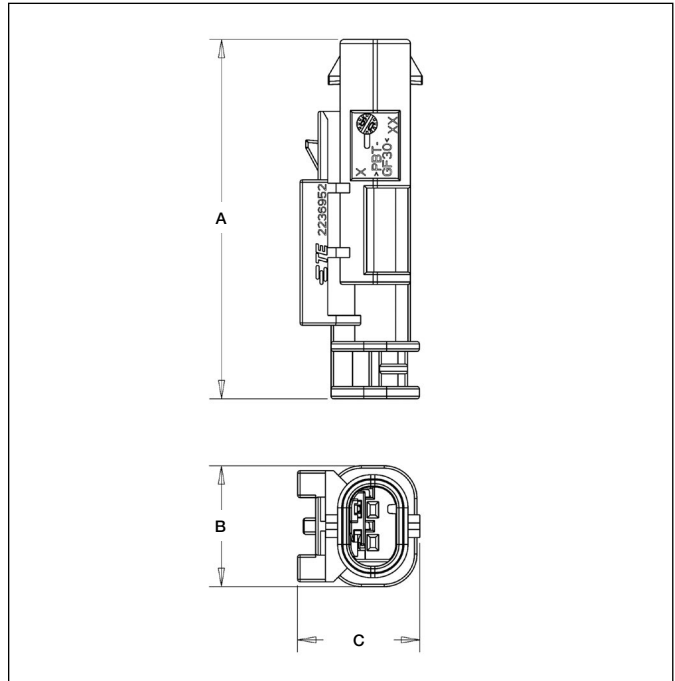
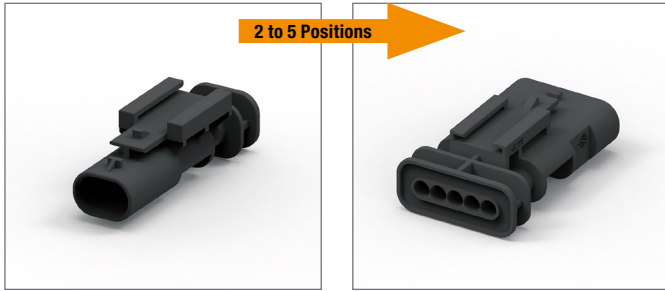
**Application Specification:**  
114-18861

**Extraction Tool:**  
5-1579007-3

**Sealed MCON 1.2 Gen2 Receptacle Housing for Locking Lance Contacts**

No. of Positions	Keying Options	Housing Color	CPA Yes / No	180° Turned Outer Housing	Part Number	Dimensions (mm)			Mating Tab Housing
						A	B	C	
2	A	Black	Yes	Yes	1-2236896-3	26.5	14.8	14.8	N/A
			Yes	No	1-2236896-5				1-2236952-5
			No	No	1-2236896-1				1-2236952-5
			Yes	Yes	2-2236896-5				2-2236952-5
			No	No	2-2236896-1				2-2236952-5
			Yes	No	3-2236896-5				N/A
	B	Natural	Yes	No	3-2236896-1				N/A
			Yes	Yes	4-2236896-5				N/A
			Yes	No	5-2236896-5				N/A
			Yes	Yes	6-2236896-5				N/A
			Yes	No	1-2236343-5				1-2236953-5
			No	No	1-2236343-1				1-2236953-5
3	B	Natural	Yes	No	2-2236343-5	26.5	19	14.8	2-2236953-5
			No	No	2-2236343-1				2-2236953-5
			Yes	Yes	4-2236343-5				N/A
			No	No	4-2236343-1				N/A
			Yes	No	1-2294256-5				N/A
			No	No	1-2294256-1				N/A
4	A	Black	Yes	No	2-2294256-5	26.5	24.2	16.5	N/A
			Yes	No	2-2294256-1				N/A
			Yes	Yes	1-2236898-5				1-2236954-5
			No	No	1-2236898-1				1-2236954-1
			Yes	Yes	2-2236898-5				2-2236954-5
			No	No	2-2236898-1				2-2236954-1
5	B	Natural	Yes	No	1-2294261-5	26.5	28.7	16.5	N/A
			No	No	1-2294261-1				N/A
			Yes	Yes	2-2294261-5				N/A
			No	No	2-2294261-1				N/A
			Yes	Yes	1-2236898-5				1-2236954-5
			No	No	1-2236898-1				1-2236954-1
6	A	Black	Yes	No	1-2294261-5	26.5	32.2	16.5	N/A
			No	No	1-2294261-1				N/A
			Yes	Yes	2-2294261-5				N/A
			No	No	2-2294261-1				N/A
			Yes	Yes	1-2236898-5				1-2236954-5
			No	No	1-2236898-1				1-2236954-1

**Sealed MCON 1.2 Gen2 Tab Housing for Locking Lance Contacts – up to 150 °C**



**Technical Features**

**Wire Size Range:**  
max. 1.0 mm<sup>2</sup>

**Total Temperature Range:**  
150 °C

**Product Specification:**  
N/A

**Application Specification:**  
114-18861

**Extraction Tool:**  
5-1579007-3

**Sealed MCON 1.2 Gen2 Tab Housing for Locking Lance Contacts**

No. of Positions	Keying Options	Housing Color	Part Number	Dimensions (mm)			Mating Rec Housing
				A	B	C	
2	A	Black	1-2236952-5	44	14.8	14.95	1-2236896-5 or 1-2236896-1
	B		2-2236952-5				2-2236896-5 or 2-2236896-1
3	A	Black	1-2236953-5	44	18.8	14.95	1-2236343-5 or 1-2236343-1
	B		2-2236953-5				2-2236343-5 or 2-2236343-1
5	A	Black	1-2236954-5	44	28.2	16.3	1-2236898-5 or 1-2236898-1
	B		2-2236954-5				2-2236898-5 or 2-2236898-1

**Sealed MCON 1.2 Receptacle Housing for Locking Lance Contacts - 2 Row Design**

**Technical Features**

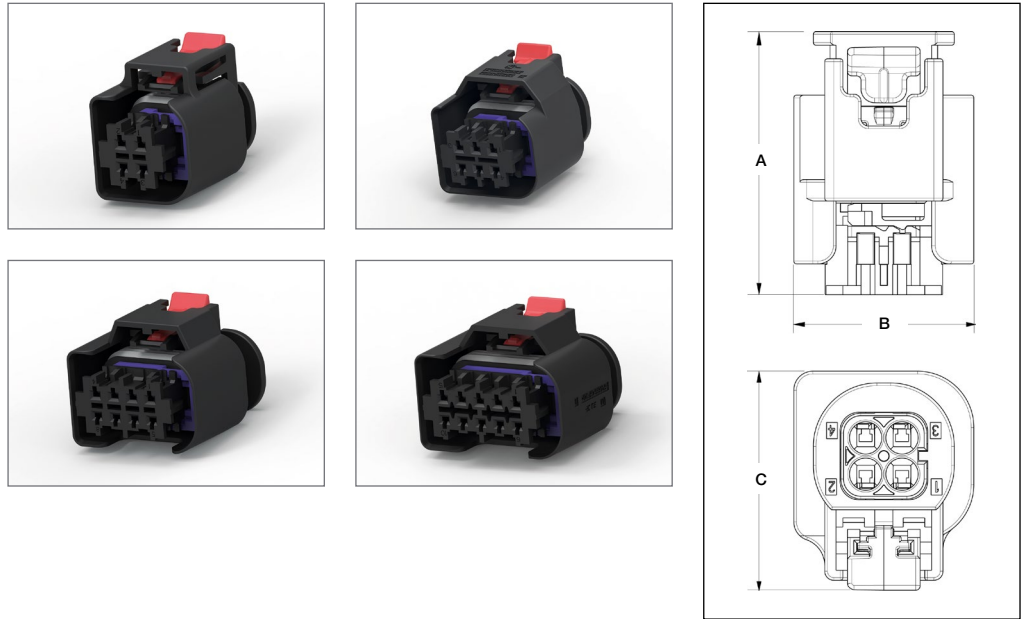
**Number of Positions:**  
4, 6, 8, 10

**Wire Size Range:**  
max. 1.0 mm<sup>2</sup>

**Temperature Range:**  
150 °C

**Product Specification:**  
108-94453

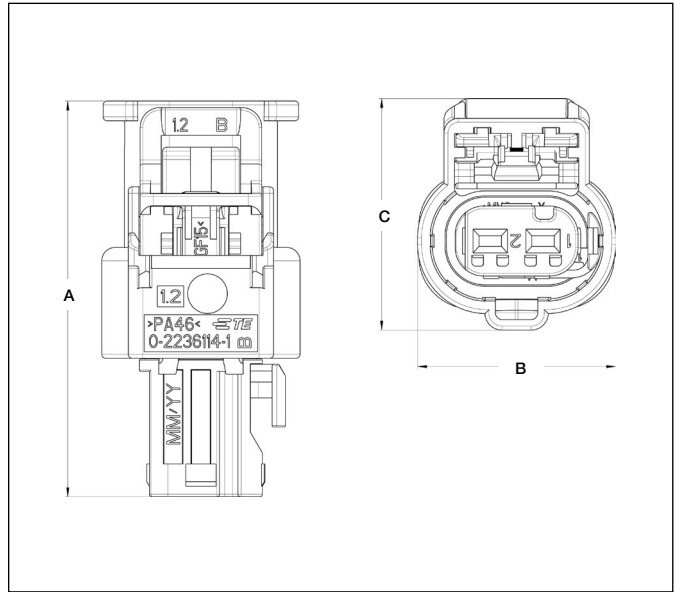
**Application Specification:**  
114-94327



**Sealed MCON 1.2 Receptacle Housing for Locking Lance Contacts - 2 Row Design**

No. of Positions	Keying Options	Housing Color	Part Number	Dimensions (mm)		
				A	B	C
4			1-2287960-5		19.8	
6	A	Black	1-2287965-5	29	23.8	24.5
8			1-2287970-5		27.8	
10			1-2282337-5		31.8	

**HPF 1.2 Series - up to 150 °C**



**Technical Features**

**Wire Size Range:**  
max. 1.0 mm<sup>2</sup>

**Temperature Range:**  
150 °C

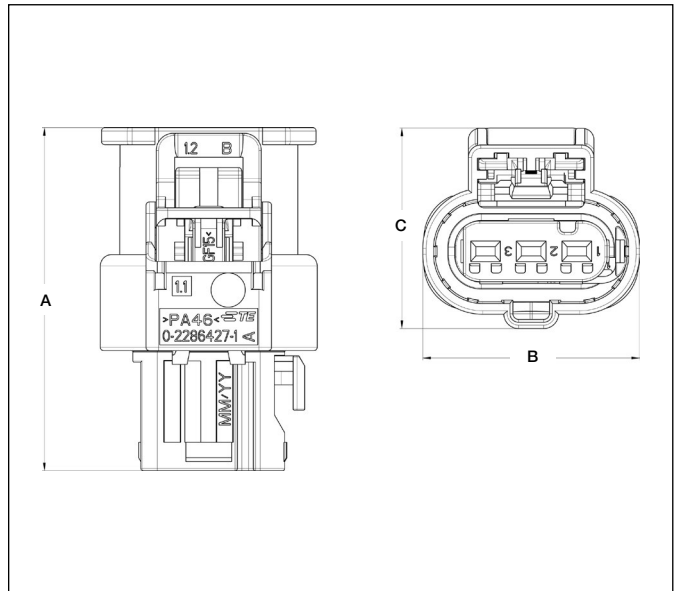
**Product Specification:**  
N/A

**Application Specification:**  
114-94415

**Extraction Tool:**  
3-1579018-4

**HPF 1.2 Series – Sealed, 2 Positions**

No. of Positions	Keying Options	Housing Color	Vibration Level	Part Number	Dimensions (mm)			Used for
					A	B	C	
2	A	Black	V6	5-2297795-1	30	15	16.05	HPF 1.2
	B	Brown		5-2297795-2				
	C	Blue		5-2297795-3				



**Technical Features**

**Wire Size Range:**  
max. 1.0 mm<sup>2</sup>

**Temperature Range:**  
150 °C

**Product Specification:**  
N/A

**Application Specification:**  
114-94415

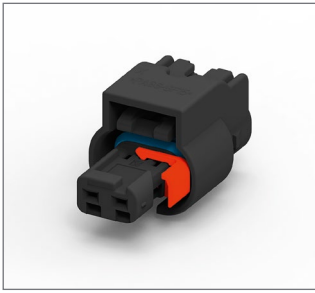
**Extraction Tool:**  
3-1579018-4

**HPF 1.2 Series – Sealed, 3 Positions**

No. of Positions	Keying Options	Housing Color	Vibration Level	Part Number	Dimensions (mm)			Used for
					A	B	C	
3	A	black	V6	5-2297811-1	30	19	16.05	HPF 1.2
	B	brown		5-2297811-2				
	C	blue		5-2297811-3				

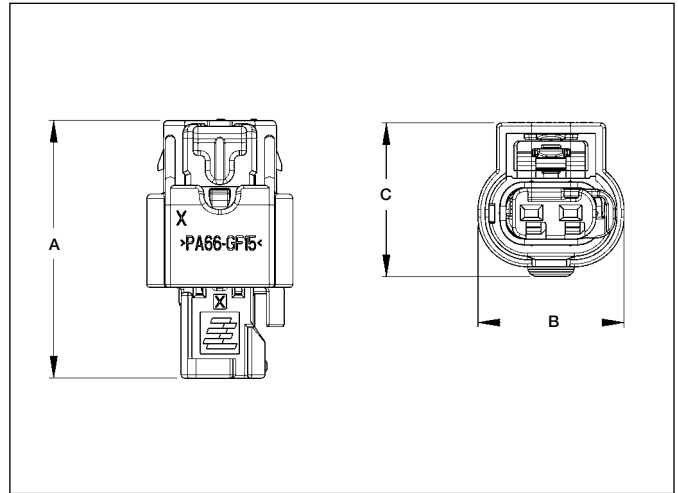


**Sealed MCON 1.2 Receptacle Housing for Clean Body Contacts – up to 125 °C**



**Technical Features**

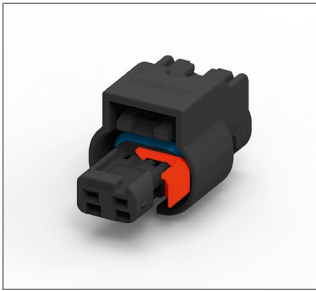
**Wire Size Range:**  
max. 1.0 mm<sup>2</sup> (20 –16 AWG)  
**Total Temperature Range:**  
125 °C  
**Product Specification:**  
N/A  
**Application Specification:**  
408-8928



**Sealed MCON 1.2 Receptacle Housing for Clean Body Contacts**

No. of Positions	Keying Options	Housing Color	CPA Yes / No	Part Number	Dimensions (mm)		
					A	B	C
2	A	Black	No	1-1924067-1	26.5	15	15.8
			Yes / Violet	1-1924067-9			
			Yes / Red	4-1924067-1			
	B	Natural	No	1-1924067-2			
			Yes / Violet	2-1924067-0			
			Yes / Red	4-1924067-2			
	C	Blue	No	1-1924067-3			
			Yes / Violet	2-1924067-1			
			Yes / Red	4-1924067-3			
3	A	Black	No	1488991-1	26.5	19	15.8
			Yes	4-1488991-1			
	B	Natural	No	1488991-2			
			Yes	4-1488991-2			
	C	Blue	No	1488991-3			
			Yes	4-1488991-3			
	D	Gray	No	1488991-4			
			Yes	4-1488991-4			
6	A	Black	No	1924292-1	26.5	32.7	17.5
			Yes	4-1924292-1			
	B	Natural	No	1924292-2			
			Yes	4-1924292-2			
	C	Blue	No	1924292-3			
			Yes	4-1924292-3			
	D	Gray	No	1924292-4			
			Yes	4-1924292-4			

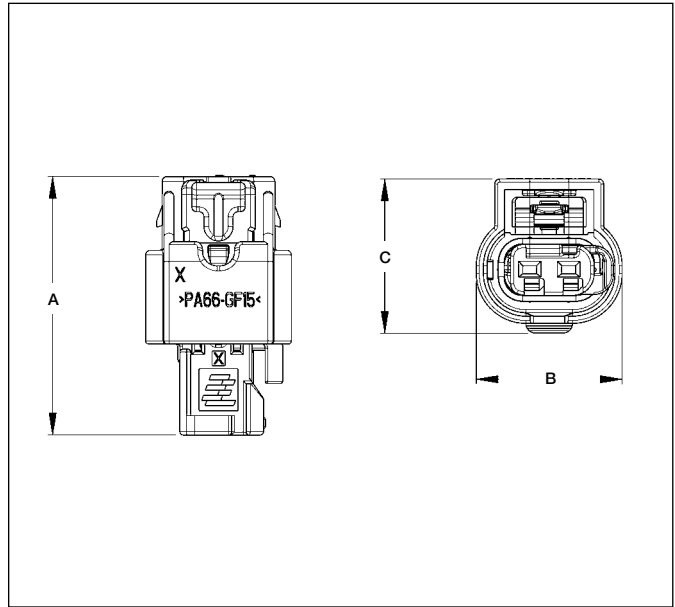
**Sealed MCON 1.2 Receptacle Housing for Clean Body Contacts – up to 150 °C**



**Technical Features**

**Wire Size Range:**  
max. 1.0 mm<sup>2</sup> (20–16 AWG)  
**Total Temperature Range:**  
150 °C

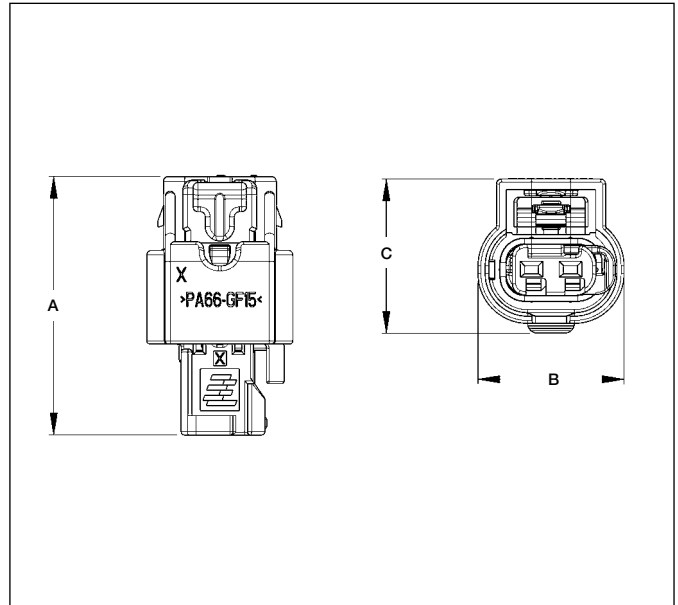
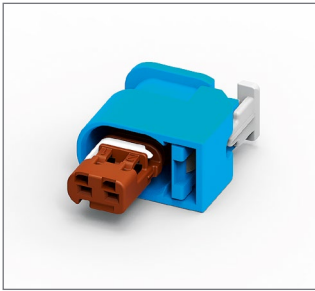
**Product Specification:**  
N/A  
**Application Specification:**  
408-8928



**Sealed MCON 1.2 Receptacle Housing for Clean Body Contacts**

No. of Positions	Keying Options	Housing Color	CPA Yes / No	Part Number	Dimensions (mm)		
					A	B	C
2	A	Brown	No	2098557-1	26.5	15	15.8
			Yes	4-2098557-1			
	B		No	2098557-2			
			Yes	4-2098557-2			
	C		No	2098557-3			
			Yes	4-2098557-3			
3	A	Brown	No	2098541-1	26.5	19	15.6
			Yes	4-2098541-1			
	B		No	2098541-2			
			Yes	4-2098541-2			
	C		No	2098541-3			
			Yes	4-2098541-3			
	D		No	2098541-4			
			Yes	4-2098541-4			
4	A	Black	No	1-1456426-1	26.5	24.7	16.1
			Yes	4-1456426-1			
	B		No	1-1456426-2			
			Yes	4-1456426-2			
	C		No	1-1456426-3			
			Yes	4-1456426-3			
	D		No	1-1456426-4			
			Yes	4-1456426-4			
6	A	Natural	No	2098559-1	26.5	32.7	17.5
			Yes	4-2098559-1			
	B		No	2098559-2			
			Yes	4-2098559-2			
	C		No	2098559-3			
			Yes	4-2098559-3			
	D		No	2098559-4			
			Yes	4-2098559-4			

**Sealed MCON 1.2 Receptacle Housing for Clean Body Contacts - Low Profile Sidelatch –up to 150 °C**



**Technical Features**

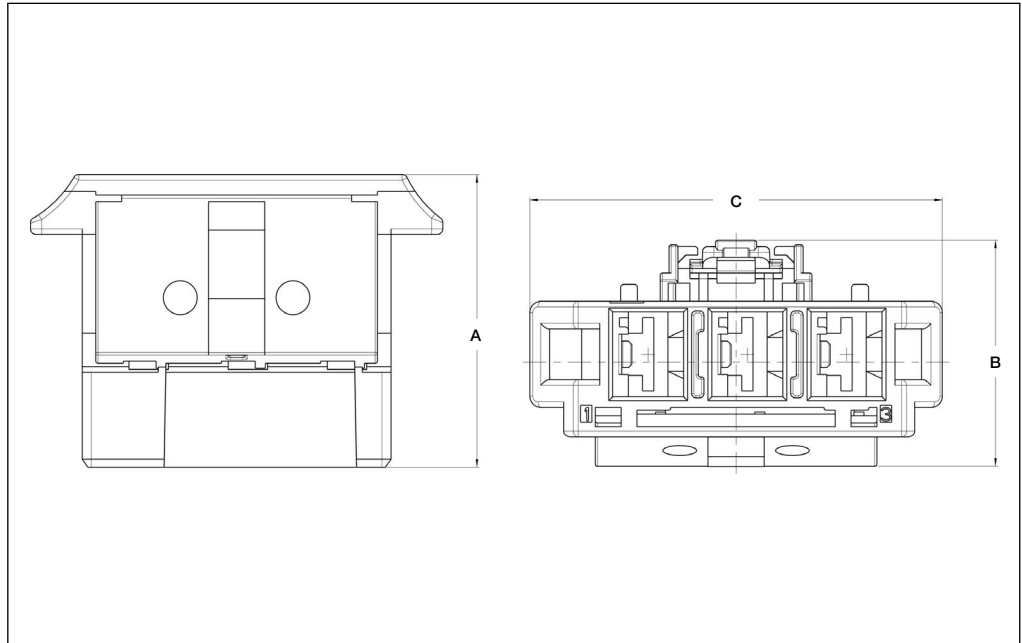
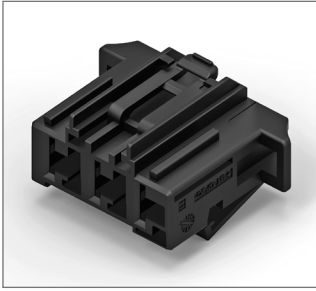
**Wire Size Range:**  
 max. 1.0 mm<sup>2</sup> (20 – 16 AWG)  
**Total Temperature Range:**  
 150 °C

**Product Specification:**  
 N/A  
**Application Specification:**  
 408-8928

**Sealed MCON 1.2 Receptacle Housing for Clean Body Contacts**

No. of Positions	Keying Options	Housing Color	CPA Yes / No	180° turned Outer Housing	Part Number	Dimensions (mm)		
						A	B	C
2	A	Brown	No	–	2098641-1	26.5	19.9	11.2
	B			–	2098641-2			
	C			–	2098641-3			
	A			Yes	2098641-4			
	A		Yes	2098641-5				
	A		Yes	–	2098641-6			
	B			–	2098641-7			
	C			–	2098641-8			

**3 Positions MCON 6.3 Housing**



**Technical Features**

**No. of Positions:**  
3

**Wire Size Range:**  
2.5-6 mm<sup>2</sup>

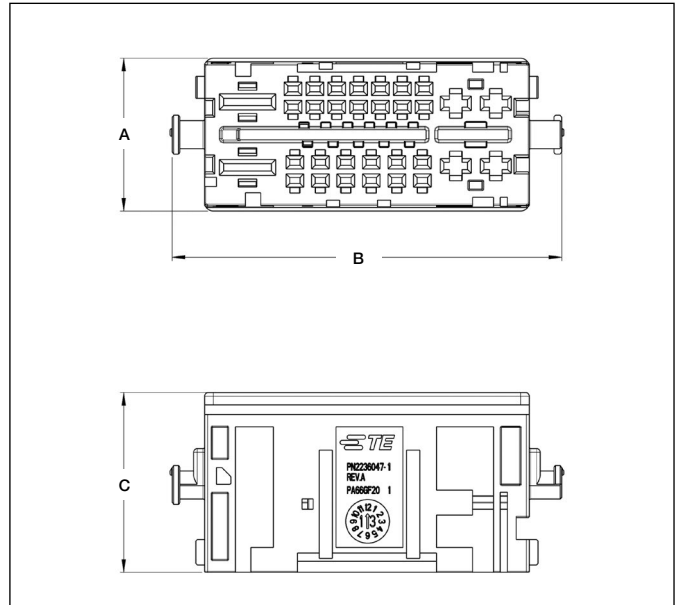
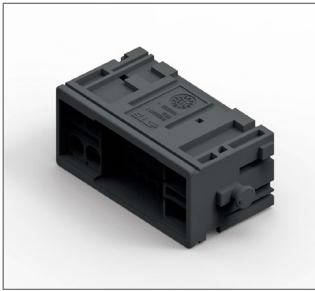
**Product Specification:**  
N/A

**Application Specification:**  
114-94372

**3 Positions MCON 6.3 Housing**

No. of Positions	Keying Options	Housing Color	Part Number	Dimensions (mm)		
				A	B	C
3	A	Black	2282442-1	25.9	17	36.6
	B	Gray	2282442-2			

**32 Positions Mixed Housing**

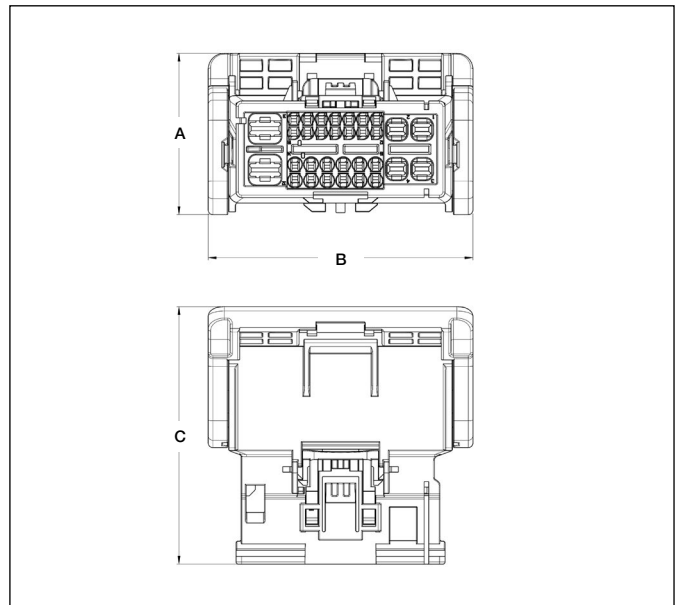


**Technical Features**

<b>No. of Positions:</b> 32	<b>Used Terminals Systems:</b> MCON 1.2 MCON 2.8 AMP MCP 6.3
<b>Wire Size Range:</b> 0.25 – 6.0 mm <sup>2</sup>	
<b>Product Specification:</b> 108-20329	<b>Extraction Tool:</b> MCON 1.2           5-1579007-3 MCON 2.8           5-1579008-2 AMP MCP 6.3       1-1579007-3
<b>Application Specification:</b> 411-20134	

**32 Positions Mixed Receptacle Housing**

No. of Positions	Keying Options	Housing Color	Part Number	Dimensions (mm)			Required Secondary Lock	Mating Tab Housing
				A	B	C		
32	A	Black	2236047-1	24.7	54.1	21	2236048-1	2236046-7 or 1-2236046-0
	B	Gray	2236047-2					2236046-8 or 1-2236046-1



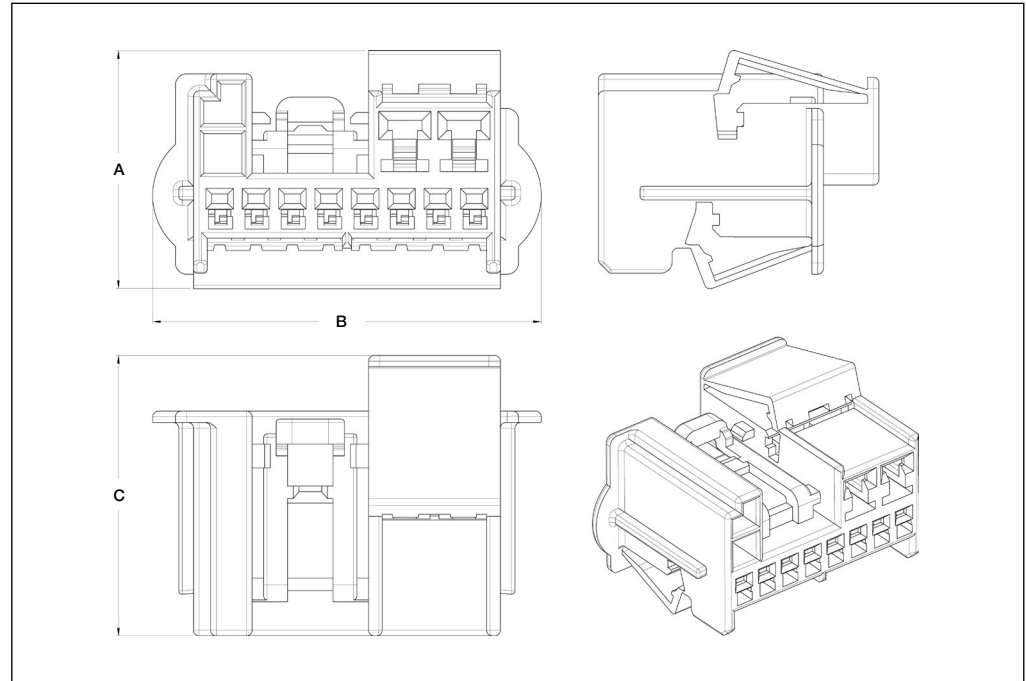
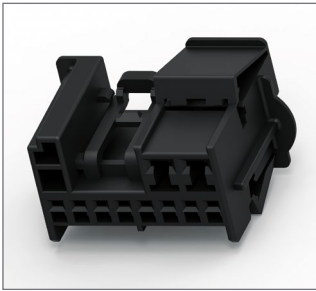
**Technical Features**

<b>No. of Positions:</b> 32	<b>Used Terminals Systems:</b> MCON 1.2 Tab Tab 2.8 x 0,8 Tab 5.8 x 0,8
<b>Wire Size Range:</b> 0.25 – 6.0 mm <sup>2</sup>	
<b>Product Specification:</b> 108-20329	<b>Extraction Tool:</b> MCON 1.2           5-1579007-3 Tab 2.8             1-1579007-6 Tab 5.8             1-1579007-6
<b>Application Specification:</b> 411-20134	

**32 Positions Mixed Tab Housing**

No. of Positions	Keying Options	Housing Color	CPA Yes / No	Part Number	Dimensions (mm)			Required Secondary Lock	Mating Receptacle Housing
					A	B	C		
32	A	Black	–	2236046-7	56	57.5	35.1	2236048-1	2236047-1
			Yes	1-2236046-0					2236047-1
	B	Grey	–	2236046-8					2236047-2
			Yes	1-2236046-1					2236047-2

**10 Positions Mixed Housing**



**Technical Features**

**Number of Positions:**

10

**Housing Material:**

PA66

**Wire Size Range:**

0.25 – 4.00 mm<sup>2</sup>

**Used Terminal System:**

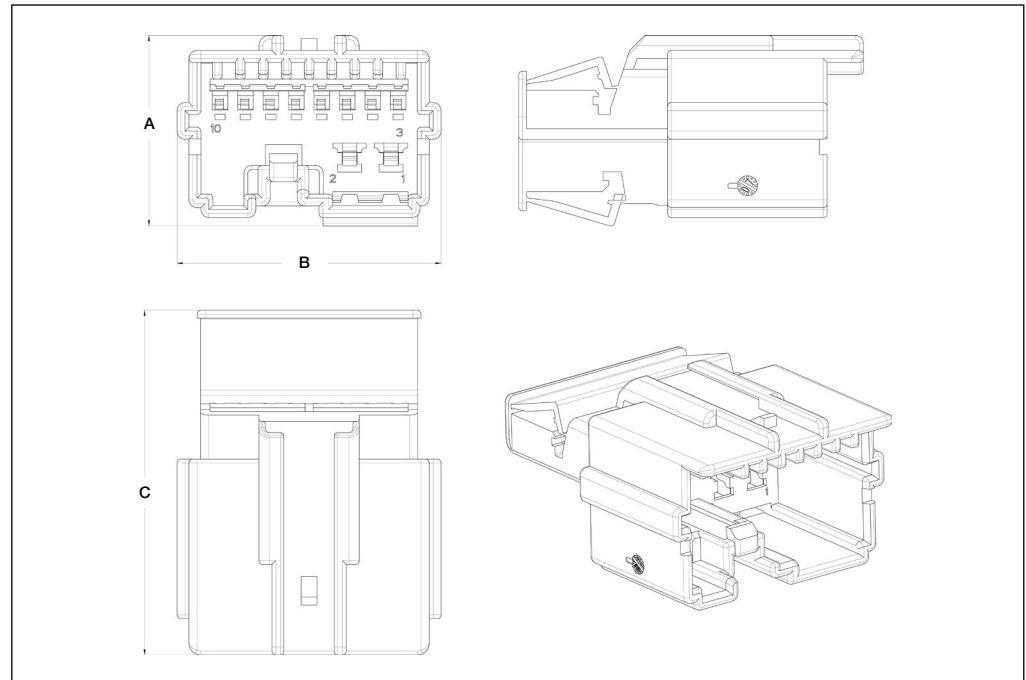
MCON 1.2

AMP MCP 2.8

**10 Positions Mixed Housing**

No. of Positions	Keying Options	Housing Color	Part Number	Dimensions (mm)			Mating Tab Housing
				A	B	C	
10	A	Black	1703410-1	21	34.2	24.7	1703411-1

**10 Positions Mixed Receptacle Housing**



**Technical Features**

**Number of Positions:**

10

**Housing Material:**

PA66

**Wire Size Range:**

0.25 – 4.00 mm<sup>2</sup>

**Used Terminal System:**

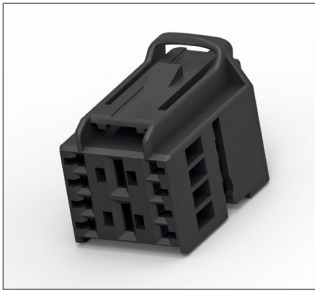
MCON 1.2 Tab

Tab 2.8 x 0.8

**10 Positions Mixed Receptacle Housing**

No. of Positions	Keying Options	Housing Color	Part Number	Dimensions (mm)			Mating Tab Housing
				A	B	C	
10	A	Black	1703411-1	23.95	33.2	43.35	1703410-1

**10 Positions Mixed Receptacle Housing**



**Technical Features**

**Number of Positions:**

10

**Housing Material:**

PA66

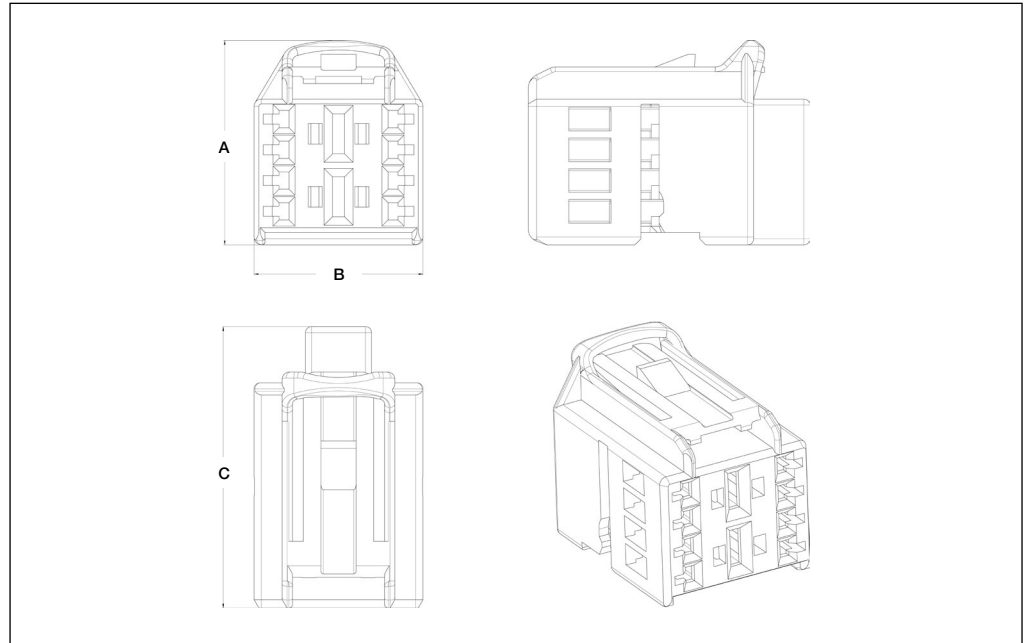
**Wire Size Range:**

0.25 – 4.00 mm<sup>2</sup>

**Used Terminal System:**

MCON 1.2

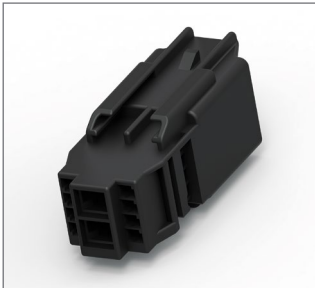
AMP MCP 2.8



**10 Positions Mixed Receptacle Housing**

No. of Positions	Keying Options	Housing Color	Part Number	Dimensions (mm)			Required Secondary Lock	Mating Tab Housing
				A	B	C		
10	A	Black	1563123-1	16.7	13.95	23.25	1563124-1	1563125-1

**10 Positions Mixed Receptacle Housing**



**Technical Features**

**Number of Positions:**

10

**Housing Material:**

PA66

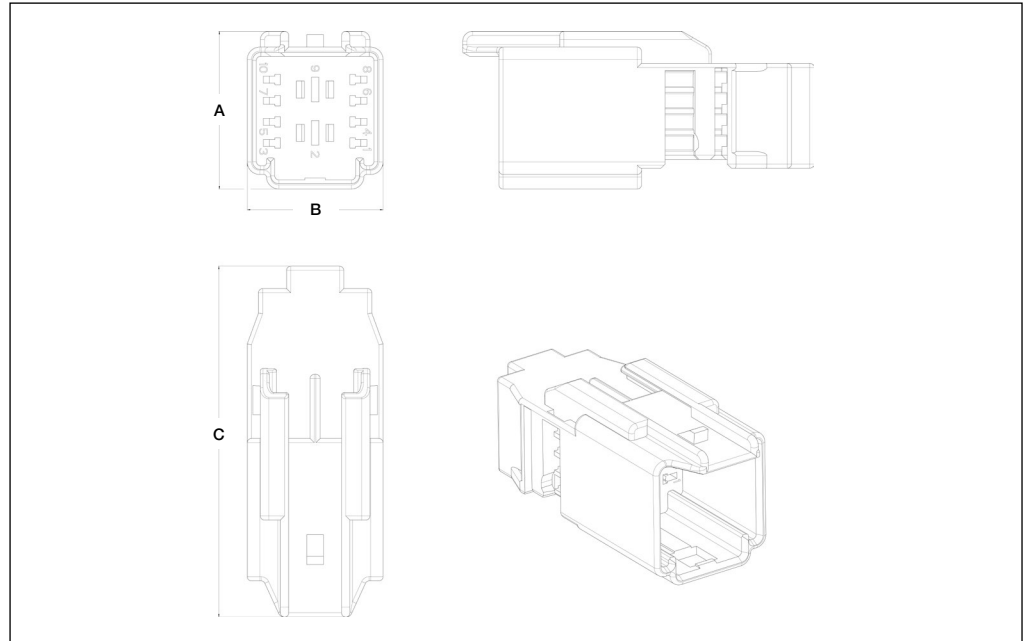
**Wire Size Range:**

0.25 – 4.00 mm<sup>2</sup>

**Used Terminal System:**

MCON 1.2 Tab

Tab 2.8 x 0.8



**10 Positions Mixed Tab Housing**

No. of Positions	Keying Options	Housing Color	CPA Yes / No	Part Number	Dimensions (mm)			Required Secondary Lock	Mating Tab Housing
					A	B	C		
10	A	Black	No	1563125-1	10.95	16.3	42.15	1563126-1	1563123-1

**10 Positions Sealed Wire-to-Wire or Bulkhead Housing**

**Technical Features**

**No. of Positions:**  
10

**Wire Size Range:**  
0.35 – 1.5 mm<sup>2</sup>

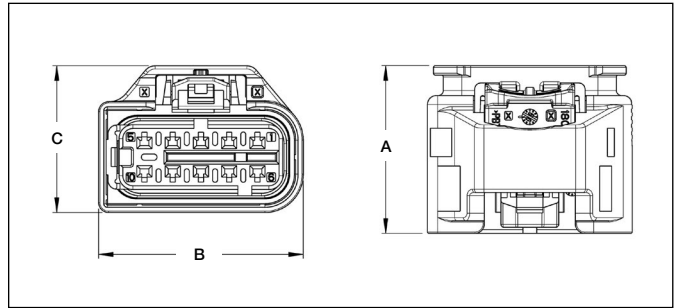
**Product Specification:**  
108-15398

**Application Specification:**  
411-15748

**Extraction Tool:**  
5-1579007-3  
8-1579018-4

**Insertion Tool:**  
5-1579018-6  
8-1579018-6

**Locking Tool:**  
8-1579018-5 or  
9-1579018-6



**10 Positions MCON 1.2 Sealed Receptacle Housing**

No. of Positions	Keying Options	Housing Color	Part Number	Dimensions (mm)			Mating Tab Housing
				A	B	C	
10	A	Black	1801600-1	26.7	32.6	23.3	1801606-1
	B	Grey	1801600-2				1801606-2
	C	Blue	1801600-3				1801606-3
	D	Green	1801600-4				1801606-4
	E	Red	1801600-5				1801606-5

**Technical Features**

**No. of Positions:**  
10

**Wire Size Range:**  
0.35 – 1.5 mm<sup>2</sup>

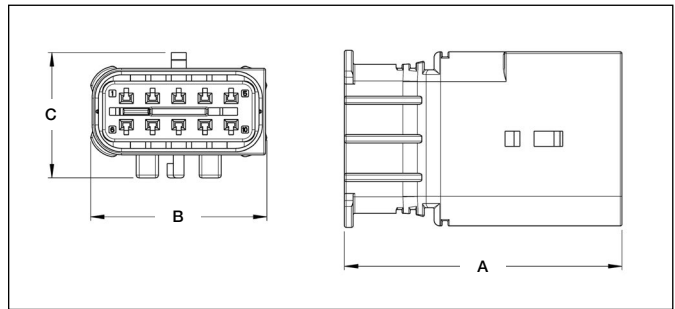
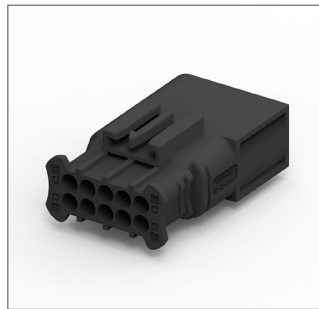
**Product Specification:**  
108-15398

**Application Specification:**  
411-15748

**Extraction Tool:**  
5-1579007-3  
8-1579018-4

**Insertion Tool:**  
5-1579018-6  
8-1579018-6

**Locking Tool:**  
8-1579018-5 or  
9-1579018-6



**10 Positions MCON 1.2 Sealed Tab Housing**

No. of Positions	Keying Options	Housing Color	Part Number	Dimensions (mm)			Mating Tab Housing
				A	B	C	
10	A	Black	1801606-1	47.7	30.3	21.5	1801600-1
	B	Grey	1801606-2				1801600-2
	C	Blue	1801606-3				1801600-3
	D	Green	1801606-4				1801600-4
	E	Red	1801606-5				1801600-5

**Technical Features**

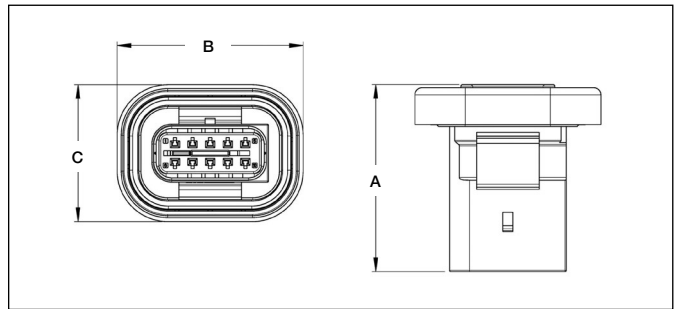
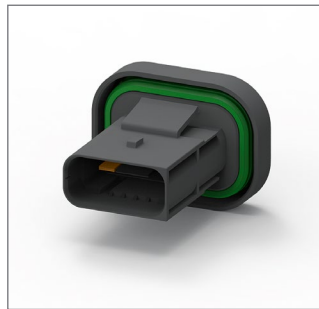
**No. of Positions:**  
10

**Wire Size Range:**  
0.35 – 1.5 mm<sup>2</sup>

**Product Specification:**  
108-15405

**Application Specification:**  
N/A

**Extraction Tool:**  
5-1579007-3



**10 Positions MCON 1.2 Bulkhead**

No. of Positions	Keying Options	Housing Color	Part Number	Dimensions (mm)			Mating Rec Housing
				A	B	C	
10	A	Black	1801610-1	47.7	47.5	34.9	1801600-1
	B	Grey	1801610-2				1801600-2



**16 Position MCON 1.2 and MCON 2.8 Mixed Wire-to-wire Connector**

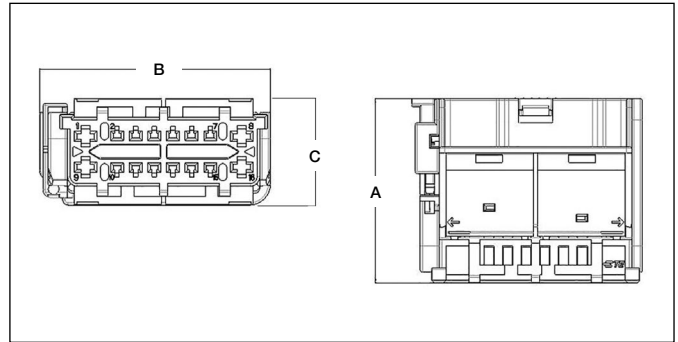
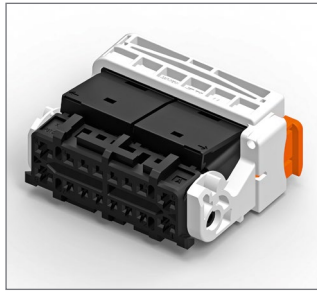
**Technical Features**

**No. of Positions:**  
16

**Wire Size Range 1.2 mm:**  
0.35-4.0 mm<sup>2</sup>

**Product Specification:**  
108-15428

**Application Specification:**  
N//A



**16 position MCON 1.2 and MCON 2.8 Mixed Receptacle Housing**

No. of Positions	Keying Options	Housing Color	CPA Yes/No	Part Number	Dimensions (mm)			Mating Tab Housing
					A	B	C	
16	A	Black	Yes	1-1801756-1*	34.5	43.3	19.9	x-1801760-1
			No	1801756-1*				
	B	Gray	Yes	1-1801756-2*				x-1801760-2
			No	1801756-2*				
	C	Blue	Yes	1-1801756-3*				x-1801760-3
			No	1801756-3*				
	D	Brown	Yes	1-1801756-4*				x-1801760-4
			No	1801756-4*				
	E	Purple	Yes	1-1801756-5*				x-1801760-5
			No	1801756-5*				

\*) On request

**16 Position MCON 1.2 and MCON 2.8 Mixed Tab Housing**

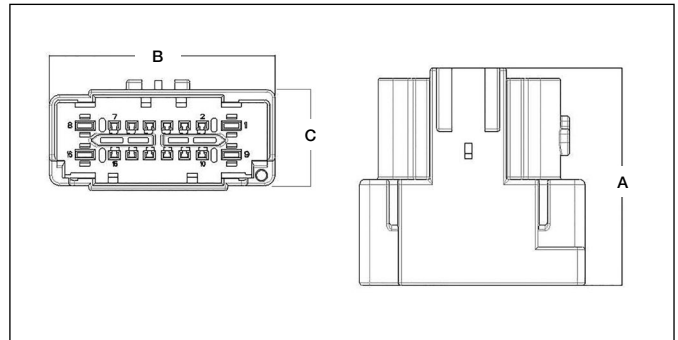
**Technical Features**

**No. of Positions:**  
16

**Wire Size Range 1.2 mm:**  
0.35-4.0 mm<sup>2</sup>

**Product Specification:**  
108-15428

**Application Specification:**  
N//A



**16 position MCON 1.2 and MCON 2.8 Mixed Tab Housing**

No. of Positions	Keying Options	Housing Color	CPA Yes/No	Part Number	Dimensions (mm)			Mating Tab Housing
					A	B	C	
16	A	Black	Yes	1-1801760-1*	43.2	44.9	22	x-1801756-1
			No	1-1801760-1*				
	B	Gray	Yes	1-1801760-2*				x-1801756-2
			No	1-1801760-2*				
	C	Blue	Yes	1-1801760-3*				x-1801756-3
			No	1-1801760-3*				
	D	Brown	Yes	1-1801760-4*				x-1801756-4
			No	1-1801760-4*				
	E	Purple	Yes	1-1801760-5*				x-1801756-5
			No	1-1801760-5*				

\*) On request

**18 Positions MCON 1.2 + 2.8 Mixed Wire-to wire Connector**

**Technical Features**

**No. of Positions:**  
18

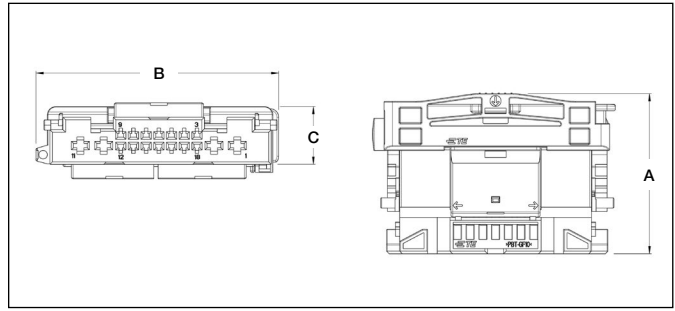
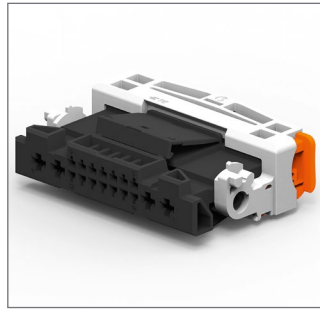
**Wire Size Range:**  
0.35 – 4.0 mm<sup>2</sup>

**Product Specification:**  
108-15431

**Application Specification:**  
408-15014

**Extraction Tool:**  
5-1579007-3  
5-1579008-2

8-1579018-4



**18 Positions MCON 1.2 + 2.8 Mixed Receptacle Housing**

No. of Positions	Keying Options	Housing Color	Part Number	Dimensions (mm)			Mating Tab Housing
				A	B	C	
18	A	Black	1801735-1	37.5	57.2	17.8	1801739-1
	B	Gray	1801735-2				1801739-2
	C	Blue	1801735-3				1801739-3
	D	Brown	1801735-4				1801739-4
	E	Purple	1801735-5				1801739-5

**Technical Features**

**No. of Positions:**  
18

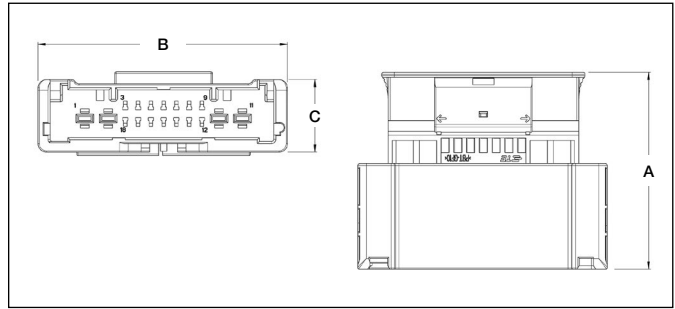
**Wire Size Range:**  
0.35 – 4.0 mm<sup>2</sup>

**Product Specification:**  
108-15431

**Application Specification:**  
408-15014

**Extraction Tool:**  
5-1579007-3  
1-1579007-6

8-1579018-4



**18 Positions MCON 1.2 + 2.8 Mixed Tab Housing**

No. of Positions	Keying Options	Housing Color	Part Number	Dimensions (mm)			Mating Receptacle Housing
				A	B	C	
18	A	Black	1801739-1	46.2	58.6	19.6	1801735-1
	B	Gray	1801739-2				1801735-2
	C	Blue	1801739-3				1801735-3
	D	Brown	1801739-4				1801735-4
	E	Purple	1801739-5				1801735-5

Images representative of tool type only.



## APPLICATION TOOLING AND EQUIPMENT

FOR THE  
MCON Interconnection System

TE Application Tooling is dedicated to providing high quality equipment options to meet all levels of our connector products specifications. We are also able to provide a broad range of equipment for other manufacturer's products.

Our equipment range is vast and almost unmatched by others operating in the same industry segments, as is our global presence and support network in the form of field service engineers and product managers. We supply everything from simple hand tools to the most complex automated systems.

Equipment is segregated into two types and managed accordingly:

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Where we can supply you with sufficient information referenced by Part Number such that you can identify and order what you need yourself.

### Specialised Equipment

Where you will need help from our specialist product managers to identify what's just right for your Application.

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- Powerful searches to find generic equipment options (Hand Tools / Applicators)
- Brochures and more detailed flyers for the specialised equipment.
- It's quick, easy and more importantly the latest and most up to date information is available online.

### Regional Assistance

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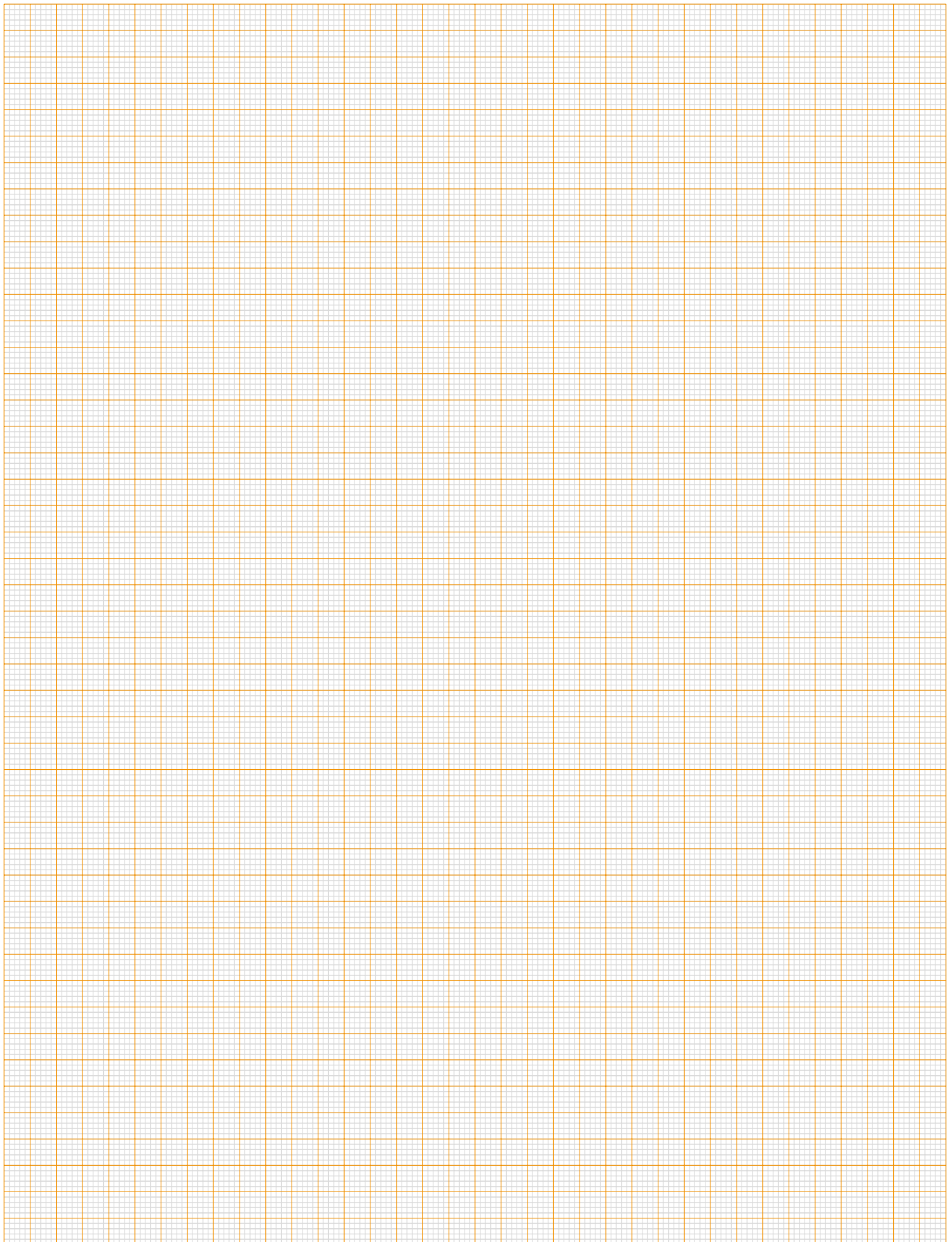
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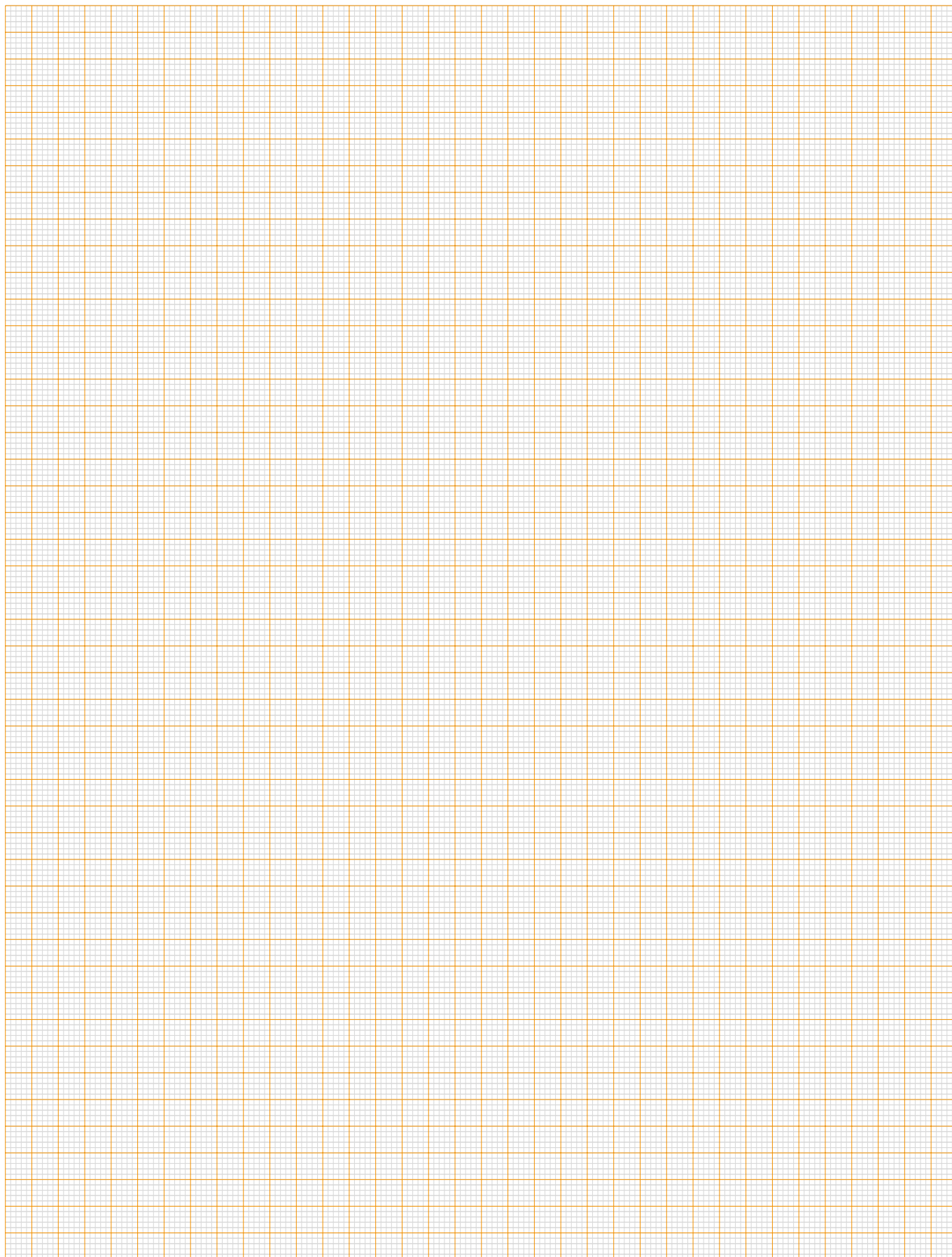
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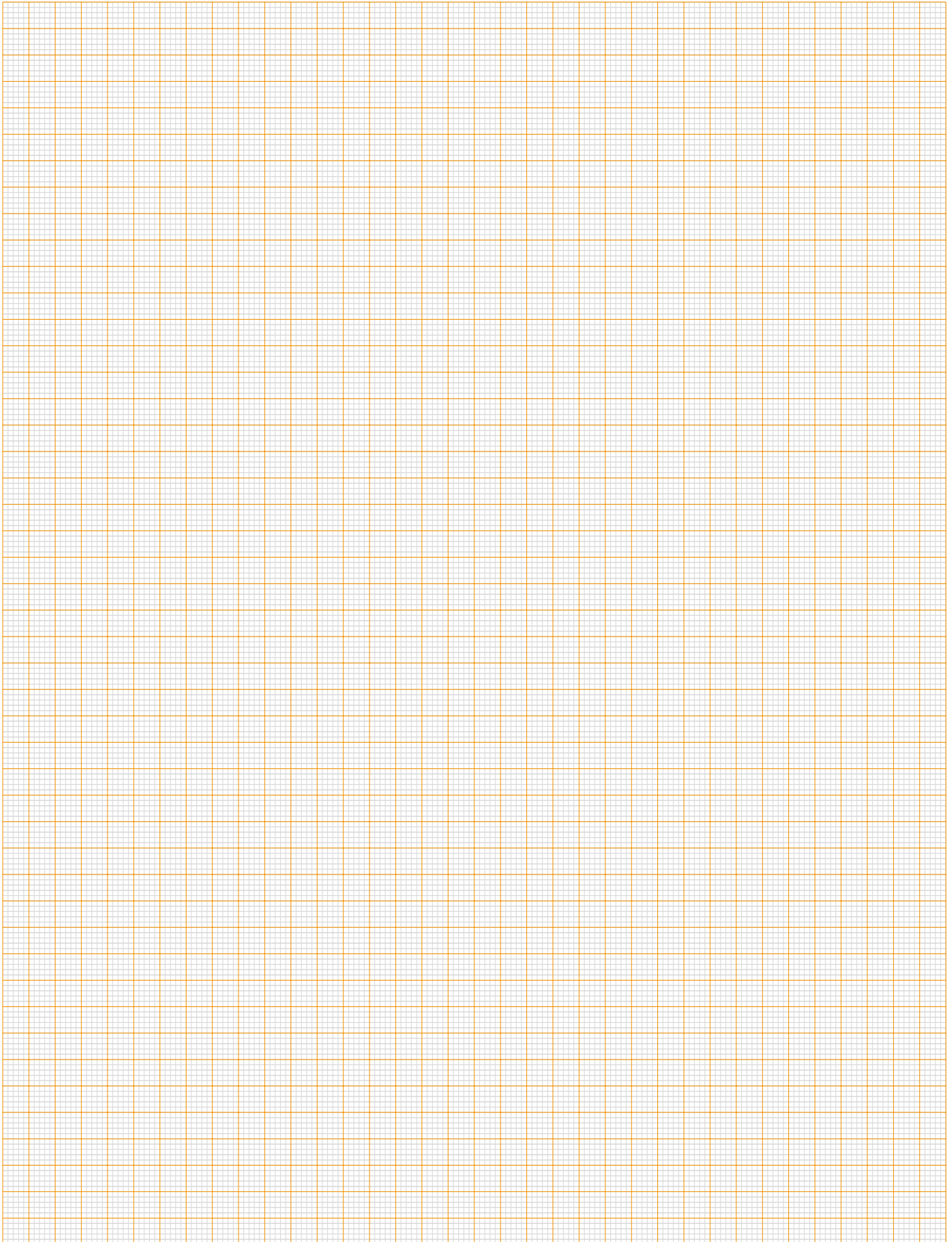
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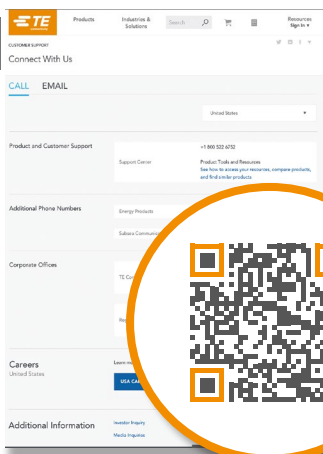
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