



Heavy Duty Sealed Connector Series (HDSCS)

for Industrial & Commercial Vehicles



INDUSTRIAL & COMMERCIAL TRANSPORTATION

Industrial & Commercial Transportation

When every connection counts, TE Connectivity delivers reliable connectivity products designed to withstand harsh environmental conditions for on and off-highway vehicles and recreational transportation. As a world leader in rough and rugged connectivity, you can depend on TE Connectivity to provide innovative solutions for field applications where failure is not an option.

We go to extremes to make every connection count

The Industrial & Commercial Transportation business unit of TE Connectivity is a world leader in connectors and interconnect systems for use in the toughest and harshest environments. From trucks to tractors, from motorcycles to recreational vehicles, we offer products that work just as hard as the vehicles in which they are installed.

Our intelligent yet robust solutions and technologies function reliably in applications with high vibration and extreme temperature characteristics. The new business unit combines the service portfolios of DEUTSCH and TE Connectivity under one roof. The DEUTSCH brand is a global leader in interconnect solutions for use in heavy equipment and harsh industrial environments. TE Connectivity has been among the world leaders in interconnect systems for automotive and system manufacturers for over 50 years We offer you one of the world's most comprehensive connector product portfolios.

Thanks to the breadth of our product range, our global presence and our innovative strength, we are able to develop targeted solutions for the most demanding requirements of a rapidly changing market.

We engineer tough products for your application needs. We know that dependability is a must in the field or at the site. That's why our engineers designed rugged, high vibration resistant connector solutions to meet your application requirements.

Support

We provide options to meet your needs. TE Connectivity offers sales options to service all Industrial & Commercial Transportation customers, including factory direct, LADD Distribution and third party distribution. Contact your local sales representative for more information.

Please note our global contacts on page 57.





INDUSTRIAL & COMMERCIAL TRANSPORTATION

Industrial & Commercial Transportation Markets

On-Highway Vehicles

These include trucks (class 6 – 8, and utility), buses (city buses, coaches, school buses) and emergency vehicles.



Off-Highway Vehicles

In this segment, we equip construction vehicles such as front-loaders, dump trucks, excavators and bulldozers. In agriculture vehicles, our products are widely used in tractors and combine harvesters, for example. This segment also includes special vehicles like industrial lifts or material handling vehicles.



Recreational Transportation

From boats (including personal watercraft) to motorcycles, scooters, snowmobiles, ATVs and recreational vehicles, the range of recreational vehicles is broad.

Whatever the application, we have a connector to match.



Industrial & Commercial Transportation

Industrial & Commercial Transportation has the ideal product series for every harsh environment. Our time-tested, high vibration resistant products and technologies provide the right solution for your applications and requirements.

We go to extremes to make every connection count

Interconnection Systems

TE Connectivity's electrical and electronic interconnection products and solutions are used to electrically and mechanically join wires and cables, printed circuit boards, integrated circuit packages and batteries.

Cable Assemblies

TE Connectivity is your partner for vehiclespecific cable assemblies. We offer research and development capabilities, prototypes and samples, as well as manufacturing facilities for special cable assemblies.

Hybrid & Electric Mobility Solutions

Electric mobility is changing the way engineers think about vehicles. The way they're designed and engineered. The way they're fueled. Even the way the fuel is delivered. And we're right there with you helping complete the connections for current and nextgeneration hybrid and electric mobility and the charging infrastructure. TE Connectivity's complete porfolio of connection and protection systems includes battery connectivity systems, connectors, cable assemblies, high-voltage relays and contactors, power distribution units and customer-specific designs.







INDUSTRIAL & COMMERCIAL

Sensors

TE Connectivity provides contactless and electromechanical sensor products with robust housing technologies, connection systems and temperature-resistant design for use in a variety of industrial and commercial transportation applications.



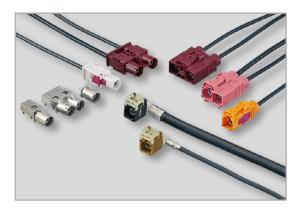
Relays

TE Connectivity's 24 V relay product line includes a broad range of robust and versatile relays for many diverse applications within trucks, buses, agricultural tractors, construction equipment and other heavy duty commercial vehicles. With increased contact gaps and other key design features, these relays are designed for use in challenging environments where they may regularly encounter extended periods of shock and vibration.



Infotainment

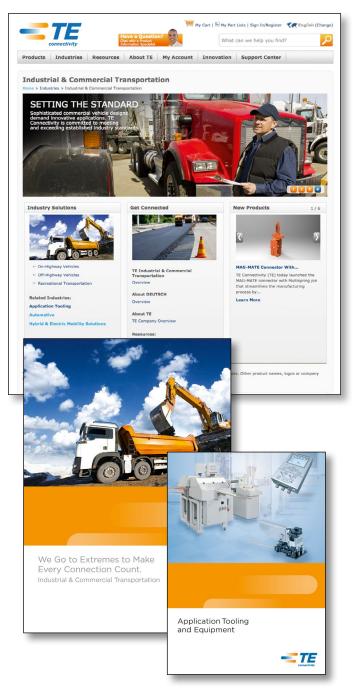
TE Connectivity offers a wide variety of infotainment solutions for consumer port connections, high data rate applications, next-generation harness architecture, board-to-board connections and vehicle-to-vehicle communication.



Industrial & Commercial Transportation

The TE Connectivity Industrial & Commercial Transportation website is an innovative and interactive source for application information, product updates and technical solutions.

Industrial & Commercial Transportation online



Product and Machine Literature

TE Connectivity Industrial & Commercial Transportation offers a variety of product specific catalogs, brochures and high impact flyers to help better serve you!

For more information on literature for TE Connectivity Industrial & Commercial Transportation, please contact your local organization or go to www.te.com/en/industries/industrial-commercial-transportation.html

TE Products www.te.com/en/products/product-landing.html

Product Information Center (PIC)

You can rely on TE Connectivity's PIC Team to provide you support for answers to your general information or technical questions in an efficient and effective manner.

To reach our PIC staff, please contact your local organization or see our Global Contacts page. Please contact us at www.te.com/support-center



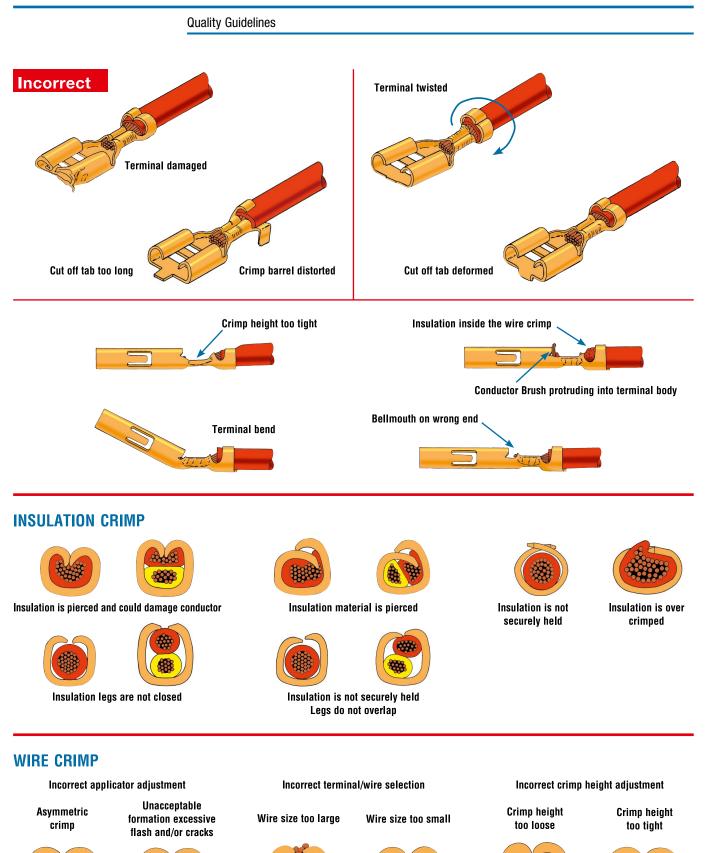
INDUSTRIAL & COMMERCIAL TRANSPORTATION

Every connection counts



We are worldwide the right connection for the toughest jobs





Terminal feed incorrectly adjusted

Anvil and crimper not aligned or worn



Crimp barrel does not close

2.3

Legs too close to bottom of crimp. Insufficient deformation of strands, showing voids



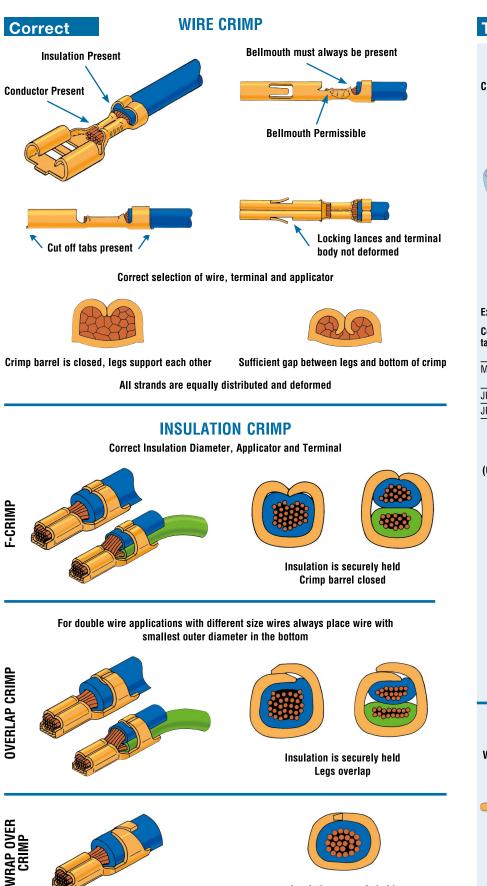
Insufficient deformation, showing voids



Flash at under side of crimp, due to over crimping



Quality Guidelines



Insulation securely held Legs must pass each other



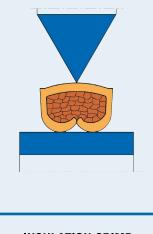
Crimp heights and tolerances

For crimp height tolerances for any given contact, please refer to the relevant application specification.

Examples:

Con- tact	Part No.	Wire Range (mm²)	Toler- ance (mm)	Appli- cation Spec.
MQS	962885 962886	0.2–0.5	±0.03	114-18025
JPT	927775	0.5-1.0	±0.05	114-18050
JPT	927773	1.5-2.5	±0.05	114-18050

Digital Crimp Height Micrometer (0.001 mm increments) acc. to DIN ISO 9001 Part No. 547203-1

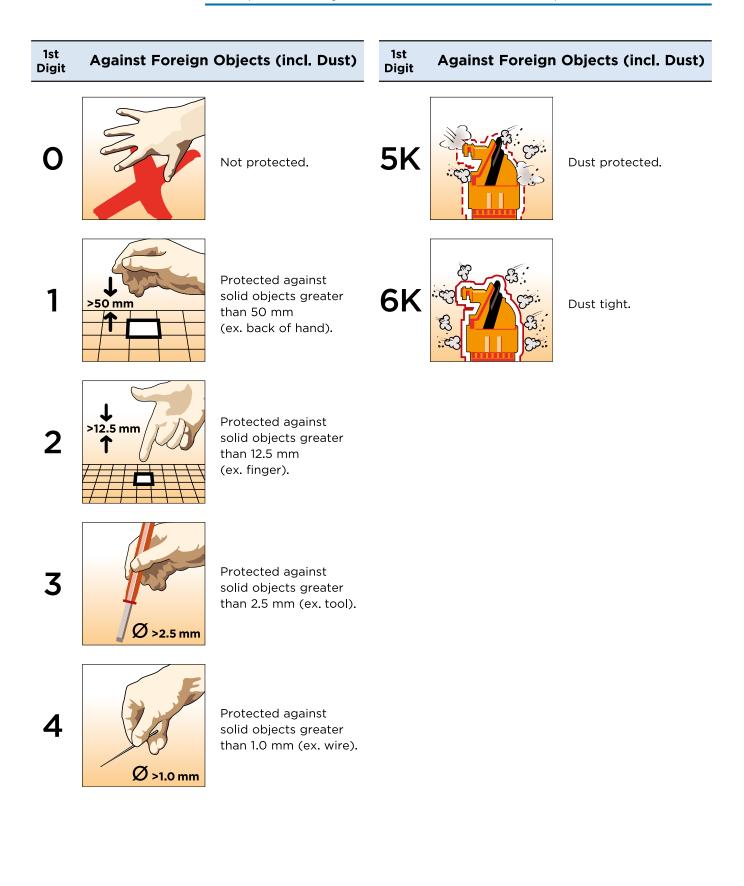


INSULATION CRIMP Wire crimp without conductor

All specifications subject to change. Consult TE Connectivity for latest specifications.

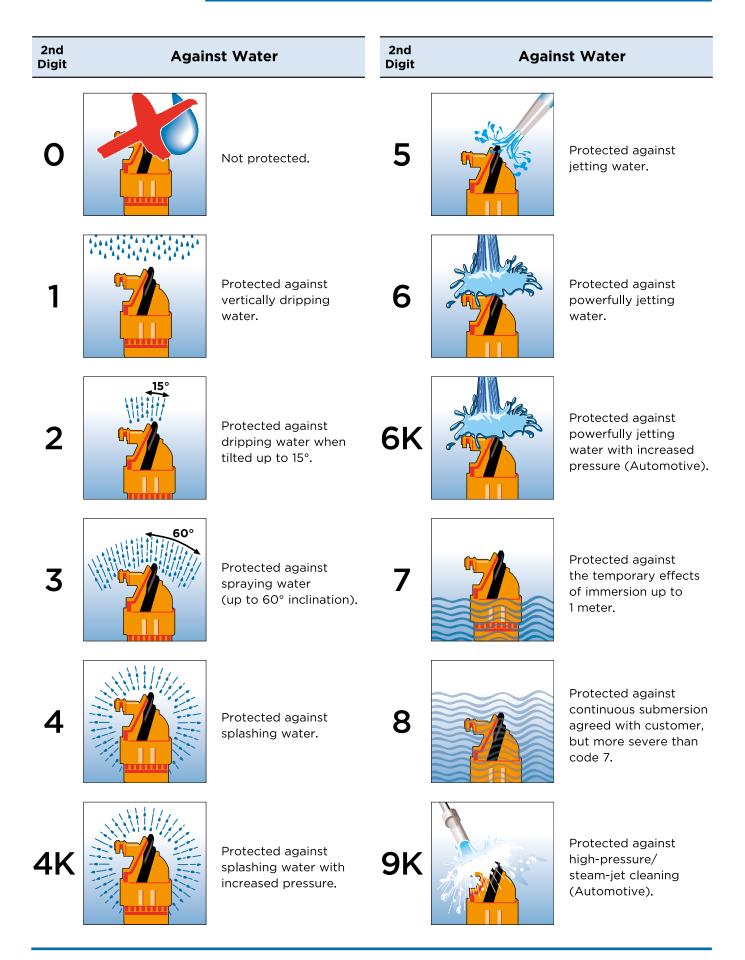


IP Code (Elements and Significance acc. to IEC 60529 and DIN 40050)





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Restriction on the Use of Hazardous Substances (RoHS)

Restriction on the use of Hazardous Substances (RoHS)

At TE Connectivity, we're ready to 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 "♦" symbol. These products do not comply with the material restrictions of the European Union Directive 2002/95/EC.

5 of 6 Compliant

A "•" 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.

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: <u>http://www.te.com/commerce/alt/RohsAltHome.do</u>
- Downloadable Technical Data Customer Information Presentation
- More detailed information regarding the definitions used above

RoHS Customer Support Center

So whatever your questions when it comes to RoHS, we've got the answers at <u>http://www.te.com/customersupport/rohssupportcenter/</u>



AWG Conversion Table (Average Value)

Conversion Tables	AWG Code	Diameter (Inch)	Diameter (mm)	F (mm²)
Most of the wire size ranges are	000000	0.5800	14.733	170.0
mentioned in mm ² , as well as	00000	0.5165	13.13	135.0
the insulation diameters which	0000	0.4600	11.684	103.8
are in many cases only in mm's.	000	0.4096	10.40	79.0
	00	0.3648	9.27	67.5
We therefore included the				
conversion tables on page X	0	0.3249	8.25	53.4
and page XI.	1	0.2893	7.34	42.2
Please note that wire and	2	0.2576	6.55	33.7
	3	0.2294	5.82	26.6
insulation sizes are for guidance	4	0.2043	5.18	21.0
only.	5	0.1819	4.62	16.9
Consult the customer drawing	6	0.1620	4.115	13.25
for precise detail.	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
FLK/FLR Cable	34	0.0063	0.160	0.02
FLK and FLR stand for German	35	0.0056	0.142	0.0158
DIN (72551) abbreviations.	36	0.0050	0.127	0.0127
	37	0.0045	0.114	0.01
	38	0.0040	0.101	0.008
FLK means:	39	0.0035	0.089	0.0062
In German:	40	0.0031	0.079	0.0049
• Fahrzeug Leitung Kunststoff	40	0.0028	0.075	0.00395
In English:				
Vehicle Cable Plastic	42	0.0025	0.064	0.00321
- νεπισε σανιε Γιαδιίσ	43	0.0022	0.056	0.00246
	44	0.00198	0.050	0.00196
FLR means:	45	0.00176	0.045	
In German:	46	0.00157	0.040	
 Fahrzeug Leitung Reduziert 	47	0.00140	0.036	
	48	0.00124	0.031	
In English:	49	0.00110	0.028	
		0.00110	0.020	
Thin Walled Cable (reduced insulation thickness)	50	0.00099	0.025	

Remark: Starting from 0.03 mm² (AWG 32) a wire can be crimped.



Conversion Table – Inch/mm

Inch	0	0.001	0.002	0.003	0.004	0.005	0.006	0.007	0.008	0.009
0	0	0.0254	0.0508	0.0762	0.1016	0.1270	0.1524	0.1778	0.2032	0.2286
0.010	0.2540	0.2794	0.3048	0.3302	0.3556	0.3810	0.4064	0.4318	0.4572	0.4826
0.020	0.5080	0.5334	0.5588	0.5842	0.6096	0.6350	0.6604	0.6858	0.7112	0.7366
0.030	0.7620	0.7874	0.8128	0.8382	0.8636	0.8890	0.9144	0.9398	0.9652	0.9906
0.040	1.0160	1.0414	1.0668	1.0922	1.1176	1.1430	1.1684	1.1938	1.2192	1.2446
0.050	1.2700	1.2954	1.3208	1.3462	1.3716	1.3970	1.4224	1.4478	1.4732	1.4986
0.060	1.5240	1.5494	1.5748	1.6002	1.6256	1.6510	1.6764	1.7018	1.7272	1.7526
0.070	1.7780	1.8034	1.8288	1.8542	1.8796	1.9050	1.9304	1.9558	1.9812	2.0066
0.080	2.0320	2.0574	2.0828	2.1062	2.1336	2.1590	2.1844	2.2098	2.2352	2.2606
0.090	2.2860	2.3114	2.3368	2.3622	2.3876	2.4130	2.4384	2.4638	2.4892	2.5146
0.100	2.5400	2.5654	2.5908	2.6162	2.6416	2.6670	2.6924	2.7178	2.7432	2.7686
0.110	2.7940	2.8194	2.8448	2.8702	2.8956	2.9210	2.9464	2.9718	2.9972	3.0226
0.120	3.0480	3.0734	3.0988	3.1242	3.1496	3.1750	3.2004	3.2258	3.2512	3.2766
0.130	3.3020	3.3274	3.3528	3.3782	3.4036	3.4290	3.4544	3.4798	3.5052	3.5306
0.140	3.5560	3.5814	3.6068	3.6322	3.6576	3.6830	3.7084	3.7338	3.7592	3.7846
0.150	3.8100	3.8354	3.8608	3.8862	3.9116	3.9370	3.9624	3.9878	4.0132	4.0386
0.160	4.0640	4.0894	4.1148	4.1402	4.1656	4.1910	4.2164	4.2418	4.2672	4.2926
0.170	4.3180	4.3434	4.3688	4.3942	4.4196	4.4450	4.4704	4.4958	4.5212	4.5466
0.180	4.5720	4.5974	4.6228	4.6482	4.6736	4.6990	4.7244	4.7498	4.7752	4.8006
0.190	4.8260	4.8514	4.8768	4.9022	4.9276	4.9530	4.9784	5.0038	5.0292	5.0546
0.200	5.0800	5.1054	5.1308	5.1562	5.1816	5.2070	5.2324	5.2578	5.2832	5.3086
0.210	5.3340	5.3594	5.3848	5.4102	5.4356	5.4610	5.4864	5.5118	5.5372	5.5626
0.220	5.5880	5.6134	5.6388	5.6642	5.6896	5.7150	5.7404	5.7658	5.7912	5.8166
0.230	5.8420	5.8674	5.8928	5.9182	5.9436	5.9690	5.9944	6.0198	6.0452	6.0706
0.240	6.0960	6.1214	6.1468	6.1722	6.1976	6.2230	6.2484	6.2738	6.2992	6.3246
0.250	6.3500	6.3754	6.4008	6.4262	6.4516	6.4770	6.5024	6.5278	6.5532	6.5786
0.260	6.6040	6.6294	6.6548	6.6802	6.7056	6.7310	6.7564	6.7818	6.8072	6.8326
0.270	6.8580	6.8834	6.9088	6.9342	6.9596	6.9850	7.0104	7.0358	7.0612	7.0866
0.280 0.290	7.1120 7.3660	7.1374 7.3914	7.1628 7.4168	7.1882	7.2136 7.4676	7.2390 7.4930	7.2644	7.2898	7.3152 7.5692	7.3406 7.5946
0.290	7.6200	7.6454	7.6708	7.4422 7.6962	7.4070	7.4930	7.5184 7.7724	7.5438 7.7978	7.8232	7.8486
0.310	7.8740	7.8994	7.9248	7.9502	7.9756	8.0010	8.0264	8.0518	8.0772	8.1026
0.320	8.1280	8.1534	8.1788	8.2042	8.2296	8.2550	8.2804	8.3058	8.3312	8.3566
0.330	8.3820	8.4074	8.4328	8.4582	8.4836	8.5090	8.5344	8.5598	8.5852	8.6106
0.340	8.6360	8.6614	8.6868	8.7122	8.7376	8.7630	8.7884	8.8138	8.8392	8.8646
0.350	8.8900	8.9154	8.9408	8.9662	8.9916	9.0170	9.0424	9.0678	9.0932	9.1186
0.360	9.1440	9.1694	9.1948	9.2202	9.2456	9.2710	9.2964	9.3218	9.3472	9.3726
0.370	9.3980	9.4234	9.4488	9.4742	9.4996	9.5250	9.5504	9.5758	9.6012	9.6266
0.380	9.6520	9.6774	9.7028	9.7282	9.7536	9.7790	9.8044	9.8298	9.8552	9.8806
0.390	9.9060	9.9314	9.9568	9.9822	10.0076	10.0330	10.0584	10.0838	10.1092	10.1346
0.400	10.1600	10.1854	10.2108	10.2362	10.2616	10.2870	10.3124	10.3378	10.3632	10.3886
0.410	10.4140	10.4394	10.4648	10.4902	10.5156	10.5410	10.5664	10.5918	10.6172	10.6426
0.420	10.6680	10.6934	10.7188	10.7442	10.7696	10.7950	10.8204	10.8458	10.8712	10.8966
0.430	10.9220	10.9474	10.9728	10.9982	11.0236	11.0490	11.0744	11.0998	11.1252	11.1506
0.440	11.1760	11.2014	11.2268	11.2522	11.2776	11.3030	11.3284	11.3538	11.3792	11.4046
0.450	11.4300	11.4554	11.4808	11.5062	11.5316	11.5510	11.5824	11.6078	11.6332	11.6586
0.460	11.6840	11.7094	11.7348	11.7602	11.7856	11.8110	11.8364	11.8618	11.8872	11.9126
0.470	11.9380	11.9634	11.9888	12.0142	12.0396	12.0650	12.0904	12.1158	12.1412	12.1666
0.480	12.1920	12.2174	12.2428	12.2682	12.2936	12.3190	12.3444	12.3698	12.3952	12.4206
0.490	12.4460	12.4714	12.4968	12.5222	12.5476	12.5730	12.5984	12.6238	12.6492	12.6746
0.500	12.7000									
Inch	0	0.001	0.002	0.003	0.004	0.005	0.006	0.007	0.008	0.009



Conversion Table - Inch/mm (continued)

Inch	0	0.001	0.002	0.003	0.004	0.005	0.006	0.007	0.008	0.009
0.500	12.7000	12.7254	12.7508	12.7762	12.8016	12.8270	12.8524	12.8778	12.9032	12.9286
0.510	12.9540	12.9794	13.0048	13.0302	13.0556	13.0810	13.1064	13.1318	13.1572	13.1826
0.520	13.2080	13.2334	13.2588	13.2842	13.3096	13.3350	13.3604	13.3858	13.4112	13.4366
0.530	13.4620	13.4874	13.5128	15.5382	13.5636	13.5890	13.6144	13.6398	13.6652	13.6906
0.540	13.7160	13.7414	13.7668	13.7922	13.8176	13.8430	13.8684	13.8938	13.9192	13.9446
0.550	13.9700	13.9954	14.0208	14.0462	14.0716	14.0970	14.1224	14.1478	14.1732	14.1986
0.560	14.2240	14.2494	14.2748	14.3002	14.3256	14.3510	14.3764	14.4018	14.4272	14.4526
0.570	14.4780	14.5034	14.5288	14.5542	14.5796	14.6050	14.6304	14.6558	14.6812	14.7066
0.580	14.7320	14.7574	14.7828	14.8082	14.8336	14.8590	14.8844	14.9098	14.9352	14.9606
0.590	14.9860	15.0114	15.0368	15.0622	15.0876	15.1130	15.1384	15.1638	15.1892	15.2146
0.600	15.2400	15.2654	15.2908	15.3162	15.3416	15.3670	15.3924	15.4178	15.4432	15.4686
0.610	15.4940	15.5194	15.5448	15.5702	15.5956	15.6210	15.6464	15.6718	15.6972	15.7226
0.620	15.7480	15.7734	15.7988	15.8242	15.8496	15.8750	15.9004	15.9258	15.9512	15.9766
0.630	16.0020	16.0274	16.0528	16.0782	16.1036	16.1290	16.1544	16.1798	16.2052	16.2306
0.640	16.2560	16.2814	16.3068	16.3322	16.3576	16.3830	16.4084	16.4338	16.4592	16.4846
0.650	16.5100	16.5354	16.5608	16.5862	16.6116	16.6370	16.6624	16.6878	16.7132	16.7386
0.660	16.7640	16.7894	16.8148	16.8402	16.8656	16.8910	16.9164	16.9418	16.9672	16.9926
0.670	17.0180	17.0434	17.0688	17.0942	17.1196	17.1450	17.1704	17.1958	17.2212	17.2466
0.680	17.2720	17.2974	17.3228	17.3482	17.3736	17.3990	17.4244	17.4498	17.4752	17.5006
0.690	17.5260	17.5514	17.5768	17.6022	17.6276	17.6530	17.6784	17.7038	17.7292	17.7546
0.700	17.7800	17.8054	17.8308	17.8562	17.8816	17.9070	17.9324	17.9528	17.9832	18.0086
0.710	18.0340	18.0594	18.0848	18.1102	18.1356	18.1610	18.1864	18.2118	18.2372	18.2626
0.720	18.2880	18.3134	18.3388	18.3642	18.3896	18.4150	18.4404	18.4658	18.4912	19.5166
0.730	18.5420	18.5674	18.5928	18.6182	18.6436	18.6690	18.6944	18.7198	18.7452	18.7706
0.740	18.7960	18.8214	18.8468	18.8722	18.8976	18.9230	18.9484	18.9738	18.9992	19.0246
0.750	19.0500	19.0754	19.1008	19.1262	19.1516	19.1170	19.2024	19.2278	19.2532	19.2786
0.760	19.3040	19.3294	19.3548	19.3802	19.4056	19.4310	19.4564	19.4818	19.5072	19.5326
0.770	19.5580	19.5834	19.6088	19.6342	19.6596	19.6850	19.7104	19.7358	19.7612	19.7886
0.780	19.8120	19.8374	19.8628	19.8882	19.9136	19.9390	19.9644	19.9898	20.0152	20.0406
0.790	20.0660	20.0914	20.1168	20.1422	20.1676	20.1930	20.2184	20.2438	20.2692	20.2946
0.800	20.3200	20.3454	20.3708	20.3962	20.4216	20.4470	20.4724	20.4978	20.5232	20.5486
0.810	20.5740	20.5994	20.6248	20.6502	20.6756	20.7010	20.7264	20.7518	20.7772	20.8026
0.820	20.8280	20.8534	20.8788	20.9042	20.9296	20.9550	20.9804	21.0058	21.0312	21.0566
0.830	21.0820	21.1074	21.1328	21.1582	21.1836	21.2090	21.2344	21.2598	21.2852	21.3106
0.840	21.3360	21.3614	21.3868	21.4122	21.4376	21.4630	21.4884	21.5138	21.5392	21.5646
0.850	21.5900	21.6154	21.6408	21.6662	21.6916	21.7170	21.7424	21.7678	21.7932	21.8186
0.860	21.8440	21.8694	21.8948	21.9202	21.9456	21.9710	21.9964	22.0218	22.0472	22.0726
0.870	22.0980	22.1234	22.1488	22.1742	22.1996	22.2250	22.2504	22.2758	22.3012	22.3266
0.880	22.3520	22.3774	22.4028	22.4282	22.4536	22.4790	22.5044	22.5298	22.5552	22.5806
0.890	22.6060	22.6314	22.6568	22.6822	22.7076	22.7330	22.7584	22.7838	22.8092	22.8346
0.900	22.8600	22.8854	22.9108	22.9362	22.9616	22.9870	23.0124	23.0378	23.0632	23.0886
0.910	23.1140	23.1394	23.1648	23.1902	23.2156	23.2410	23.2664	23.2918	23.3172	23.3426
0.920	23.3680	23.3934	23.4188	23.4442	23.4696	23.4950	23.5204	23.5458	23.5712	23.5966
0.930	23.6220	23.6474	23.6728	23.6982	23.7236	23.7490	23.7744	23.7998	23.8252	23.8506
0.940	23.8760	23.9014	23.9268	23.9522	23.9776	24.0030	24.0284	24.0538	24.0792	24.1046
0.950	24.1300	24.1554	24.1808	24.2062	24.2316	24.2570	24.2824	24.3078	24.3332	24.3586
0.960	24.3840	24.4094	24.4348	24.4602	24.4856	24.5110	24.5364	24.5618	24.5812	24.6126
0.970	24.6380	24.6634	24.6888	24.7142	24.7396	24.7650	24.7904	24.8158	24.8412	24.8666
0.980	24.8920	24.9174	24.9428	24.9682	24.9936	25.0190	25.0444	25.0698	25.0952	25.1206
0.990	25.1460	25.1714	25.1968	25.2222	25.2476	25.2730	25.2984	25.3228	25.3492	25.3746
1.000	25.4000									
Inch	0	0.001	0.002	0.003	0.004	0.005	0.006	0.007	0.008	0.009



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Engineering Notes





Heavy Duty Sealed Connector Series (HDSCS) for industrial & commercial vehicles.

> The Heavy Duty Sealed Connector Series, so called HDSCS, is targeted for the commercial vehicle industry and off-road applications. This wire-to-wire and wire-todevice connector program was designed to meet the rigorous demands of an industry that requires the highest standards in performance.

The HDSCS program consists of five groups of connectors in different sizes, starting from 2 up to 18 way connectors. In addition, mixed combinations with signal and power lines are available.

This HDSCS program will feature the AMP MCP 1.5K, AMP MCP 2.8 and AMP MCP 6.3/4.8K receptacles and tabs as a contact system.

Technical Features

- 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
- Polarization, several keyings
- Clear handling, low mating force with a reliable slide locking mechanism delivered in pre-locked position



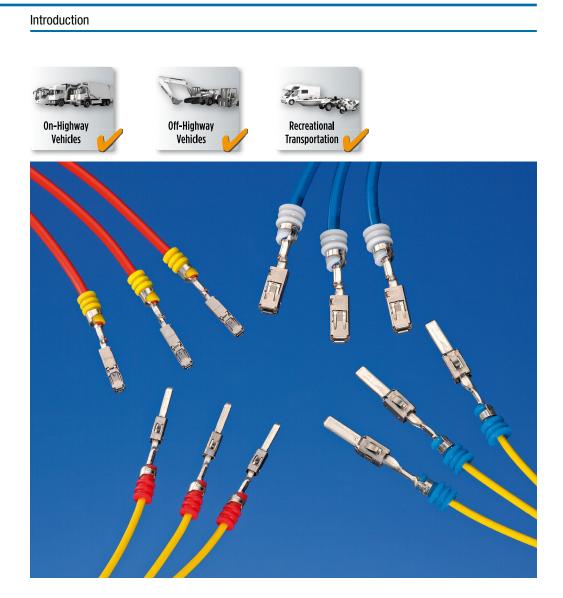
Engineering Notes

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Heavy Duty Sealed Connector Series (HDSCS)

Contact Systems



The AMP MCP contact system is mainly used in the automotive industry. Each contact consists of a flat receptacle, which mates with a flat tab. Every contact has got a steel spring and a copper alloy body.

The two-piece contact design means that the electrical and mechanical properties are separated. One end of the contact body is crimped to wire and the other end mates with the matching tab. The closed spring has got several functions and also different advantages for the complete contact system.

- Protection of the contact springs
- No over elongation of the contact springs possible under normal circumstances
- No possibility to connect from the rear side
- Protection against mechanical damage
- Good guiding in the cavity
- Secondary locking possible (from 4 directions)
- Assembly into housing fully-automatically

In addition there are usually two lances on the steel to spring. These serve to lock the contact securely in the housing. The main advantages of the body are:

- Several contact points
- Large range of wire sizes (from 0.2mm² at AMP MCP 1.5K up to 6.0 mm² at AMP MCP 6.3/4.8K)
- Base material with very high current capability
- High vibrational load

Tabs and receptacles can be applied in both sealed and unsealed connectors.

AMP MCP contacts can be fast and economically arranged to the lead using TE Connectivity application tooling.

The AMP MCP contact system offers high functionality for application in commercial vehicles.



AMP MCP 1.5K Contact System

Sealed Receptacle Contacts

Technical Features

Contact Material: CuNiSi Top Spring: Stainless Steel

Contact Finish: Tin plated, selective silver plated, selective gold plated

Wire Size Range: 0.20–0.35 mm2, 0.5–1.0 mm2, >1.0–1.5 mm2 (FLR Cable)

Current Carrying Capacity: up to 20 Ampere (at 20 °C ambient temperature)

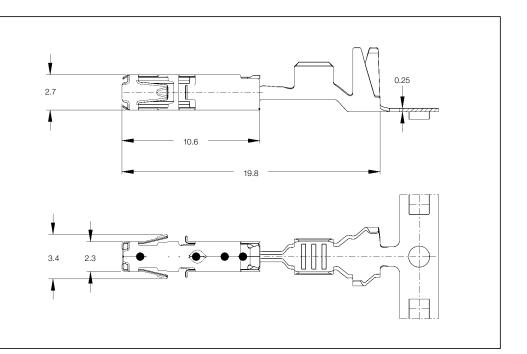
Temperature Range: -40 °C ... +130 °C (tin plated) -40 °C ... +140 °C (silver plated)

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

Mating Cycles:•

up to 10 cycles (tin plated) up to 50 cycles (silver plated) up to 100 cycles (gold plated)

 Mating Cycles are depending on various technical influences and must be clarified in each individual case.



Contact Resistance:

New State $\leq 2 m\Omega$ Mating Force: Max. 6 N Unmating Force: Max. 6 N

Dimension of Male Contacts: $1.5^{+0.2}_{-0.1} \times 0.6^{+0.07}_{-0.03} \text{ mm}$

Extraction Tool: Part No. 1-1579007-1

Product Group Drawing: 1241436

Product Specification: 108-18716

Application Specification: 114-18386

Receptacle Contacts Single Wire Sealing System (SWS)

Insulation Diamete		n Diameter				Pa	rt Numbers			
Wire Size Range	Nire Size (mm) Range	Material			Strip	Package	age Loose-	Package	Applicator *	Hand
(mm²)	FLK	FLR	and Finish*	Form	Quantity	Piece	Quantity	Tool Complete		
0.20–0.35	-	1.1–1.4	-1 / -2 / -3	1241378	4,500	1241379	500	x-1528122-x	2063524-1	
0.5–1.0	-	1.4–2.1	-1 / -2 / -3 / 1-xxx-2	1241380	4,500	1241381	500	x-1528324-x	2003524-1	
>1.0-1.5	-	2.2–2.4	-1 / -3	1418884	4,500	1418885	500	x-1530008-x	-	

*) Material and Finish:

xxx-1 = CuNiSi, pre-tin plated

xxx-2 = CuNiSi, selective gold plated

xxx-3 = CuNiSi, selective silver plated

1-xxx-2 = CuNiSi, min. 1.27 μ m selective gold plated

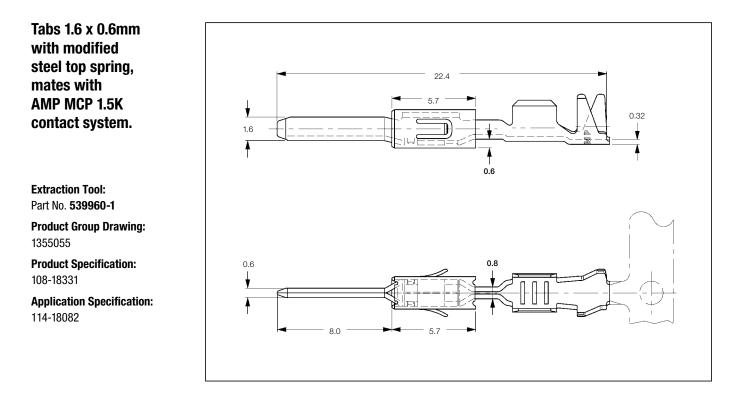
Note: All Part Numbers are RoHS and ELV compliant.

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



AMP MCP 1.5K Contact System

Sealed Tab Contacts



Tab Contacts Single Wire Sealing System with Modified Spring (SWS)

Insulation Diameter		n Diameter				Pa	rt Numbers		
Wire Size Range	(1111)	Material and Finish *	Strip	Package	Loose-	Package		Hand	
(mm²)	FLK	FLR		Form	Quantity	Piece	Quantity	Applicator *	Tool Complete
0.2–0.5	-	1.2-1.6	-2 / -3	969028	4,000	969029	500	x-1528068-x	2063409-1
0.5–1.0	-	1.4–2.1	-2 / -3 / -5	964269	4,000	964270	500	x-1528261-x	2063409-1
1.5	-	1.9–2.4	-2 / -5	1703278	4,000	1703279	500	x-1528579-x	-

*) Material and Finish:

xxx-2 = CuFe2, pre-tin plated

xxx-3 = CuSn4, gold plated

xxx-5 = CuSn4, selective silver plated

Note: All Part Numbers are RoHS and ELV compliant.

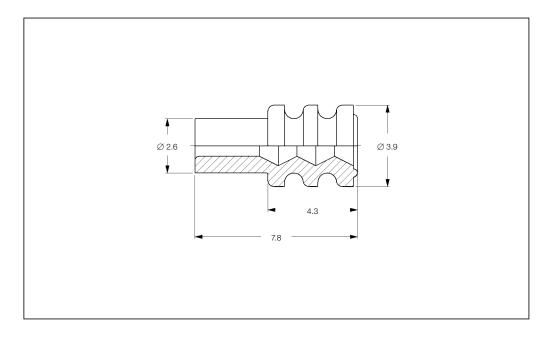
 The pre- and suffix for the applicators depends on the applied termination equipment.



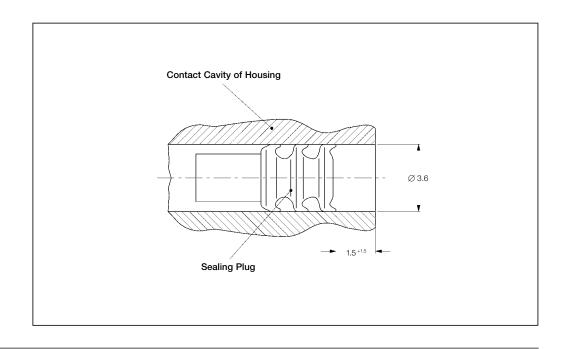
AMP MCP 1.5K Contact System

Single Wire Seals and Sealing Plugs

Single wire seals and sealing plugs for AMP MCP 1.5K contact system (cavity diameter 3.6mm).



Insulation Diameter (mm)	Color	Part Number	Package Quantity
0.9–1.2	Green	1718705-1	10,000
1.2–1.6 –	Red	964971-1	10,000
1.2-1.0 -	Blue	1394133-1	10,000
1.4–1.9	Gray	963530-1	10,000
1.9–2.1	Yellow	964972-1	10,000
1.9–2.4	Orange	2112323-1	10,000
Sealing Plug	White	963531-1	10,000
	Natural	1394132-1	10,000





AMP MCP 2.8 Contact System

Sealed Receptacle Contacts

Technical Features

Material:

Contact: CuNiSi Tabs: CuSn4, CuFe2 Top Spring: Stainless Steel

Contact Finish:

Tin plated, selective silver plated, selective gold plated

Wire Size Range: 0.2–0.5 mm², 0.5–1.0 mm², 1.0–2.5 mm², Single Wires (FLR), AWG 12 TXL

Current Carrying Capacity:

up to 40 Ampere (at 20 °C ambient temperature)

Mating Force*: Max. 6 N

Unmating Force*:

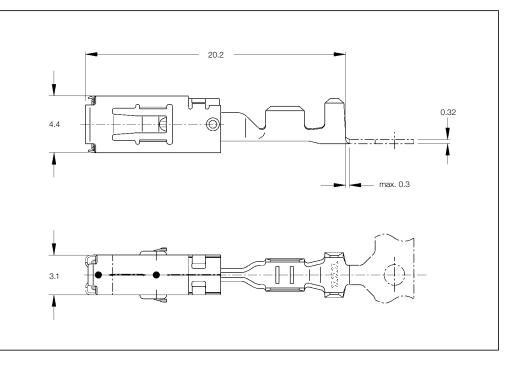
Max. 5 N

Mating Cycles:•

up to 10 cycles (tin plated) up to 50 cycles (silver plated) up to 100 cycles (gold plated)

*) Steel Tab, see Specifications

 Mating Cycles are depending on various technical influences and must be clarified in each individual case.



Temperature Range:

-40 °C ... +130 °C (tin plated) -40 °C ... +140 °C (silver plated) -40 °C ... +150 °C (gold plated)

 $\begin{array}{l} \mbox{Dimension of Male Contacts:} \\ 2.8 \ {}^{\pm 0.1} \ x \ 0.8 \ {}^{\pm 0.03} \ mm \\ 3.0 \ {}^{\pm 0.1} \ x \ 0.8 \ {}^{\pm 0.03} \ mm \end{array}$

Contact Resistance: New State $\leq 2 \text{ m}\Omega$

Extraction Tool: Part No. **1579007-1**

Product Specification: 108-18513

Application Specification: 114-18148

Product Group Drawing: 1355036

Receptacle Contacts Single Wire Sealing System (SWS)

	· (IIIII)					Pa	rt Numbers		
Wire Size Range			(IIIII) Material		Strip	Package	Loose-	Package	
(mm²)	FLK	FLR	and Finish*	Form	Quantity	v	Quantity	Applicator	Tool Complete
0.35	-	1.2–1.4	1-xxx-1 / 1-xxx-3	968882	4,500	968896	500	x-1426162-x	2063623-1
0.5–1.0	-	1.4–2.1	1-xxx-1 / 1-xxx-2 / 1-xxx-3	968855	3,500	968875	500	x-1528017-x	2063624-1
1.0–2.5	-	2.2–3.0	1-xxx-1 / 1-xxx-3	968857	4,000	968876	500	x-1528066-x	2063523-1
AWG 12 TXL	-	max. 3.2	1-xxx-1 / 1-xxx-3	1719506	2,500	-	-	x-1852290-x	-

* Material and Finish:

1-xxx-1 = CuNiSi, pre-tin plated

1-xxx-2 = CuNiSi, selective gold plated

1-xxx-3 = CuNiSi, selective silver plated

Note: All Part Numbers are RoHS and ELV compliant.

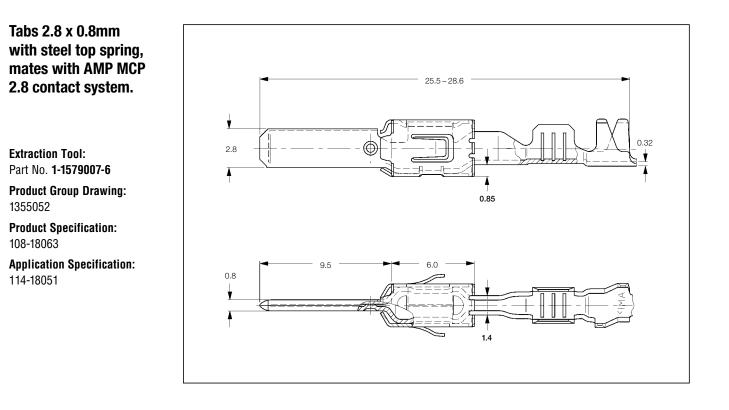
 The pre- and suffix for the applicators depends on the applied termination equipment.



Heavy Duty Sealed Connector Series (HDSCS)

AMP MCP 2.8 Contact System

Single Wire Seals and Sealing Plugs



Tab Contacts with Single Wire Sealing System (SWS)

	Insulatio	sulation Diameter		Part Numbers									
Wire Size Range (mm²)	(mm) 		Material and Finish *	Strip Form	Package Quantity	Loose- Piece	Package Quantity	Applicator *	Hand Tool				
0.2–0.5	-	max. 2.1	1-xxx-1 / 1-xxx-3	965982	3,500	965983	500	x-1528406-x	Complete 734538-1				
0.5–1.0	_	max. 2.1	1-xxx-1 / 1-xxx-2 / 1-xxx-3 / 2-xxx-1 / 2-xxx-2 / 2-xxx-3	962915	3,500	963748	500	x-1528452-x	2063490-1				
1.5–2.5	_	max. 3.0	1-xxx-1 / 1-xxx-2 / 1-xxx-3 / 2-xxx-1 / 2-xxx-2 / 2-xxx-3	962916	3,300	963749	500	x-1528316-x	2063490-1				
AWG 12 TXL	_	max. 3.2	1-xxx-1 / 1-xxx-2	1719504	3.200	1719503	500	x-1852291-x	-				

*) Material and Finish:

1-xxx-1 = CuSn, pre-tin plated

1-xxx-2 = CuSn, selective silver plated

- 1-xxx-3 = CuSn, selective gold plated
- 2-xxx-1 = CuFe, pre-tin plated

2-xxx-2 = CuFe, selective silver plated

2-xxx-3 = CuFe, selective gold plated 3-xxx-1 = CuSn, pre-tin plated

Note: All Part Numbers are RoHS and ELV compliant.

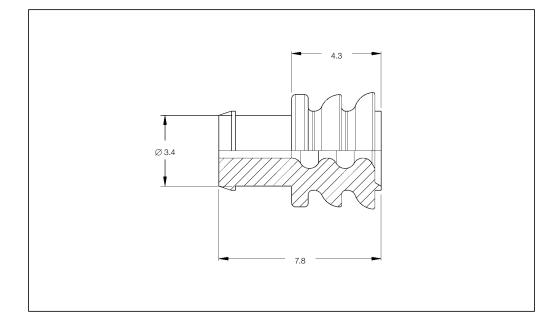
•) The pre- and suffix for the applicators depends on the applied termination equipment.



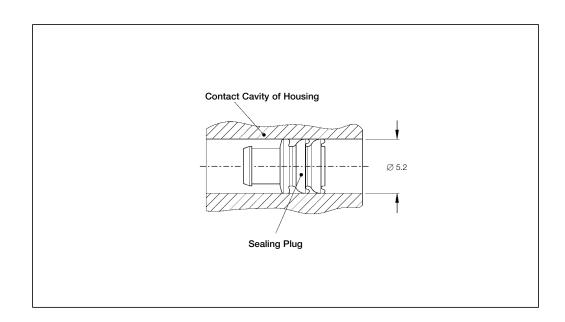
AMP MCP 2.8 Contact System

Single Wire Seals and Sealing Plugs

Single wire seals and sealing plugs for AMP MCP 2.8 contact system (two cavity diameters).



Function Relevant Insulation Diameter (mm)	Example for Wire Size, FLR Insulation according ISO 6722 (mm ²)		FLR Insulation Color		Diameter A (mm)	Part Number	Package Quantity
1 2-2 1	(0.35–1.00)	Blue	5.6	828904-1	1,000		
1.2-2.1	(0.33-1.00)	Dide	5.0	828904-2	10,000		
(2.2–3.0, 3.2)	(1.5–2.5), AWG 12 TXL	White	5.6	828905-1	10,000		
Sealing Plug		Natural	5.6	828922-1	10,000		
Sealing Flug	-	Green	5.6	828922-2	10,000		





AMP MCP 6.3/4.8K Contact System

Sealed Receptacle Contacts

Technical Features

Contact Material: CuNiSi Top Spring: Stainless Steel

Contact Finish: Tin plated, selective silver plated

Wire Size Range: 0.2-0.5 mm², 0.5-1.0 mm², >1.0-2.5 mm², >2.5-4.0 mm², >4.0-6.0 mm²

Current Carrying Capacity: up to 40 Ampere (at 20 °C ambient temperature)

Temperature Range: -40 °C ... +130 °C (tin plated) -40 °C ... +140 °C (silver plated) -40 °C ... +140 °C (tin-silver)

Dimension of Male Contacts:

 $\begin{array}{c} 4.8 \stackrel{\scriptscriptstyle \pm 0.1}{\scriptstyle \pm 0.1} \times 0.8 \stackrel{\scriptscriptstyle \pm 0.03}{\scriptstyle \pm 0.03} mm \\ 5.8 \stackrel{\scriptscriptstyle \pm 0.1}{\scriptstyle \pm 0.1} \times 0.8 \stackrel{\scriptscriptstyle \pm 0.03}{\scriptstyle \pm 0.03} mm \\ 6.3 \stackrel{\scriptscriptstyle \pm 0.1}{\scriptstyle \pm 0.1} \times 0.8 \stackrel{\scriptscriptstyle \pm 0.03}{\scriptstyle \pm 0.03} mm \end{array}$

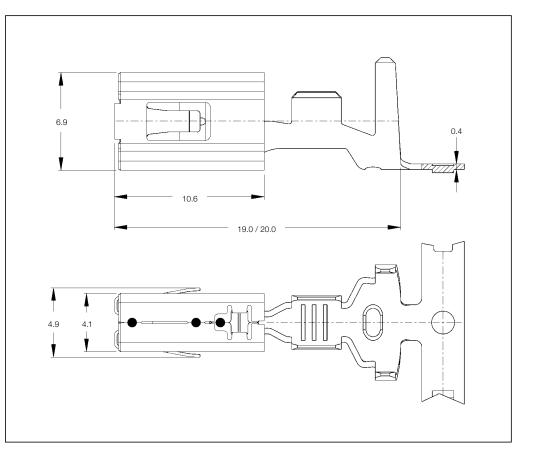
Contact Resistance:

New State $\leq 2 \text{ m}\Omega$

Mating Cycles:•

up to 10 cycles (tin plated) up to 10 cycles (silver plated)

•) Mating Cycles are depending on various technical influences and must be clarified in each individual case.



Mating Force: max. 16 N Unmating Force: max. 11 N Extraction Tool: Part No. 1-1579007-3 Product Group Drawing: 1241438

Product Specification: 108-18718

Application Specification: 114-18388

Receptacle Contacts Single Wire Sealing System (SWS)

	Insulation	Diameter				Pa	rt Numbers		
Wire Size Range	(mm)		Material	Strip	Package	Loose-	Package		Hand
(mm²)	FLK	FLR	and Finish *	inish * Strip Form		Piece	Quantity	Applicator •	Tool Complete
0.2–0.5	1.3–2.3	1.1–1.6	-1	1241410	1,500	1241411	500	x-1528513-x	0000005 1
0.5–1.0	2.0–2.7	1.4–2.1	-1 / -3	1241412	1,500	1241413	500	x-1528342-x	- 2063625-1
>1.0-2.5	2.7–3.7	2.2–3.0	-1 / -3	1241414	1,500	1241415	500	x-1528231-x	0060606 1
>2.5-4.0	4.1–4.5	3.4–3.7	-1 / -3	1241416	1,500	1241417	500	x-1530003-x	- 2063626-1
>4.0-6.0	-	4.0-4.5	-4	1241418	1,500	1241419	500	x-1528947-x	2063627-1 **

*) Material and Finish:

xxx-1 = CuNiSi, pre-tin plated

xxx-3 = CuNiSi, selective silver plated

xxx-4 = CuNiSi, tin-silver pre-plated

Note: All Part Numbers are RoHS and ELV compliant.

Note:

**) This hand tool only covers
 6.0 mm² wire.

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



Heavy Duty Sealed Connector Series (HDSCS)

AMP MCP 6.3/4.8K Contact System

Sealed Tab Contacts

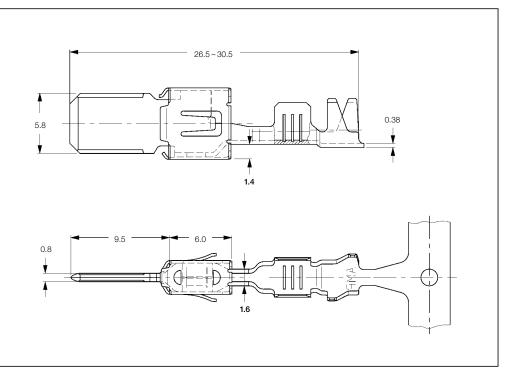
Tabs 5.8 x 0.8 mm with steel top spring, mates with AMP MCP 6.3/4.8K contact system.

Extraction Tool: Part No. 1-1579007-6

Product Group Drawing: 1241895

Product Specification: 108-18064

Application Specification: 114-18052



Tab Contacts Single Wire Sealing System (SWS)

	Insulatio	n Diameter				Pa	rt Numbers			
Wire Size Range	(r	nm)	Material	Strip	Package	Loose-	Package		Hand	
(mm²)	FLK	FLR	and Finish*	Form	Quantity	Piece	Quantity	Applicator	Tool Complete	
0.5–1.0	_	1.4–2.1	1-xxx-1 / 1-xxx-2 / 2-xxx-1 / 2-xxx-2	962917	1,500	963742	500	x-878565-x		
1.5–2.5	-	2.2–3.0	1-xxx-1 / 1-xxx-2 / 2-xxx-1 / 2-xxx-2	962918	1,500	963743	500	x-878566-x	2063628-1	
>2.5-4.0	-	2.7–3.7	1-xxx-1 / 1-xxx-2 / 2-xxx-1 / 2-xxx-2	962919	1,500	963744	500	x-878567-x		
>4.0-6.0	-	-	2-xxx-2	2112966	-	-	-	1855636		

*) Material and Finish:

1-xxx-1 = CuSn, pre-tin plated

1-xxx-2 = CuSn, selective silver plated

2-xxx-1 = CuFe, pre-tin plated

2-xxx-2 = CuFe, selective silver plated

Note: All Part Numbers are RoHS and ELV compliant.

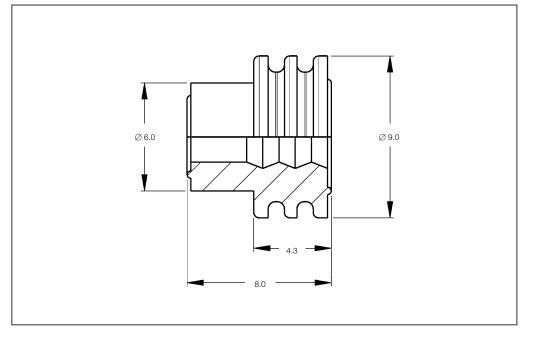
 The pre- and suffix for the applicators depends on the applied termination equipment.



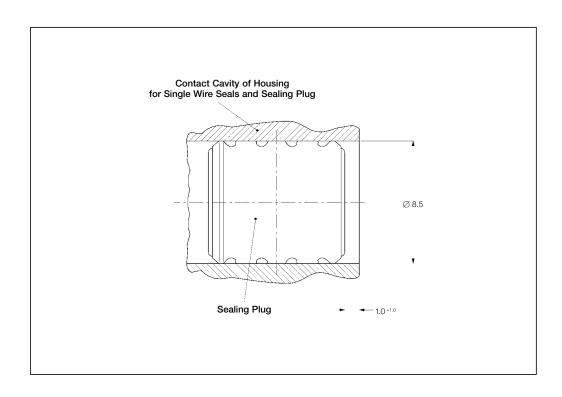
AMP MCP 6.3/4.8K Contact System

Single Wire Seals and Sealing Plugs

Single wire seals and sealing plugs for AMP MCP 6.3/4.8K contact system (cavity diameter 8.5mm).



Insulation Diameter (mm)	Color	Part Number	Package Quantity
2.0–2.7	White	1394511-1	10,000
3.4–3.7	Blue	1394512-1	10,000
4.0–4.5	Green	1719043-1	10,000
Sealing Plug	Transparent	967652-1	20,000





Heavy Duty Sealed Connector Series (HDSCS)

AMP MCP Housings and Connectors

Introduction



The AMP MCP housings and connectors combine the features of robust construction and high functional requirements.

> The Heavy Duty Sealed Connector Series (HDSCS) offers receptacle and tab housings with capability for water-proofing 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.

Technical Features

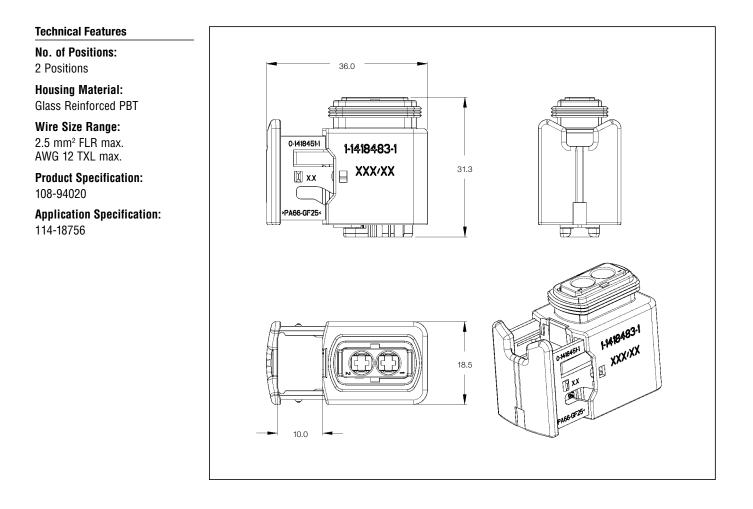
- High reliability status supported for long term use
- High vibration level supported
- Perfect design to avoid quality problems, reduce manufacturing and service cost
- Integrated secondary locking device delivered in pre-locked position
- Wire-to-Wire sealed and unsealed connectors (SWS)

- Wire-to-Board sealed connectors (SWS)
- Polarization, several keyings
- Dust and water protected
- Clear handling, low mating force with a reliable slide locking mechanism
- Mixed configuration with signal and power line connections



AMP MCP Housings and Connectors

Group A: Sealed AMP MCP 2.8 Receptacle Housings



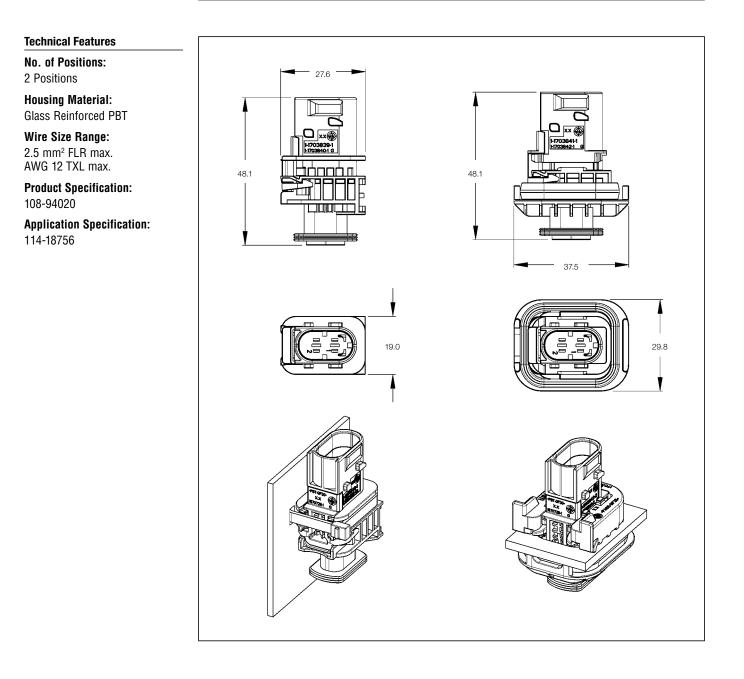
Sealed Receptacle Housings

No. of	Housing	Part Numbers					
Positions	Color	Receptacle Housing	Mating Tab Housing				
	Black / Black	1-1418483-1	1-1703841-1				
0	Black / Gray	2-1418483-1	2-1703841-1				
2	Black / Green	3-1418483-1	3-1703841-1				
	Black / Blue	4-1418483-1	4-1703841-1				



AMP MCP Housings and Connectors

Group A: Sealed 2.8 Tab Housings



Sealed 2.8 mm Tab Housings

No. of	Housing		Part Numbers	
Positions			Tab Housing without Flange	Mating Receptacle Housing
	Black	1-1703841-1	*	1-1418483-1
0	Gray	2-1703841-1	*	2-1418483-1
2	Green	3-1703841-1	*	3-1418483-1
	Blue	4-1703841-1	*	4-1418483-1

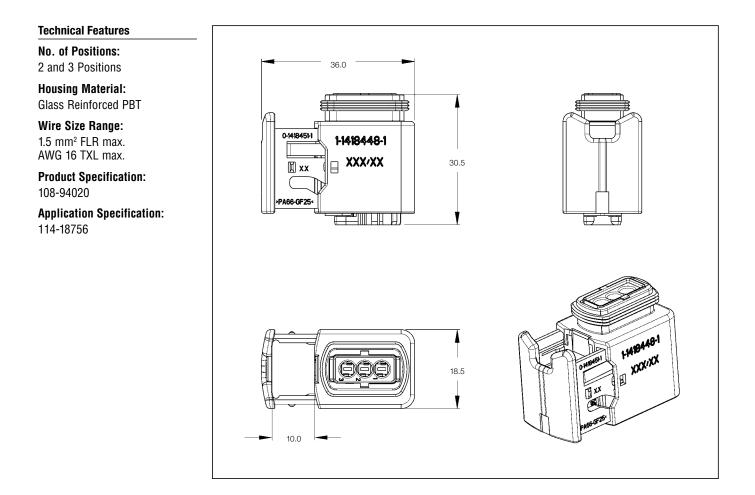
*) Available on request.

**) Suitable fixing slide see accessories.



AMP MCP Housings and Connectors

Group A: Sealed AMP MCP 1.5K Receptacle Housings



Sealed Receptacle Housings

No. of	Housing	Part Num	ibers
Positions	Color	Receptacle Housing	Mating Tab Housing
	Black / Black	1-1418448-2	*
	Black / Gray	2-1418448-2	*
	Black / Green	3-1418448-2	*
	Black / Blue	4-1418448-2	*
	Black / Black	1-1418448-1 —	1-1670730-1
	DIACK / DIACK	1-1410440-1	1-1703843-1
	Black / Gray	2-1418448-1 —	2-1670730-1
3	Diack/ Gray	2-1410440-1	2-1703843-1
5	Black / Green	3-1418448-1 —	3-1670730-1
	Diack/ Green	3-1410440-1 —	3-1703843-1
	Black / Blue	4-1418448-1 —	4-1670730-1
	DIACK / DIUE	4-1416446-1 —	4-1703843-1

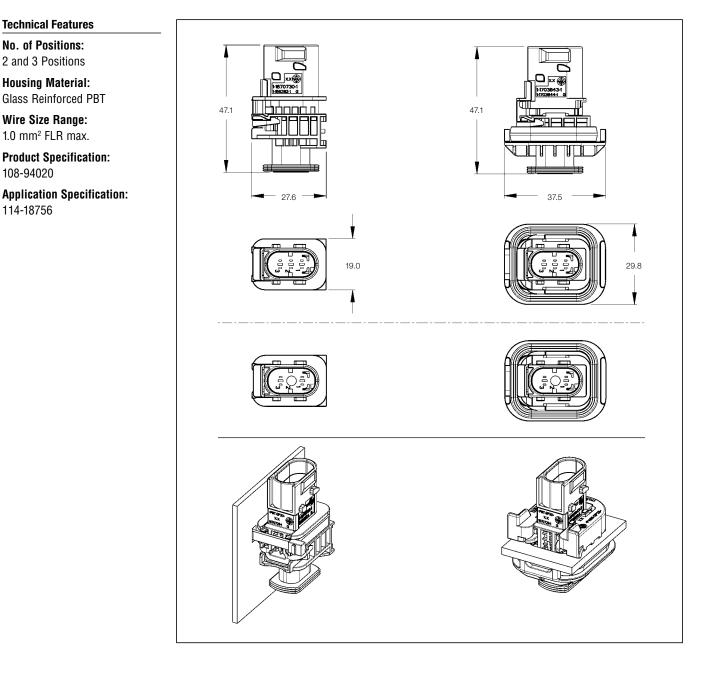
*) Available on request.



Heavy Duty Sealed Connector Series (HDSCS)

AMP MCP Housings and Connectors

Group A: Sealed 1.5mm Tab Housings



Sealed 1.5 mm Tab Housings

No. of	Housing	Part Numbers								
Positions	Color	Tab Housing with Flange**	Tab Housing without Flange	Mating Receptacle Housing						
	Black	*	*	1-1418448-2						
2	Gray	*	*	2-1418448-2						
Z	Green	*	*	3-1418448-2						
	Blue	*	*	4-1418448-2						
	Black	1-1703843-1	1-1670730-1	1-1418448-1						
3	Gray	2-1703843-1	2-1670730-1	2-1418448-1						
3	Green	3-1703843-1	3-1670730-1	3-1418448-1						
	Blue	4-1703843-1	4-1670730-1	4-1418448-1						

*) Available on request.

**) Suitable fixing slide see accessories.



Engineering Notes

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Group A: Accessories

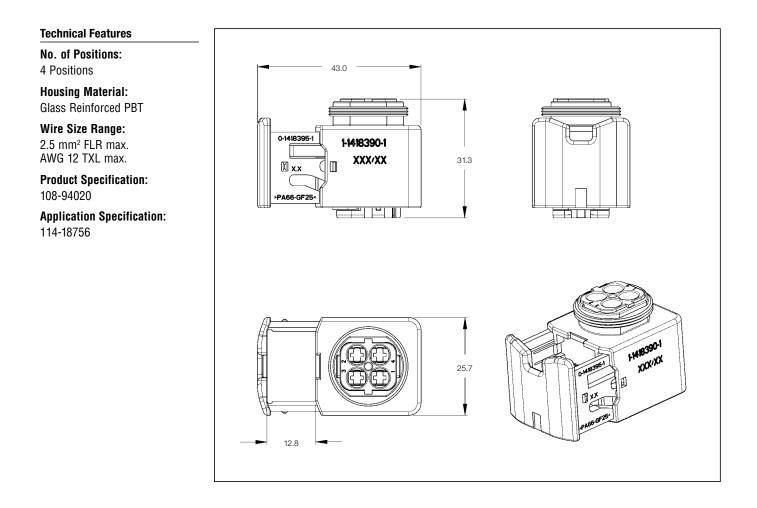
Accessories



Description	Color	Part Number
Fixing slide (panel thickness 3.5mm)	Gray	1703838-6
Fixing slide (panel thickness 3.0mm)	Yellow	1703838-1
Fixing slide (panel thickness 2.5mm)	Red	1703838-2
Vertical adapter for NW 8.5mm diameter corrugated tubing	Black	1670365-1
Right-angle adapter for NW 8.5mm diameter corrugated tubing	Black	1670150-1



Group B: Sealed AMP MCP 2.8 Receptacle Housing



Sealed Receptacle Housings

No. of	Housing	Part N	umbers
Positions	Color	Receptacle Housing	Mating Tab Housing
	Black / Black	1-1418390-1	1-1703818-1
	DIACK/ DIACK	1-1416390-1	1-1703808-1
		0.1410000.1	2-1703818-1
4	Black / Gray	2-1418390-1	2-1703808-1
4	Black / Green	3-1418390-1	3-1703818-1
	DIACK / GLEEN	3-1416390-1	3-1703808-1
	Black / Blue	4-1418390-1	4-1703818-1
Black / Blue	Diack / Diue 4-1418390-1	4-1703808-1	

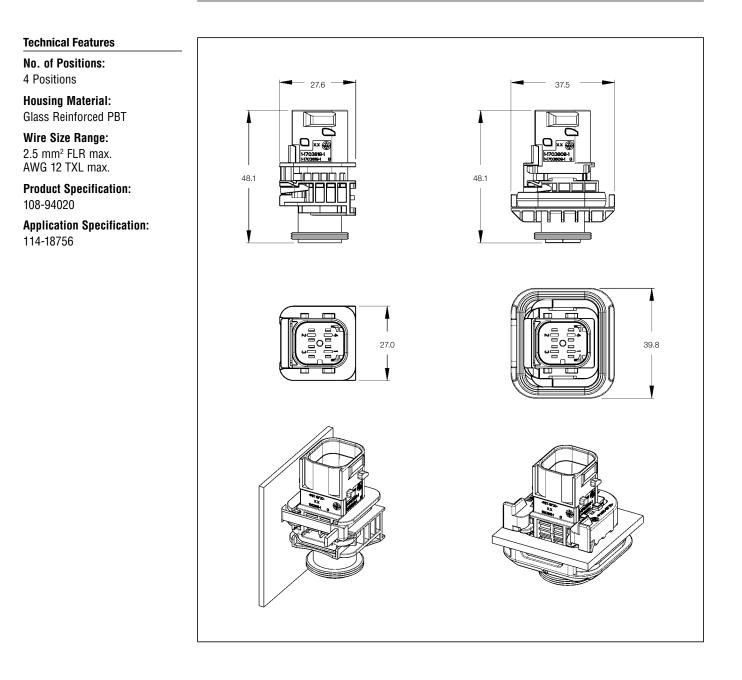
Will also be available as 2 and 3 positions on request.



Heavy Duty Sealed Connector Series (HDSCS)

AMP MCP Housings and Connectors

Group B: Sealed 2.8mm Tab Housing



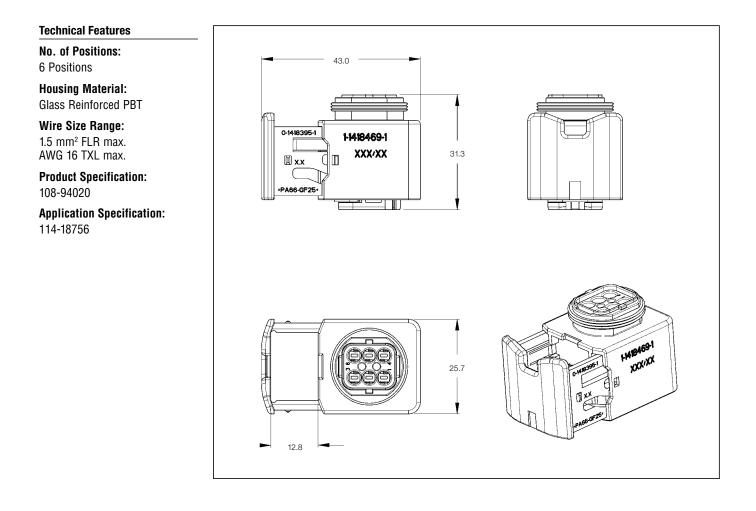
Sealed 2.8 mm Tab Housings

Housing			
Color	Tab Housing with Flange*	Tab Housing without Flange	Mating Receptacle Housing
Black	1-1703808-1	1-1703818-1	1-1418390-1
Gray	2-1703808-1	2-1703818-1	2-1418390-1
Green	3-1703808-1	3-1703818-1	3-1418390-1
Blue	4-1703808-1	4-1703818-1	4-1418390-1
	Black Gray Green	Color Tab Housing with Flange* Black 1-1703808-1 Gray 2-1703808-1 Green 3-1703808-1	Color Tab Housing with Flange* Tab Housing without Flange Black 1-1703808-1 1-1703818-1 Gray 2-1703808-1 2-1703818-1 Green 3-1703808-1 3-1703818-1

Will also be available as 2 and 3 positions on request.



Group B: Sealed AMP MCP 1.5K Receptacle Housing

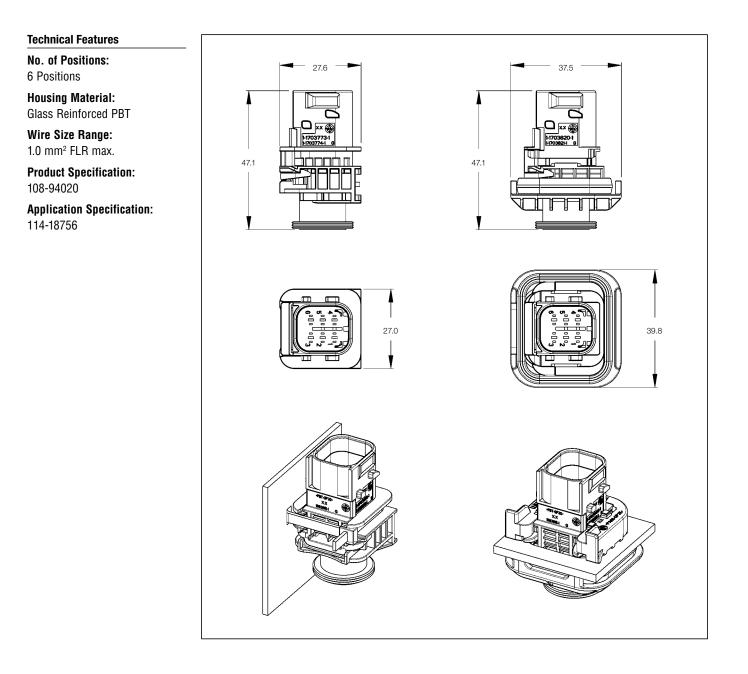


Sealed Receptacle Housings

No. of	Housing	Part N	umbers
Positions	Color	Receptacle Housing	Mating Tab Housing
	Black / Black	1-1418469-1	1-1703773-1
	DIACK / DIACK	1-1416409-1	1-1703820-1
	Black / Gray	2-1418469-1	2-1703773-1
6		2-1416409-1	2-1703820-1
0	Black / Green	3-1418469-1	3-1703773-1
	Diack/ Green	3-1416409-1	3-1703820-1
	Black / Blue	4 1410400 1	4-1703773-1
Black / Blue	4-1418469-1	1-1703820-1	



Group B: Sealed 1.5mm Tab Housing



Sealed 1.5 mm Tab Housings

No. of	Housing			
Positions	Color	Tab Housing with Flange*	Tab Housing without Flange	Mating Receptacle Housing
	Black	1-1703820-1	1-1703773-1	1-1418469-1
6	Gray	2-1703820-1	2-1703773-1	2-1418469-1
0	Green	3-1703820-1	3-1703773-1	3-1418469-1
	Blue	4-1703820-1	4-1703773-1	4-1418469-1



Engineering Notes

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Group B: Accessories

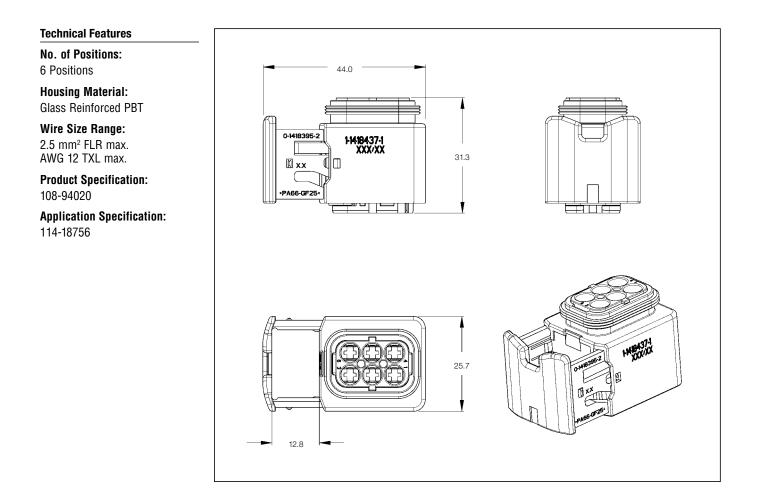
Accessories



Description	Color	Part Number
Fixing slide (panel thickness 3.5mm)	Gray	1703810-6
Fixing slide (panel thickness 3.0mm)	Yellow	1703810-1
Fixing slide (panel thickness 2.5mm)	Red	1703810-2
Right-angle adapter with universal clamp	Black	965576-1
Vertical adapter with universal clamp	Black	965784-1
Right-angle adapter for NW 7.5mm diameter corrugated tubing	Black	185793-1
Right-angle adapter for NW 8.5mm diameter corrugated tubing	Black	965577-1
Right-angle adapter for NW 10mm diameter corrugated tubing	Black	965783-1
Vertical adapter for NW 7.5mm diameter corrugated tubing	Black	185792-1
Vertical adapter for NW 8.5mm diameter corrugated tubing	Black	965785-1
Vertical adapter for NW 10mm diameter corrugated tubing	Black	965786-1
Right-angle adapter 4/7 position for hose	Black	1534789-1
Vertical adapter 4/7 position for hose	Black	1534791-1
Vertical adapter 4/7 position for jacketed cable 5.2–6.5mm	Black	1418916-1
Vertical adapter 4/7 position for jacketed cable 6.0–9.5mm	Black	1418917-1
Right-angle adapter 4/7 position for jacketed cable 5.2–6.5mm	Black	1418918-1
Right-angle adapter 4/7 position for jacketed cable 6.0–9.5mm	Black	1418919-1



Group C: Sealed AMP MCP 2.8 Receptacle Housings



Sealed Receptacle Housings

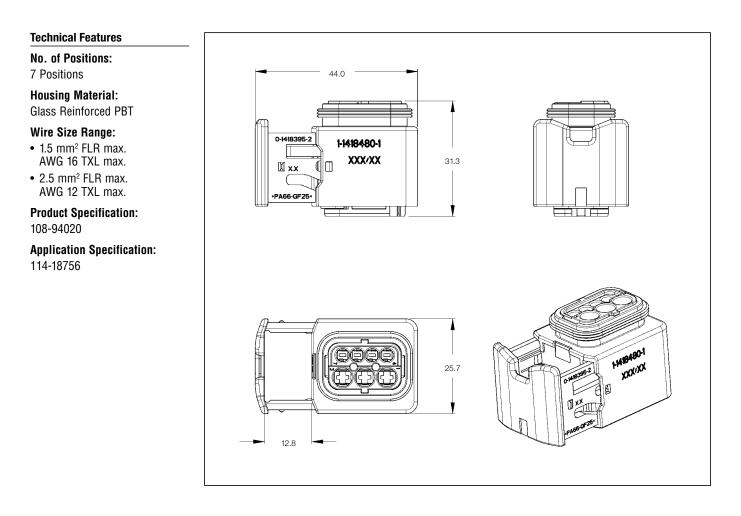
No. of	Housing	Part Nu	mbers			
Positions	Color	Receptacle Housing	Mating Tab Housing			
	Black / Black 1-1418437-1	*				
		1-1418437-1 -	*			
	Black/Gray 2-1418437-1	-	Black/Gray 2-1418437-1		0.1410407.1	*
0				2-1418437-1 -	*	
6	Black / Green	0.1410407.1	*			
	Black / Green	3-1418437-1 -	*			
_			4 1 4 1 0 4 0 7 1	*		
	Black / Blue	4-1418437-1 -	*			

Other variants are available on request.

*) Available on request.



Group C: Sealed AMP MCP 1.5K/2.8 Receptacle Housings



Sealed Mixed Receptacle Housings

No. of	Housing	Part Numbers	umbers
Positions	Color	Receptacle Housing	Mating Tab Housing
	Black / Black	1-1418480-1	1-1703648-1
	DIACK / DIACK	1-1416460-1	1-1670214-1
		0.1110100.1	2-1703648-1
7	Black / Gray	2-1418480-1	2-1670214-1
Plaak (Croon	Black / Green 3-1418480-1 Black / Blue 4-1418480-1	2 1419490 1	3-1703648-1
		3-1418480-1	3-1670214-1
			4-1703648-1
		4-1670214-1	



39.8

42.5

48.1

Group C: Sealed 1.5mm/2.8mm Tab Housings



No. of Positions:

7 Positions

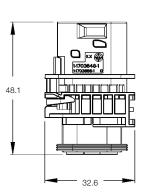
Housing Material: Glass Reinforced PBT

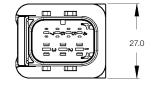
Wire Size Range:

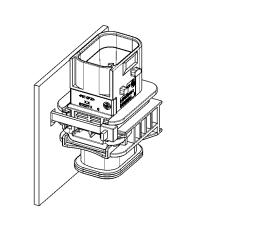
- 1.0 mm² FLR max.
- 2.5 mm² FLR max. AWG 12 TXL max.
- **Product Specification:** 108-94020

Application Specification:

114-18756





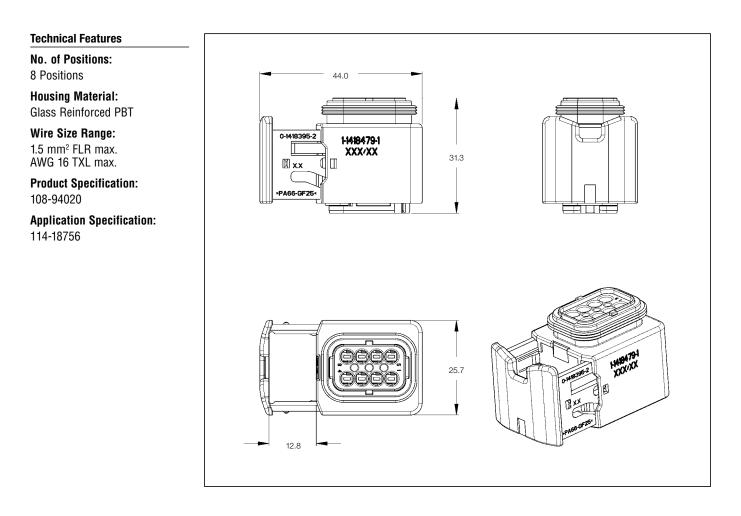


Sealed Mixed Tab Housings

No. of	Housing			
Positions	Color	Tab Housing with Flange*	Tab Housing without Flange	Mating Receptacle Housing
	Black	1-1670214-1	1-1703648-1	1-1418480-1
7	Gray	2-1670214-1	2-1703648-1	2-1418480-1
7	Green	3-1670214-1	3-1703648-1	3-1418480-1
	Blue	4-1670214-1	4-1703648-1	4-1418480-1



Group C: Sealed AMP MCP 1.5K Receptacle Housing



Sealed Receptacle Housings

No. of	Housing	Part N	umbers
Positions	Color	Receptacle Housing	Mating Tab Housing
	Black / Black	1-1418479-1	1-1564416-1
	DIACK / DIACK	1-1416479-1	1-1564512-1
_	Black / Gray	0.1410470.1	2-1564416-1
8		•	2-1418479-1
0	Black / Green	3-1418479-1	3-1564416-1
	DIACK/GIEEN	3-1416479-1	3-1564512-1
	Black / Blue 4-1418479-1	4 1419470 1	4-1564416-1
		4-1564512-1	



39.8

Group C: Sealed 1.5mm Tab Housing



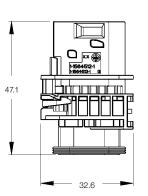
No. of Positions: 8 Positions

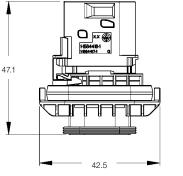
Housing Material: Glass Reinforced PBT

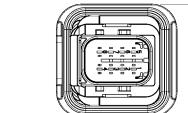
Wire Size Range: 1.0 mm² FLR max.

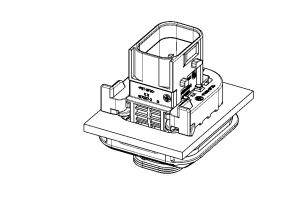
Product Specification: 108-94020

Application Specification: 114-18756









Sealed 1.5 mm Tab Housings

No. of	Housing		Part Numbers	
Positions	- · · · ·	Tab Housing with Flange*	Tab Housing without Flange	Mating Receptacle Housing
	Black	1-1564416-1	1-1564512-1	1-1418479-1
8	Gray	2-1564416-1	2-1564512-1	2-1418479-1
0	Green	3-1564416-1	3-1564512-1	3-1418479-1
	Blue	4-1564416-1	4-1564512-1	4-1418479-1

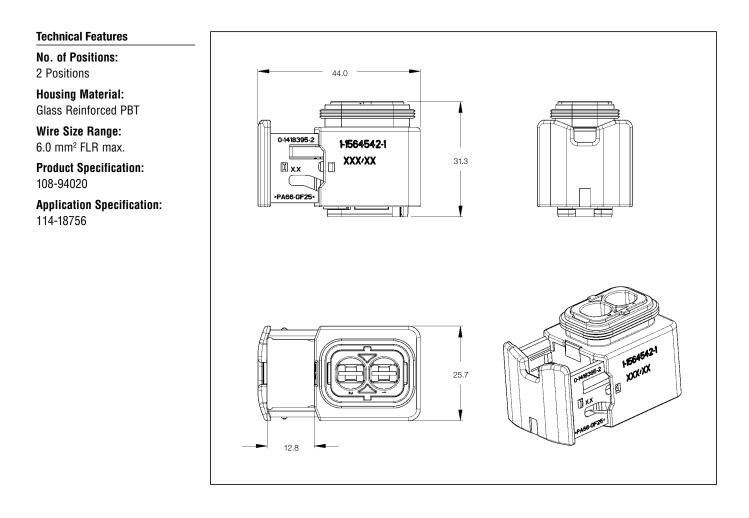
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AMP MCP Housings and Connectors

Group C: Sealed AMP MCP 6.3 Receptacle Housing



Sealed Receptacle Housings

No. of	Housing Color	Part Numbers		
Positions		Receptacle Housing	Mating Tab Housing	
Black / Black 1-1564542-1	1-1564544-1			
	DIACK / DIACK	1-1004042-1	1-1564546-1	
		2-1564542-1	2-1564544-1	
2	Black / Gray	2-1004042-1	2-1564546-1	
2	Black / Green	3-1564542-1	3-1564544-1	
	DIACK/ GLEEN	5-1504542-1	3-1564546-1	
	Black / Blue	4-1564542-1	4-1564544-1	
	DIACK / DIUE	4-1004042-1	4-1564546-1	



Group C: Sealed 6.3mm Tab Housing



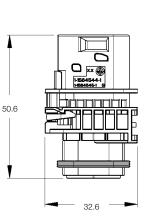
No. of Positions: 2 Positions

Housing Material: Glass Reinforced PBT

Wire Size Range: 6.0 mm² FLR max.

Product Specification: 108-94020

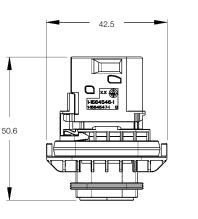
Application Specification: 114-18756

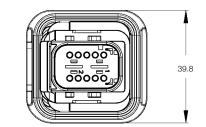


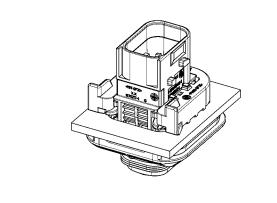
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Sealed 6.3 mm Tab Housings

No. of	Housing		Part Numbers		
Positions	Color	Tab Housing with Flange*	Tab Housing without Flange	Mating Receptacle Housing	
	Black / Black	1-1564546-1	1-1564544-1	1-1564542-1	
0	Black / Gray	2-1564546-1	2-1564544-1	2-1564542-1	
2	Black / Green	3-1564546-1	3-1564544-1	3-1564542-1	
	Black / Blue	4-1564546-1	4-1564544-1	4-1564542-1	



Group C: Accessories

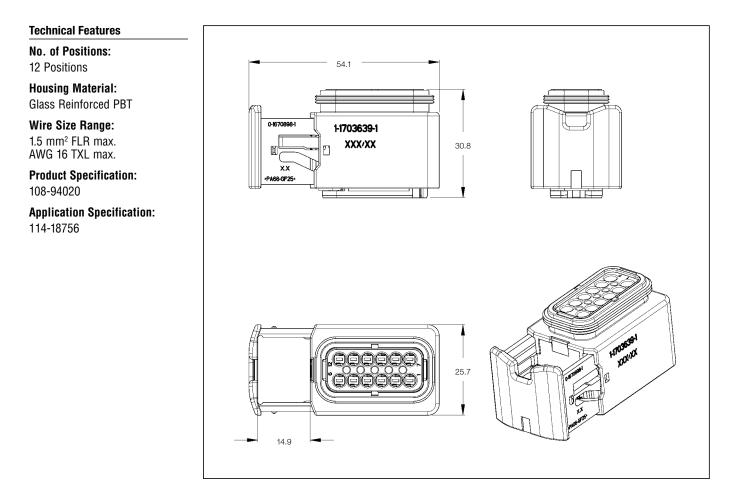
Accessories



Description	Color	Part Number
Fixing slide (panel thickness 3.5mm)	Gray	1670720-6
Fixing slide (panel thickness 3.0mm)	Yellow	1670720-1
Fixing slide (panel thickness 2.5mm)	Red	1670720-2
Vertical adapter for NW 13mm diameter corrugated tubing	Black	1670364-1
Right-angle adapter for NW 13mm diameter corrugated tubing	Black	1670057-1



Group D: Sealed AMP MCP 1.5K Receptacle Housing

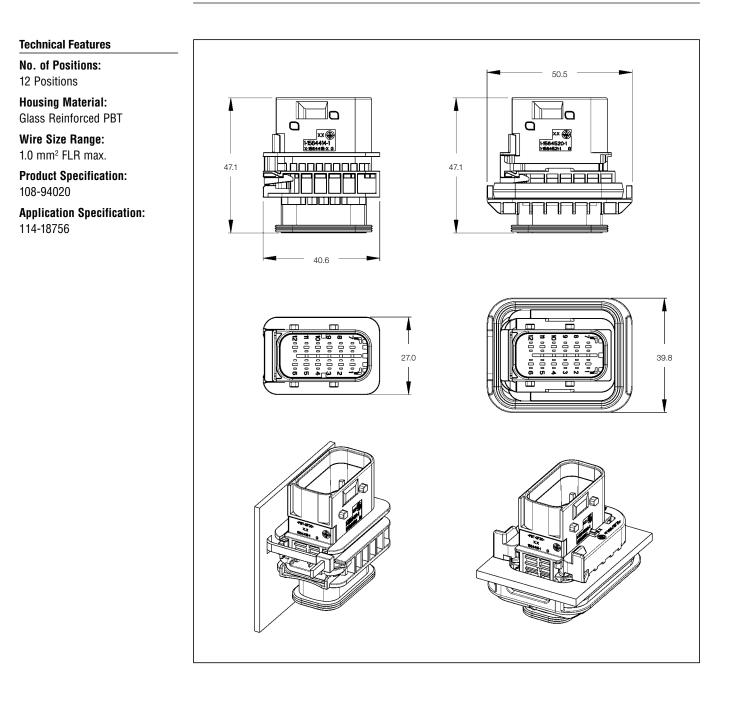


Sealed Receptacle Housings

No. of	Housing Color	Part N	umbers	
Positions		Receptacle Housing	Mating Tab Housing	
	Black / Black	1-1703639-1	1-1564414-1	
	Black / Black 1-1703039-1	1-1703039-1	1-1564520-1	
		0.1700000.1	2-1564414-1	
12	Black / Gray	2-1703639-1	2-1564520-1	
12	Black / Green	3-1703639-1	3-1564414-1	
Black / Green Black / Blue	DIACK/ GLEEN	3-1703039-1	3-1564520-1	
	Plack / Pluc	4-1703639-1	4-1564414-1	
	Black / Blue	4-1703039-1	4-1564520-1	



Group D: Sealed 1.5mm Tab Housing

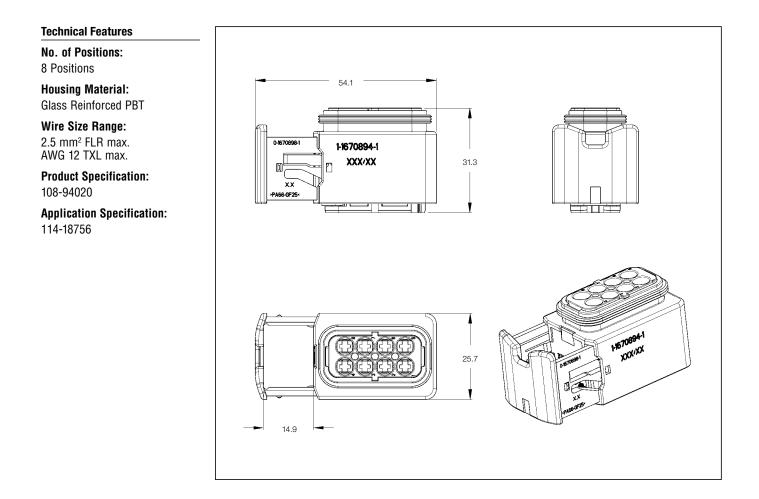


Sealed 1.5 mm Tab Housings

No. of	Housing			
Positions	Color	Tab Housing with Flange*	Tab Housing without Flange	Mating Receptacle Housing
	Black	1-1564520-1	1-1564414-1	1-1703639-1
12	Gray	2-1564520-1	2-1564414-1	2-1703639-1
12	Green	3-1564520-1	3-1564414-1	3-1703639-1
	Blue	4-1564520-1	4-1564414-1	4-1703639-1



Group D: Sealed AMP MCP 2.8 Receptacle Housing



Sealed Receptacle Housings

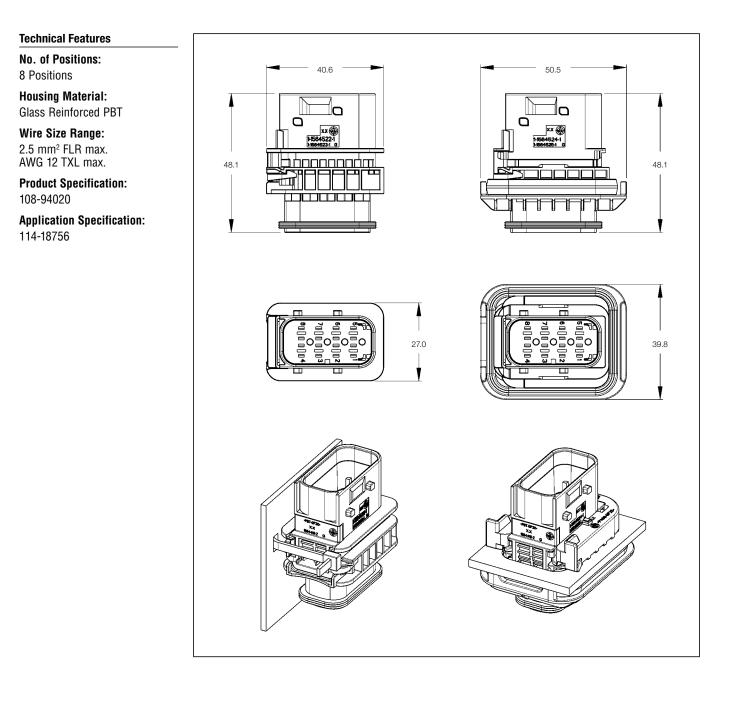
No. of	Housing	Part Numbers		
Positions	Color Receptacle Housing		Mating Tab Housing	
	Black / Black	1-1670894-1	1-1564522-1	
0	Black / Gray	2-1670894-1	2-1564522-1	
0	Black / Green	3-1670894-1	3-1564522-1	
	Black / Blue	4-1670894-1	4-1564522-1	



Heavy Duty Sealed Connector Series (HDSCS)

AMP MCP Housings and Connectors

Group D: Sealed 2.8mm Tab Housing

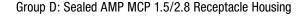


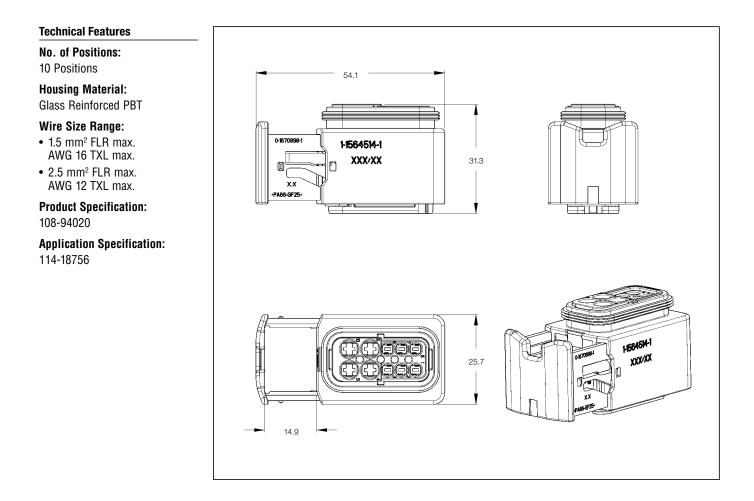
Sealed 2.8 mm Tab Housings

No. of	Housing	Part Numbers		
Positions	Color	Tab Housing with Flange **	Tab Housing without Flange	Mating Receptacle Housing
	Black	*	1-1564522-1	1-1670894-1
o	Gray	*	2-1564522-1	2-1670894-1
0	Green	*	3-1564522-1	3-1670894-1
	Blue	*	4-1564522-1	4-1670894-1

*) Available on request.





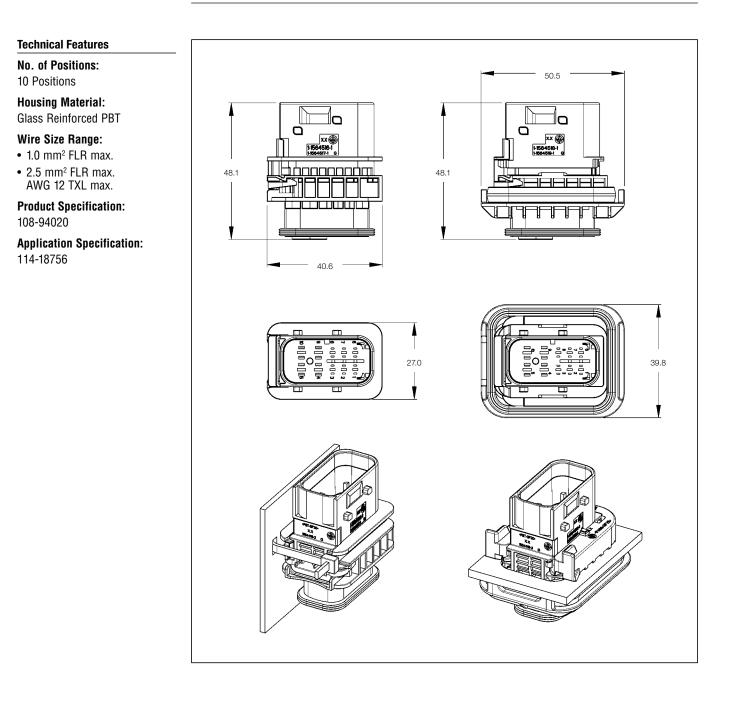


Sealed Mixed Receptacle Housings

No. of	Housing Color	Part N	umbers	
Positions		Receptacle Housing	Mating Tab Housing	
	Black / Black	1-1564514-1	1-1564518-1	
	Black / Black I-1564514-1	1-1504514-1	1-1564516-1	
		0.1504514.1	2-1564518-1	
10	Black / Gray	2-1564514-1	2-1564516-1	
10	Plack / Croop	3-1564514-1	3-1564518-1	
Black / Green Black / Blue	Black/ Green	3-1304314-1	3-1564516-1	
	Plack / Pluc	4-1564514-1	4-1564518-1	
	Black / Blue	4-1564514-1	4-1564516-1	



Group D: Sealed 1.5mm/2.8mm Tab Housing



Sealed Mixed Tab Housings

No. of	Housing	Part Numbers		
Positions	Color	Tab Housing with Flange*	Tab Housing without Flange	Mating Receptacle Housing
	Black	1-1564518-1	1-1564516-1	1-1564514-1
10	Gray	2-1564518-1	2-1564516-1	2-1564514-1
10	Green	3-1564518-1	3-1564516-1	3-1564514-1
	Blue	4-1564518-1	4-1564516-1	4-1564514-1



Engineering Notes

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Group D: Accessories

Accessories



Description	Color	Part Number
Vertical adapter for NW13mm diameter corrugated tubing	Black	1563111-1
Right-angle adapter for NW13mm diameter corrugated tubing	Black	1563110-1
Fixing slide (panel thickness 3.0mm)	Yellow	1564562-1
Fixing slide (panel thickness 2.5mm)	Red	1564562-2
Fixing slide (panel thickness 1.5mm)	Gray	1564562-5
Fixing slide (panel thickness 1.0mm)	Natural	1564562-4



Group E: Sealed AMP MCP 2.8 Receptacle Housing



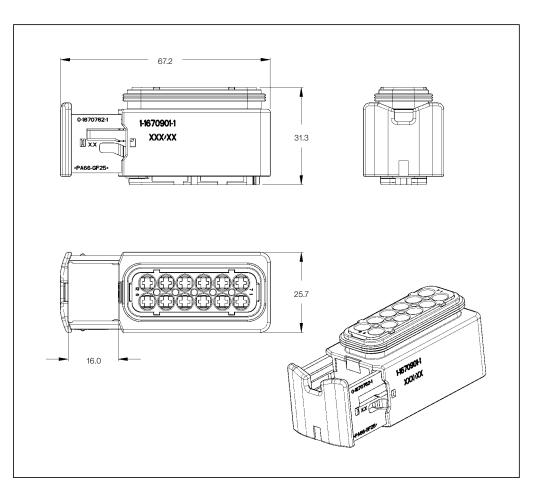
No. of Positions: 12 Positions

Housing Material: Glass Reinforced PBT

Wire Size Range: 2.5 mm² FLR max. AWG 12 TXL max.

Product Specification: 108-94020

Application Specification: 114-18756



Sealed Receptacle Housings

Housing	Part Numbers		
Color	Receptacle Housing	Mating Tab Housing	
Black / Black	1-1670901-1	*	
Black / Gray	2-1670901-1	*	
Black / Green	3-1670901-1	*	
Black / Blue	4-1670901-1	*	
	Black / Black Black / Gray Black / Green	Housing Color Receptacle Housing Black/Black 1-1670901-1 Black/Gray 2-1670901-1 Black/Green 3-1670901-1	

*) Available on request.



Group E: Sealed AMP MCP 1.5/2.8 Receptacle Housing



No. of Positions: 15 Positions

Housing Material: Glass Reinforced PBT

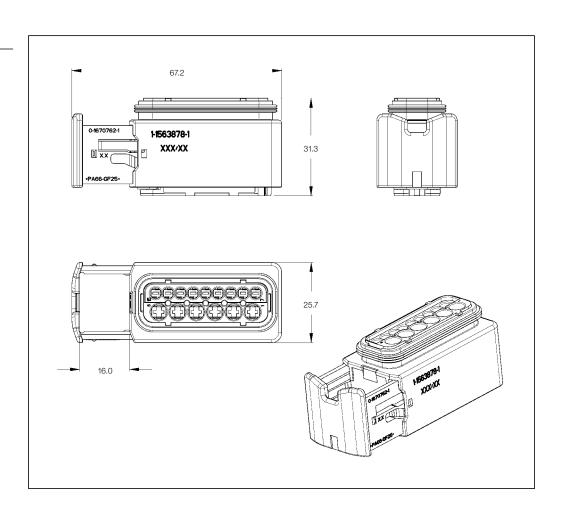
Wire Size Range:

- 1.5 mm² FLR max. AWG 16 TXL max.
- 2.5 mm² FLR max. AWG 12 TXL max.

Product Specification: 108-94020

Application Specification:

114-18756



Sealed Mixed Receptacle Housings

No. of	Housing	Part Numbers		
Positions	Color	Receptacle Housing	Mating Tab Housing	
	Black / Black	1 1562070 1	1-1564530-1	
	DIACK / DIACK	1-1563878-1	1-1564532-1	
		2-1563878-1	2-1564530-1	
15	Black / Gray	2-1505676-1	2-1564532-1	
15	Plack / Orean	0 1500070 1	3-1564530-1	
	Black / Green 3-1563878-1	3-1303678-1	3-1564532-1	
	Black / Blue	4-1563878-1	4-1564530-1	
Black	DIACK / DIUE	4-1003878-1	4-1564532-1	



Group E: Sealed 1.5mm/2.8mm Tab Housing



No. of Positions: 15 Positions

Housing Material: Glass Reinforced PBT

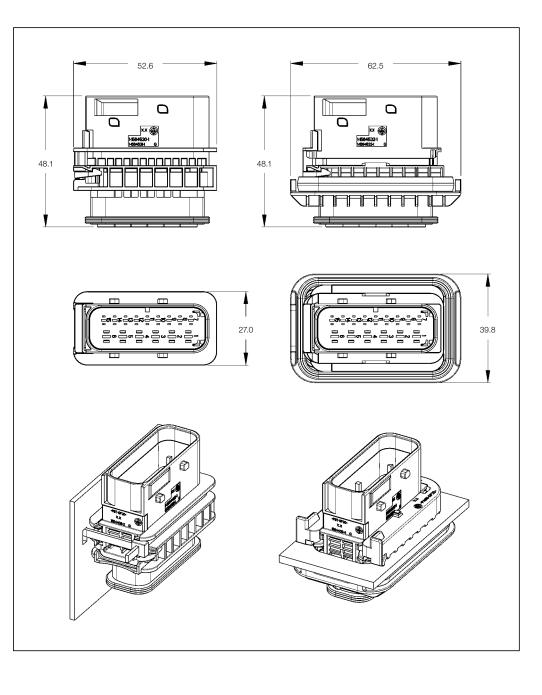
Wire Size Range:

- 1.0 mm² FLR max.
- 2.5 mm² FLR max. AWG 12 TXL max.

Product Specification: 108-94020

Application Specification:

114-18756

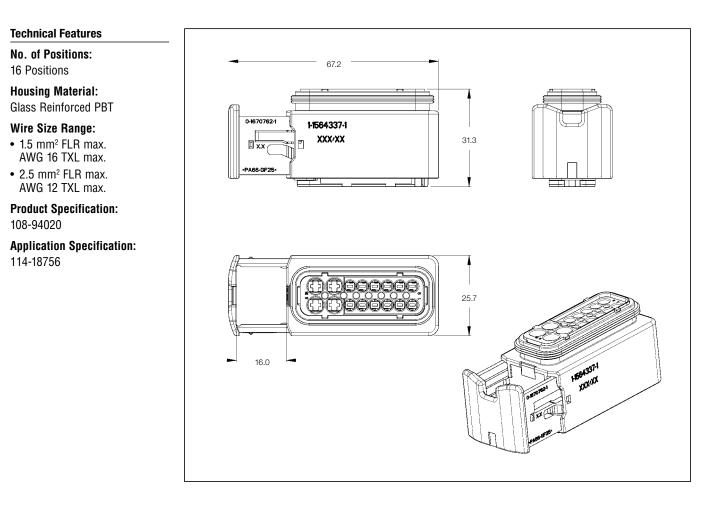


Sealed Mixed Tab Housings

No. of	Housing			
Positions	Color	Tab Housing with Flange*	Tab Housing without Flange	Mating Receptacle Housing
	Black	1-1564532-1	1-1564530-1	1-1563878-1
16	Gray	2-1564532-1	2-1564530-1	2-1563878-1
15	Green	3-1564532-1	3-1564530-1	3-1563878-1
	Blue	4-1564532-1	4-1564530-1	4-1563878-1



Group E: Sealed AMP MCP 1.5/2.8 Receptacle Housing

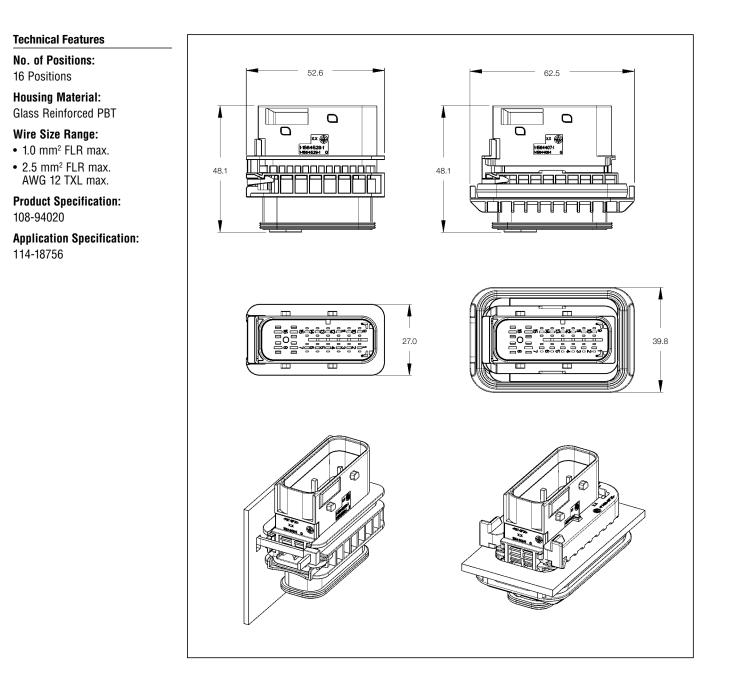


Sealed Receptacle Housings

No. of	Housing	Part N	umbers
Positions	Color	Receptacle Housing	Mating Tab Housing
	Black / Black	1-1564337-1	1-1564407-1
	DIACK / DIACK	1-1004337-1	1-1564528-1
		2-1564337-1 -	2-1564407-1
16	Black / Gray	2-1004337-1	2-1564528-1
10	Black / Green	3-1564337-1	3-1564407-1
	Black / Green	3-1304337-1	3-1564528-1
		4-1564337-1	4-1564407-1
Bla	Black / Blue	4-1564337-1	4-1564528-1



Group E: Sealed 1.5mm/2.8mm Tab Housing

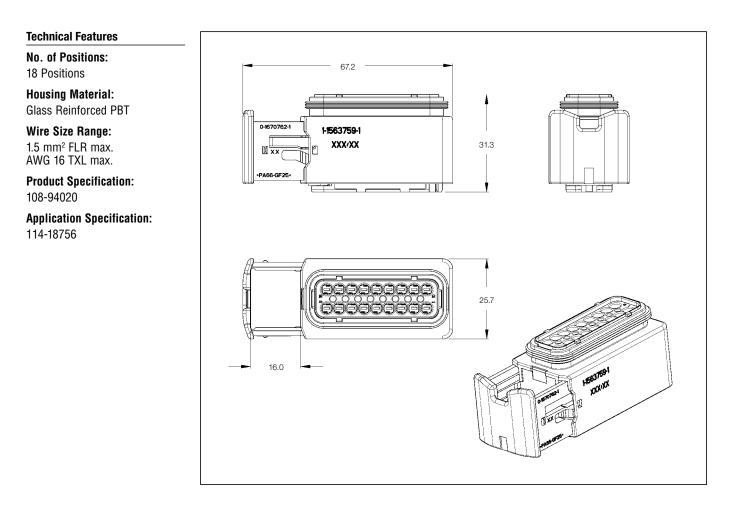


Sealed Mixed Tab Housings

No. of	Housing				
Positions	Color	Tab Housing with Flange*	Tab Housing without Flange	Mating Receptacle Housing	
	Black	1-1564407-1	1-1564528-1	1-1564337-1	
16	Gray	2-1564407-1	2-1564528-1	2-1564337-1	
10	Green	3-1564407-1	3-1564528-1	3-1564337-1	
	Blue	4-1564407-1	4-1564528-1	4-1564337-1	



Group E: Sealed AMP MCP 1.5K Receptacle Housing

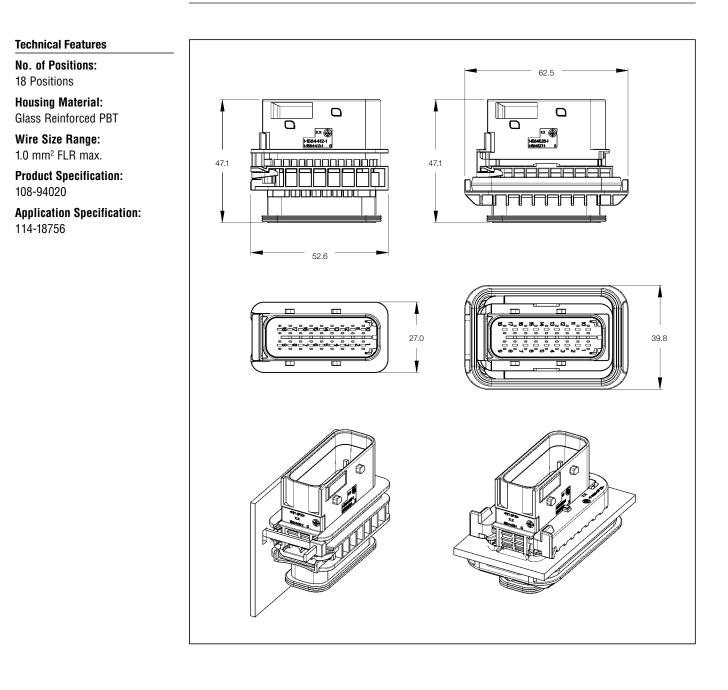


Sealed Receptacle Housings

No. of	Housing	Part Numbers		
ositions	Color	Receptacle Housing	Mating Tab Housing	
	Black / Black	1-1563759-1	1-1564412-1	
	DIACK / DIACK	1-1003/09-1	1-1564526-1	
		2-1563759-1 —	2-1564412-1	
18	Black / Gray	2-1003709-1	2-1564526-1	
10	Black / Green	3-1563759-1	3-1564412-1	
	Black/ Green	3-10037.09-1	3-1564526-1	
Black / Blue	Plack / Plus	4-1563759-1	4-1564412-1	
	DIACK/ DIUE	4-1503759-1	4-1564526-1	



Group E: Sealed 1.5mm Tab Housing

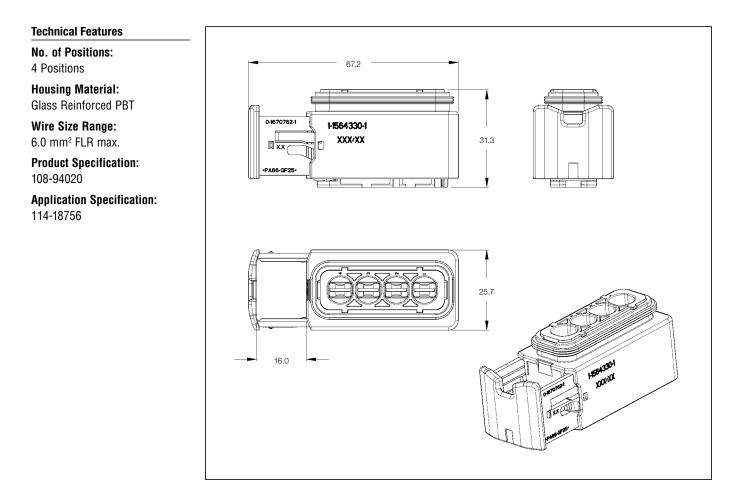


Sealed 1.5 mm Tab Housings

No. of	Housing	Part Numbers				
Positions	Color	Tab Housing with Flange*	Tab Housing without Flange	Mating Receptacle Housing		
	Black	1-1564526-1	1-1564412-1	1-1563759-1		
18	Gray	2-1564526-1	2-1564412-1	2-1563759-1		
10	Green	3-1564526-1	3-1564412-1	3-1563759-1		
	Blue	4-1564526-1	4-1564412-1	4-1563759-1		



Group E: Sealed AMP MCP 6.3 Receptacle Housing

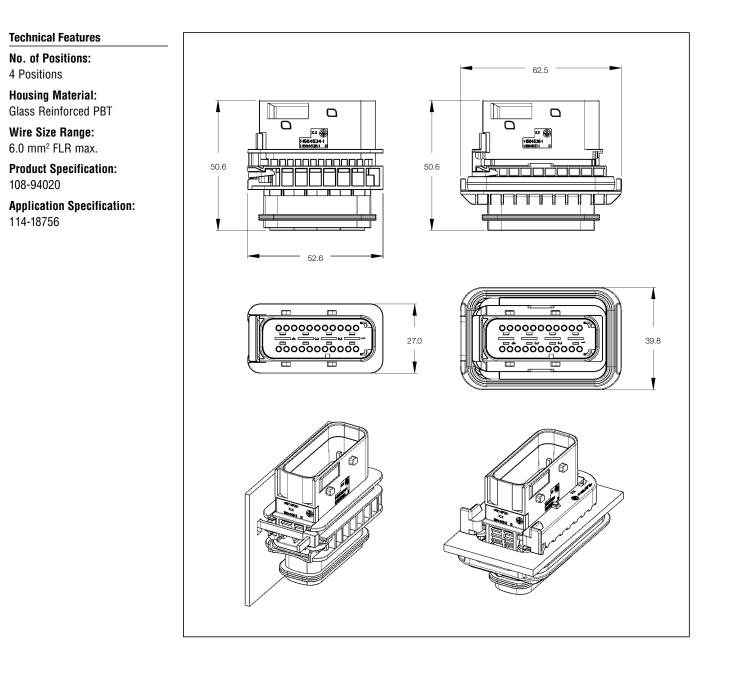


Sealed Receptacle Housings

No. of	Housing	Part Numbers		
Positions	Color	Receptacle Housing	Mating Tab Housing	
	Black / Black	1-1564330-1	1-1564534-1	
4	Black / Gray	2-1564330-1	2-1564534-1	
4	Black / Green	3-1564330-1	3-1564534-1	
	Black / Blue	4-1564330-1	4-1564534-1	



Group E: Sealed 6.3mm Tab Housing



Sealed 6.3 mm Tab Housings

No. of	Housing	Part Numbers				
Positions	Color	Tab Housing with Flange **	Tab Housing without Flange	Mating Receptacle Housing		
	Black	*	1-1564534-1	1-1564330-1		
Λ	Gray	*	2-1564534-1	2-1564330-1		
4	Green	*	3-1564534-1	3-1564330-1		
	Blue	*	4-1564534-1	4-1564330-1		

*) Available on request.



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Group E: Accessories

Accessories



Description	Color	Part Number
Vertical adapter for NW17mm diameter corrugated tubing and hose	Black	1670866-1
Right-angle adapter for NW17mm diameter corrugated tubing and hose	Black	1670865-1
Fixing slide (panel thickness 3.5mm)	Gray	1564411-6
Fixing slide (panel thickness 3.0mm)	Yellow	1564411-1
Fixing slide (panel thickness 2.5mm)	Red	1564411-2
Fixing slide (panel thickness 1.5mm)	Gray	1564411-5

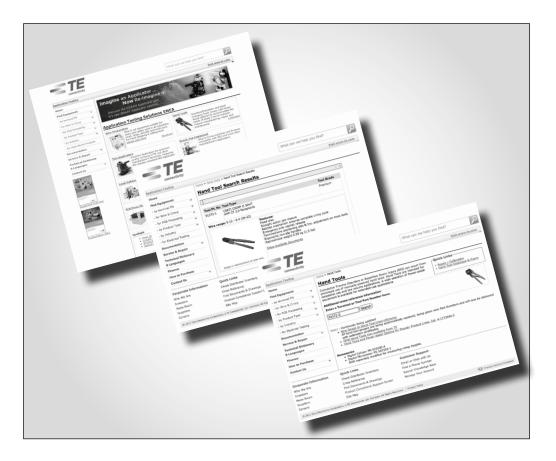


Engineering Notes

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Introduction



TE Application Tooling is dedicated to providing high quality equipment options to meet all levels of your connector product specifications.

In addition to a comprehensive tooling and equipment range, TE Application Tooling maintains a global presence and support network in the form of field service engineers and product managers.

Tooling shown in this catalog reflects only a part of our range and is by no means complete.

Equipment is divided into two categories:

Generic equipment

We supply sufficient online information referenced by part number enabling you to identify and order what you need without additional assistance.

Specialized Equipment

Our specialists are available to identify the correct solutions for your application.

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Powerful search functions are available to identify appropriate tooling:

• Applicators

www.tooling.te.com/europe/ applicator.asp

Hand Tools

www.tooling.te.com/europe/ handtools.asp

This website is quick and easy to use and is kept up to date with the latest tooling information and developments. Visit TE Application Tooling at

www.tooling.te.com/europe www.tooling.china.com

Find your country contact at www.tooling.te.com/europe/ contact.asp

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For recommended distributors and to check distributor stock, visit http://tooling.te.com/europe/howtopurchase.asp



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Global Contacts

Canada - Toronto

Korea - Seoul

Fax:

Milano

Fax.

Phone: +1-905-475-6222

+1-905-474-5520

Americas

Argentina - Buenos Aires (Chile, Colombia, Ecuador, Venezuela) Phone: +54-11-4733-2202 Fax: +54-11-4733-2250 Brasil - São Paulo Phone: +55-11-2103-6105 Fax: +55-11-2103-6204

Asia/Pacific

 Australia - Sydney

 Phone: +61-2-9554-2600

 Fax: +61-2-9502-2556

 Product Information Center:

 Phone: +61-2-9840-8200

 Fax: +61-2-9634-6188

Indonesia - Jakarta Phone: +62-21-2929-3800 Fax: +62-21-2929-3899

Japan - Kawasaki, Kanagawa Phone: +81-44-844-8111 Fax: +81-44-812-3207

Europe/Middle East/Africa

Austria - Vienna Phone: +43-1-905-60-0 Fax: +43-1-905-60-1333 Product Information Center: Phone: +43-1-905-60-1228 Fax: +43-1-905-60-1333

Belarus - Minsk Phone: +375-17-237-47-94 Fax: +375-17-237-47-94 Product Information Center: Phone: +7-495-790-7902 Fax: +7-495-721-1893

Bulgaria - Sofia Phone: +359-2-971-2152 Fax: +359-2-971-2153

 Czech Republic and Slovakia

 Czech Republic – Kurim, Brno

 Phone: +420-541-162-108

 Fax: +420-541-162-104

 Product Information Center:

 Phone: +420-541-162-113

 Fax: +420-541-162-104

 Denmark
 - Glostrup

 Phone:
 +45-43-48-04-00

 Fax:
 +46-8-50-72-50-01

 Product
 Information Center:

 Phone:
 +46-8-50-72-50-00

Egypt - Cairo Phone: +20-2417-7647 Fax: +20-2419-2334

Estonia - Tartu Phone: +372-5138-274 Fax: +372-7400-779

 Finland - Helsinki

 Phone: +358-95-12-34-20

 Fax: +46-8-50-72-50-01

 Product Information Center:

 Phone: +46-8-50-72-50-00

 France
 - Cergy-Pontoise Cedex

 Phone:
 +33-1-3420-8888

 Fax:
 +33-1-3420-8800

 Product Information Center:
 Phone:

 Phone:
 +33-1-3420-8686

 Fax:
 +33-1-3420-8686

 Fax:
 +33-1-3420-8624

 Product Information Center:

 Phone:
 +1-905-470-4425

 Fax:
 +1-905-474-5525

 Mexico
 - Mexico City

 Phone:
 +52-55-1106-0800

 +01-800-733-8926
 Fax:

 Fax:
 +52-55-1106-0910

Phone: +82-2-3415-4500

Malaysia - Kuala Lumpur

Phone: +60-3-7806-7688

New Zealand - Auckland

Phone: +64-9-634-4580

Philippines - Makati City

France Export Divisions -

Cergy-Pontoise Cedex Phone: +33-1-3420-8866

Germany - Bensheim

Phone: +49-6251-133-0

(Switzerland)

Martinsried

LADD Distribution

Hungary - Budapest

Phone: +36-1-289-1000 Fax: +36-1-289-1010

Phone: 0-680-987-494

DEUTSCH India Power

Connectors Pvt. Ltd.

Israel - Ashkelon

India - Bangalore

(toll free)

Product Information Center:

Phone: +91-080-2854-0800

Phone: +91-80-404-66-500

+39-011-4031-116

+39-011-4028-7632

Product Information Center:

Phone: +39-011-4012-632

Phone: +39-02-3932-2240

Lithuania and Latvia

Lithuania - Vilnius Phone: +370-5-213-1402

+370-5-213-1403

Phone: +972-8-671-9020

Italy - Collegno (Torino)

Phone: +39-011-4012-111

+91-080-2854-0820/21

Phone: +632-988-9400

+82-2-3486-3810

+60-3-7805-3066

+64-9-634-4586

+632-659-7737

+33-1-3420-8300

+49-6251-133-1600

+49-6251-133-1988

Product Information Center:

Phone: +49-6251-133-1999

Phone: +49-89-899157-0

LADD Distribution EMEA

Phone: +49-89-899157-0

United States

Harrisburg, PA Phone: +1-717-564-0100 Fax: +1-717-986-7575 Product Information Center: Phone: +1-800-522-6752 Fax: +1-717-986-7575 Hemet, CA Customer Service Team Phone: +1-951-765-2250 Fax: +1-951-765-2255

People's Republic of China

Hong Kong Phone: +852-2738-8731 Fax: +852-2735-0243 Shanghai Phone: +86-21-3398-0000

Fille: +86-21-3398-0000 Fax: +86-21-3398-1999 LADD Distribution

Phone: +86-21-6608-2211

Singapore - Singapore Phone: +65-6482-0311 Fax: +65-6482-1012

Morocco - Tangier Phone: +212-5-31-06-2700 Fax: +212-5-31-06-2728

Netherlands - 's-Hertogenbosch (Belgium, Luxemburg) Phone: +31-73-6246-246 Fax: +31-73-6246-246 Fax: +31-73-6246-246 Product Information Center: Phone: +31-73-6246-999 Fax: +31-73-6246-998

Norway - Nesbru Phone: +47-66-77-88-50 Fax: +46-8-50-72-50-01 Product Information Center: Phone: +46-8-50-72-50-00

 Poland
 - Warsaw

 Phone:
 +48-22-4576-700

 Fax:
 +48-22-4576-720

 Product
 Information Center:

 Phone:
 800-702-309

 (toll free)
 (toll free)

Romania - Bucharest Phone: +40-21-311-3479/3596 Fax: +40-21-312-0574

 Russia
 - Moscow

 Phone:
 +7-495-790-7902

 Fax:
 +7-495-721-1893

 Product Information Center:
 Phone:

 Phone:
 +7-495-790-7902

 Fax:
 +7-495-721-1893

Nizhniy Novgorod Phone: +7-831-220-33-05/-06 Fax: +7-831-220-33-39/-40

Slovenia – Ljubljana Phone: +386-1561-3270 Fax: +386-1561-3240

South Africa – Port Elizabeth Phone: +27-41-503-4500 Fax: +27-41-581-0440

 Spain
 - Barcelona

 Phone:
 +34-93-291-0300

 Fax:
 +34-93-564-4819

 Product Information Center:

 Phone:
 +34-93-291-0366

 Fax:
 +34-93-209-1030

Kettering, OH LADD Distribution Phone: +1-800-223-1236 Fax: +1-937-438-9755

For South American Countries not shown Phone: +54-11-4733-2015 Fax: +54-11-4733-2083

Taiwan – Taipei Phone: +886-2-8768-2788 Fax: +886-2-8768-2268

Taichung Phone: +886-4-2258-5615

Thailand – Bangkok Phone: +66-2-834-6200 Fax: +66-2-937-1820

Vietnam - Ho Chi Minh City Phone: +84-8-3823-8473 Fax: +84-8-3823-8533

 Sweden
 - Upplands Väsby

 Phone:
 +46-8-50-72-50-00

 Fax:
 +46-8-50-72-50-01

 Product
 Information Center:

 Phone:
 +46-8-50-72-50-00

Switzerland - Steinach Phone: +41-71-447-0447 Fax: +41-71-447-0444 **Product Information Center:** Phone: +41-71-447-0447 Fax: +41-71-447-0400

Turkey - Istanbul Phone: +90-212-339-9200 Fax: +90-212-339-9202

Ukraine - Kiev Phone: +380-44-206-2265 Fax: +380-44-206-2264 Product Information Center: Phone: +380-44-206-2265 Fax: +380-44-206-2264

United Kingdom and Ireland - Swindon Phone: +44-8706-080208 Fax: +44-208-954-6234 Product Information Center: Phone: +44-800-267-666

For further contact information or countries not shown please go to: www.TE.com/support-center



Tyco Electronics AMP GmbH a **TE Connectivity Ltd. company** AMPèrestrasse 12-14

64625 Bensheim | Germany Phone: +49 (0)6251 133-0 Fax: +49 (0)6251 133-1600

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