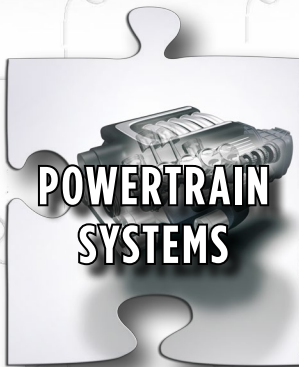
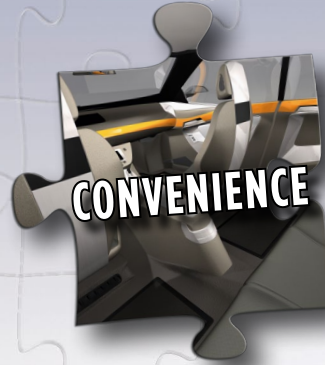


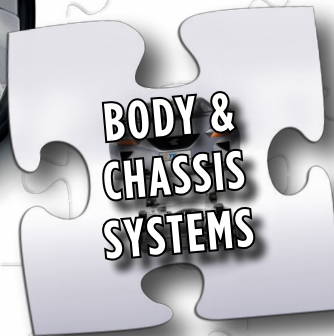
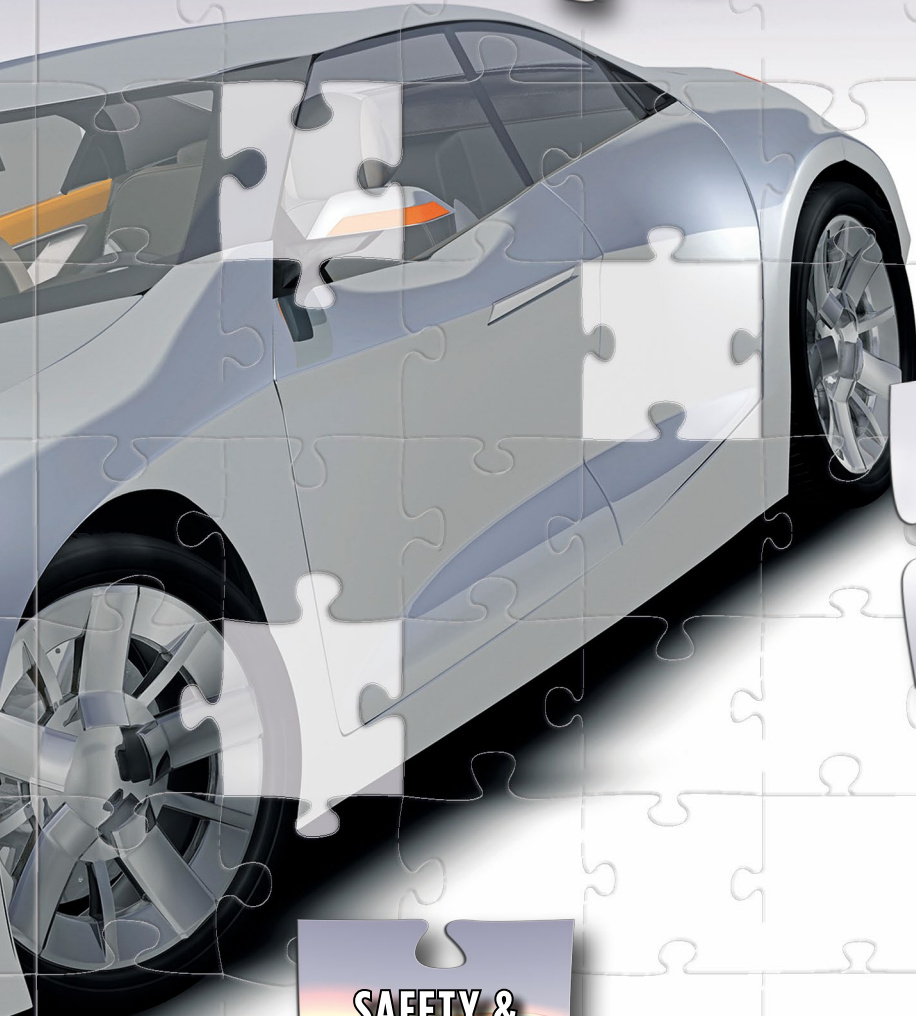


RoHS
Ready 

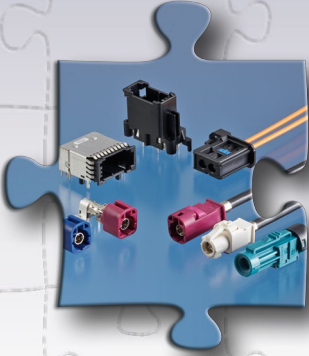
FAKRA RF Connector System for the Automotive Industry







TE Automotive - a business segment of TE Connectivity - follows the globalization goals of our customers, speeds up the integration of new technologies and enables our customers access to our vast product portfolio and services.



INFOTAINMENT

TE Automotive is focused on providing the best in class Infotainment technology to support high speed data communication in the automotive industry. Data communication based optical, coaxial as well as shielded electrical physical layers are supported by a wide product portfolio of Automotive grade connector systems.

Through a deep understanding of the technical properties and requirements of signal integrity and combined with our application knowledge both in the vehicle as well as in the logistics chain, TE Automotive is well positioned to offer the right solution for all current and next generation Infotainment Systems.



HYBRID & ELECTRIC MOBILITY SOLUTIONS

Complete the connections you need to safely, and reliably make hybrid and electric mobility a reality for everyone, everyday. With over 50 years experience in automotive, industrial and energy connectivity, TE is an expert in pushing innovation from one industry to the next.

Our portfolio of AMP+ high voltage relays, resistors, AMP+ headers, connectors, IPT/APT and cable assemblies and vehicle charging solutions are designed to connect and protect electric distribution inside and outside of the vehicle.

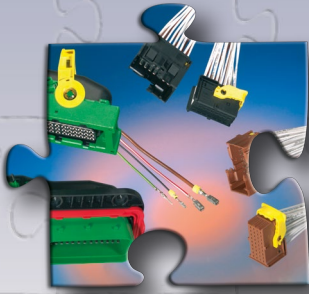


SENSORS

Contact-less measuring eliminates interference effects, wear and tear, and provides increased reliability. TE Automotive, one of the largest technology providers for the automobile industry, offers contact-less sensors for a variety of applications.

As sensor manufacturer and processing partner, TE Automotive also provides project planning support for new sensor applications, assistance in the selection of the appropriate sensor technology for the respective application, and assistance with defining the corresponding mechanical, electrical and magnetic interface.

TE Automotive has a broad electro-mechanical portfolio that includes robust housing technologies, connector systems, and temperature stable designs based on foil and cable networks. This combination of technologies and experience ensures that reliable and cost effective sensor solutions are available for all application types.



TERMINALS & CONNECTORS

TE Automotive offers a broad range of high quality terminals and connectors. Our electrical/electronic interconnection products and solutions are used to electrically and mechanically join wires and cables, printed circuit boards, integrated circuit packages and batteries.

TE Automotive expanding capabilities include new copper and fiber-optic connectors, wires, cables/cable management systems that are designed to meet automotive industry demands. Our brands encompass the broadest range of connectors in the world, including high-density, high-speed designs for leading-edge communications equipment.



CABLE ASSEMBLY SYSTEMS

TE Automotive is your partner for special cable assemblies. We offer research and development capabilities, prototyping, samples as well as manufacturing facilities for special cable assemblies. This includes overmold technology, semi/fully automatic manufacturing, testing equipment and appliances for handling of high volume production.



INDUCTIVE COIL SYSTEMS

TE Automotive is your source for interconnection technologies for automotive, truck and off-highway OEMs and Tier 1 suppliers. With our global design center in Belgium and manufacturing sites in all regions, TE Automotive's Inductive Coil Systems (ICS) group is ready to design your next-generation coil modules and provide local production support.

The ICS group maintains a leading market position in braking modules and other automotive coil applications. Through early involvement with you on your next design, TE Automotive can offer the benefits of miniaturization, design-in of platform components and optimized process flow for your standard, hybrid and electric vehicle project needs.



TE Automotive Online

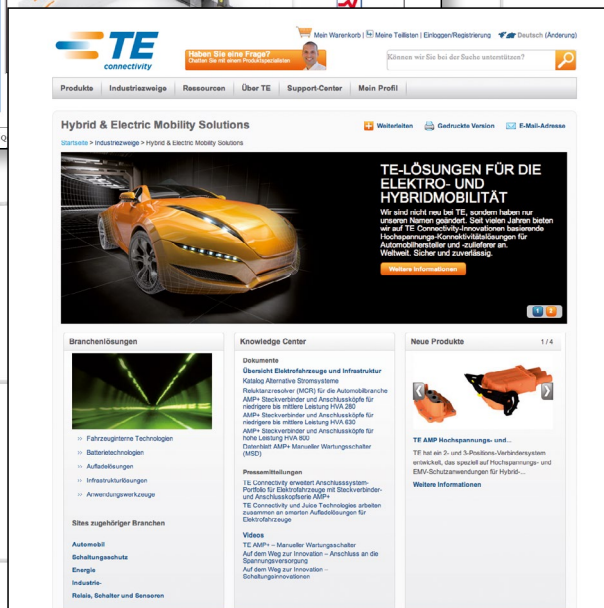
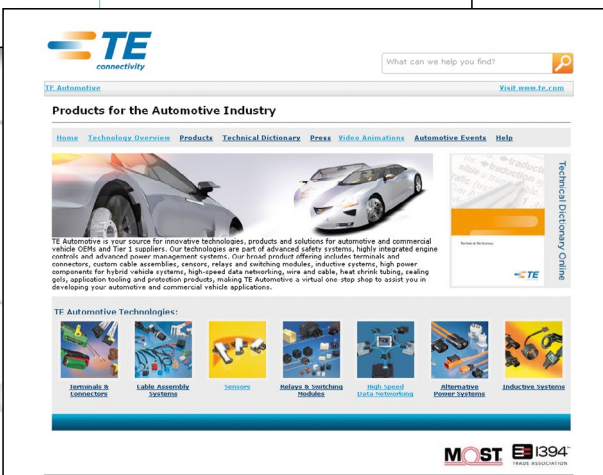
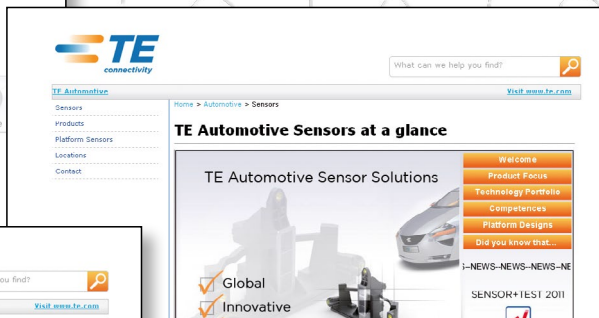
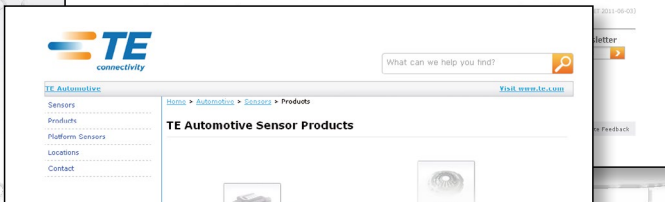
The TE Automotive website is an innovative and interactive source for application information, product updates and technical solutions. Please contact us at: www.te.com/automotive

Internet

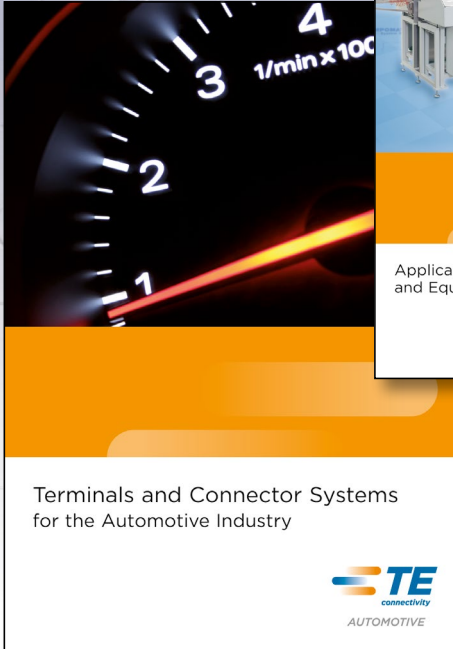
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Product and Machine Literature

TE Automotive offers a variety of product specific catalogs, brochures and high impact flyers to help better serve you!

For more information on literature for TE Automotive, please contact your local organization or go to www.te.com/automotive



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.

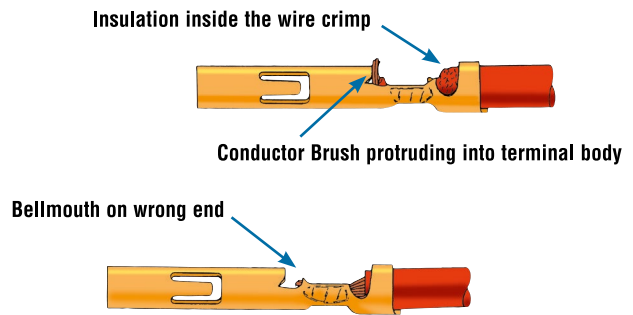
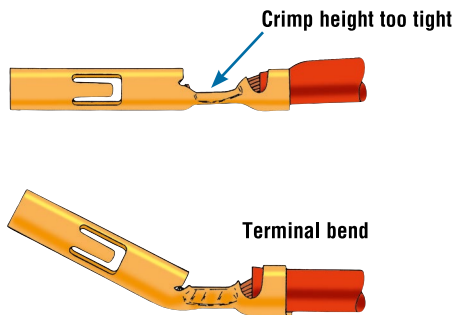
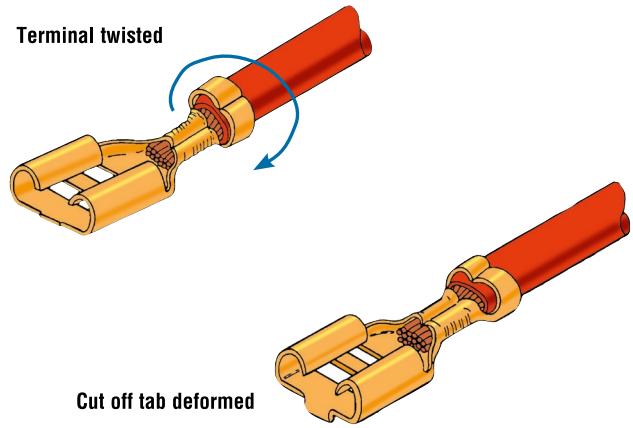
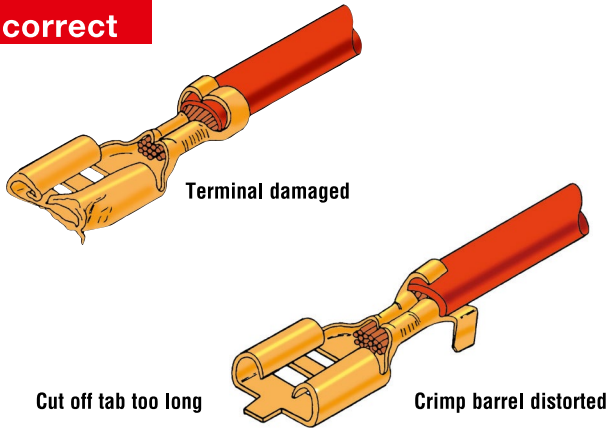
To reach our PIC staff, please contact your local organization or see our Global Contacts page.

Please contact us at:

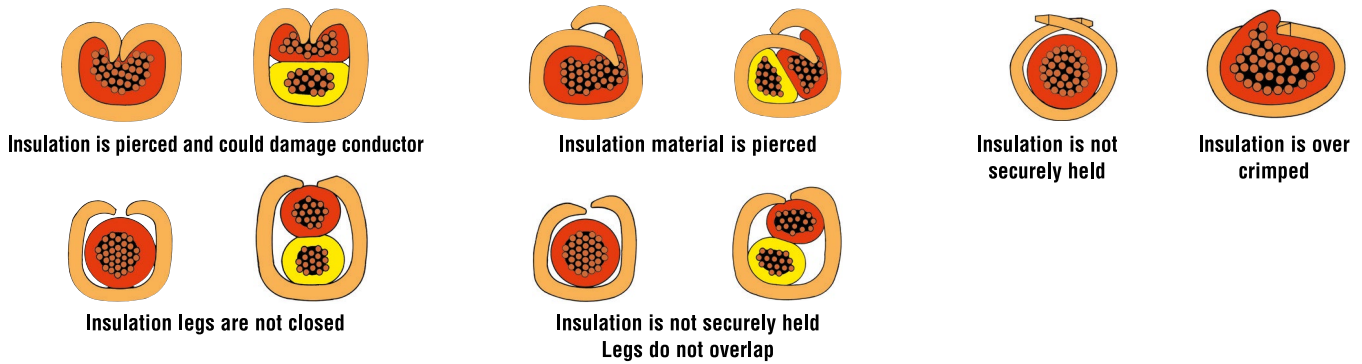
<http://www.te.com/customersupport/support.asp>

Quality Guidelines

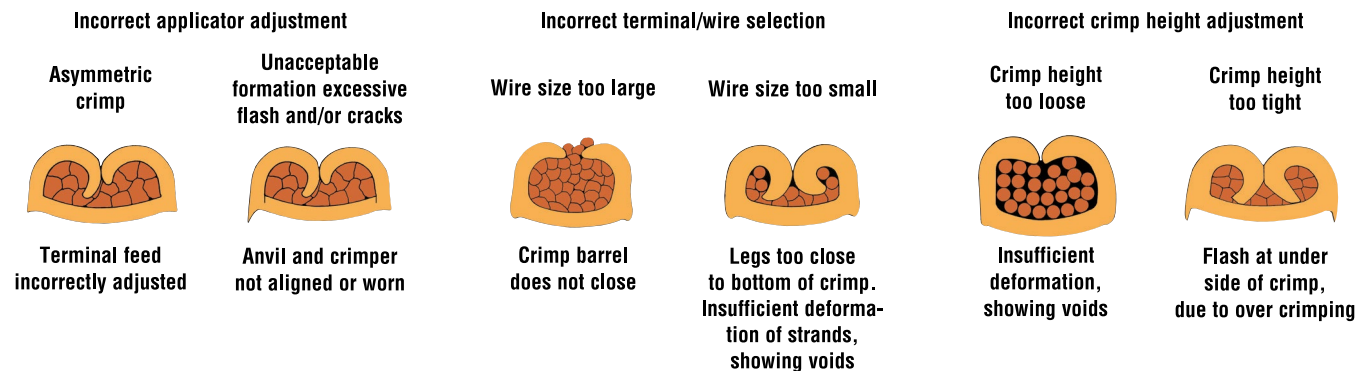
Incorrect



INSULATION CRIMP



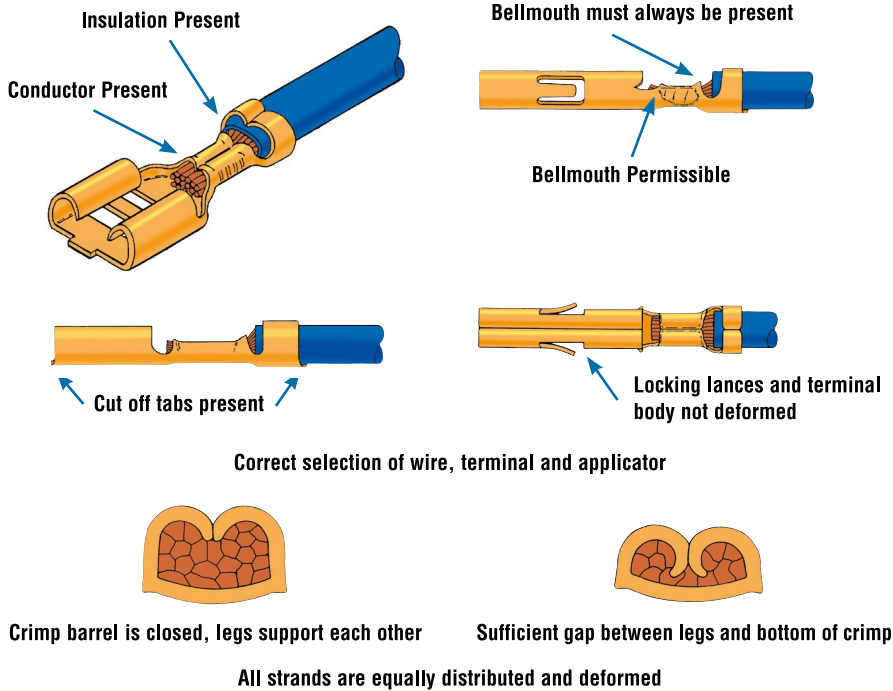
WIRE CRIMP



Quality Guidelines

Correct

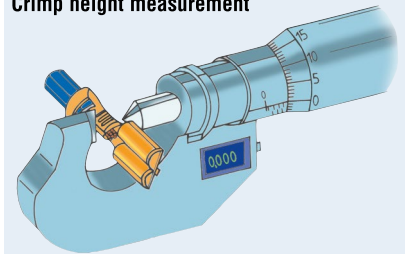
WIRE CRIMP



Test

WIRE CRIMP

Crimp height measurement



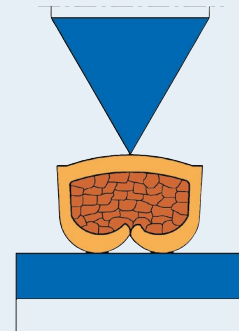
Crimp heights and tolerances

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

Examples:

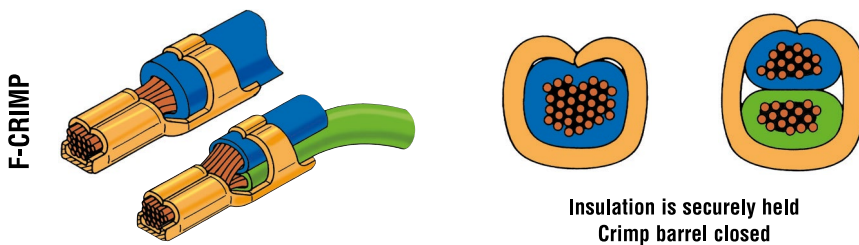
Con- tact	Part No.	Wire Range (mm ²)	Toler- ance (mm)	Appli- cation Spec.
MQS	962885 962886	0.2–0.5	±0.03	114-18025
JPT	927775	0.5–1.0	±0.05	114-18050
JPT	927773	1.5–2.5	±0.05	114-18050

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

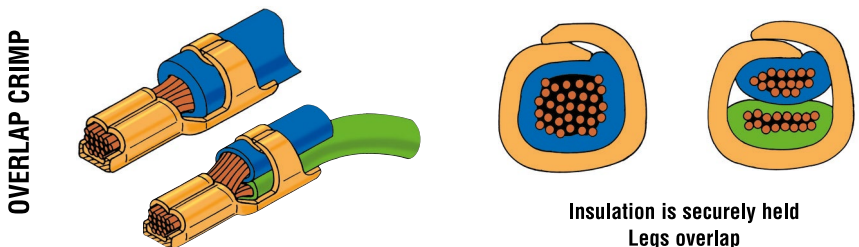


INSULATION CRIMP

Correct Insulation Diameter, Applicator and Terminal

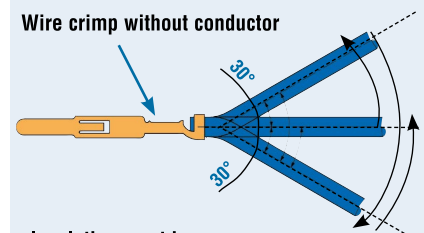


For double wire applications with different size wires always place wire with smallest outer diameter in the bottom





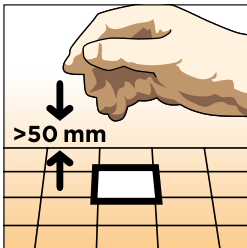

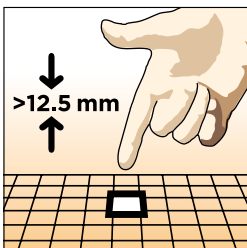
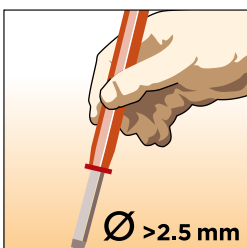
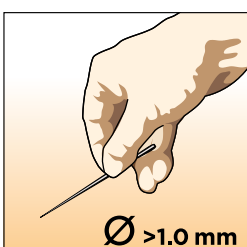
INSULATION CRIMP

Wire crimp without conductor


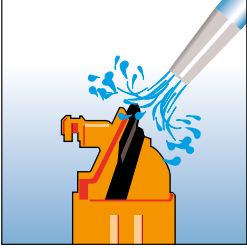

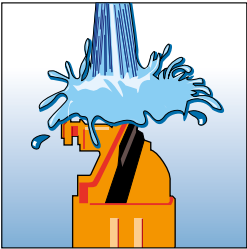
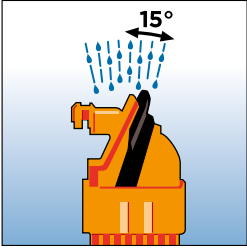
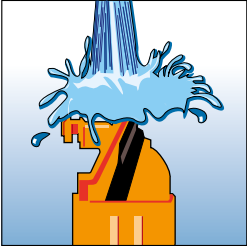
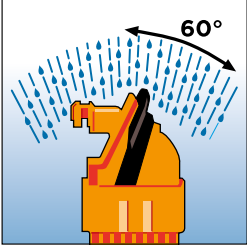
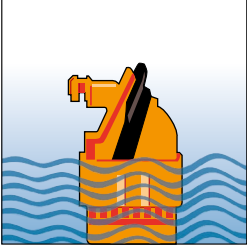
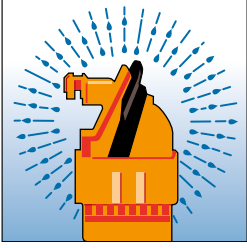
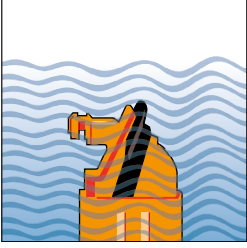




Insulation must be securely held after bend test

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

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>		

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

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>

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

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

RoHS
Customer
Support
Center 

AWG Conversion Table (Average Value)

Conversion Tables

Most of the wire size ranges are mentioned in mm², as well as the insulation diameters which are in many cases only in mm's.

We therefore included the conversion tables on page X and page XI.

Please note that wire and insulation sizes are for guidance only.

Consult the customer drawing for precise detail.

AWG Code	Diameter (Inch)	Diameter (mm)	F (mm ²)
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	

FLK/FLR Cable

FLK and FLR stand for German DIN (72551) abbreviations.

FLK means:

- In German:
 - Fahrzeug Leitung Kunststoff
 In English:
 - Vehicle Cable Plastic

FLR means:

- In German:
 - Fahrzeug Leitung Reduziert
 In English:
 - Thin Walled Cable (reduced insulation thickness)

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	7.1120	7.1374	7.1628	7.1882	7.2136	7.2390	7.2644	7.2898	7.3152	7.3406
0.290	7.3660	7.3914	7.4168	7.4422	7.4676	7.4930	7.5184	7.5438	7.5692	7.5946
0.300	7.6200	7.6454	7.6708	7.6962	7.7216	7.7470	7.7724	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	19.7866
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	24.5872	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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THE PRODUCTS



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Engineering Notes

A large grid area for engineering notes, consisting of a uniform grid of small squares. The grid is empty and occupies the majority of the page's vertical space.

Introduction



FAKRA ensures interchangeability of RF connector systems



During the last years the Automotive market experienced an exploding growth of telematics and multi media applications. These typically include, along with the new optical transmission systems, high frequency systems like Global Positioning Systems (GPS), mobile phones, radios, mobile television and recently digital satellite radios.

In order to ensure interchangeability of connector systems the German „Facharbeitskreis Automotive“ (FAKRA) council has created a standard for high frequency coaxial connectors (“FAKRA RF”connectors).

This standard covers the design of the connectors interface with its mechanical and electrical characteristics, incl. testing methods etc. The standard is in a worldwide acceptance process by major car manufacturers and system suppliers for automotive communications and entertainment applications.

The automotive industry expanded this compatibility. Next to the interface also the housing cavities are uniform. Now the customers have the advantage to order terminals and housings from different suppliers. In the field the terms “FAKRA II” and “FAKRA

Gen4” are used to distinguish the kind of compatibility.

TE Connectivity (TE) offers a comprehensive program of RF cable assemblies, terminals and housings. These products are fully compatible, designed after the “FAKRA RF” requirements including recent extensions and improvements.

The program includes straight male and female terminals for different cable types, one and two position straight housings (pitch 8.0mm and 12.7mm) with the different mechanical keys and an angled female terminal with one housing for the three cable directions or a

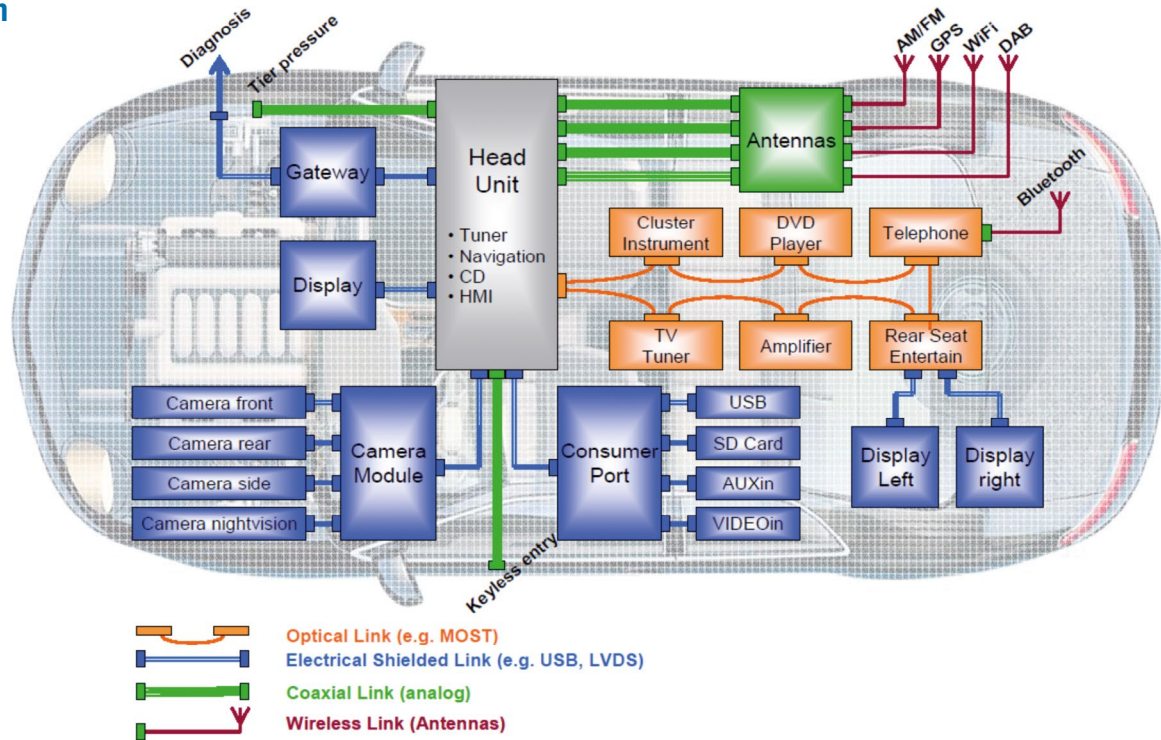
version which is fully rotational. Special cable assemblies using these connectors are available as well.

The connectors show an innovative design which complies to the physical size requirements on the market and unique features with respect to automotive applications as well as to the requirements in the assembly lines of our customers.

The TE Automotive design verification plan covers all requirements from the FAKRA and the USCAR standards.

Technical Introduction

Application



FAKRA

FAKRA is an acronym developed in Germany for “FAchKReis Automobile”, which can be translated as “Experts Automobile”. The FAKRA connector specification was developed by a sub-committee within the German Committee of Automobile Manufactures.

Standard and norms

The TE Connectivity FAKRA connector system was designed to meet or exceed ISO20860-1 (50 Ohms Impedance Radio Frequency Connection System Interface), SAE/USCAR-17 (Performance Specification for Automotive RF Connector Systems), SAE/USCAR-18 (FAKRA SMB RF Connector Supplement) and SAE/USCAR-2 (Performance Specification for Automotive Electrical Connector Systems).

Data transmission systems consist of a source, or transmitter (TX), a load, or receiver (RX) and a transmission line (TL) which interconnects the source and the load with each other (s. Figure 1). Coaxial transmission lines are the most common type of transmission lines for analogue RF signals. The most important parameters of transmission lines, insertion loss, impedance, return loss / voltage standing wave ratio, and shielding effectiveness, are described below.

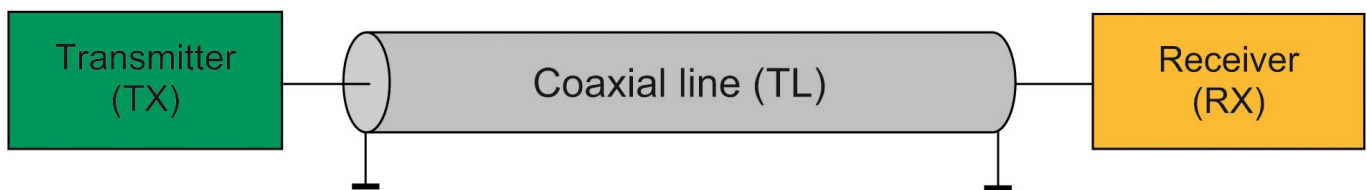


Figure 1

Technical Introduction

Insertion loss

Insertion loss (IL) is the ratio between output voltage (V1) and input voltage (V0) of a transmission line. At low frequencies the attenuation is mainly caused by DC resistance.

With increasing frequency the dielectric losses and the current displacement (Skin-Effect) becomes more relevant. Insertion Loss can be better understood by reviewing Figure 2 and calculated by using Formula 1.

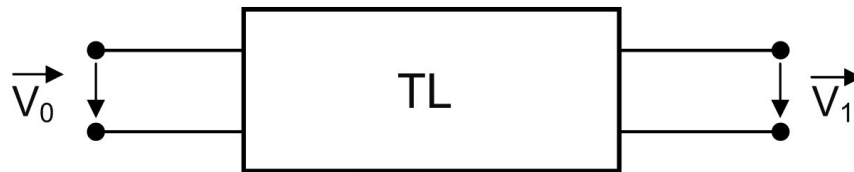


Figure 1

$$IL[dB] = -20 \cdot \log \left[\frac{V_1}{V_0} \right]$$

Formula 1

Impedance

Impedance (Z) is typically measured in the time domain. Impedance describes the voltage/current ratio in the direction of signal propagation for a data transmission line. Impedance should not be mixed up with the DC resistance. The absolute value should be common with the system impedance along the data transmission line in order to avoid signal reflections.

Due to mechanical reasons this target is not easily achievable, especially in the connector. The objective is to minimize the impedance discontinuities and the distance between impedance disruptions. The impedance is mainly influenced by the connector geometry, the distance between the conductors and the dielectric constant.

The Impedance of a coaxial system can be calculated using Formula 2.

$$Z_0[\Omega] = 60 \sqrt{\frac{\mu_r}{\epsilon_r}} \ln \left(\frac{D}{d} \right) \Rightarrow Z_0[\Omega] \sim \frac{1}{\sqrt{\epsilon_r}}$$

Formula 2

- ϵ_r → Dielectric constant of insulation material
- μ_r → Permeability of insulation material
- D → Inner diameter of the outer shield
- d → Diameter of the inner conductor

Technical Introduction

Return loss / Voltage standing wave ratio (VSWR)

Return loss / VSWR describe the ratio between the reflected signal amplitude ($V_{refl.}$) and the transmitted signal amplitude (V_0). Return loss / VSWR are caused by disruptions to the geometry of the transmission network. Disruptions are mainly caused by changes in the connector mechanical geometries and frequency-dependent dielectric constant. Good return loss values, even at higher frequencies, imply short lateral dimensions of possible impedance fluctuations. Acceptable return loss / VSWR values, even at higher frequencies, allow for slight disruptions to the connector geometry. The slight impedance changes to the transmission system can be compensated through engineering solutions. Figure 3 and Formula 3 can be used to understand and calculate return loss. Formula 4 is show how to calculate VSWR.

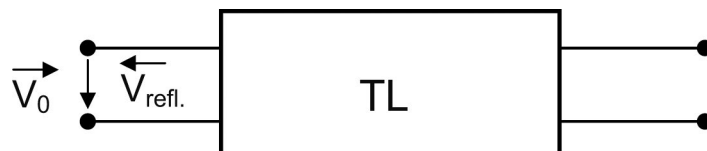


Figure 3

$$A_{RL} [dB] = -20 \cdot \log \left[\frac{V_{refl.}}{V_0} \right]$$

Formula 3

VSWR is another expression of Return Loss. VSWR is calculated by using Formula 4.

$$VSWR = \frac{1+r}{1-r} \Rightarrow r = \frac{V_{refl.}}{V_0}$$

Formula 4

r → reflection coefficient

The relation of impedance Z and reflection coefficient described in Formula 5.

$$r = \frac{Z_L - Z_0}{Z_L + Z_0}$$

Formula 5

Z_L → Impedance of the transmission line

Z_0 → System Impedance

Shielding effectiveness

Shielding effectiveness describes the ability to attenuate electromagnetic radiation by means of a shield. Radiation may cause a negative influence on adjoining systems. Shielding Effectiveness is a fundamental assumption to avoid erroneous data transmission. Missing or insufficient shielding results in low EMC (Electromagnetic Compatibility) performance. An improper interconnection of the components shield, connector, housing and cable will also decreases the EMC performance. The standard expression of shielding effectiveness is shown in Formula 6.

$$A_s [dB] = -10 \cdot \log \left[\frac{P_{radiated}}{P_{transmit}} \right]$$

Formula 6

Coding Versions

Female	Male	Keying Code	Color	RAL	Single way application in		Multi way application in USCAR	TE PN typical 1-7-1
					Europe	USCAR		
		A	Jet Black	9005	Radio with phantom supply	Radio with phantom supply	Not defined	n-1
		B	Cream	9001	Radio without phantom supply	Radio without phantom supply	Not defined	n-2
		C	Signal Blue	5005	GPS telematics or navigation	GPS	GPS / GSM	n-3
		D	Claret Violet	4004	GSM	GSM	Not defined	n-3
		E	Leaf Green	6002	TV1	TV (UHF / SDARS terrestrial (XM)	TV1 (UHF) / TV2	n-5
		F	Nut Brown	8011	TV2	TV (VHF) / SDARS terrestrial (Sirius)	TV1 (VHF) / TV2	n-6
		G	Blue Gray	7031	Remote Keyless Entry	SDARS terrestrial (interoperable)	SDARS satellite / terrestrial	n-7
		H	Heather Violet	4003	GPS telematics and navigation	GPS telematics and navigation	Not defined	n-8
		I	Beige	1001	Remote	Bluetooth Controlled Parking Heating	Not defined	n-9
		K	Curry	1027	Diversity radio	SDARS satellite	Not defined	n+1-0
		L	Carmine Red	3002	Not defined	Not defined	Not defined	n+1-2
		M	Pastel Orange	2003	Not defined	Keyless entry / Tire pressure monitoring	Not defined	n+1-3
		N	Pastel Green	6019	Not defined	Not defined	Not defined	n+1-4
		Z	Water Blue	5021	Neutral (fits all)	Neutral (fits all)	Neutral (fits all)	n+1-1

Coding Versions

Cable type	PN	Ohm Ω	Center \varnothing (mm)	Dielectric \varnothing (mm)	Jacket \varnothing (mm)	FAKRA II		FAKRA Gen4	
						180°	90°	180°	90°
RG 174	1719435-1		0.50	1.52	2.80				
75 Ohm	1703488-1	75	0.50	2.10	3.20				
RTK 031	956339-2	50	0.82	2.10	3.30				
1.5DS		50	0.60	1.60	3.00				
Lowloss	956163-2		0.90	2.25	3.50				
RG 58 / RG 58 B		53.5	0.81	2.95	4.95				
RG 58 B		75	0.58	3.71	6.15				
RG 62									
RG 62U/M									
RG 71 / 71 A / 71 B		93	0.64	3.71	6.22				
RG 71U/M									
RG 72		150	0.64	11.68	16.00				

Introduction FAKRA II



FAKRA ensures interchangeability of RF connector systems



The automotive market has experienced an exploding growth of telematics and multi media applications. These typically include, along with the new optical transmission requirements, high frequency systems like Global Positioning Systems (GPS), mobile phones, radios, mobile television and digital satellite radios. In order to ensure interchangeability of connector systems the German „Facharbeitskreis Automotive“ (FAKRA) council has created a standard for high frequency coaxial connectors (“FAKRA RF” connectors).

This standard covers the design of the connector interface with its mechanical

and electrical characteristics. The standard has been accepted globally. Fakra II housings provide a uniform cavity. The uniform cavity provides the advantage that customers can order terminals and housings from different suppliers.

TE Connectivity (TE) offers a product family consisting of RF cable assemblies, terminals and housings. These products are fully compatible with the “FAKRA RF” requirements. The product family includes straight male and female terminals for different cable types, one and two position straight housings (pitch 8.0mm and 12.7mm) with the

different mechanical keys and a 90° plug. The 90° plug is available with two different housing options.

The connectors show an innovative design which complies to the physical size requirements on the market and unique features with respect to automotive applications as well as to the requirements in the assembly lines of our customers.

The TE Automotive design verification plan covers all requirements from the FAKRA and the USCAR standards.

Technical Features

Contact Material

Stamped Contact:

CuNiSi

Contact Finish:

Gold plated

Rating

Frequency Range:

0 to 6,000 MHz

Temperature Range:

-40 °C to +100 °C

Wire Size Range:

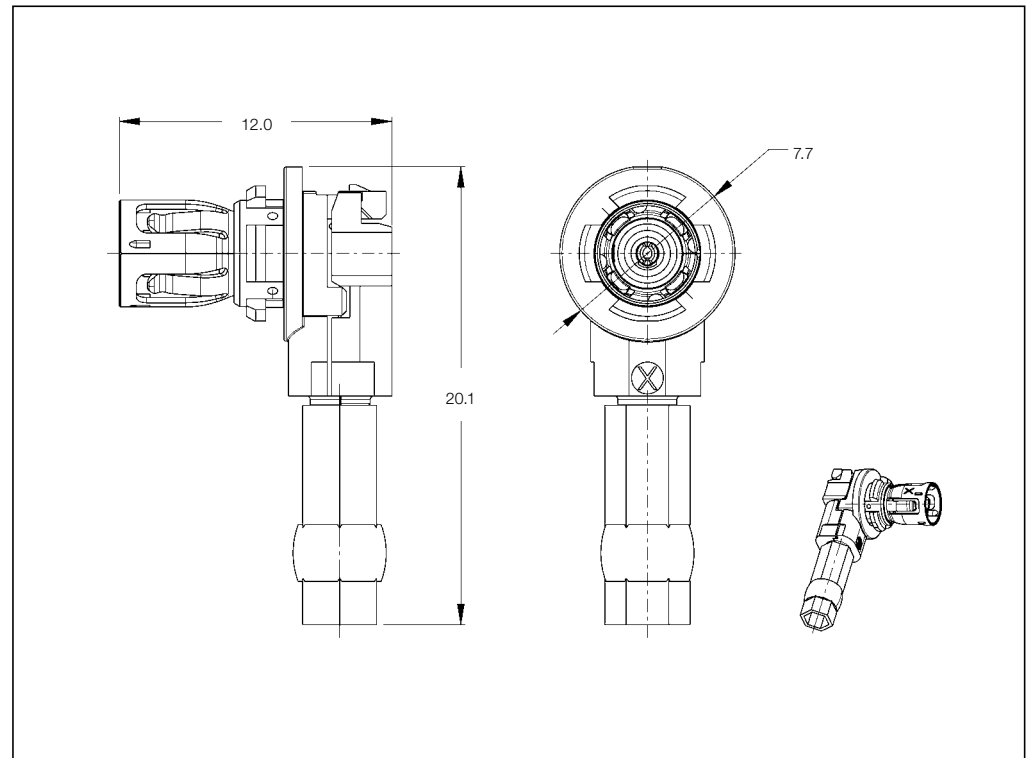
Diameter 2.8^{+0.1} mm

Product Specification:

108-94089

Application Specification:

114-18623



Female Closed Outer Spring RG 174 Contact Stamped Suitable for Female Housing, Part Nos. 1719261 and 2141494

For Cable Part No.*	Cable	Kit Part No.	Part Numbers of Needed Components				Package Quantity	Applicator for Contact	Hand Tool Crimp Inserts to be used in Hand Crimp Tool
			Center Contact	Sub-Assembly Front	Sub-Assembly Rear	Ferrule			Part No. 539635-1 for the Ferrule
1449103-1 1719435-1	RG 174	N/A (1719655-1) ¹⁾	1719685-1	1719656-1	1719658-1	1-413889-3	Components must be ordered separately ¹⁾	9-541782-7	1-1579001-1

1) Refer to Customer Drawing 1719655-1

*) Other cable types have to be released by TE Automotive Product Engineering.

Note: All Part Numbers are RoHS and ELV compliant.

Technical Features

Contact Material
Stamped Contact:

CuNiSi

Contact Finish:
Gold plated

Rating

Frequency Range:
0 to 6,000 MHz

Temperature Range:
-40 °C to +100 °C

Wire Size Range:

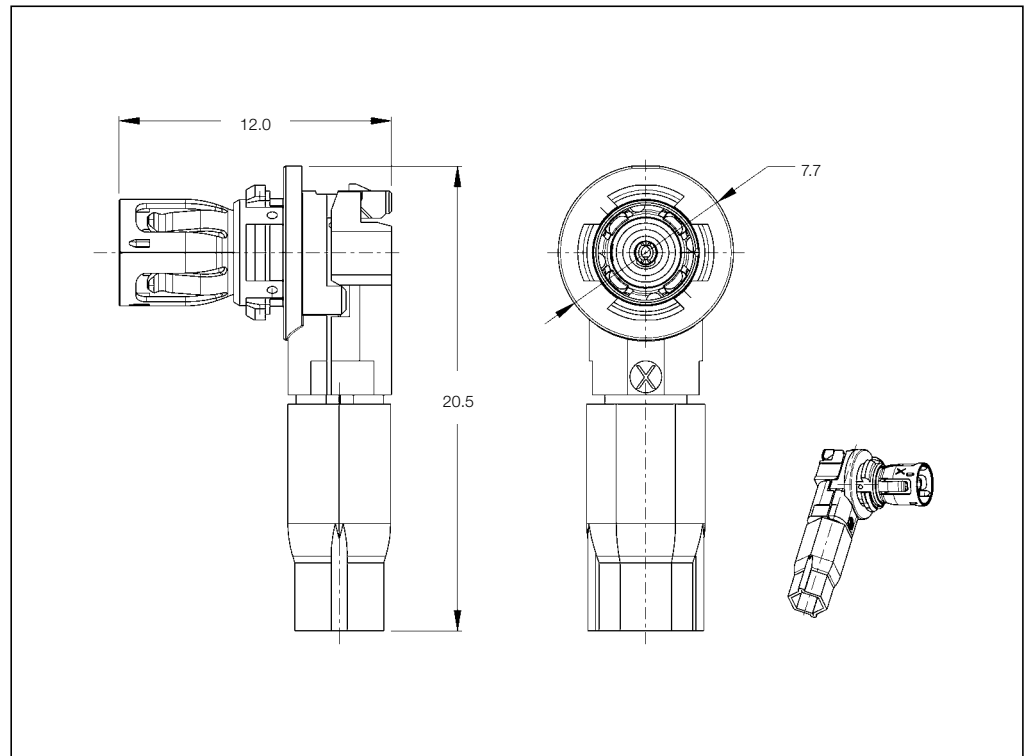
Diameter 3.2^{+0.3} mm RTK and
Diameter 3.5^{+0.15} mm Low Loss

Product Specification:

108-94089

Application Specification:

114-18623



Female Closed Outer Spring RTK 031 Contact Stamped Suitable for Female Housing, Part Nos. 1719261 and 2141494

For Cable Part No.*	Cable	Kit Part No.	Part Numbers of Needed Components				Package Quantity	Applicator for Contact	Hand Tool Crimp Inserts to be used in Hand Crimp Tool
			Center Contact	Sub-Assembly Front	Sub-Assembly Rear	Ferrule			Part No. 539635-1 for the Ferrule
Stamped Contact									
956339-1	RTK 031	N/A (1719252-1) ¹⁾	1418990-1	1719241-1	1719245-1	1418993-1	Components must be ordered separately ¹⁾	9-541781-7	1579021-4
956339-2									
956163-2	Low Loss								

1) Refer to Customer Drawing 1719252-1

*) Other cable types have to be released by TE Automotive Product Engineering.

Note: All Part Numbers are RoHS and ELV compliant.

Technical Features

Contact Material
Stamped Contact:

CuNiSi

Contact Finish:
Gold plated

Rating

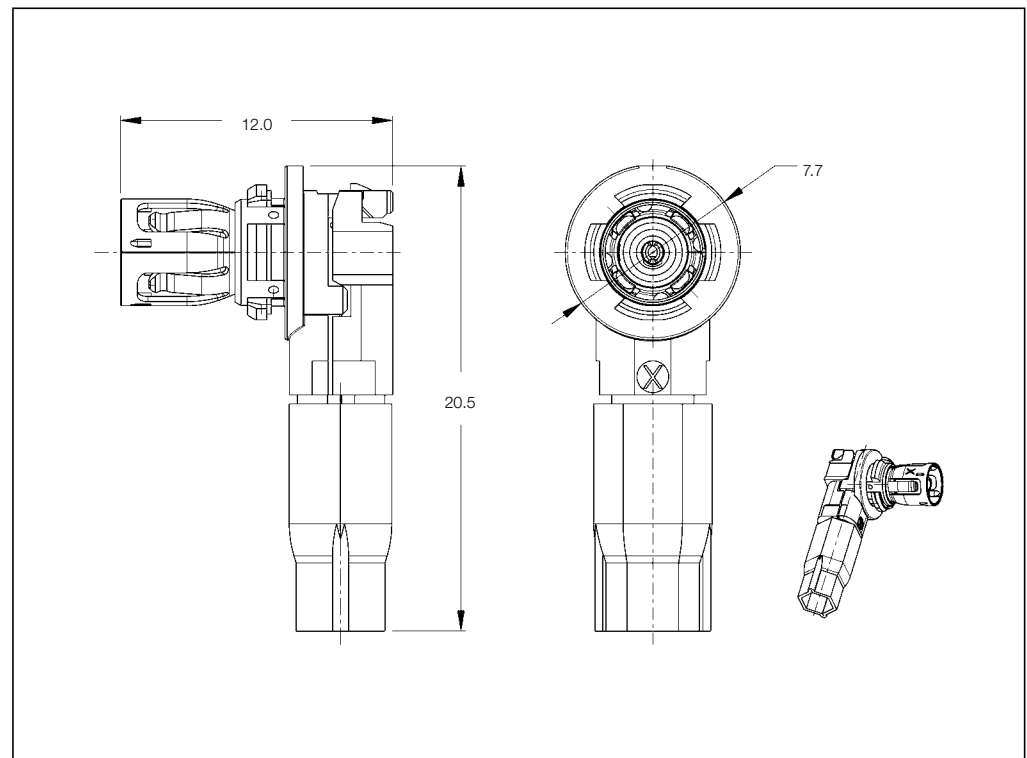
Frequency Range:
Cable dependant

Temperature Range:
-40 °C to +100 °C

Wire Size Range:
Diameter 3.2^{+0.1} mm

Product Specification:
108-94089

Application Specification:
114-18623-1



Female Closed Outer Spring 75 Ohm Contact Stamped Suitable for Female Housing, Part Nos. 1719261 and 2141494

For Cable Part No.*	Cable	Kit Part No.	Part Numbers of Needed Components				Package Quantity	Applicator for Contact	Hand Tool Crimp Inserts to be used in Hand Crimp Tool
			Center Contact	Sub-Assembly Front	Sub-Assembly Rear	Ferrule			Part No. 539635-1 for the Ferrule
Stamped Contact									
1703488-1	75 Ohm	N/A	1719685-1	1719241-1	1719245-1	1418993-1	Components must be ordered separately	9-541782-7	1579021-4

*) Other cable types have to be released by TE Automotive Product Engineering.

Note: All Part Numbers are RoHS and ELV compliant.

Technical Features

Contact Material
Stamped Contact:
CuNiSi

Contact Finish:
Gold plated

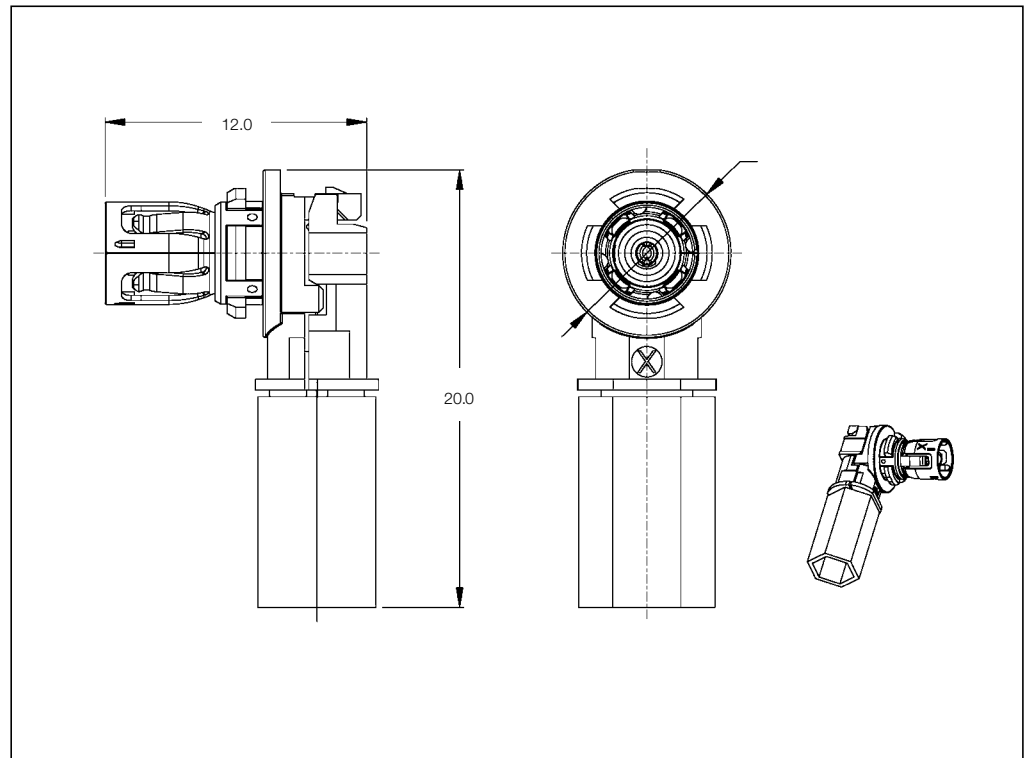
Rating
Frequency Range:
Cable dependant

Temperature Range:
-40 °C to +100 °C

Wire Size Range:
RG 58

Product Specification:
108-94089

Application Specification:
114-18623



Female Closed Outer Spring RG 58 Contact Stamped Suitable for Female Housing, Part Nos. 1719261 and 2141494

For Cable Part No.*	Cable	Kit Part No.	Part Numbers of Needed Components				Package Quantity	Applicator for Contact	Hand Tool Crimp Inserts to be used in Hand Crimp Tool
			Center Contact	Sub-Assembly Front	Sub-Assembly Rear	Ferrule			Part No. 539635-1 for the Ferrule
Stamped Contact									
1557812-1	RG 58 AWG 20	N/A (2141946-1-1) ¹⁾	2141947-1	2141944-1	2141945-1	1488499-3	Components must be ordered separately ¹⁾	1530525-6	539775-2

1) Refer to Customer Drawing 2141946

*) Other cable types have to be released by TE Automotive Product Engineering.

Note: All Part Numbers are RoHS and ELV compliant.

Technical Features

Contact Material

Stamped Contact:

CuNiSi

Contact Finish:

Gold plated

Rating

Frequency Range:

Cable dependant

Temperature Range:

-40 °C to +100 °C

Wire Size Range:

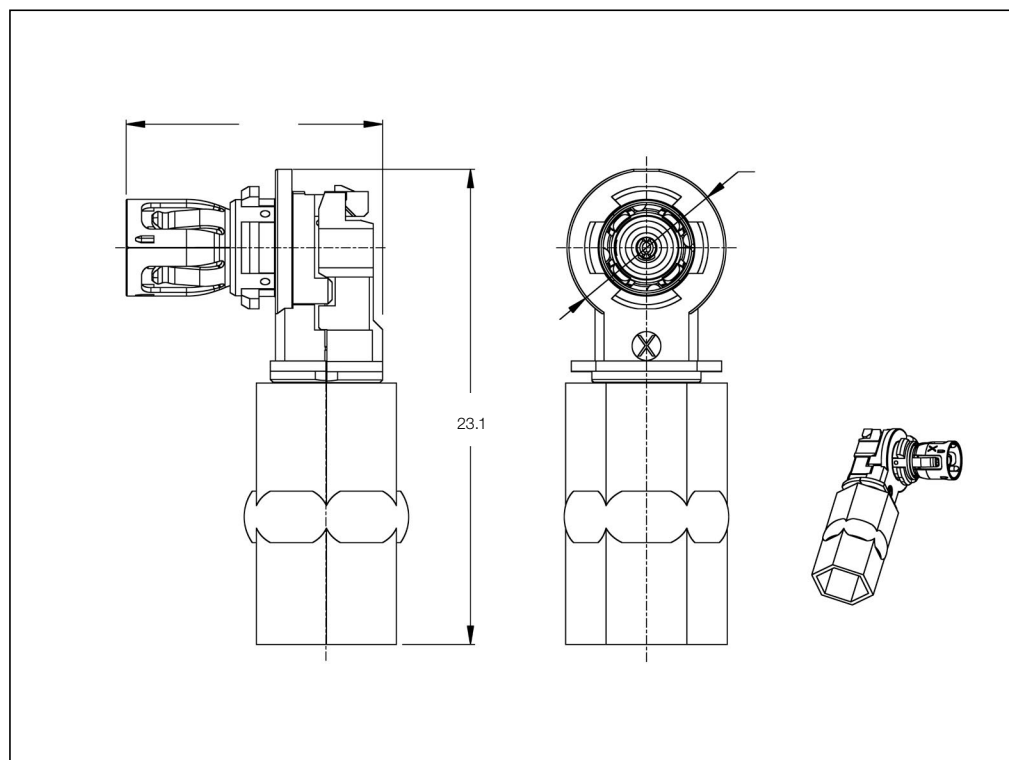
RG 59

Product Specification:

108-94089

Application Specification:

114-18623-1



Female Closed Outer Spring RG 59 Contact Stamped Suitable for Female Housing, Part Nos. 1719261 and 2141494

For Cable Part No.*	Cable	Kit Part No.	Part Numbers of Needed Components				Package Quantity	Applicator for Contact	Hand Tool Crimp Inserts to be used in Hand Crimp Tool
			Center Contact	Sub-Assembly Front	Sub-Assembly Rear	Ferrule			Part No. 539635-1 for the Ferrule
Stamped Contact									
1832989-1	RG 59	N/A (2141948-1) ¹⁾	1418990-1	1823953-1	1823954-1	1326646-1	Components must be ordered separately ¹⁾	9-541797-7	3-1579016-0

1) Refer to Customer Drawing 2141948

*) Other cable types have to be released by TE Automotive Product Engineering.

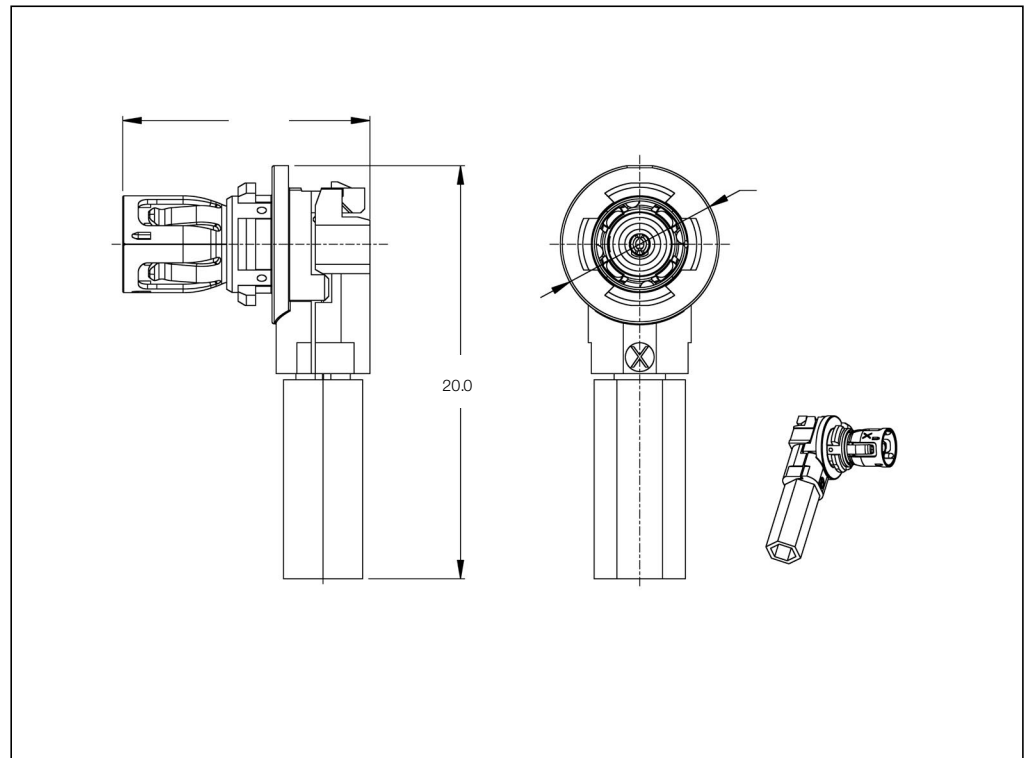
Note: All Part Numbers are RoHS and ELV compliant.

Contact Systems

1.5DS Contact for 90° Female Version

Technical Features

- Contact Material**
- Stamped Contact:**
CuNiSi
- Contact Finish:**
Gold plated
- Rating**
- Frequency Range:**
Cable dependant
- Temperature Range:**
-40 °C to +100 °C
- Wire Size Range:**
1.5DS
- Product Specification:**
108-94089
- Application Specification:**
114-18623



Female Closed Outer Spring 1.5DS Contact Stamped Suitable for Female Housing, Part Nos. 1719261 and 2141494

For Cable Part No.*	Cable	Kit Part No.	Part Numbers of Needed Components				Package Quantity	Applicator for Contact	Hand Tool Crimp Inserts to be used in Hand Crimp Tool
			Center Contact	Sub-Assembly Front	Sub-Assembly Rear	Ferrule			Part No. 9-1478240-0 for the Ferrule
Stamped Contact									
1832844-1	1.5DS	N/A (2112466-1) ¹⁾	2112465-1	1719656-1	1719658-1	1-413889-4	Components must be ordered separately ¹⁾	1530251-6	58483-1

1) Refer to Customer Drawing 21112466

*) Other cable types have to be released by TE Automotive Product Engineering.

Note: All Part Numbers are RoHS and ELV compliant.

RG 71U/M Contact for 90° Female Version

Technical Features

Contact Material

Stamped Contact:

CuNiSi

Contact Finish:

Gold plated

Rating

Frequency Range:

Cable dependant

Temperature Range:

-40 °C to +100 °C

Wire Size Range:

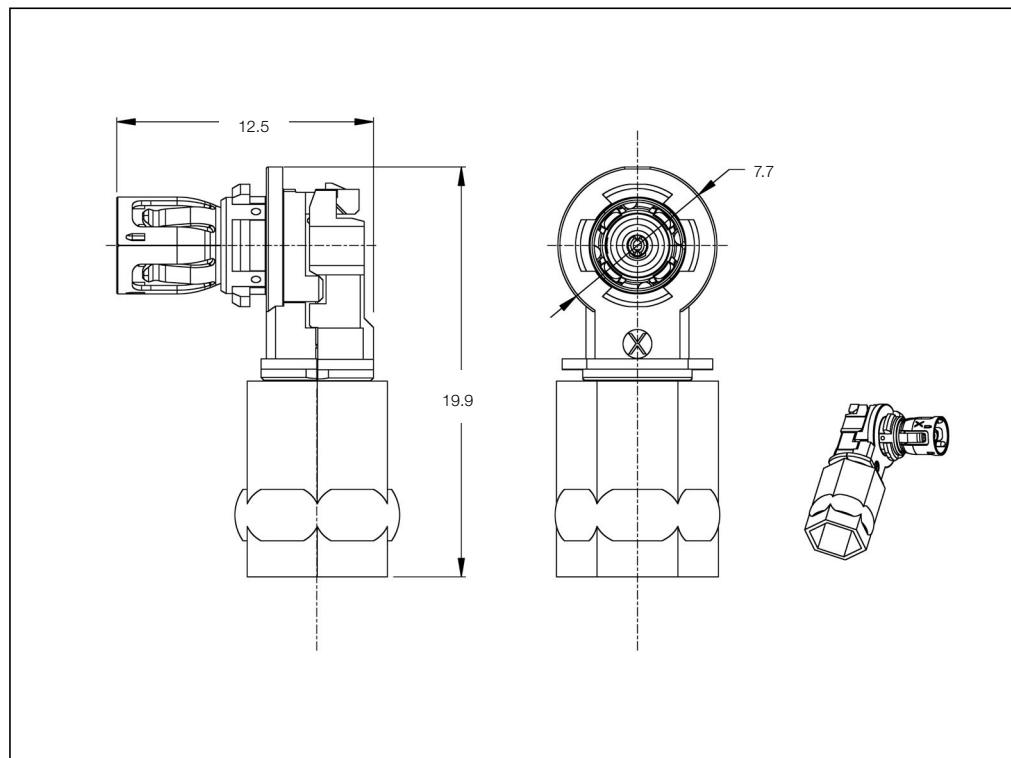
RG 71 U/M

Product Specification:

108-94089-1

Application Specification:

114-18623-1



Female Closed Outer Spring RG 71 U/M Contact Stamped Suitable for Female Housing, Part Nos. 1719261 and 2141494

For Cable Part No.*	Cable	Kit Part No.	Part Numbers of Needed Components				Package Quantity	Applicator for Contact	Hand Tool Crimp Inserts to be used in Hand Crimp Tool
			Center Contact	Sub-Assembly Front	Sub-Assembly Rear	Ferrule			Part No. 539635-1 for the Ferrule
Stamped Contact									
-	RG 71 U/M	N/A (1823955-1) ¹⁾	1823957-1	1823953-1	1823954-1	1823956-1	Components must be ordered separately ¹⁾	1530243-6	3-1579016-0

1) Refer to Customer Drawing 1823953

*) Other cable types have to be released by TE Automotive Product Engineering.

Note: All Part Numbers are RoHS and ELV compliant.

RG 174 Contact for 180° Female Version – Open Outer Spring

Technical Features

Contact Material
Stamped Contact:
CuNiSi

Contact Finish:
Gold plated

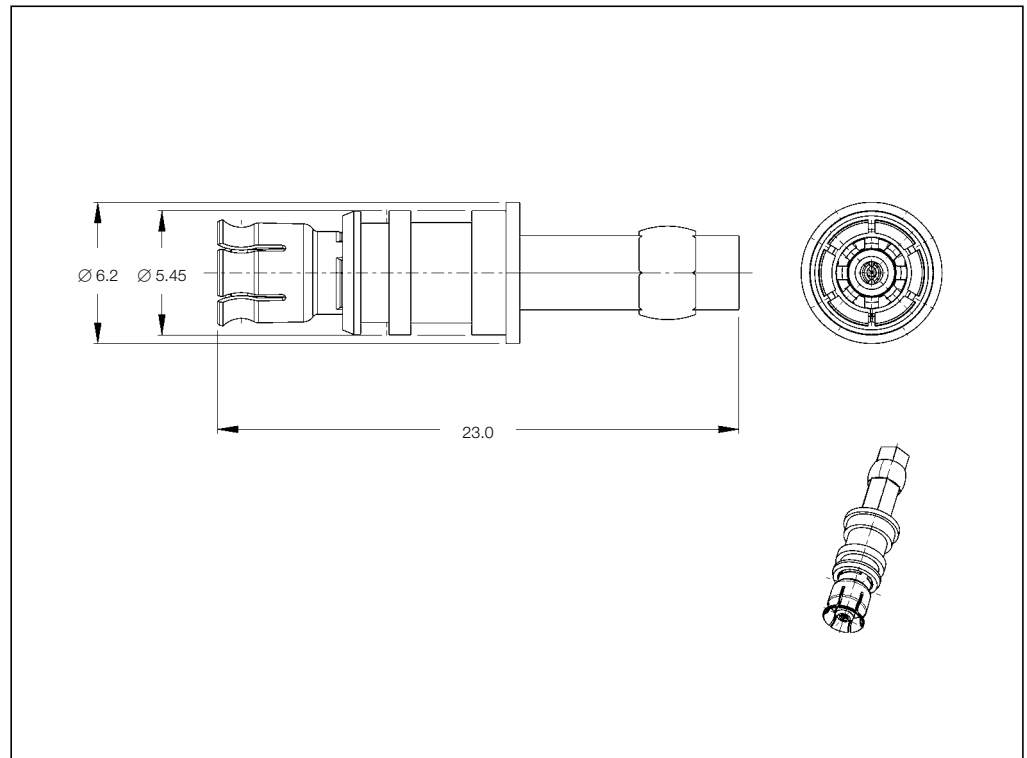
Rating
Frequency Range:
0 to 4,000 MHz

Temperature Range:
-40 °C to +100 °C

Wire Size Range:
Diameter 2.8^{+0.1} mm

Product Specification:
108-2129

Application Specification:
114-18622



Female Open Outer Spring RG 174 Contact Stamped Suitable for Female Housings, Part Nos. 1452584, 1452483 and 1452587

For Cable Part No.*	Cable	Kit Part No.	Part Numbers of Needed Components			Package Quantity	Applicator for Contact	Hand Tool Crimp Inserts to be used in Hand Crimp Tool	
			Center Contact	Sub-Assembly	Ferrule			Part No. 601966-1 for Contact	Part No. 539635-1 for Ferrule
Stamped Contact									
1719435-1	RG 174	N/A (1488155-2) ¹⁾	1418971-1 CuNiSi	1488154-1	1-413889-3 SiCu	Components must be ordered separately ¹⁾	9-541782-7	N/A	1-1579001-1

1) Refer to Customer Drawing 1488571

*) Other cable types have to be released by TE Automotive Product Engineering.

Note: All Part Numbers are RoHS and ELV compliant.

RG 174 Contact for 180° Female Version – Closed Outer Spring

Technical Features

Contact Material
Stamped Contact:
CuNiSi

Contact Finish:
Gold plated

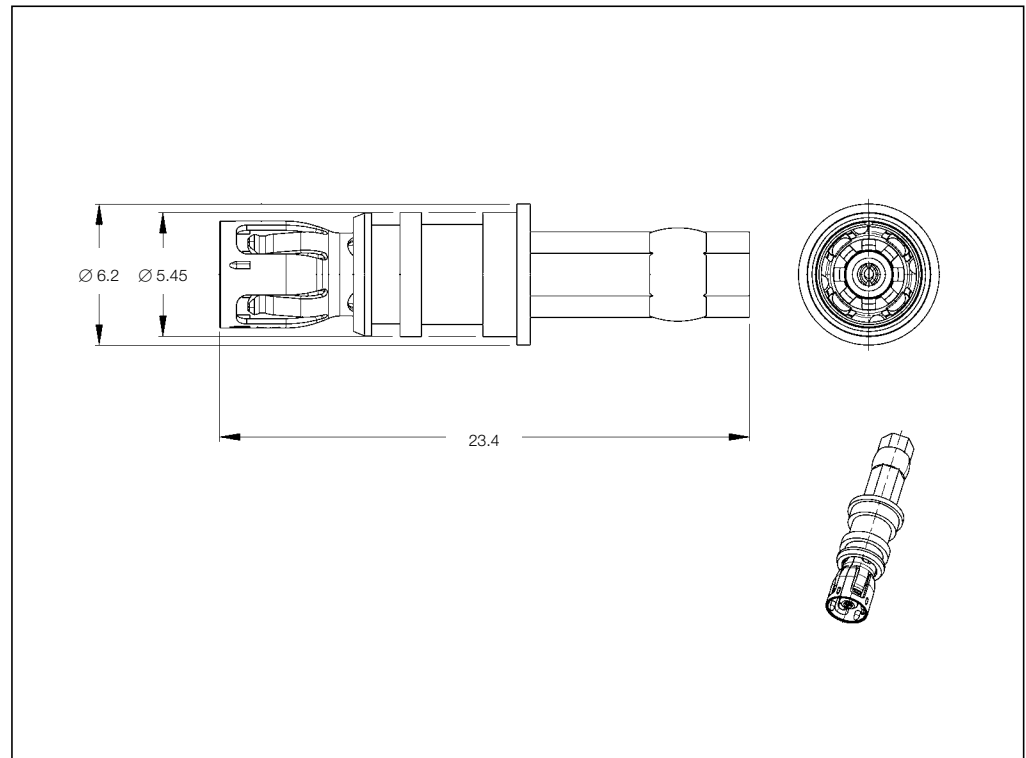
Rating
Frequency Range:
0 to 4,000 MHz

Temperature Range:
-40 °C to +100 °C

Wire Size Range:
Diameter 2.8^{+0.1} mm

Product Specification:
108-2129

Application Specification:
114-18622



Female Closed Outer Spring RG 174 Contact Stamped Suitable for Female Housings, Part Nos. 1452584, 1452483 and 1452587

For Cable Part No.*	Cable	Kit Part No.	Part Numbers of Needed Components			Package Quantity	Applicator for Contact	Hand Tool Crimp Inserts to be used in Hand Crimp Tool	
			Center Contact	Sub-Assembly	Ferrule			Part No. 601966-1 for Contact	Part No. 539635-1 for Ferrule
Stamped Contact									
1719435-1	RG 174	N/A (1719795-2) ¹⁾	1418971-1 CuNiSi	1719793-1	1-413889-3 SiCu	Components must be ordered separately ¹⁾	9-541782-7	N/A	1-1579001-1

1) Refer to Customer Drawing 1719795.

*) Other cable types have to be released by TE Automotive Product Engineering.

Note: All Part Numbers are RoHS and ELV compliant.

Technical Features

Contact Material

Stamped Contact:

CuNiSi

Contact Finish:

Gold plated

Rating

Frequency Range:

0 to 4,000 MHz

Temperature Range:

-40 °C to +100 °C

Wire Size Range:

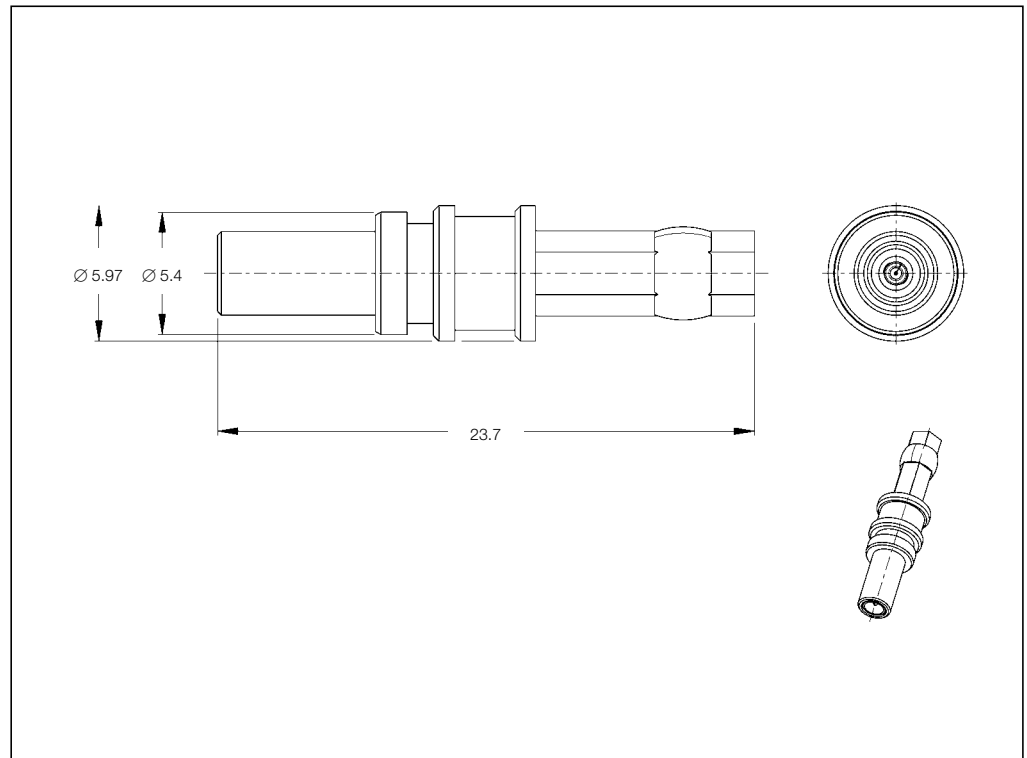
Diameter 2.8^{+0.1} mm

Product Specification:

108-2129

Application Specification:

114-18622



Male RG 174 Contact Stamped Suitable for Male Housings, Part Nos. 1452480, 1452581 and 1452697

For Cable Part No.*	Cable	Kit Part No.	Part Numbers of Needed Components			Package Quantity	Applicator for Contact	Hand Tool Crimp Inserts to be used in Hand Crimp Tool	
			Center Contact	Sub-Assembly	Ferrule			Part No. 601966-1 for Contact	Part No. 539635-1 for Ferrule
Stamped Contact									
1719435-1	RG 174	N/A (1488147-2) ¹⁾	1418970-1 CuNiSi	1488146-2	1-413889-3 SiCu	Components must be ordered separately ¹⁾	9-541782-7	N/A	1-1579001-1

1) Refer to Customer Drawing 1488570.

*) Other cable types have to be released by TE Automotive Product Engineering.

Note: All Part Numbers are RoHS and ELV compliant.

RTK 031 Contact for 180° Female Version – Open Outer Spring

Technical Features

Contact Material

Stamped Contact:

CuNiSi

Contact Finish:

Gold plated

Rating

Frequency Range:

0 to 4,000 MHz

Temperature Range:

-40 °C to +100 °C

Wire Size Range:

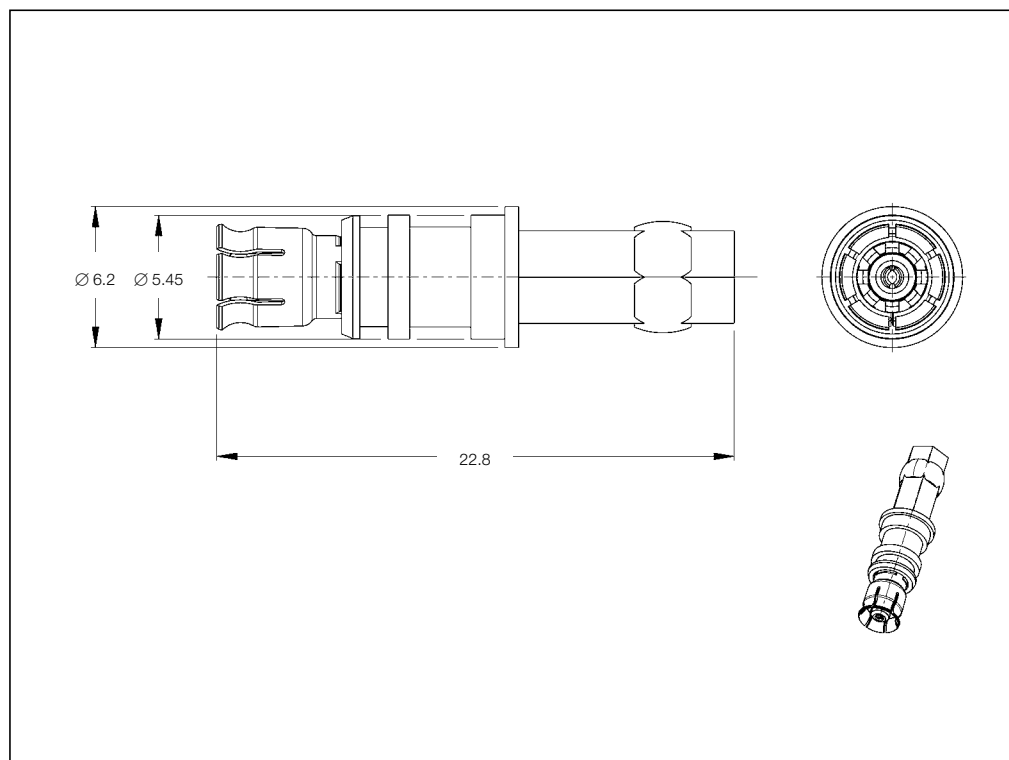
Diameter 3.2^{+0.3} mm RTK and
Diameter 3.5^{+0.15} mm Low Loss

Product Specification:

108-2129

Application Specification:

114-18622



Female Open Outer Spring RTK 031/Low Loss Contact Stamped Suitable for Female Housings, Part Nos. 1452584, 1452483 and 1452587

For Cable Part No.*	Cable	Kit Part No.	Part Numbers of Needed Components			Package Quantity	Applicator for Contact	Hand Tool Crimp Inserts to be used in Hand Crimp Tool	
			Center Contact	Sub-Assembly	Ferrule			Part No. 601966-1 for Contact	Part No. 539635-1 for Ferrule
Stamped Contact									
956339-2 /-3	RTK 031	N/A	1418973-1	1488174-1	1488167-1	Components must be ordered separately ¹⁾	9-541797-7	N/A	1-1579001-1
956339-2		(1488175-2) ¹⁾	CuNiSi		SiCu				
956163-2	Low Loss								

1) Refer to Customer Drawing 1488571.

*) Other cable types have to be released by TE Automotive Product Engineering.

Note: All Part Numbers are RoHS and ELV compliant.

RTK 031 Contact for 180° Female Version – Closed Outer Spring

Technical Features

Contact Material
Stamped Contact:
CuNiSi

Contact Finish:
Gold plated

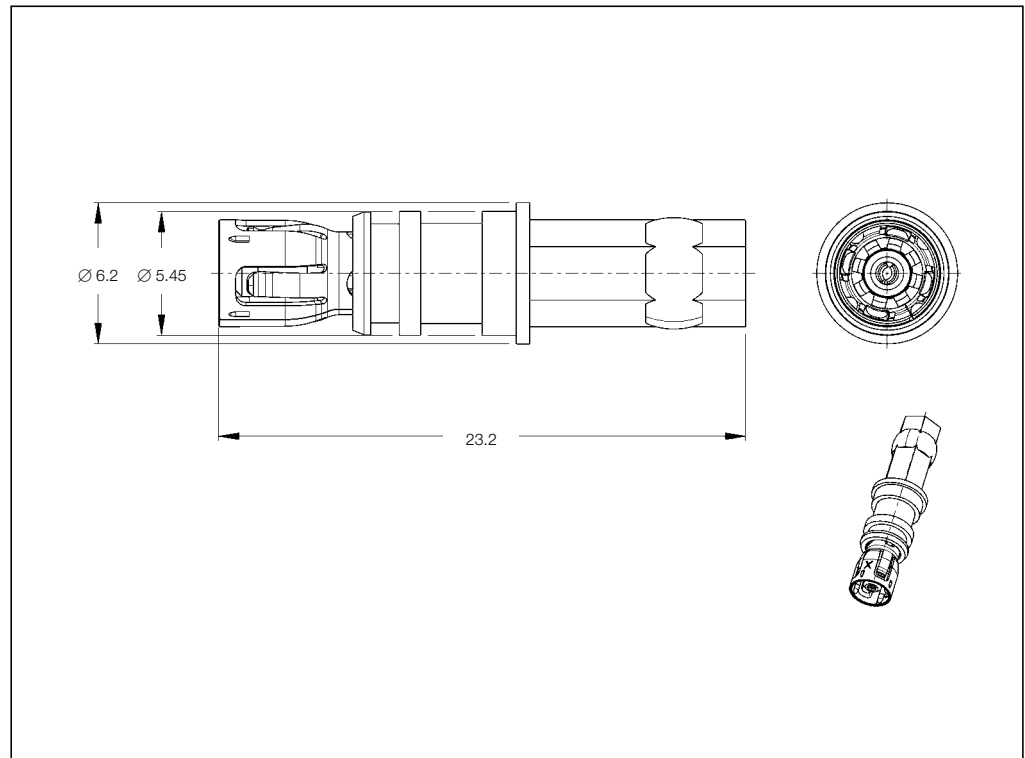
Rating
Frequency Range:
0 to 4,000 MHz

Temperature Range:
-40 °C to +100 °C

Wire Size Range:
Diameter 3.2^{+0.3} mm RTK and
Diameter 3.5^{+0.15} mm Low Loss

Product Specification:
108-2129

Application Specification:
114-18622



Female Closed Outer Spring RTK 031/Low Loss Contact Stamped Suitable for Female Housings, Part Nos. 1452584, 1452483 and 1452587

For Cable Part No.*	Cable	Kit Part No.	Part Numbers of Needed Components			Package Quantity	Applicator for Contact	Hand Tool Crimp Inserts to be used in Hand Crimp Tool	
			Center Contact	Sub-Assembly	Ferrule			Part No. 601966-1 for Contact	Part No. 539635-1 for Ferrule
Stamped Contact									
956339-1	RTK 031	N/A	1418973-1	1719794-1	1488167-1	Components must be ordered separately ¹⁾	9-541797-7	N/A	1-1579001-1
956339-2		(1719795-2) ¹⁾	CuNiSi		SfCu				
956163-2	Low Loss								

1) Refer to Customer Drawing 1719795.

*) Other cable types have to be released by TE Automotive Product Engineering.

Note: All Part Numbers are RoHS and ELV compliant.

RTK 031 Contact for 180° Male Version

Technical Features

Contact Material

Stamped Contact:

CuSn

Contact Finish:

Gold plated

Rating

Frequency Range:

0 to 4,000 MHz

Temperature Range:

-40 °C to +100 °C

Wire Size Range:

Diameter 3.2^{+0.3} mm RTK and

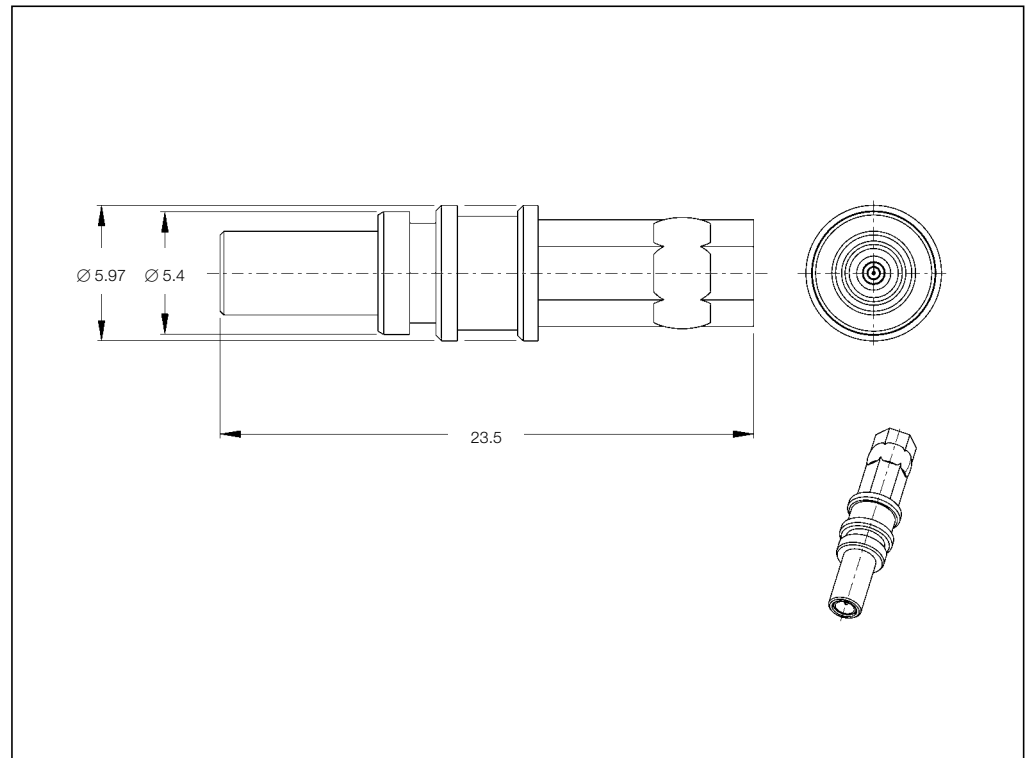
Diameter 3.5^{+0.15} mm Low Loss

Product Specification:

108-2129

Application Specification:

114-18622



Male RTK 031/Low Loss Contact Stamped Suitable for Male Housings, Part Nos. 1452480, 1452581 and 1452697

For Cable Part No.*	Cable	Kit Part No.	Part Numbers of Needed Components			Package Quantity	Applicator for Contact	Hand Tool Crimp Inserts to be used in Hand Crimp Tool	
			Center Contact	Sub-Assembly	Ferrule			Part No. 601966-1 for Contact	Part No. 539635-1 for Ferrule
Stamped Contact									
956339-1	RTK 031	N/A	1418972-1	1488170-2	1488167-1	Components must be ordered separately ¹⁾	9-541797-7	N/A	1-1579001-1
956339-2		(1488171-2) ¹⁾	CuNiSi		SfCu				
956163-2	Low Loss								

1) Refer to Customer Drawing 1488570.

*) Other cable types have to be released by TE Automotive Product Engineering.

Note: All Part Numbers are RoHS and ELV compliant.

75 Ohm Contact for 180° Female Version – Open Outer Spring

Technical Features

Contact Material

Stamped Contact:

CuNiSi

Contact Finish:

Gold plated

Rating

Frequency Range:

Cable dependant

Temperature Range:

-40 °C to +100 °C

Wire Size Range:

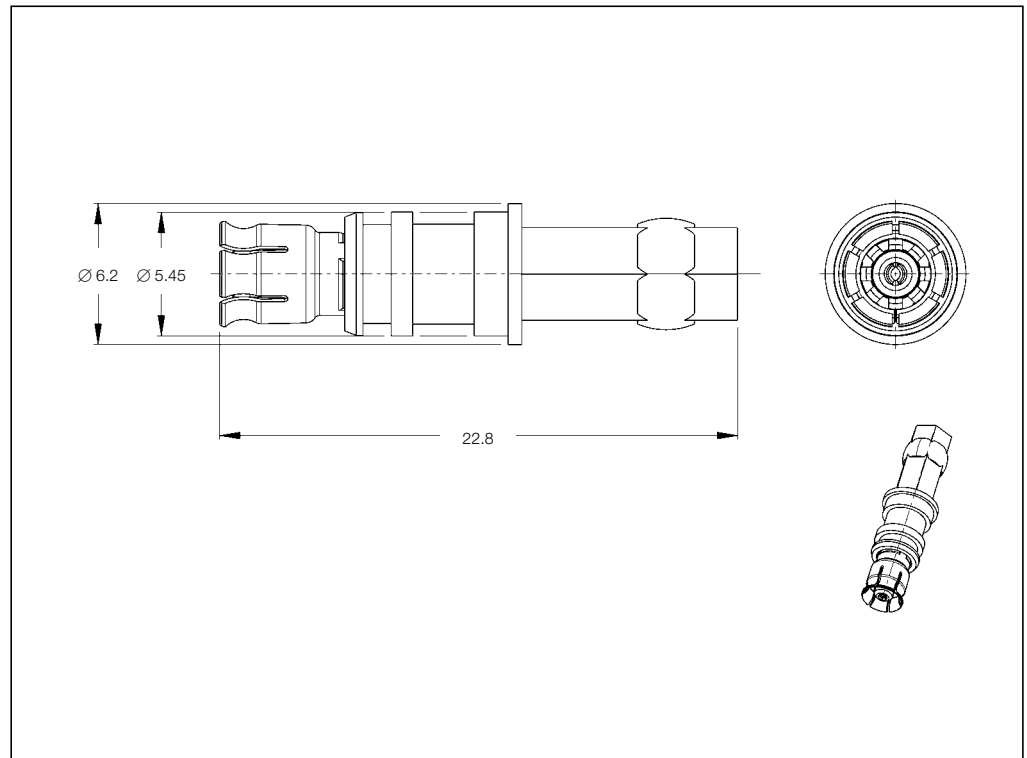
Diameter 3.2^{+0.1} mm

Product Specification:

108-2129-1

Application Specification:

114-18622-1



Female Open Outer Spring 75 Ohm Contact Stamped Suitable for Female Housings, Part Nos. 1452584, 1452483 and 1452587

For Cable Part No.*	Cable	Kit Part No.	Part Numbers of Needed Components			Package Quantity	Applicator for Contact	Hand Tool Crimp Inserts to be used in Hand Crimp Tool
			Center Contact	Sub-Assembly	Ferrule			Part No. 539635-1 for the Ferrule
Stamped Contact								
1703488-1	75 Ohm	N/A	1418971-1 CuNiSi	1488174-1	1488167-1 SfCu	Components must be ordered separately	9-541782-7	1-1579001-1

*) Other cable types have to be released by TE Automotive Product Engineering.

Note: All Part Numbers are RoHS and ELV compliant.

75 Ohm Contact for 180° Female Version – Closed Outer Spring

Technical Features

Contact Material

Stamped Contact:

CuNiSi

Contact Finish:

Gold plated

Rating

Frequency Range:

Cable dependant

Temperature Range:

-40 °C to +100 °C

Wire Size Range:

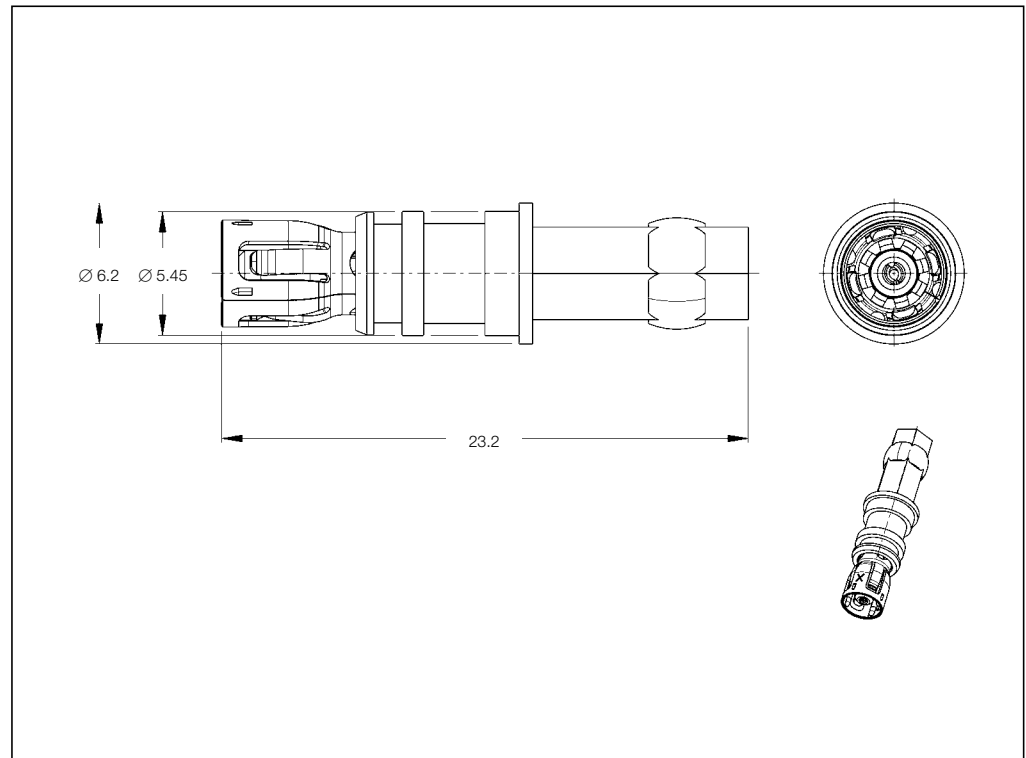
Diameter 3.2^{+0.1} mm

Product Specification:

108-2129-1

Application Specification:

114-18622-1



Female Closed Outer Spring 75 Ohm Contact Stamped Suitable for Female Housings, Part Nos. 1452584, 1452483 and 1452587

For Cable Part No.*	Cable	Kit Part No.	Part Numbers of Needed Components			Package Quantity	Applicator for Contact	Hand Tool Crimp Inserts to be used in Hand Crimp Tool
			Center Contact	Sub-Assembly	Ferrule			Part No. 539635-1 for the Ferrule
Stamped Contact								
1703488-1	75 Ohm	N/A	1418971-1 CuNiSi	1719794-1	1488167-1 SfCu	Components must be ordered separately	9-541782-7	1-1579001-1

*) Other cable types have to be released by TE Automotive Product Engineering.

Note: All Part Numbers are RoHS and ELV compliant.

Contact Systems

75 Ohm Contact for 180° Male Version

Technical Features

Contact Material
Stamped Contact:
CuSn

Contact Finish:
Gold plated

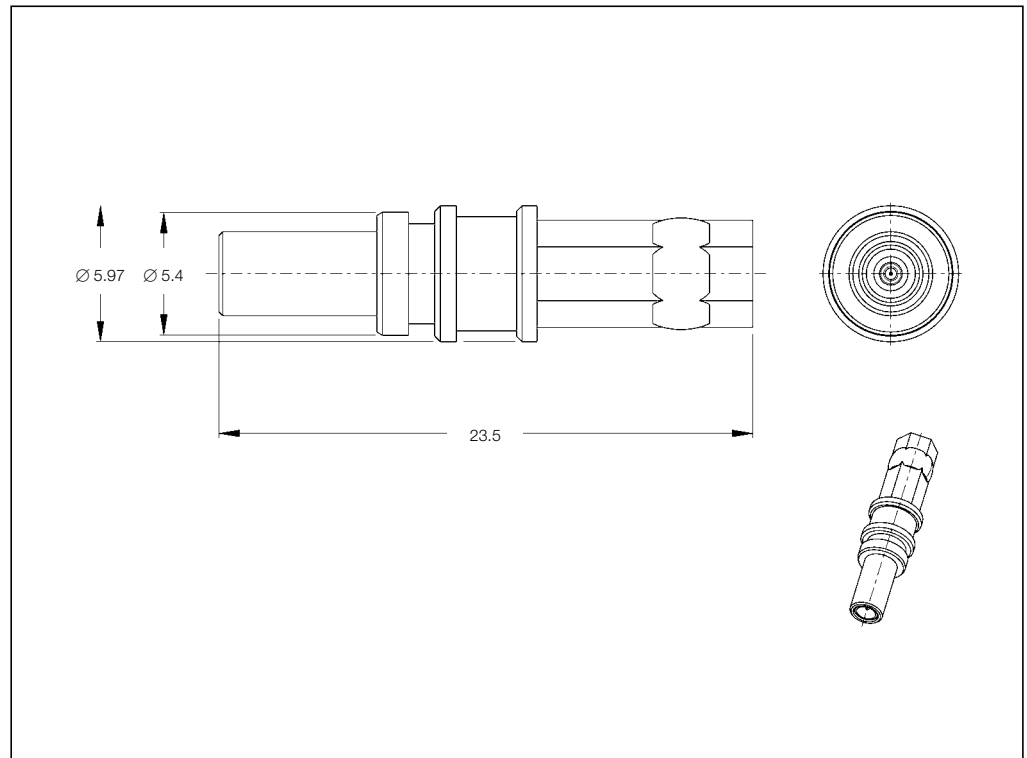
Rating
Frequency Range:
Cable dependant

Temperature Range:
-40 °C to +100 °C

Wire Size Range:
Diameter 3.2^{+0.1} mm

Product Specification:
108-2129-1

Application Specification:
114-18622-1



Male 75 Ohm Contact Stamped Suitable for Male Housings, Part Nos. 1452480, 1452581 and 1452697

For Cable Part No.*	Cable	Kit Part No.	Part Numbers of Needed Components			Package Quantity	Applicator for Contact	Hand Tool Crimp Inserts to be used in Hand Crimp Tool
			Center Contact	Sub-Assembly	Ferrule			Part No. 539635-1 for the Ferrule
Stamped Contact								
1703488-1	75 Ohm	N/A	1418970-1 CuSn	1488170-2	1488167-1 SfCu	Components must be ordered separately	9-541782-7	1-1579001-1

*) Other cable types have to be released by TE Automotive Product Engineering.

Note: All Part Numbers are RoHS and ELV compliant.

1.5DS Contact for 180° Female Version – Open Outer Spring

Technical Features

Contact Material

Stamped Contact:

CuNiSi

Contact Finish:

Gold plated

Rating

Frequency Range:

0 to 4,000 MHz

Temperature Range:

-40 °C to +100 °C

Wire Size Range:

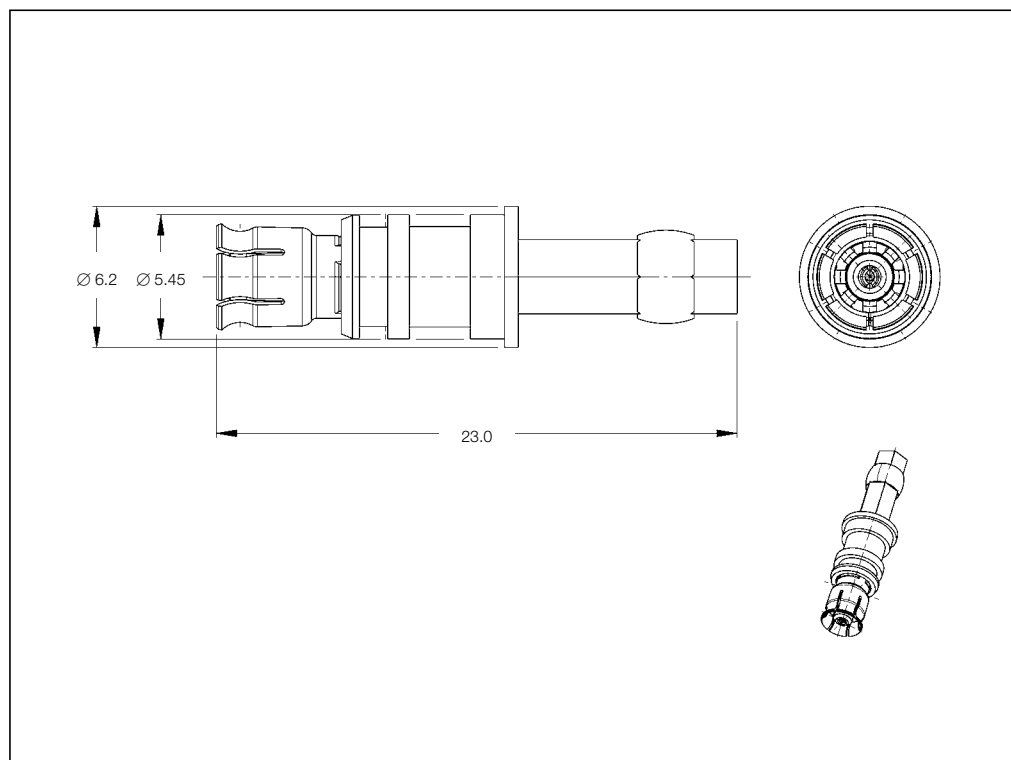
1.5DS

Product Specification:

108-2129

Application Specification:

114-18622



Female Open Outer Spring 1.5DS Contact Stamped Suitable for Female Housings, Part Nos. 1452584, 1452483 and 1452587

For Cable Part No.*	Cable	Kit Part No.	Part Numbers of Needed Components			Package Quantity	Applicator for Contact	Hand Tool Crimp Inserts to be used in Hand Crimp Tool	
			Center Contact	Sub-Assembly	Ferrule			Part No. 601966-1 for Contact	Part No. 9-1478240-0 for Ferrule
Stamped Contact									
1832844-1	1.5DS	N/A (2112946-1) ¹⁾	2112914-1 CuNiSi	1488154-1	1-413889-4 SiCu	Components must be ordered separately ¹⁾	1530251-6	N/A	58483-1

1) Refer to Customer Drawing 2112946

*) Other cable types have to be released by TE Automotive Product Engineering.

Note: All Part Numbers are RoHS and ELV compliant.

Contact Systems

1.5DS Contact for 180° Female Version – Closed Outer Spring

Technical Features

Contact Material

Stamped Contact:

CuNiSi

Contact Finish:

Gold plated

Rating

Frequency Range:

0 to 4,000 MHz

Temperature Range:

-40 °C to +100 °C

Wire Size Range:

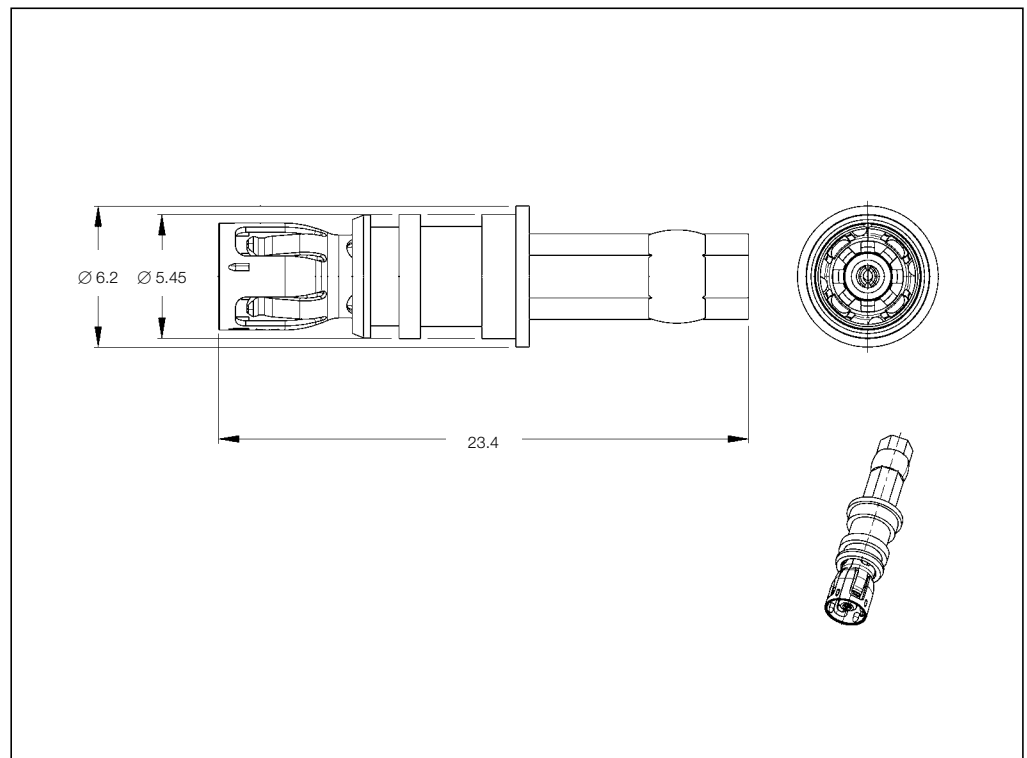
1.5DS

Product Specification:

108-2129

Application Specification:

114-18622



Female Closed Outer Spring 1.5DS Contact Stamped Suitable for Female Housings, Part Nos. 1452584, 1452483 and 1452587

For Cable Part No.*	Cable	Kit Part No.	Part Numbers of Needed Components			Package Quantity	Applicator for Contact	Hand Tool Crimp Inserts to be used in Hand Crimp Tool	
			Center Contact	Sub-Assembly	Ferrule			Part No. 601966-1 for Contact	Part No. 9-1478240-0 for Ferrule
Stamped Contact									
1832844-1	1.5DS	N/A (2112946-2) ¹⁾	2112914-1 CuNiSi	1719793-1	1-413889-4 SiCu	Components must be ordered separately ¹⁾	1530251-6	N/A	58483-1

1) Refer to Customer Drawing 1719795

*) Other cable types have to be released by TE Automotive Product Engineering.

Note: All Part Numbers are RoHS and ELV compliant.

Contact Systems

1.5DS Contact for 180° Male Version

Technical Features

Contact Material
Stamped Contact:
CuNiSi

Contact Finish:
Gold plated

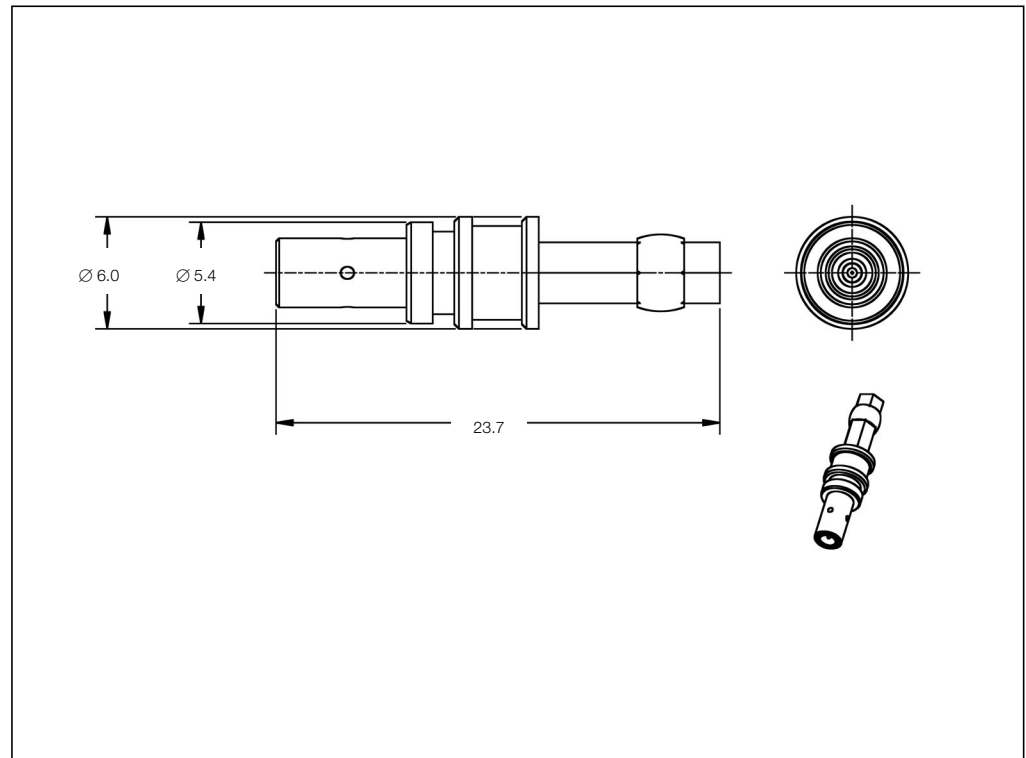
Rating
Frequency Range:
0 to 4,000 MHz

Temperature Range:
-40 °C to +100 °C

Wire Size Range:
1.5DS

Product Specification:
108-2129

Application Specification:
114-18622



Male 1.5DS Contact Stamped Suitable for Male Housings, Part Nos. 1452480, 1452581 and 1452697

For Cable Part No.*	Cable	Kit Part No.	Part Numbers of Needed Components			Package Quantity	Applicator for Contact	Hand Tool Crimp Inserts to be used in Hand Crimp Tool	
			Center Contact	Sub-Assembly	Ferrule			Part No. 601966-1 for Contact	Part No. 9-1478240-0 for Ferrule
Stamped Contact									
1832844-1	1.5DS	N/A (PRJ-11-560) ¹⁾	1418970-1 CuNiSi	1488146-2	1-413889-4 SiCu	Components must be ordered separately ¹⁾	1530251-6	N/A	58483-1

1) Refer to Customer Drawing 1488146

*) Other cable types have to be released by TE Automotive Product Engineering.

Note: All Part Numbers are RoHS and ELV compliant.

Housings and Connectors

1 Position Female Housing

Technical Features

No. of Positions:

1 Position Female Housing

Housing Material:

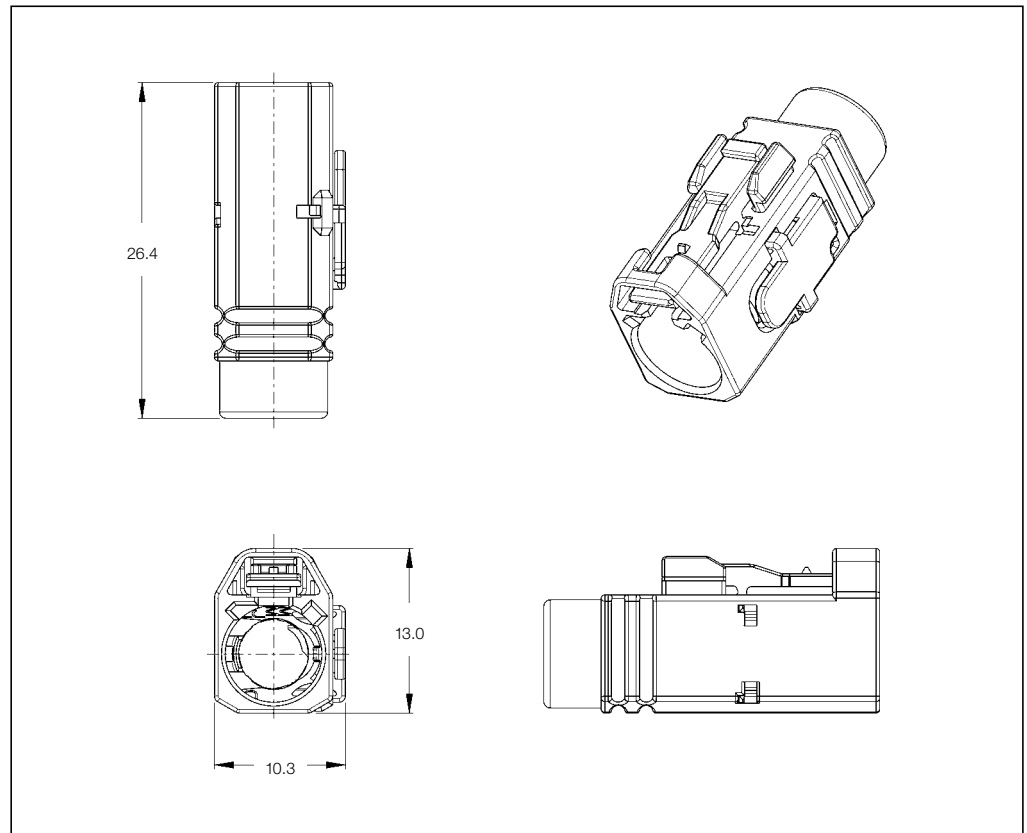
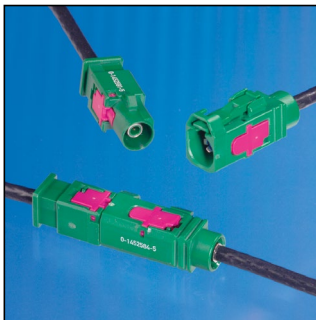
PBT-GF

Product Specification:

108-18897-1

Application Specification:

114-18609-1



1 Position Female Housings

Keying Options	Housing Color	Part Numbers		
		Female Kit	Contacts* (Available for Cable Type)	Mating Male Kit
A	Jet Black	1452584-1		1452581-1
B	Signal White	1452584-2		1452581-2
C	Signal Blue	1452584-3		1452581-3
D	Claret Violet	1452584-4		1452581-4
E	Leaf Green	1452584-5	RTK 031	1452581-5
F	Nut Brown	1452584-6	RG 174	1452581-6
G	Blue Gray	1452584-7	75 Ohm Cable	1452581-7
H	Heather Violet	1452584-8	Low Loss	1452581-8
I	Beige	1452584-9	1.5DS	1452581-9
K	Curry	1-1452584-0		1-1452581-0
Z	Water Blue	1-1452584-1		1-1452581-1
M	Pastel Orange	1-1452584-3		1-1452581-3

*) Contacts must be purchased separately.

Holder: Part No. **1991207-1** Clip for FAKRA 180°.

Housings and Connectors

1 Position Male Housing

Technical Features

No. of Positions:

1 Position Male Housing

Housing Material:

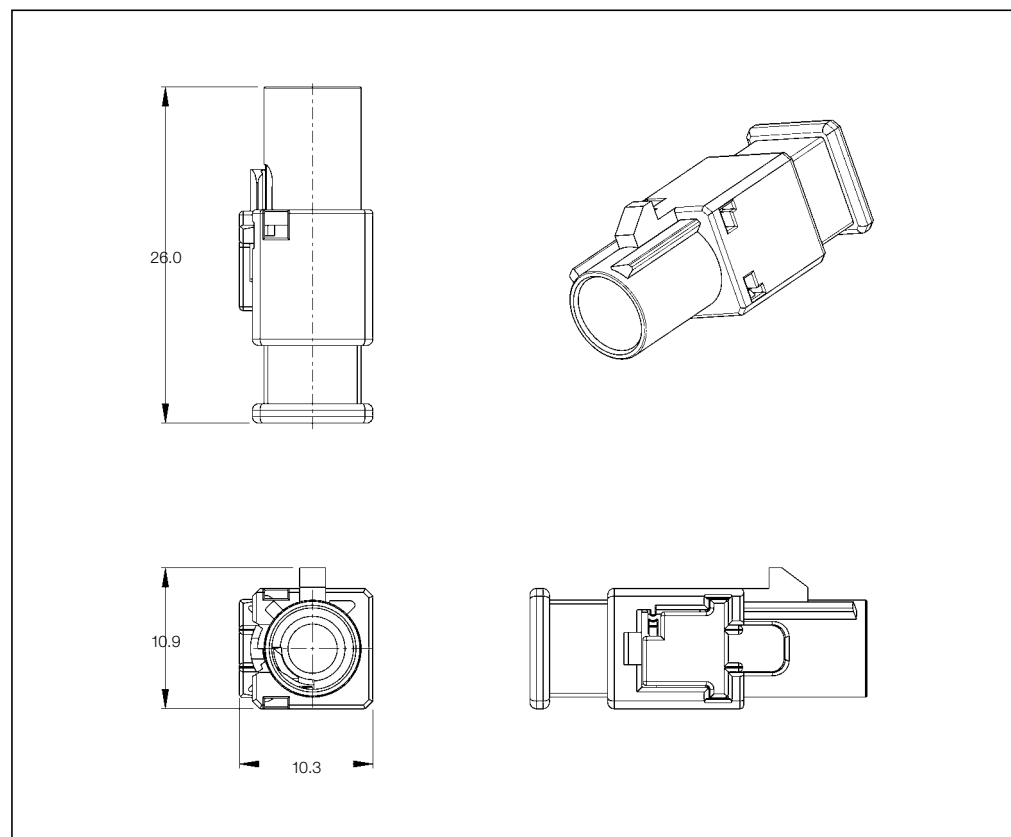
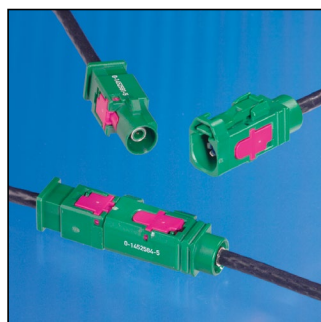
PBT GF10

Product Specification:

108-18897-1

Application Specification:

114-18609-1



1 Position Male Housings

Keying Options	Housing Color	Part Numbers		
		Male Kit	Contacts* (Available for Cable Type)	Mating Female Kit
A	Jet Black	1452581-1		1452584-1
B	Signal White	1452581-2		1452584-2
C	Signal Blue	1452581-3		1452584-3
D	Claret Violet	1452581-4		1452584-4
E	Leaf Green	1452581-5	RTK 031	1452584-5
F	Nut Brown	1452581-6	RG 174	1452584-6
G	Blue Gray	1452581-7	75 Ohm Cable	1452584-7
H	Heather Violet	1452581-8	Low Loss	1452584-8
I	Beige	1452581-9	1.5DS	1452584-9
K	Curry	1-1452581-0		1-1452584-0
Z	Water Blue	1-1452581-1		1-1452584-1
M	Pastel Orange	1-1452581-3		1-1452584-3

*) Contacts must be purchased separately.

2 Position 8.0mm Female Housing with Mounting Feature

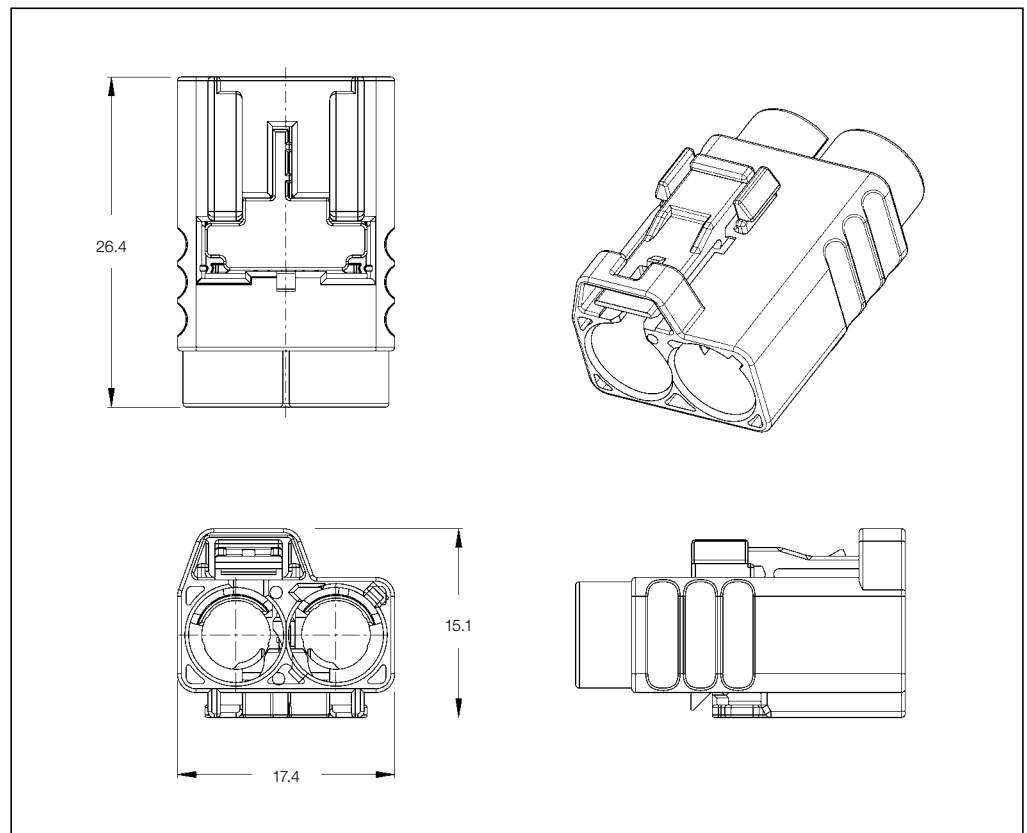
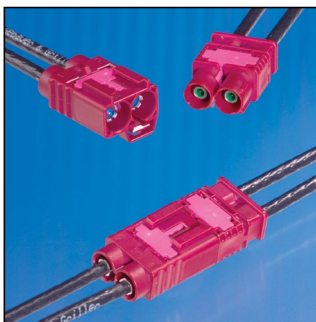
Technical Features

No. of Positions:
2 Position 8.0 mm Female
Housing with Mounting Feature

Housing Material:
PBT GF10

Product Specification:
108-18897-1

Application Specification:
114-18609-1



2 Position Female Housing with Mounting Feature

Keying Options	Housing Color	Part Numbers		
		Female Kit	Contacts* (Available for Cable Type)	Mating Male Kit
A	Jet Black	2-1452483-1		1452480-1
B	Signal White	2-1452483-2		1452480-2
C	Signal Blue	2-1452483-3		1452480-3
D	Claret Violet	2-1452483-4	RTK 031	1452480-4
E	Leaf Green	2-1452483-5	RG 174	1452480-5
F	Nut Brown	2-1452483-6	75 Ohm Cable	1452480-6
G	Blue Gray	2-1452483-7	Low Loss	1452480-7
H	Heather Violet	2-1452483-8	1.5DS	1452480-8
I	Beige	2-1452483-9		1452480-9
K	Curry	3-1452483-0		1-1452480-0
Z	Water Blue	3-1452483-1		1-1452480-1

*) Contacts must be purchased separately.

2 Position 8.0mm Female Housing without Mounting Feature

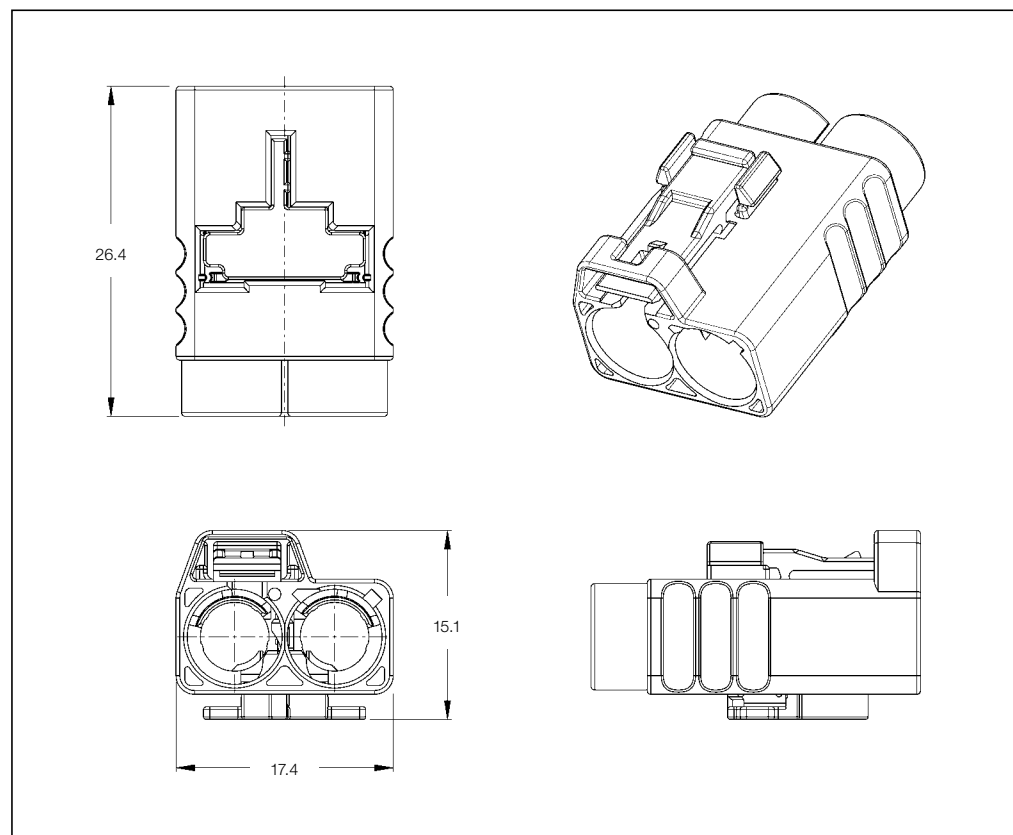
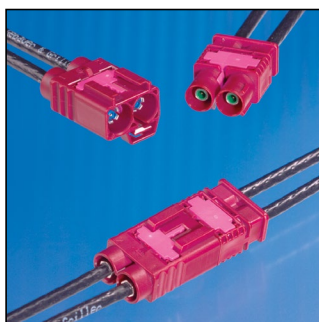
Technical Features

No. of Positions:
2 Position 8.0 mm Female
Housing without Mounting Feature

Housing Material:
PBT GF10

Product Specification:
108-18897-1

Application Specification:
114-18609-1



2 Position Female Housing without Mounting Feature

Keying Options	Housing Color	Part Numbers		
		Female Kit	Contacts* (Available for Cable Type)	Mating Male Kit
A	Jet Black	1452483-1		1452480-1
B	Signal White	1452483-2		1452480-2
C	Signal Blue	1452483-3		1452480-3
D	Claret Violet	1452483-4	RTK 031	1452480-4
E	Leaf Green	1452483-5	RG 174	1452480-5
F	Nut Brown	1452483-6	75 Ohm Cable	1452480-6
G	Blue Gray	1452483-7	Low Loss	1452480-7
H	Heather Violet	1452483-8	1.5DS	1452480-8
I	Beige	1452483-9		1452480-9
K	Curry	1-1452483-0		1-1452480-0
Z	Water Blue	1-1452483-1		1-1452480-1

*) Contacts must be purchased separately.

Housings and Connectors

2 Position 8.0mm Male Housing

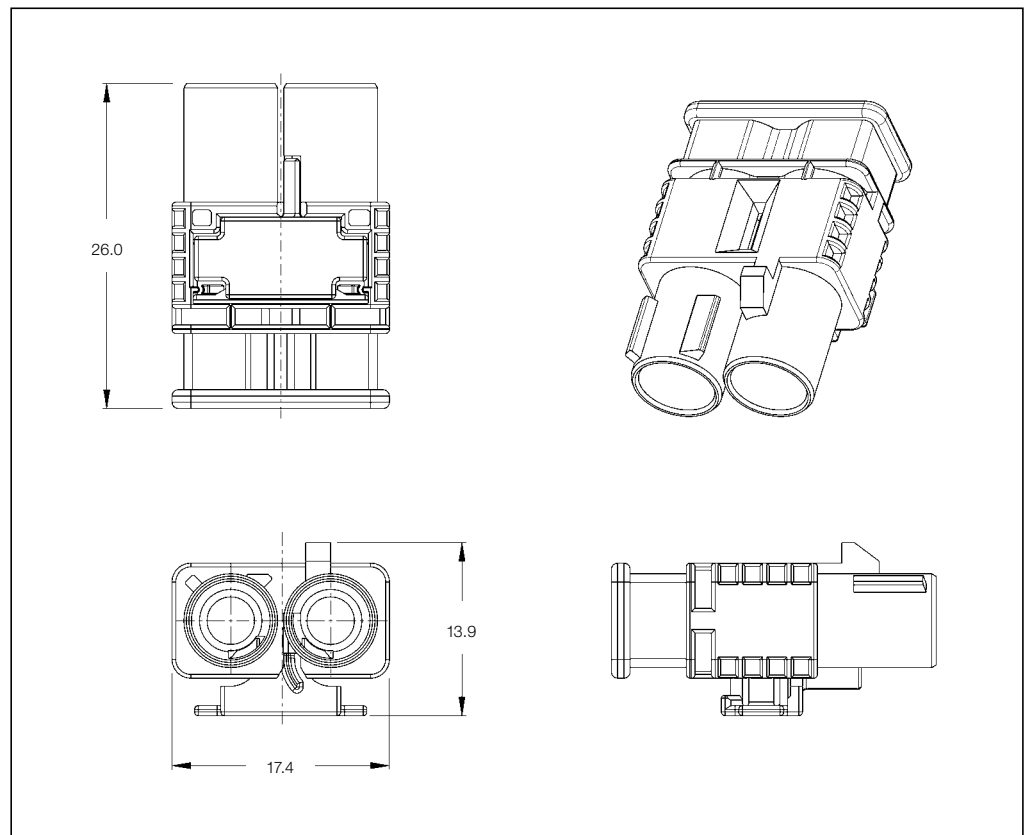
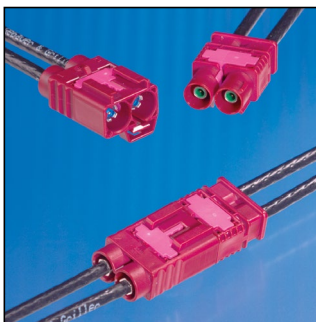
Technical Features

No. of Positions:
2 Position 8.0 mm Male Housing

Housing Material:
PBT GF10

Product Specification:
108-18897-1

Application Specification:
114-18609-1



2 Position 8.0 mm Male Housing

Keying Options	Housing Color	Part Numbers		
		Male Kit	Contacts* (Available for Cable Type)	Mating Female Kit
A	Jet Black	1452480-1		1452483-1
B	Signal White	1452480-2		1452483-2
C	Signal Blue	1452480-3		1452483-3
D	Claret Violet	1452480-4	RTK 031	1452483-4
E	Leaf Green	1452480-5	RG 174	1452483-5
F	Nut Brown	1452480-6	75 Ohm Cable	1452483-6
G	Blue Gray	1452480-7	Low Loss	1452483-7
H	Heather Violet	1452480-8	1.5DS	1452483-8
I	Beige	1452480-9		1452483-9
K	Curry	1-1452480-0		1-1452483-0
Z	Water Blue	1-1452480-1		1-1452483-1

*) Contacts must be purchased separately.

2 Position 12.7mm Female Housing

Technical Features

No. of Positions:

2 Position Female Kit,
un-assembled

Housing Material:

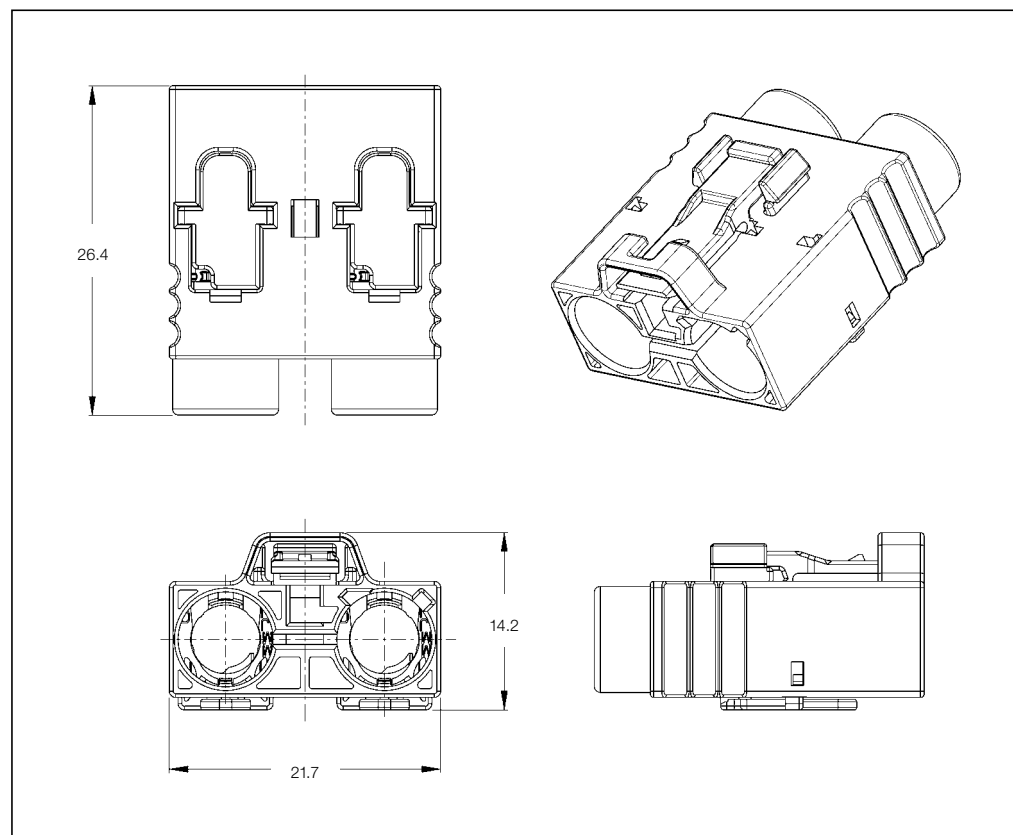
PBT GF10

Product Specification:

108-18897-1

Application Specification:

114-18609-1



2 Position 12.7 mm Female Housing

Keying Options	Housing Color	Part Numbers		
		Female Kit	Contacts* (Available for Cable Type)	Mating Male Kit
A	Jet Black	1452587-1		1452697-1
B	Signal White	1452587-2		1452697-2
C	Signal Blue	1452587-3		1452697-3
D	Claret Violet	1452587-4	RTK 031	1452697-4
E	Leaf Green	1452587-5	RG 174	1452697-5
F	Nut Brown	1452587-6	75 Ohm Cable	1452697-6
G	Blue Gray	1452587-7	Low Loss	1452697-7
H	Heather Violet	1452587-8	1.5DS	1452697-8
I	Beige	1452587-9		1452697-9
K	Curry	1-1452587-0		1-1452697-0
Z	Water Blue	1-1452587-1		1-1452697-1

*) Contacts must be purchased separately.

Housings and Connectors

2 Position 12.7mm Male Housing

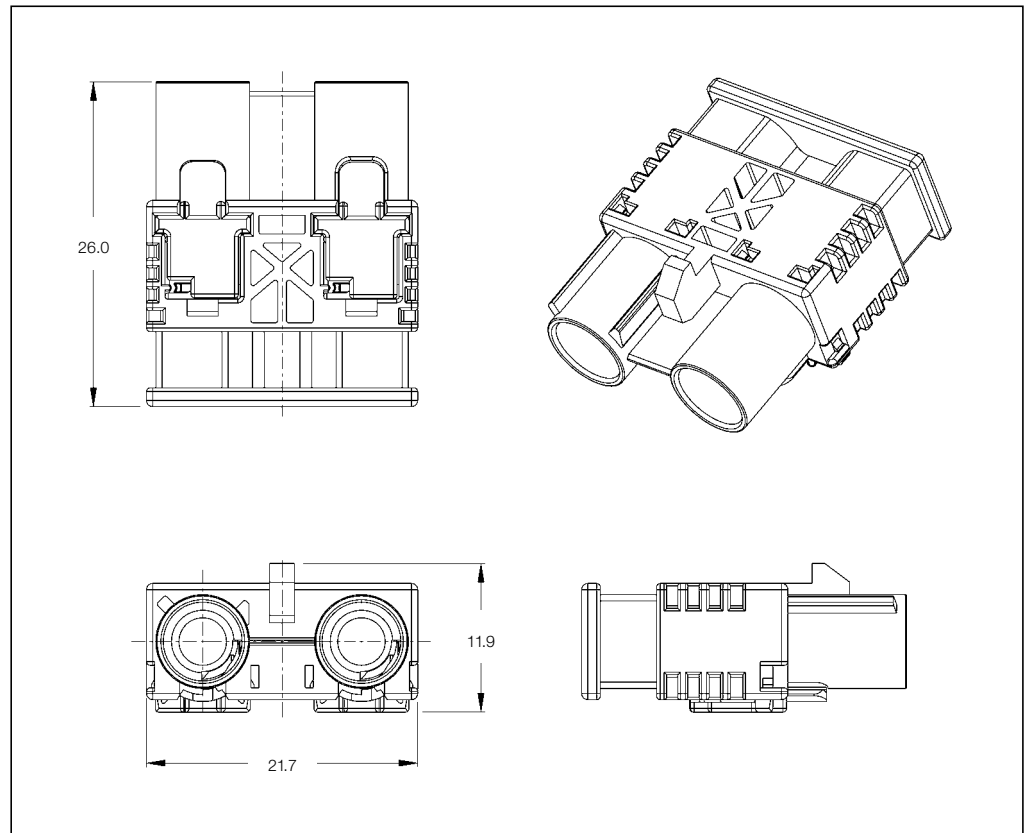
Technical Features

No. of Positions:
2 Position Male Kit,
un-assembled

Housing Material:
PBT GF10

Product Specification:
108-18897-1

Application Specification:
114-18609-1



2 Position 12.7 mm Male Housing

Keying Options	Housing Color	Part Numbers		
		Male Kit	Contacts* (Available for Cable Type)	Mating Female Kit
A	Jet Black	1452697-1		1452587-1
B	Signal White	1452697-2		1452587-2
C	Signal Blue	1452697-3		1452587-3
D	Claret Violet	1452697-4	RTK 031	1452587-4
E	Leaf Green	1452697-5	RG 174	1452587-5
F	Nut Brown	1452697-6	75 Ohm Cable	1452587-6
G	Blue Gray	1452697-7	Low Loss	1452587-7
H	Heather Violet	1452697-8	1.5DS	1452587-8
I	Beige	1452697-9		1452587-9
K	Curry	1-1452697-0		1-1452587-0
Z	Water Blue	1-1452697-1		1-1452587-1

*) Contacts must be purchased separately.

1 Position 90° Non-Turnable Female Housing

Technical Features

No. of Positions:

1 Position 90° Non-Turnable Female Housing

Housing Material:

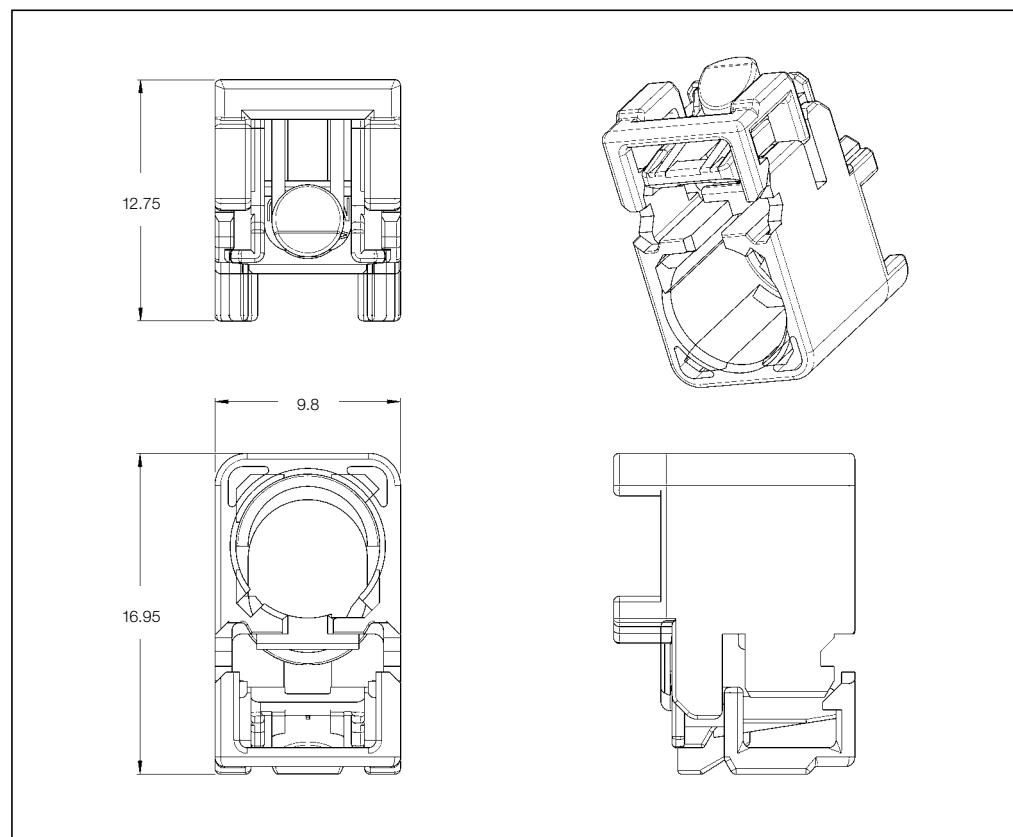
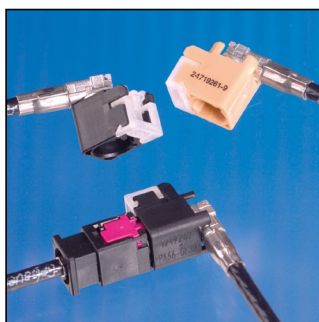
PBT GF10

Product Specification:

108-18897-1

Application Specification:

114-18803-1



1 Position 90° Non-Turnable Female Housing

Keying Options	Housing Color	Part Numbers		
		Female Kit	Contacts* (Available for Cable Type)	Mating Male Kit
A	Jet Black	2-1719261-1		1452581-1
B	Signal White	2-1719261-2		1452581-2
C	Signal Blue	2-1719261-3	RTK 031	1452581-3
D	Claret Violet	2-1719261-4	RG 174	1452581-4
E	Leaf Green	2-1719261-5	75 Ohm Cable	1452581-5
F	Nut Brown	2-1719261-6	Low Loss	1452581-6
G	Blue Gray	2-1719261-7	RG 58	1452581-7
H	Heather Violet	2-1719261-8	RG 59	1452581-8
I	Beige	2-1719261-9	1.5DS	1452581-9
K	Curry	3-1719261-0	RG 71U/M	1-1452581-0
Z	Water Blue	3-1719261-1		1-1452581-1
M	Pastel Orange	3-1719261-3		1-1452581-3

*) Contacts must be purchased separately.

1 Position 90° Turnable Female Housing

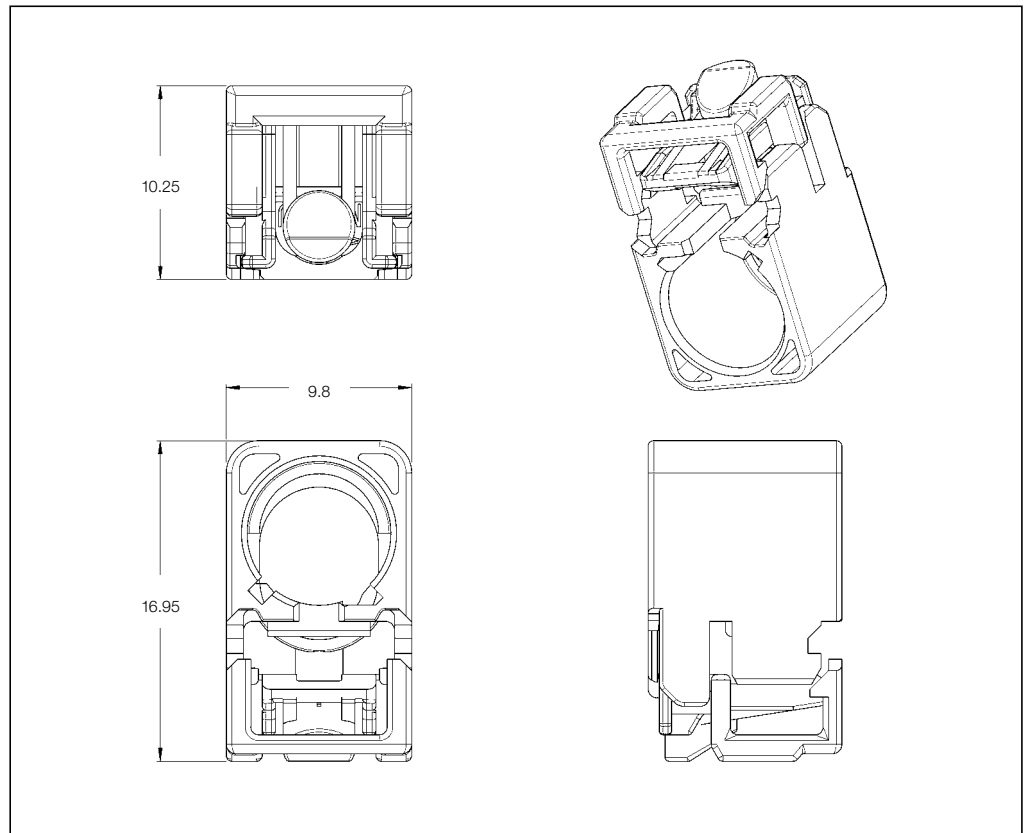
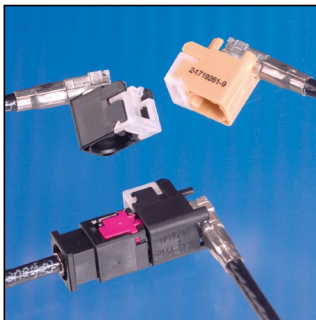
Technical Features

No. of Positions:
1 Position 90° Turnable
Female Housing

Housing Material:
PBT GF10

Product Specification:
108-18897-1

Application Specification:
114-18803-1



1 Position 90° Turnable Female Housing

Keying Options	Housing Color	Part Numbers		
		Female Kit	Contacts* (Available for Cable Type)	Mating Male Kit
A	Jet Black	1719261-1		1452581-1
B	Signal White	1719261-2		1452581-2
C	Signal Blue	1719261-3	RTK 031	1452581-3
D	Claret Violet	1719261-4	RG 174	1452581-4
E	Leaf Green	1719261-5	75 Ohm Cable	1452581-5
F	Nut Brown	1719261-6	Low Loss	1452581-6
G	Blue Gray	1719261-7	RG 58	1452581-7
H	Heather Violet	1719261-8	RG 59	1452581-8
I	Beige	1719261-9	1.5DS	1452581-9
K	Curry	1-1719261-0	RG 71U/M	1-1452581-0
Z	Water Blue	1-1719261-1		1-1452581-1
M	Pastel Orange	1-1719261-3		1-1452581-3

*) Contacts must be purchased separately.

1 Position 90° Non-Turnable Female Housing USCAR 18

Technical Features

No. of Positions:

1 Position 90° Non-Turnable Female Housing

Housing Material:

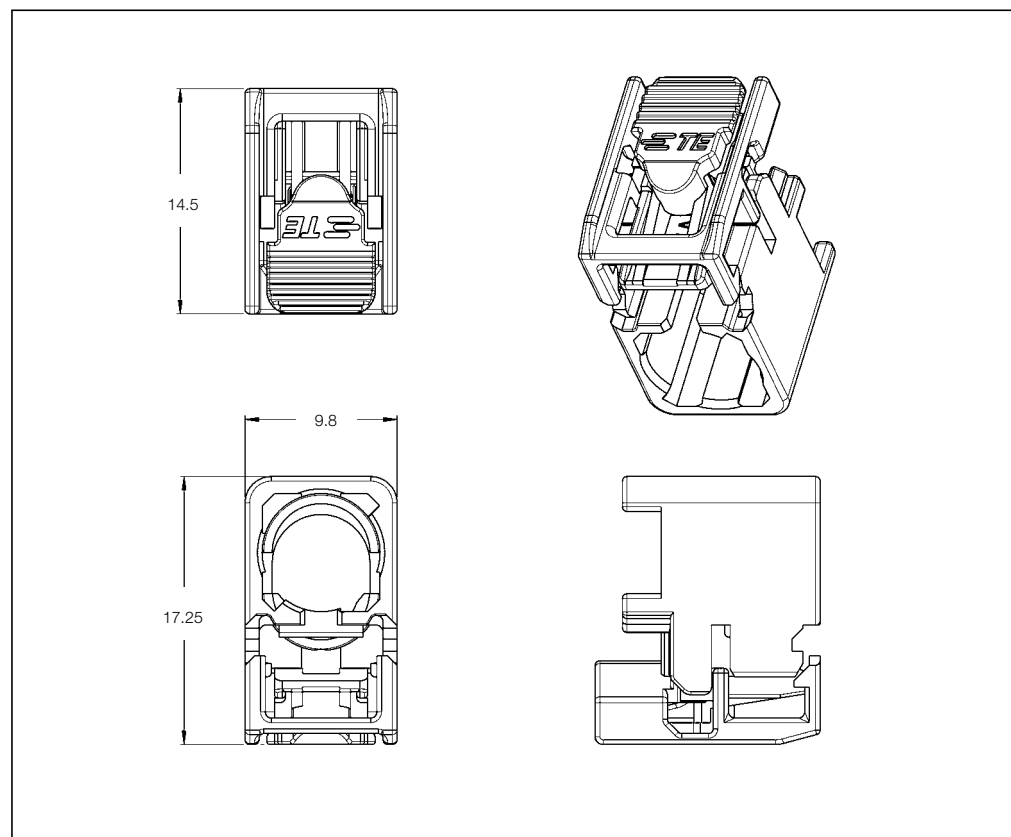
PBT GF10

Product Specification:

108-18897-1

Application Specification:

114-18803-1



1 Position 90° Non-Turnable Female Housing

Keying Options	Housing Color	Part Numbers		
		Female Kit	Contacts* (Available for Cable Type)	Mating Male Kit
A	Jet Black	3-2141494-1		1452581-1
B	Signal White	3-2141494-2		1452581-2
C	Signal Blue	3-2141494-3	RTK 031	1452581-3
D	Claret Violet	3-2141494-4	RG 174	1452581-4
E	Leaf Green	3-2141494-5	75 Ohm Cable	1452581-5
F	Nut Brown	3-2141494-6	Low Loss	1452581-6
G	Blue Gray	3-2141494-7	RG 58	1452581-7
H	Heather Violet	3-2141494-8	RG 59	1452581-8
I	Beige	3-2141494-9	1.5DS	1452581-9
K	Curry	4-2141494-0	RG 71U/M	1-1452581-0
Z	Water Blue	4-2141494-1		1-1452581-1
M	Pastel Orange	4-2141494-3		1-1452581-3

*) Contacts must be purchased separately.

1 Position 90° Turnable Female Housing USCAR 18

Technical Features

No. of Positions:

1 Position 90° Turnable
Female Housing

Housing Material:

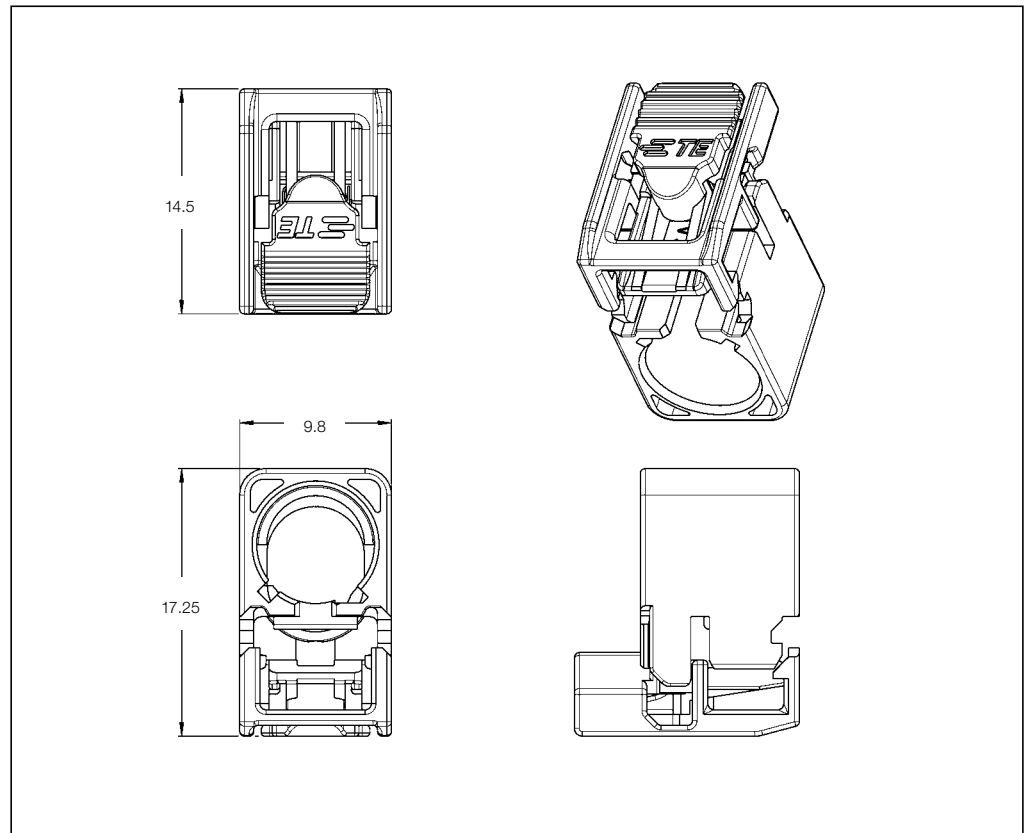
PBT GF10

Product Specification:

108-18897-1

Application Specification:

114-18803-1



1 Position 90° Turnable Female Housing

Keying Options	Housing Color	Part Numbers		
		Female Kit	Contacts* (Available for Cable Type)	Mating Male Kit
A	Jet Black	2141494-1		1452581-1
B	Signal White	2141494-2		1452581-2
C	Signal Blue	2141494-3	RTK 031	1452581-3
D	Claret Violet	2141494-4	RG 174	1452581-4
E	Leaf Green	2141494-5	75 Ohm Cable	1452581-5
F	Nut Brown	2141494-6	Low Loss	1452581-6
G	Blue Gray	2141494-7	RG 58	1452581-7
H	Heather Violet	2141494-8	RG 59	1452581-8
I	Beige	2141494-9	1.5DS	1452581-9
K	Curry	1-2141494-0	RG 71U/M	1-1452581-0
Z	Water Blue	1-2141494-1		1-1452581-1
M	Pastel Orange	1-2141494-3		1-1452581-3

*) Contacts must be purchased separately.

1 Position Printed Circuit Board Header 180° Version

Technical Features

Contact Material

Center Contact:

CuZn

Dielectric:

PA

Outer Contact:

Zn-cast

Surface Finish

Center Contact:

Au

Outer Contact:

Sn

Rating

Frequency Range:

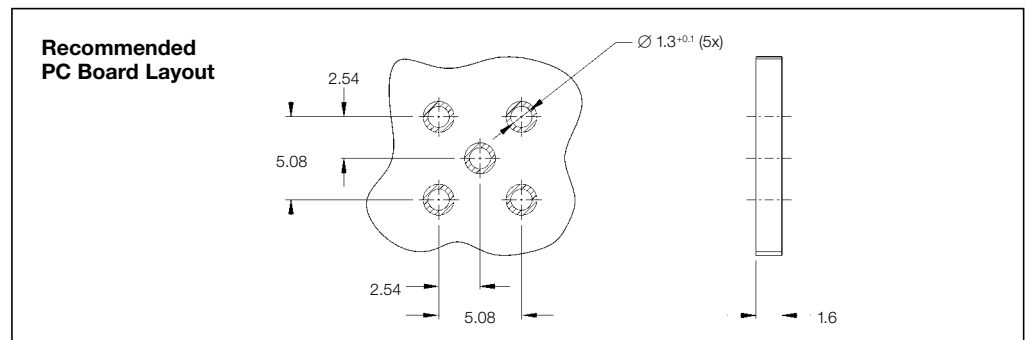
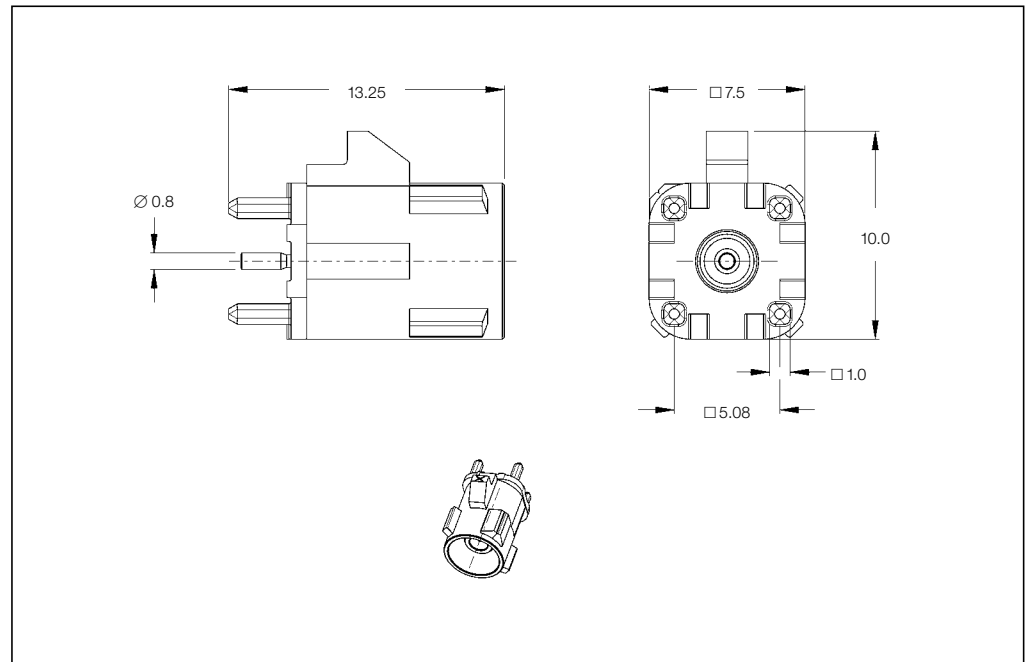
0 to 4,000 MHz

Product Specification:

108-18079

Application Specification:

114-18862



1 Position Printed Circuit Board Header 180° Version

No. of Positions	Keying Options	Ink Strip Color	Part Numbers		
			PCB Header Vertical	Mating Receptacle Housings*	
				180° Housing	90° Housing
1	A	Jet Black	1703339-1	1452484-1	1719261-1
	B	Signal White	1703339-2	1452484-2	1719261-2
	C	Signal Blue	1703339-3	1452484-3	1719261-3
	D	Claret Violet	1703339-4	1452484-4	1719261-4
	E	Leaf Green	1703339-5	1452484-5	1719261-5
	F	Nut Brown	1703339-6	1452484-6	1719261-6
	G	Blue Gray	1703339-7	1452484-7	1719261-7
	H	Heather Violet	1703339-8	1452484-8	1719261-8
	I	Beige	1703339-9	1452484-9	1719261-9
	K	Curry	1-1703339-0	1-1452484-0	1-1719261-0
	Z	Water Blue	1-1703339-1	1-1452484-1	1-1719261-1
	M	Pastel Orange	1-1703339-3	1-1452584-3	1-1719261-3

Note: All Part Numbers are RoHS and ELV compliant.

*) Additional housing versions in turnable and non-turnable available.
For example: **2141494-1; 2-2141494-1; 2-1719361-1.**

1 Position Printed Circuit Board Header 90° Version

Technical Features

Contact Material

Center Contact:

CuZn

Dielectric:

PA

Outer Contact:

Zn-cast

Surface Finish

Center Contact:

Au

Outer Contact:

Sn

Rating

Frequency Range:

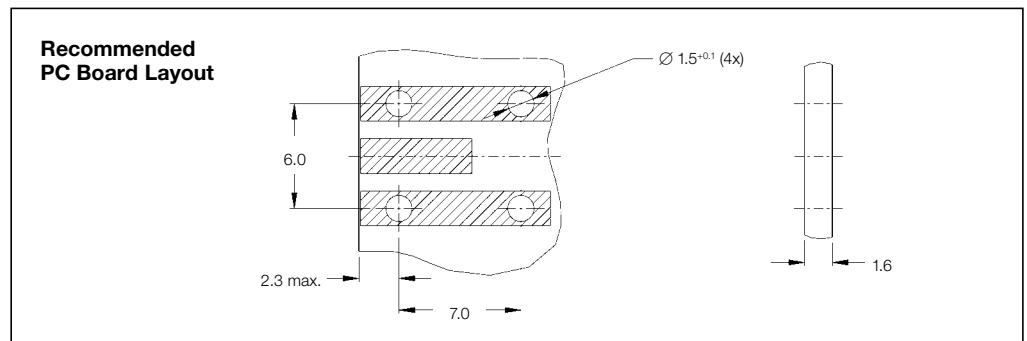
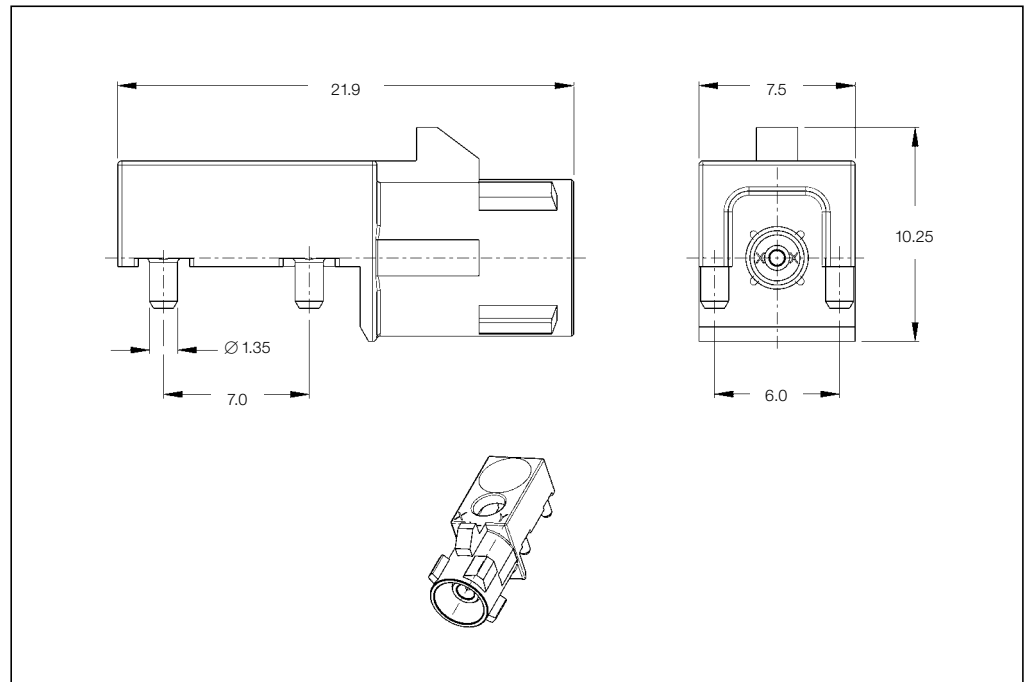
0 to 4,000 MHz

Product Specification:

108-18079

Application Specification:

114-18862



1 Position Printed Circuit Board Header 180° Version

No. of Positions	Keying Options	Ink Strip Color	PCB Header Vertical	Part Numbers	
				Mating Receptacle Housings*	
				180° Housing	90° Housing
1	A	Jet Black	1670861-1	1452484-1	1719261-1
	B	Signal White	1670861-2	1452484-2	1719261-2
	C	Signal Blue	1670861-3	1452484-3	1719261-3
	D	Claret Violet	1670861-4	1452484-4	1719261-4
	E	Leaf Green	1670861-5	1452484-5	1719261-5
	F	Nut Brown	1670861-6	1452484-6	1719261-6
	G	Blue Gray	1670861-7	1452484-7	1719261-7
	H	Heather Violet	1670861-8	1452484-8	1719261-8
	I	Beige	1670861-9	1452484-9	1719261-9
	K	Curry	1-1670861-0	1-1452484-0	1-1719261-0
	Z	Water Blue	1-1670861-1	1-1452484-1	1-1719261-1
	M	Pastel Orange	1-1670861-3	1-1452584-3	1-1719261-3

Note: All Part Numbers are RoHS and ELV compliant.

* Additional housing versions in turnable and non-turnable available. For example: **2141494-1; 2-2141494-1; 2-1719361-1.**

2 Position Printed Circuit Board Header 90° Version

Technical Features

Contact Material

Center Contact:

CuZn

Dielectric:

PA

Outer Contact:

Zn-cast

Surface Finish

Center Contact:

Au

Outer Contact:

Sn

Rating

Frequency Range:

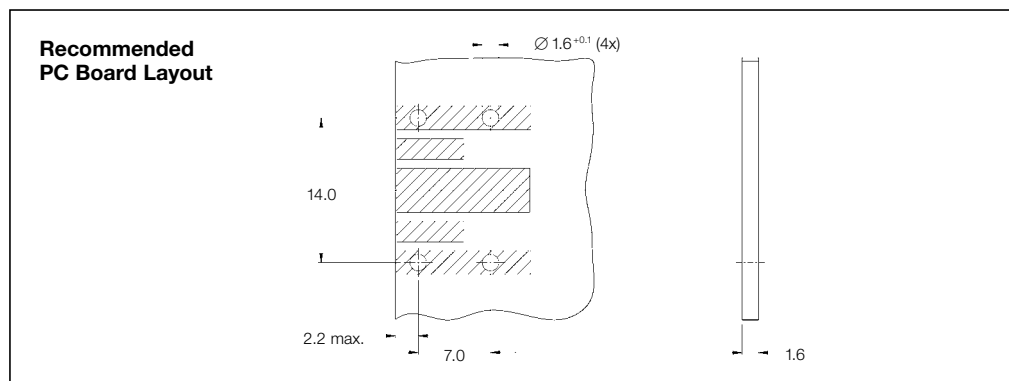
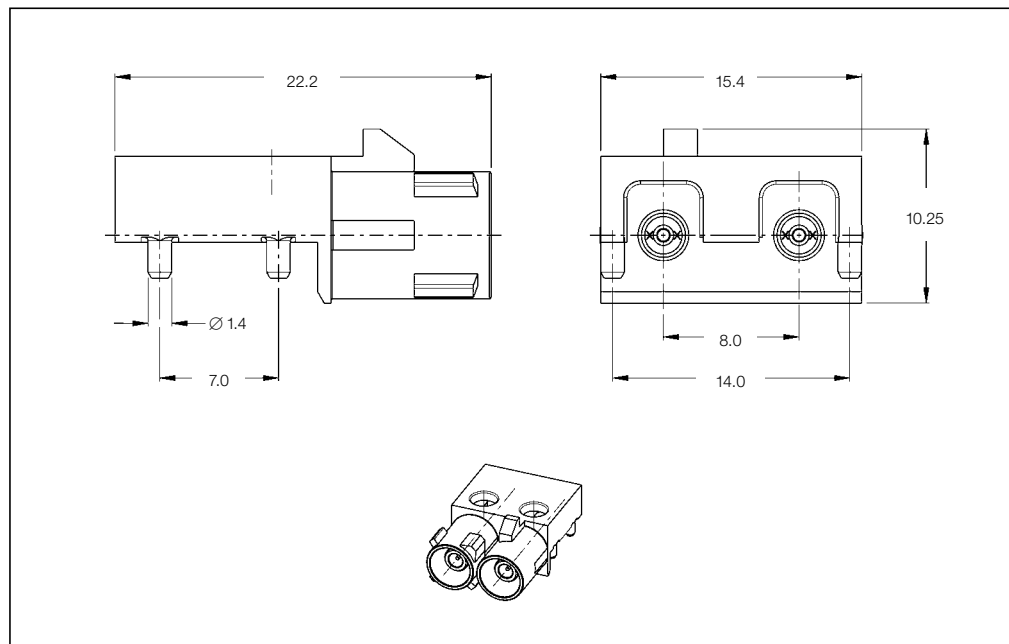
0 to 4,000 MHz

Product Specification:

108-18079

Application Specification:

114-18862



2 Position Printed Circuit Board Header 90° Version

No. of Positions	Keying Options	Ink Strip Color	Part Numbers		
			PCB Header Right-Angle	Mating Receptacle Housings*	
				180° Housing	90° Housing
2	A	Jet Black	1670861-1	1452483-1	-
	B	Signal White	1670861-2	1452483-2	-
	C	Signal Blue	1670861-3	1452483-3	-
	D	Claret Violet	1670861-4	1452483-4	-
	E	Leaf Green	1670861-5	1452483-5	-
	F	Nut Brown	1670861-6	1452483-6	-
	G	Blue Gray	1670861-7	1452483-7	-
	H	Heather Violet	1670861-8	1452483-8	-
	I	Beige	1670861-9	1452483-9	-
	K	Curry	1-1670861-0	1452483-0	-
	Z	Water Blue	1-1670861-1	1452483-1	-
	M	Pastel Orange	1-1670861-3	1452483-3	-

Note: All Part Numbers are RoHS and ELV compliant.

*) Additional housing versions in turnable and non-turnable available. For example: 2141494-1; 2-2141494-1; 2-1719361-1.

1 Position Printed Circuit Board Header 90° Version – Panel Mount

Technical Features

Contact Material

Center Contact:

CuZn

Dielectric:

PA

Outer Contact:

Zn-cast

Surface Finish

Center Contact:

Au

Outer Contact:

Sn

Rating

Frequency Range:

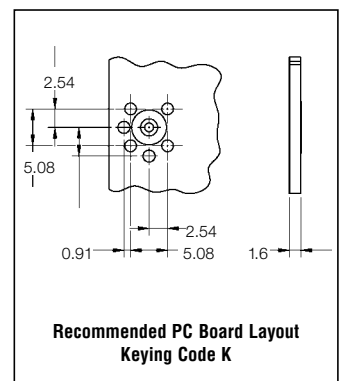
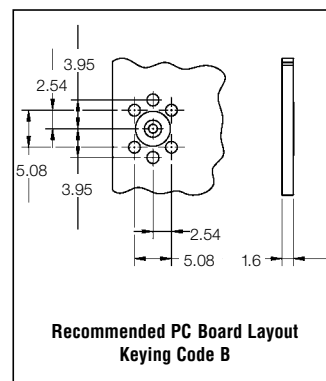
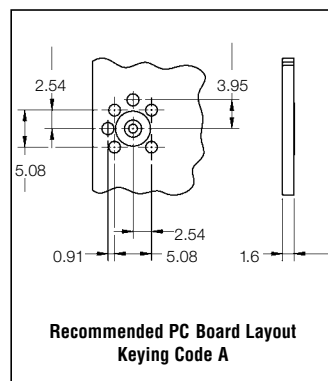
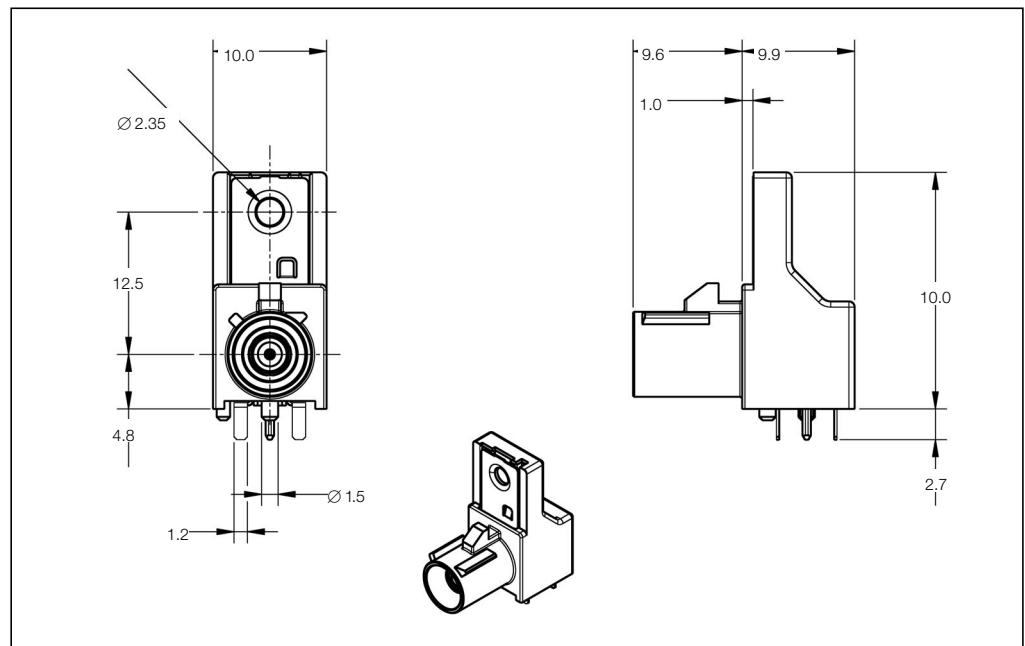
0 to 3,000 MHz

Product Specification:

108-18079

Application Specification:

114-18862



1 Position Printed Circuit Board Header 90° Version – Panel Mount

No. of Positions	Keying Options	Housing Color	PCB Header Right-Angle	Part Numbers	
				Mating Receptacle Housings*	
				180° Housing	90° Housing
1	A	Jet Black	2138297-1	1452484-1	1719261-1
	B	Signal White	2138297-2	1452484-2	1719261-2
	C	Signal Blue		1452484-3	1719261-3
	D	Claret Violet		1452484-4	1719261-4
	E	Leaf Green		1452484-5	1719261-5
	F	Nut Brown	See customer drawing	1452484-6	1719261-6
	G	Blue Gray		1452484-7	1719261-7
	H	Heather Violet		1452484-8	1719261-8
	I	Beige		1452484-9	1719261-9
	K	Curry	1-2138297-0	1-1452484-0	1-1719261-0
	Z	Water Blue	See customer drawing	1-1452484-1	1-1719261-1
	M	Pastel Orange	See customer drawing	1-1452584-3	1-1719261-3

Note: All Part Numbers are RoHS and ELV compliant.

*) Additional housing versions in turnable and non-turnable available. For example: **2141494-1; 2-2141494-1; 2-1719361-1.**

Engineering Notes

A large grid area for engineering notes, consisting of a uniform grid of small squares. The grid is empty and occupies the majority of the page's vertical space.

Introduction



FAKRA Gen4 connector systems



The automotive market has experienced an exploding growth of telematics and multi media applications. These typically include, along with the new optical transmission requirements, high frequency systems like Global Positioning Systems (GPS), mobile phones, radios, mobile television and digital satellite radios.

In order to ensure interchangeability of connector systems the German „Facharbeitskreis Automotive“ (FAKRA) council has created a standard for high frequency coaxial connectors (“FAKRA RF” connectors).

This standard covers the design of the connector interface with its mechanical and electrical characteristics. The standard has been accepted globally.

TE Connectivity (TE) offers a product family consisting of RF cable assemblies, terminals and housings. These products are fully compatible with the “FAKRA RF”. The product family includes straight male and female terminals for different cable types, one position and 8.0mm two position straight housings with the different mechanical keys and an a 90° plug terminal that is fully rotatable.

The connectors show an innovative design which complies to the physical size requirements on the market and unique features with respect to automotive applications as well as to the requirements in the assembly lines of our customers.

The TE Automotive design verification plan covers all requirements from the FAKRA and the USCAR standards.

Contact Systems

Male Contact SMB

Technical Features

Contact Material:
Phosphor Bronze

Contact Finish:
Gold over Nickel

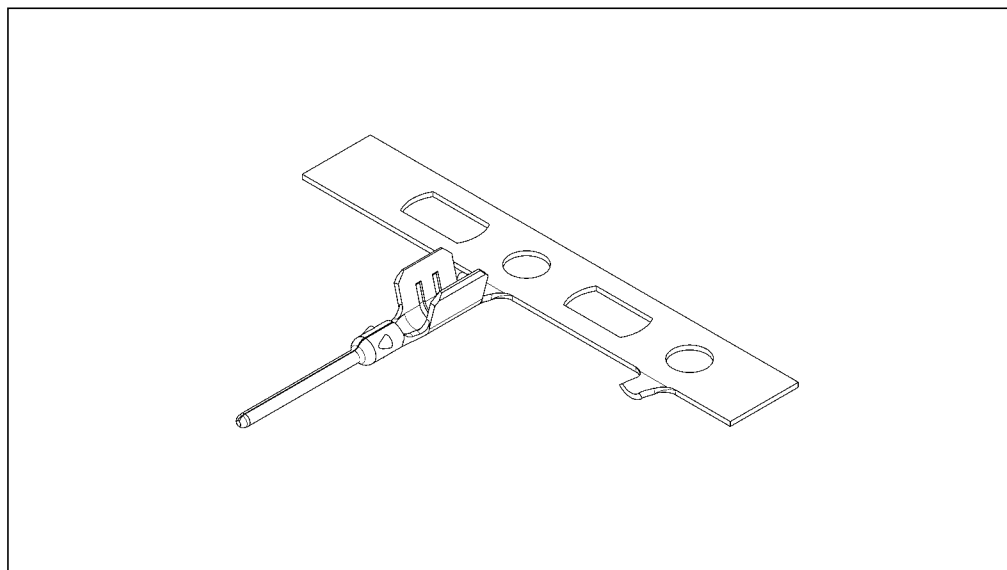
Current Rating:
1 Ampere max.

Temperature Range:
-40 °C to +85 °C

Wire Size Range:
See Chart

Product Specification:
DIN 72594-1

Application Specification:
114-13157



Cable Types RTK 031

Cable Type	Material and Finish	Part Numbers					
		Strip Form	Package Quantity	Loose-Piece	Package Quantity	Applicator	Hand Tool
RTK 031	Phosphor Bronze, Gold over Nickel	1438890-7	15,000	N/A	N/A	1385623-3	N/A

Cable Types RG 58/RG 58LL

Cable Type	Material and Finish	Part Numbers					
		Strip Form	Package Quantity	Loose-Piece	Package Quantity	Applicator	Hand Tool
RG 58 RG 58LL	Phosphor Bronze, Gold over Nickel	1438890-7	15,000	N/A	N/A	1385456-3	N/A

Cable Types RG 174/RG 174LL/RG 316/1.5DS

Cable Type	Material and Finish	Part Numbers					
		Strip Form	Package Quantity	Loose-Piece	Package Quantity	Applicator	Hand Tool
RG 174 RG 174LL RG 316 1.5DS	Phosphor Bronze, Gold over Nickel	1438890-8	15,000	N/A	N/A	1385675-3	N/A

Cable Types RG 62/RG 71/RG 59/59 Mini

Cable Type	Material and Finish	Part Numbers					
		Strip Form	Package Quantity	Loose-Piece	Package Quantity	Applicator	Hand Tool
RG 62 RG 71 RG 59 59 Mini	Phosphor Bronze, Gold over Nickel	1438890-8	15,000	N/A	N/A	680900-1 or 1385623-3	N/A

Cable Types RG 62U/M/RG 71U/M/RG 179

Cable Type	Material and Finish	Part Numbers					
		Strip Form	Package Quantity	Loose-Piece	Package Quantity	Applicator	Hand Tool
RG 62U/M RG 71U/M RG 179	Phosphor Bronze, Gold over Nickel	1438890-9	15,000	N/A	N/A	680900-1 or 1385624-3	N/A

Contact Systems

Female Contact SMB

Technical Features

Contact Material:
Phosphor Bronze

Contact Finish:
Gold over Nickel

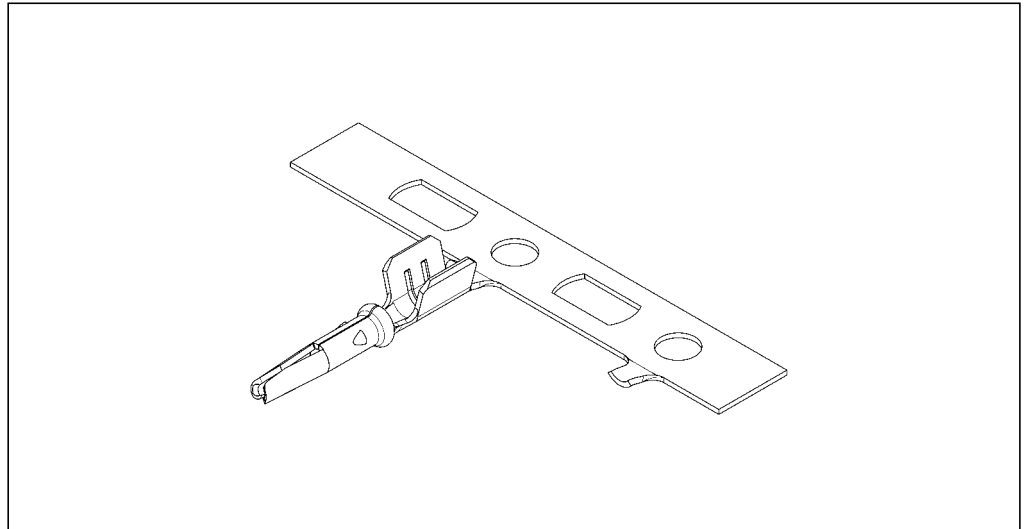
Current Rating:
1 Ampere max.

Temperature Range:
-40 °C to +85 °C

Wire Size Range:
See Chart

Product Specification:
DIN 72594-1

Application Specification:
114-13157



Cable Types RTK 031

Cable Type	Material and Finish	Part Numbers			
		Strip Form	Package Quantity	Applicator	Hand Tool
RTK 031	Phosphor Bronze, Gold over Nickel	1438896-2	15,000	1385623-3	N/A

Cable Types RG 58/RG 58LL

Cable Type	Material and Finish	Part Numbers			
		Strip Form	Package Quantity	Applicator	Hand Tool
RG 58 RG 58LL	Phosphor Bronze, Gold over Nickel	1438896-2	15,000	1385456-3	N/A

Cable Types RG 174/RG 174LL/RG 316/1.5DS

Cable Type	Material and Finish	Part Numbers			
		Strip Form	Package Quantity	Applicator	Hand Tool
RG 62 RG 71 RG 59 59 Mini	Phosphor Bronze, Gold over Nickel	1438896-4	15,000	680900-1 or 1385623-3	N/A

Cable Types RG 62/RG 71/RG 59/59 Mini

Cable Type	Material and Finish	Part Numbers			
		Strip Form	Package Quantity	Applicator	Hand Tool
RG 62 RG 71 RG 59 59 Mini	Phosphor Bronze, Gold over Nickel	1438896-4	15,000	680900-1 or 1385623-3	N/A

Cable Types RG 62U/M/RG 71U/M/RG 179

Cable Type	Material and Finish	Part Numbers			
		Strip Form	Package Quantity	Applicator	Hand Tool
RG 62U/M RG 71U/M RG 179	Phosphor Bronze, Gold over Nickel	1438896-6	15,000	680900-1 or 1385624-3	N/A

Note: All Part Numbers are RoHS and ELV compliant.

1 Position Kit, Male for RTK 031

Technical Features

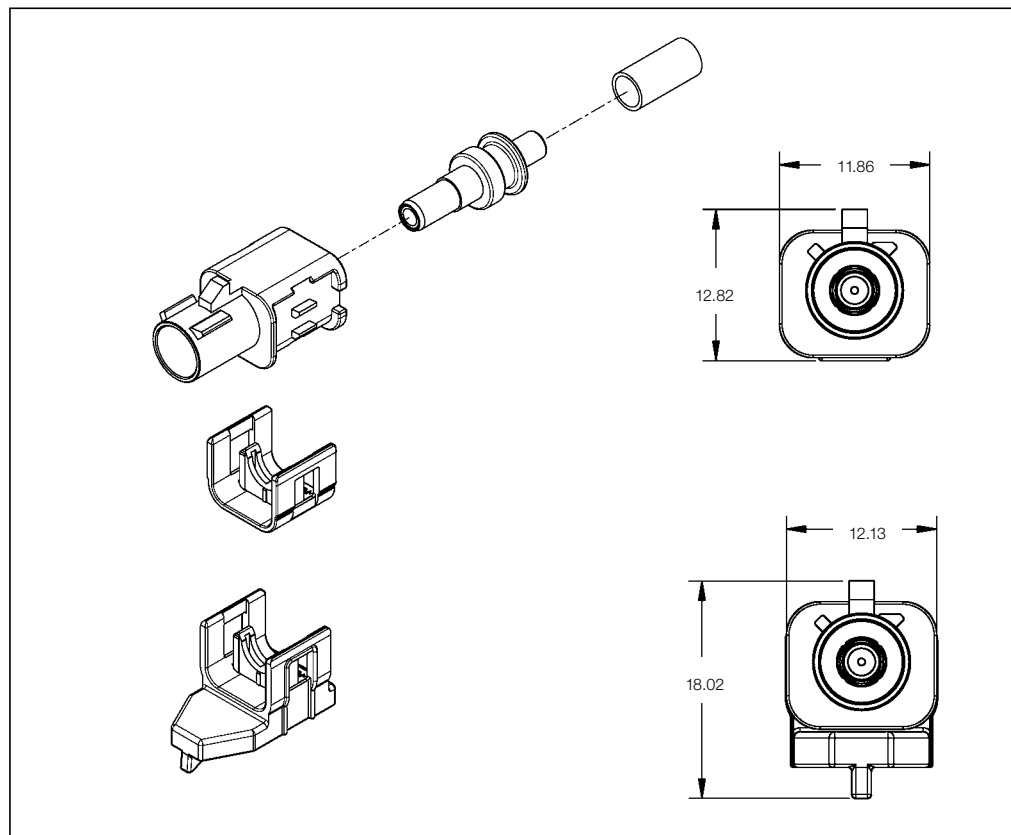
No. of Positions:
1 Position Kit, Male,
un-assembled

Housing Material:
Polyester PBT

Wire Size Range:
RTK 031

Product Specification:
DIN 72594-1

Application Specification:
114-13157



1 Position Kit, Male

Keying Options	Housing Color	Part Numbers		
		Male Kit	Contacts *	Mating Female Kit
A	Jet Black	2098287-1	1438890-8	2098288-1 or
		5-2098287-1		1438904-1
B	Signal White	2098287-2		2098288-2 or
		5-2098287-2		1438904-2
C	Signal Blue	2098287-3		2098288-3 or
		5-2098287-3		1438904-3
D	Claret Violet	2098287-4		2098288-4 or
		5-2098287-4		1438904-4
F	Nut Brown	2098287-6		2098288-6 or
		5-2098287-6		*)
H	Heather Violet	2098287-8		2098288-8 or
		5-2098287-8		1438904-8
K	Curry	1-2098287-0		1-2098288-0 or
		6-2098287-0		1-1438904-0

*) Pin Contact Part No. 1438890-7 must be purchased separately.
5-xxx or 6-xxx indicates body clip slot on lock.

*) Available on request. Please contact your local TE sales representative.

1 Position Kit, Male for RG 58, RG 58 Low Loss, and RG 59 Mini

Technical Features

No. of Positions:

1 Position Kit, Male, un-assembled

Housing Material:

Polyester PBT

Wire Size Range:

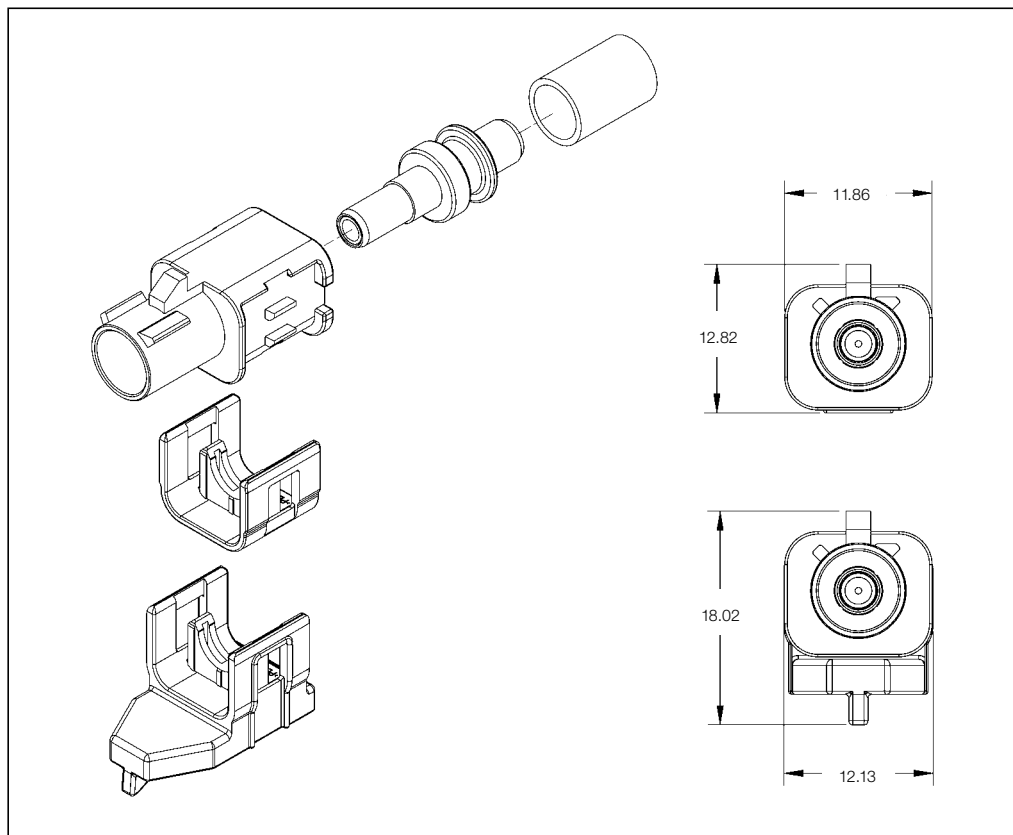
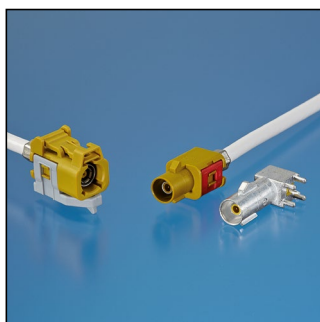
RG 58, RG 58 Low Loss and RG 59 Mini

Product Specification:

DIN 72594-1

Application Specification:

114-13157



1 Position Kit, Male

Keying Options	Housing Color	Part Numbers		
		Male Kit	Contacts*	Mating Female Kit
A	Jet Black	1438911-1	1438890-7 or 1438890-8	1438919-1 or
		5-1438911-1		1438920-1
B	Signal White	1438911-2		1438919-2 or
		5-1438911-2		1438920-2
C	Signal Blue	1438911-3		1438919-3 or
		5-1438911-3		1438920-3
D	Claret Violet	1438911-4		1438919-4 or
		5-1438911-4		1438920-4
F	Nut Brown	1438911-6		1438919-6 or
		5-1438911-6		1438920-6
H	Heather Violet	1438911-8		1438919-8 or
		5-1438911-8		1438920-8
K	Curry	1-1438911-0		1-1438919-0 or
		6-1438911-0		*)

*) Pin Contact Part No. 1438890-7 must be purchased separately for RG 58 and RG 58LL.
Pin Contact Part No. 1438890-8 must be purchased separately for RG 59 Mini.
5-xxx or 6-xxx indicates body clip slot on lock.

*) Available on request. Please contact your local TE sales representative.

1 Position Kit, Male for RG 316, RG 174, and RG 179

Technical Features

No. of Positions:

1 Position Kit, Male, un-assembled

Housing Material:

Polyester PBT

Wire Size Range:

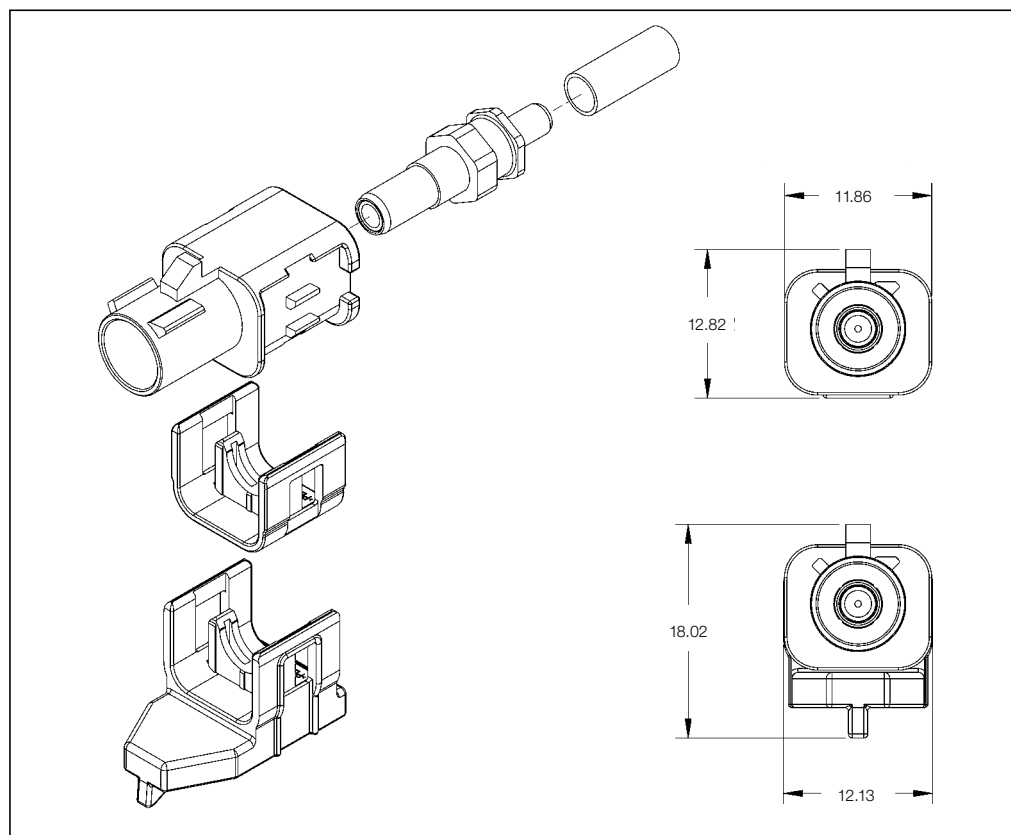
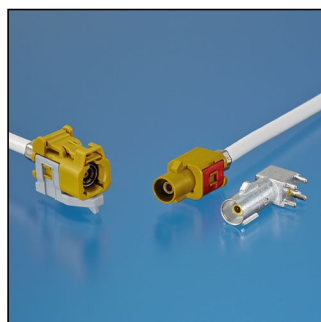
RG 316, RG 174 and RG 179

Product Specification:

DIN 72594-1

Application Specification:

114-13157



1 Position Kit, Male

Keying Options	Housing Color	Part Numbers		
		Male Kit	Contacts *	Mating Female Kit
A	Jet Black	1438912-1	1438890-8 or 1438890-9	1924792-1 or
		5-1438912-1		2035141-1
B	Signal White	1438912-2		1924792-2 or
		5-1438912-2		2035141-2
C	Signal Blue	1438912-3		1924792-3 or
		5-1438912-3		2035141-3
D	Claret Violet	1438912-4		1924792-4 or
		5-1438912-4		2035141-4
F	Nut Brown	1438912-6		1924792-6 or
		5-1438912-6		2035141-6
H	Heather Violet	1438912-8		1924792-8 or
		5-1438912-8		2035141-8
K	Curry	1-1438912-0	1-1924792-0 or	
		6-1438912-0	*)	

*) Pin Contact Part No. 1438890-8 must be purchased separately for RG 316 and RG 174.
Pin Contact Part No. 1438890-9 must be purchased separately for RG 179.
5-xxx or 6-xxx indicates body clip slot on lock.

*) Available on request. Please contact your local TE sales representative.

1 Position Kit, Male for RG 62U/M

Technical Features

No. of Positions:

1 Position Kit, Male, un-assembled

Housing Material:

Polyester PBT

Wire Size Range:

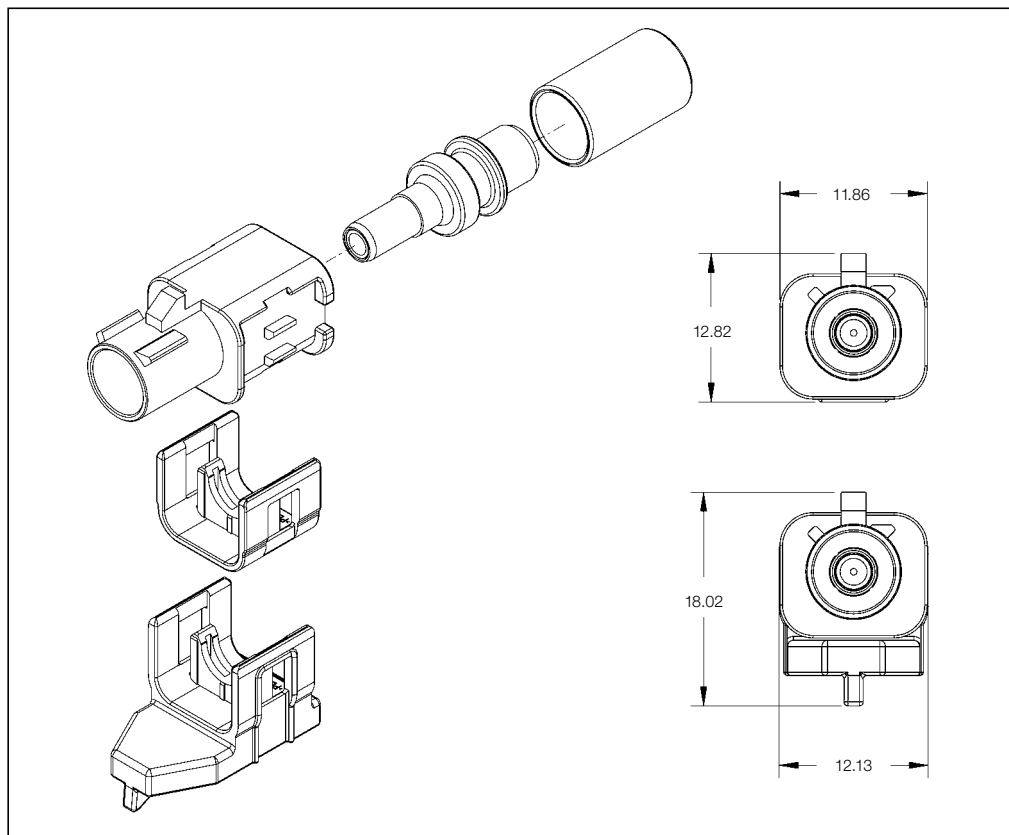
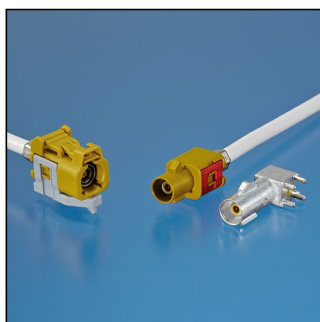
RG 62U/M

Product Specification:

DIN 72594-1

Application Specification:

114-13157



1 Position Kit, Male

Keying Options	Housing Color	Part Numbers		
		Male Kit	Contacts*	Mating Female Kit
A	Jet Black	1438924-1	1438890-9	1438922-1 or
		5-1438924-1		1438923-1
B	Signal White	1438924-2		1438922-2 or
		5-1438924-2		1438923-2
C	Signal Blue	1438924-3		1438922-3 or
		5-1438924-3		1438923-3
D	Claret Violet	1438924-4		1438922-4 or
		5-1438924-4		1438923-4
F	Nut Brown	*)		*)
H	Heather Violet	1438924-8		1438922-8 or
		5-1438924-8	1438923-8	
K	Curry	1-1438924-0	1-1438922-0 or	
		6-1438924-0	*)	

*) Pin Contact Part No. 1438890-9 must be purchased separately.
5-xxx or 6-xxx indicates body clip slot on lock.

*) Available on request. Please contact your local TE sales representative.

1 Position Kit, Male for RG 71

Technical Features

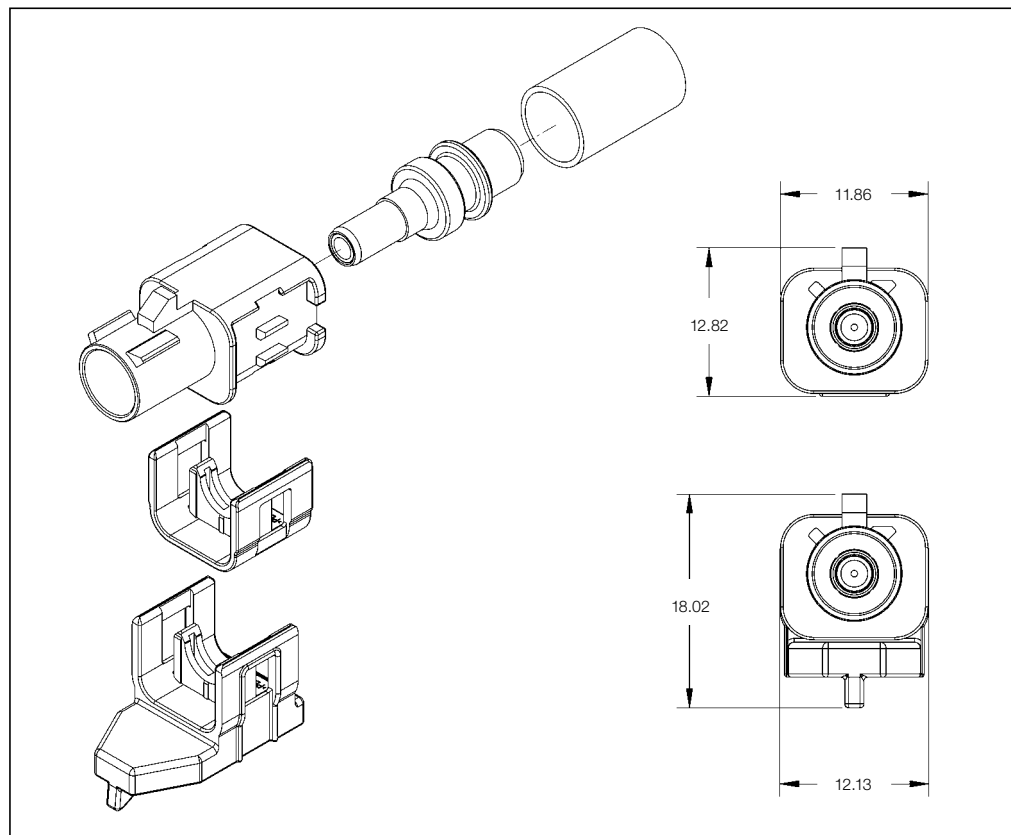
No. of Positions:
1 Position Kit, Male,
un-assembled

Housing Material:
Polyester PBT

Wire Size Range:
RG 71

Product Specification:
DIN 72594-1

Application Specification:
114-13157



1 Position Kit, Male

Keying Options	Housing Color	Part Numbers		
		Male Kit	Contacts *	Mating Female Kit
A	Jet Black	1438957-1	1438890-8	1438955-1 or
		5-1438957-1		1438956-1
B	Signal White	1438957-2		1438955-2 or
		5-1438957-2		1438956-2
C	Signal Blue	1438957-3		1438955-3 or
		5-1438957-3		1438956-3
D	Claret Violet	1438957-4		1438955-4 or
		5-1438957-4		1438956-4
F	Nut Brown	•)		•)
H	Heather Violet	1438957-8		1438955-8 or
		5-1438957-8	1438956-8	
K	Curry	1-1438957-0	1-1438955-0 or	
		6-1438957-0	1-1438956-4	

*) Pin Contact Part No. 1438890-8 must be purchased separately.
5-xxx or 6-xxx indicates body clip slot on lock.

*) Available on request. Please contact your local TE sales representative.

1 Position Kit, Male for RG 71U/M

Technical Features

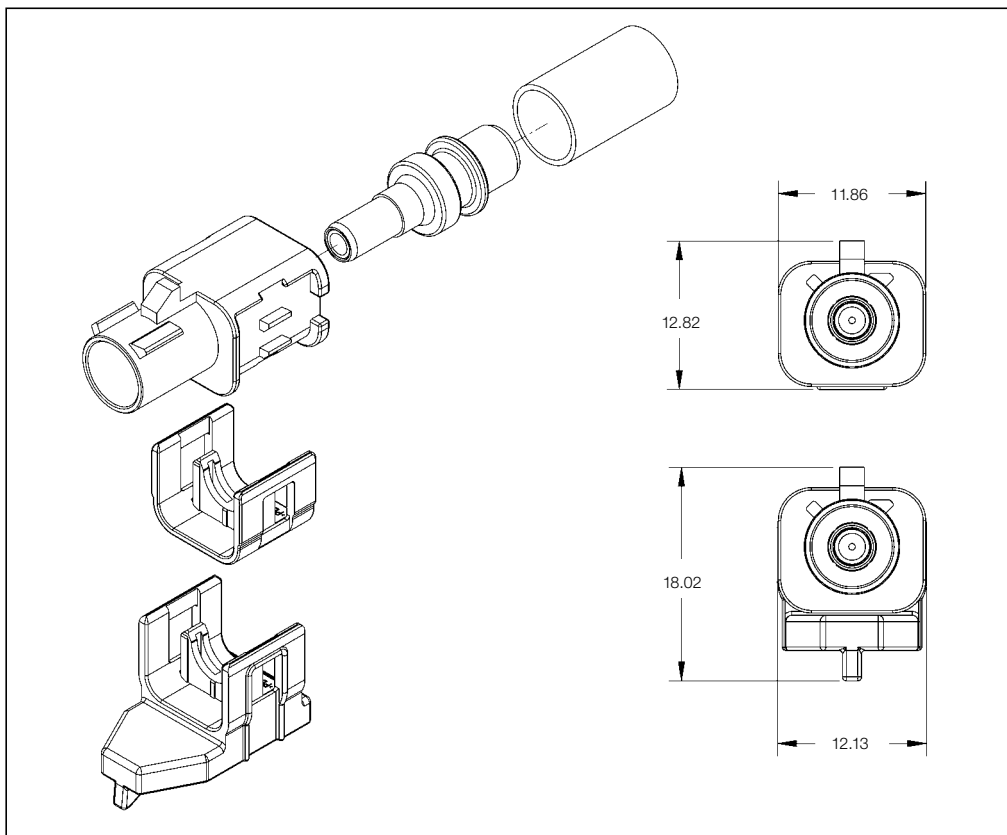
No. of Positions:
1 Position Kit, Male,
un-assembled

Housing Material:
Polyester PBT

Wire Size Range:
RG 71U/M

Product Specification:
DIN 72594-1

Application Specification:
114-13157



1 Position Kit, Male

Keying Options	Housing Color	Part Numbers		
		Male Kit	Contacts*	Mating Female Kit
A	Jet Black	1438960-1	1438890-9	1438958-1 or
		5-1438960-1		1438959-1
B	Signal White	1438960-2		1438958-2 or
		5-1438960-2		1438959-2
C	Signal Blue	1438960-3		1438958-3 or
		5-1438960-3		1438959-3
D	Claret Violet	1438960-4		1438958-4 or
		5-1438960-4		1438959-4
F	Nut Brown	*)		*)
H	Heather Violet	1438960-8		1438958-8 or
		5-1438960-8	1438959-8	
K	Curry	1-1438960-0	1-1438958-0	
		6-1438960-0	*)	

*) Pin Contact Part No. 1438890-9 must be purchased separately.
5-xxx or 6-xxx indicates body clip slot on lock.

*) Available on request. Please contact your local TE sales representative.

1 Position Right-Angle Male Kit for RG 316, RG 174, and RG 179

Technical Features

No. of Positions:

1 Position Kit, Male, un-assembled

Housing Material:

Polyester PBT

Wire Size Range:

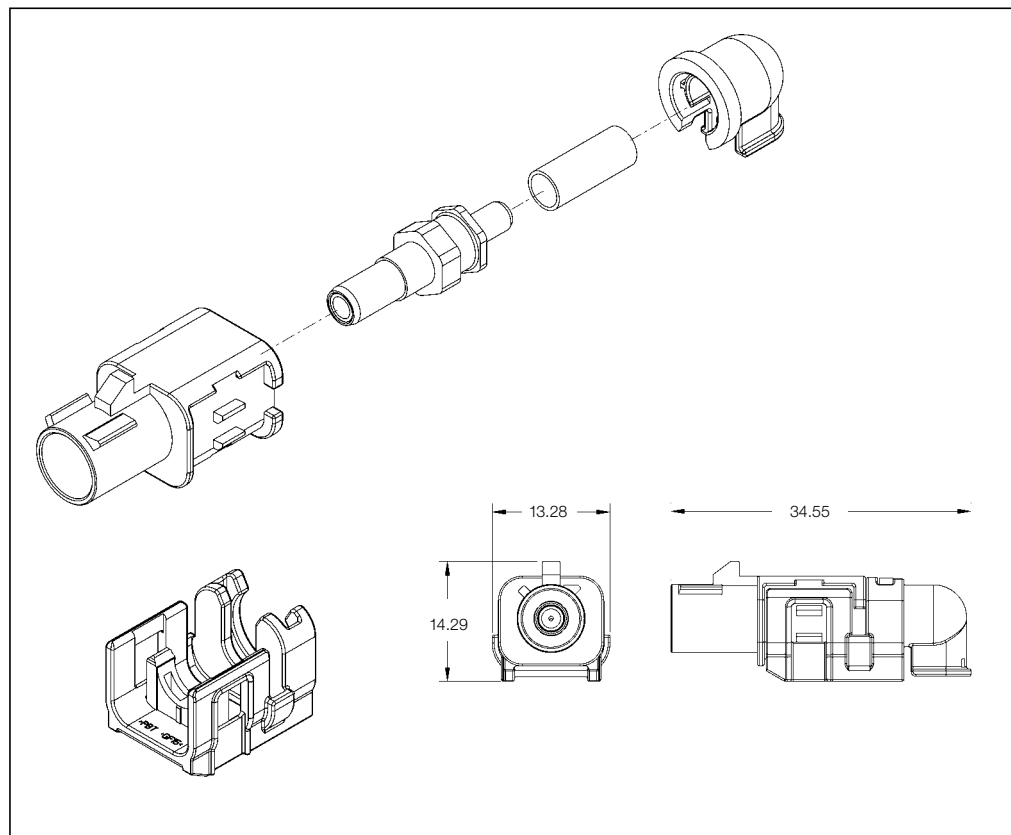
RG 316, RG 174 and RG 179

Product Specification:

DIN 72594-1

Application Specification:

114-13157



1 Position Kit, Male

Keying Options	Housing Color	Part Numbers		
		Male Kit	Contacts *	Mating Female Kit
A	Jet Black	1924127-1		1924792-1
B	Signal White	1924127-2		1924792-2
C	Signal Blue	1924127-3	1438890-8	1924792-3
D	Claret Violet	1924127-4	or	1924792-4
F	Nut Brown	*)	1438890-9	1924792-6
H	Heather Violet	1924127-8		1924792-8
K	Curry	1-1924127-0		1-1924792-0

*) Pin Contact Part No. 1438890-8 must be purchased separately for RG 316 and RG 174.
Pin Contact Part No. 1438890-9 must be purchased separately for RG 179.

*) Available on request. Please contact your local TE sales representative.

1 Position Kit, Male for 1.5DS-QFB

Technical Features

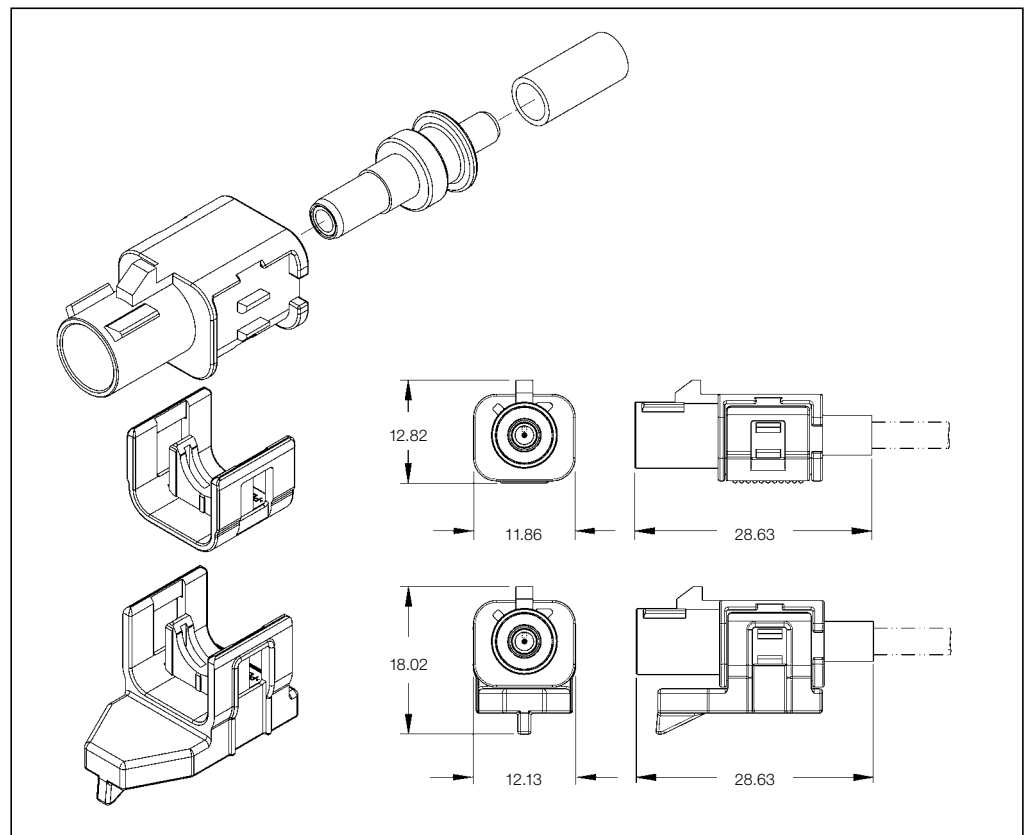
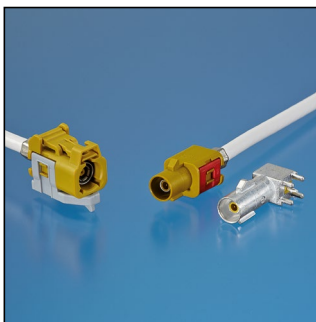
No. of Positions:
1 Position Kit, Male,
un-assembled

Housing Material:
Polyester PBT

Wire Size Range:
1.5DS-QFB

Product Specification:
DIN 72594-1

Application Specification:
114-13157



1 Position Kit, Male

Keying Options	Housing Color	Part Numbers						
		Male Kit	Contacts*	Mating Female Kit				
A	Jet Black	1924133-1	1438890-8	1924134-1				
		5-1924133-1						
B	Signal White	1924133-2		1438890-8	1924134-2			
		5-1924133-2						
C	Signal Blue	1924133-3			1438890-8	1924134-3		
		5-1924133-3						
D	Claret Violet	1924133-4				1438890-8	1924134-4	
		5-1924133-4						
F	Nut Brown	1924133-6					1438890-8	1924134-6
		5-1924133-6						
H	Heather Violet	1924133-8						1438890-8
		5-1924133-8						
K	Curry	1-1924133-0	1438890-8					
		6-1924133-0						

*) Pin Contact Part No. 1438890-8 must be purchased separately.
5-xxx or 6-xxx indicates body clip slot on lock.

1 Position Kit, Male for RG 59

Technical Features

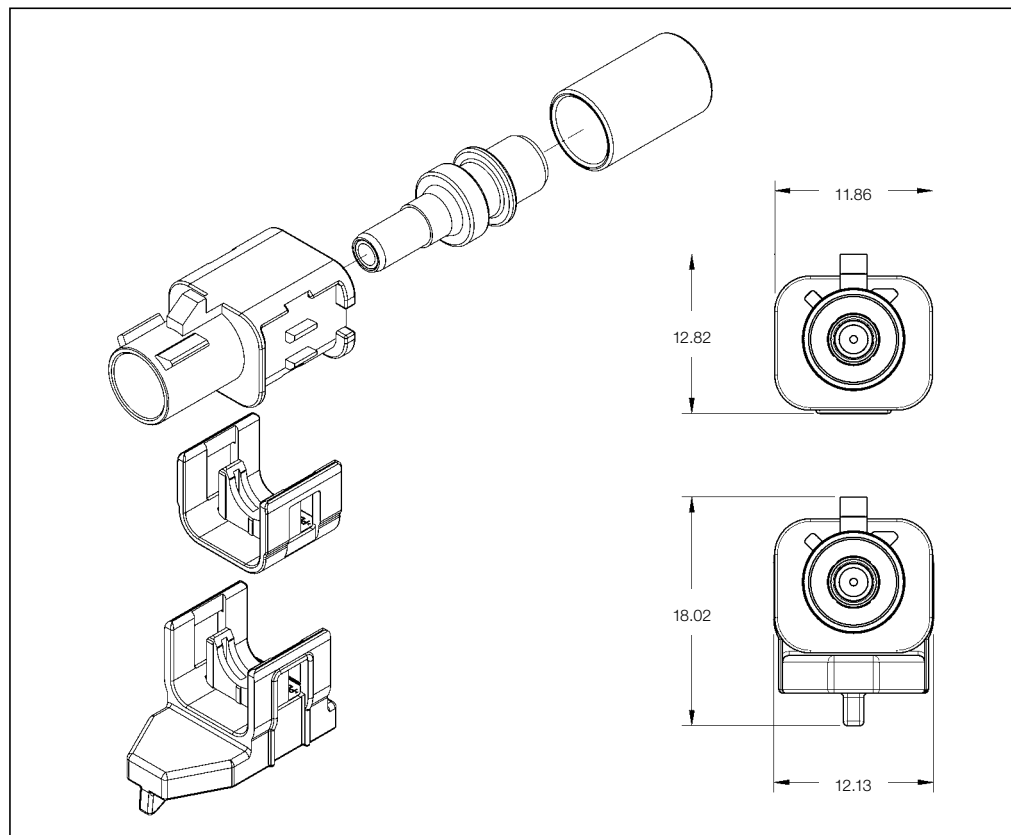
No. of Positions:
1 Position Kit, Male,
un-assembled

Housing Material:
Polyester PBT

Wire Size Range:
RG 59

Product Specification:
DIN 72594-1

Application Specification:
114-13157



1 Position Kit, Male

Keying Options	Housing Color	Part Numbers		
		Male Kit	Contacts *	Mating Female Kit
A	Jet Black	776681-1	1438890-8	776682-1 or 776683-1
		5-776681-1		
B	Signal White	776681-2		776682-2 or 776683-2
		5-776681-2		
C	Signal Blue	776681-3		776682-3 or 776683-3
		5-776681-3		
D	Claret Violet	776681-4		776682-4 or 776683-4
		5-776681-4		
F	Nut Brown	*)		*)
H	Heather Violet	776681-8		776682-8 or 776683-8
		5-776681-8		
K	Curry	1-776681-0	1-776682-0 or 1-776683-0	
		6-776681-0		

*) Pin Contact Part No. 1438890-8 must be purchased separately.
5-xxx or 6-xxx indicates body clip slot on lock.

*) Available on request. Please contact your local TE sales representative.

1 Position Right-Angle Male Kit for RG 62

Technical Features

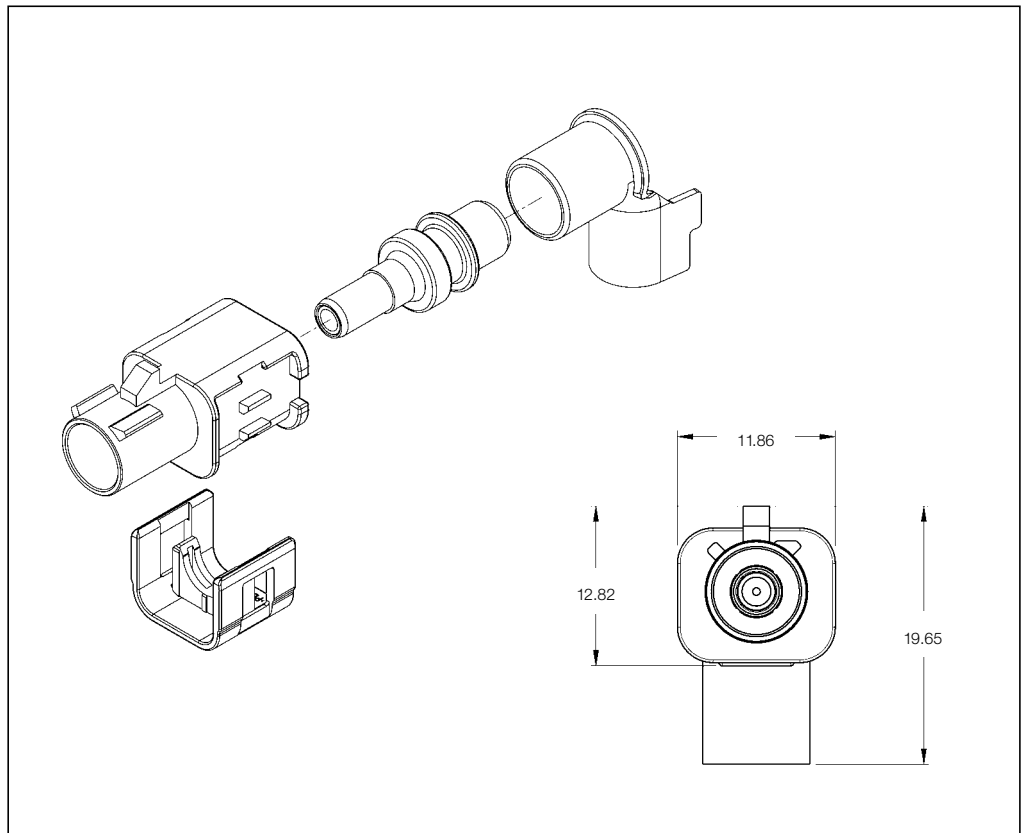
No. of Positions:
1 Position Kit, Male,
un-assembled

Housing Material:
Polyester PBT

Wire Size Range:
RG 62

Product Specification:
DIN 72594-1

Application Specification:
114-13157



1 Position Kit, Male

Keying Options	Housing Color	Part Numbers		
		Male Kit	Contacts*	Mating Female Kit
A	Jet Black	776797-1	1438890-8	1438897-1
B	Signal White	776797-2		1438897-2
C	Signal Blue	776797-3		1438897-3
D	Claret Violet	776797-4		1438897-4
F	Nut Brown	*)		*)
H	Heather Violet	776797-8		1438897-8
K	Curry	1-776797-0		1-1438897-0

*) Pin Contact Part No. 1438890-8 must be purchased separately.

*) Available on request. Please contact your local TE sales representative.

1 Position Kit, Female for RTK 031

Technical Features

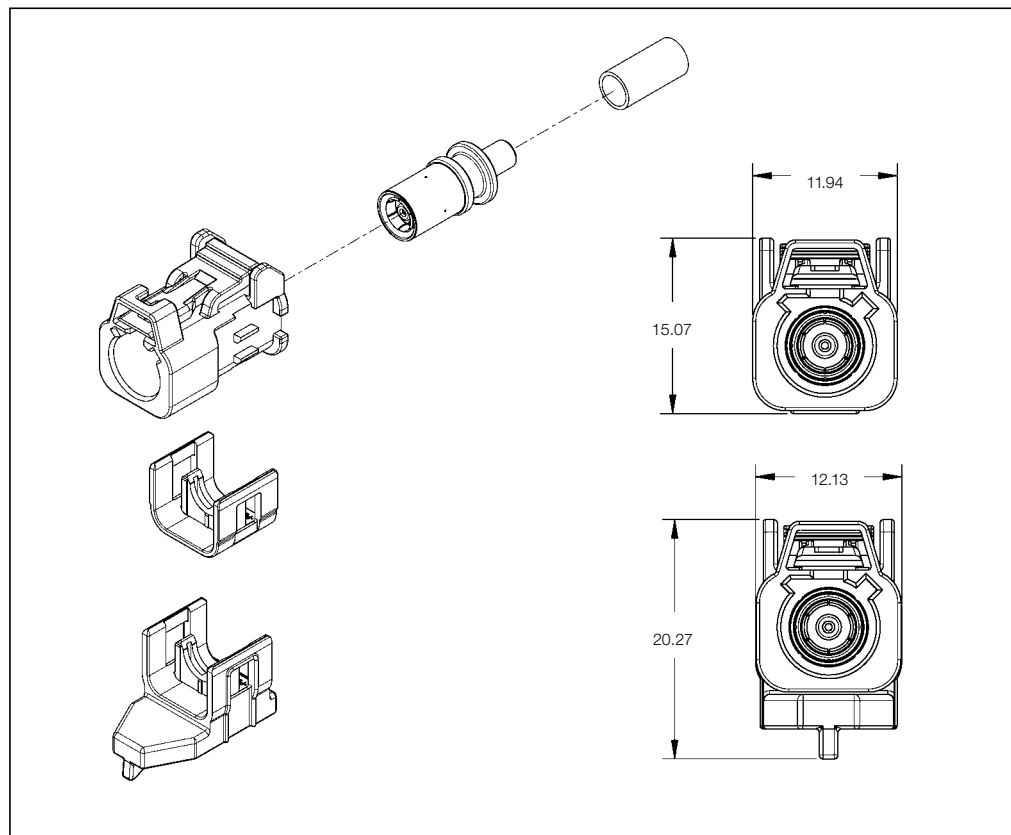
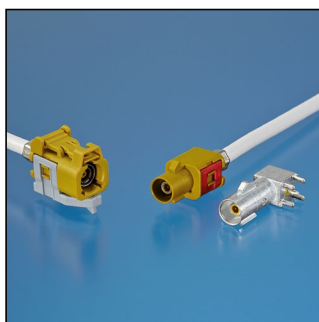
No. of Positions:
1 Position Kit, Female,
un-assembled

Housing Material:
Polyester PBT

Wire Size Range:
RTK 031

Product Specification:
DIN 72594-1

Application Specification:
114-13157



1 Position Kit, Female

Keying Options	Housing Color	Part Numbers									
		Female Kit	Contacts*	Mating Male Kit							
A	Jet Black	2098288-1	1438896-4	2098287-1							
		5-2098288-1									
B	Signal White	2098288-2		1438896-4	2098287-2						
		5-2098288-2									
C	Signal Blue	2098288-3			1438896-4	2098287-3					
		5-2098288-3									
D	Claret Violet	2098288-4				1438896-4	2098287-4				
		5-2098288-4									
E	Leaf Green	2098288-5					1438896-4	N/A			
		5-2098288-5									
F	Nut Brown	2098288-6						1438896-4	2098287-6		
		5-2098288-6									
G	Blue Gray	*)							1438896-4	N/A	
H	Heather Violet	2098288-8								1438896-4	2098287-8
		5-2098288-8									
K	Curry	1-2098288-0									1438896-4
		6-2098288-0									

*) Socket Contact Part No. 1438896-4 must be purchased separately.
5-xxx or 6-xxx indicates body clip slot on lock.

*) Available on request. Please contact your local TE sales representative.

Housings and Connectors

1 Position Kit, Female for RG 62

Technical Features

No. of Positions:

1 Position Kit, Female,
un-assembled

Housing Material:

Polyester PBT

Wire Size Range:

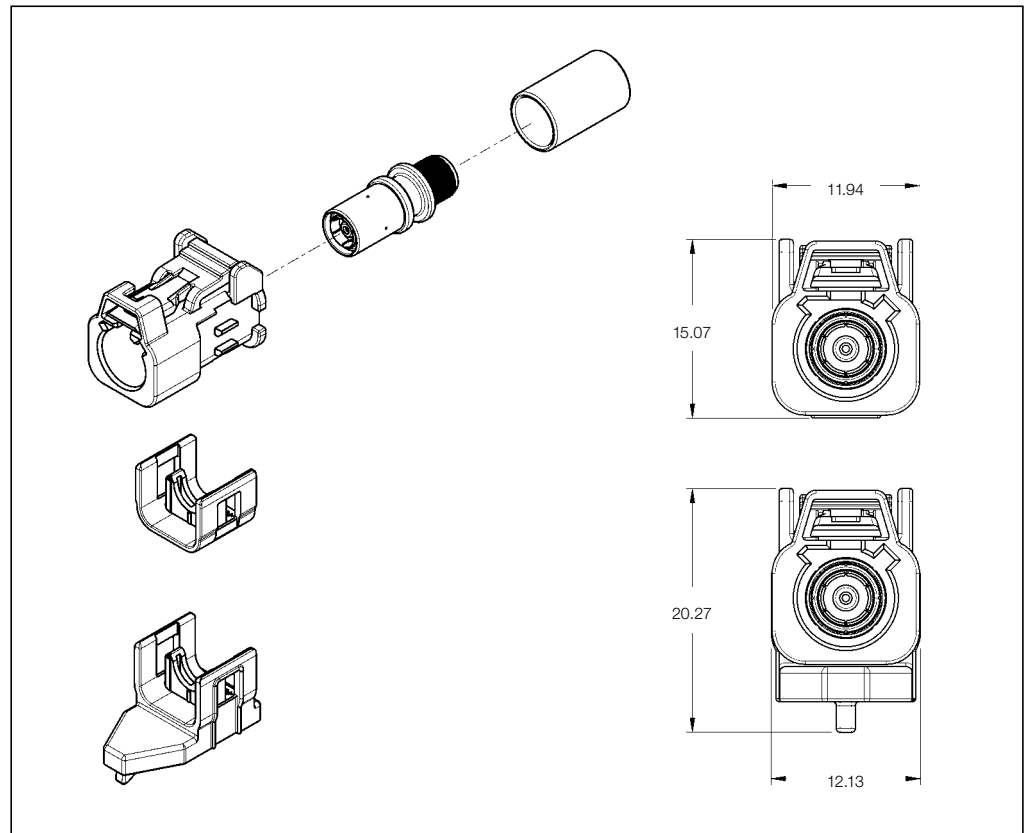
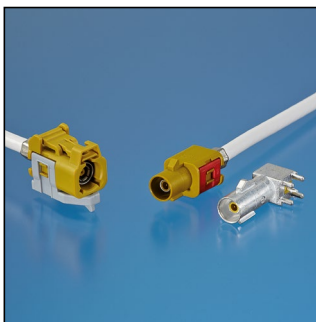
RG 62

Product Specification:

DIN 72594-1

Application Specification:

114-13157



1 Position Kit, Female

Keying Options	Housing Color	Part Numbers						
		Female Kit	Contacts*	Mating Male Kit				
A	Jet Black	1438897-1	1438896-4	1438891-1				
		5-1438897-1						
B	Signal White	1438897-2		1438896-4	1438891-2			
		5-1438897-2						
C	Signal Blue	1438897-3			1438896-4	1438891-3		
		5-1438897-3						
D	Claret Violet	1438897-4				1438896-4	1438891-4	
		5-1438897-4						
E	Leaf Green	•)					1438896-4	N/A
F	Nut Brown	•)						•)
G	Blue Gray	•)						N/A
H	Heather Violet	1438897-8						1438896-4
		5-1438897-8						
K	Curry	1-1438897-0	1438896-4					
		6-1438897-0						

*) Socket Contact Part No. 1438896-4 must be purchased separately.
5-xxx or 6-xxx indicates body clip slot on lock.

*) Available on request. Please contact your local TE sales representative.

1 Position Right-Angle Female Kit for RG 62

Technical Features

No. of Positions:

1 Position Kit, Female, un-assembled

Housing Material:

Polyester PBT

Wire Size Range:

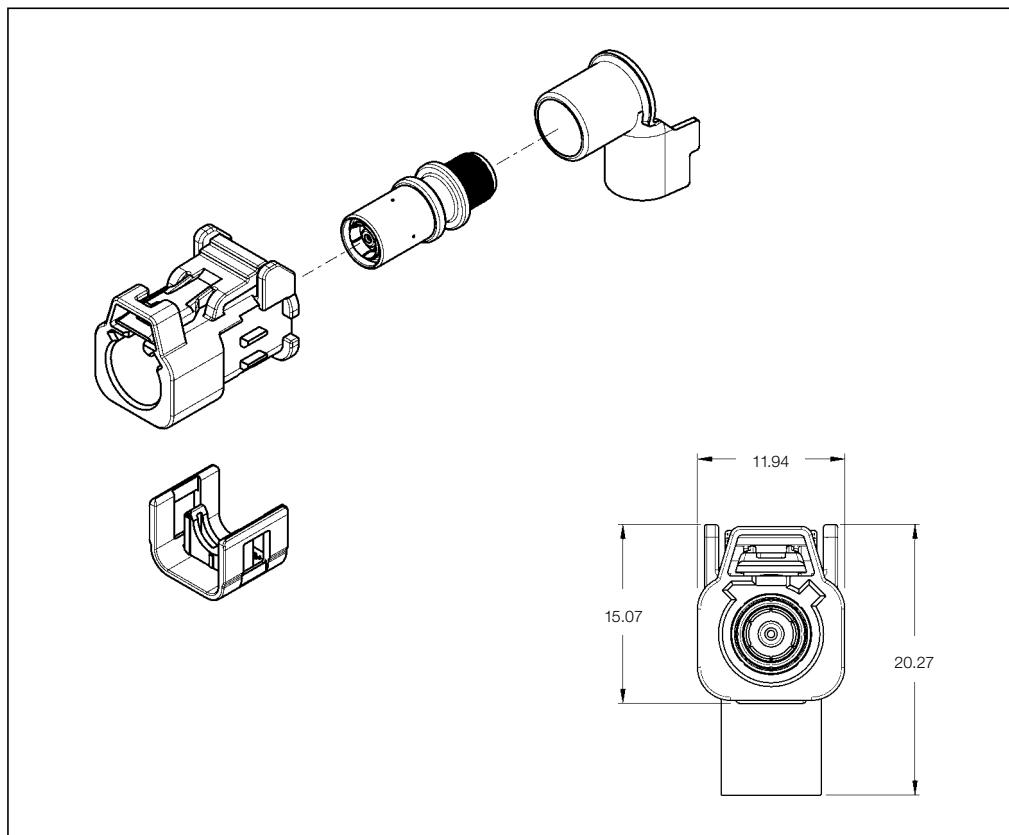
RG 62

Product Specification:

DIN 72594-1

Application Specification:

114-13157



1 Position Kit, Female

Keying Options	Housing Color	Part Numbers		
		Female Kit	Contacts *	Mating Male Kit
A	Jet Black	1438904-1		1438891-1
B	Signal White	1438904-2		1438891-2
C	Signal Blue	1438904-3		1438891-3
D	Claret Violet	1438904-4		1438891-4
E	Leaf Green	•)	1438896-4	N/A
F	Nut Brown	•)		•)
G	Blue Gray	•)		N/A
H	Heather Violet	1438904-8		1438891-8
K	Curry	1-1438904-0		1-1438891-0

*) Socket Contact Part No. 1438896-4 must be purchased separately.

•) Available on request. Please contact your local TE sales representative.

1 Position Kit, Female for RG 58, RG 58 Low Loss, and RG 59 Mini

Technical Features

No. of Positions:

1 Position Kit, Female,
un-assembled

Housing Material:

Polyester PBT

Wire Size Range:

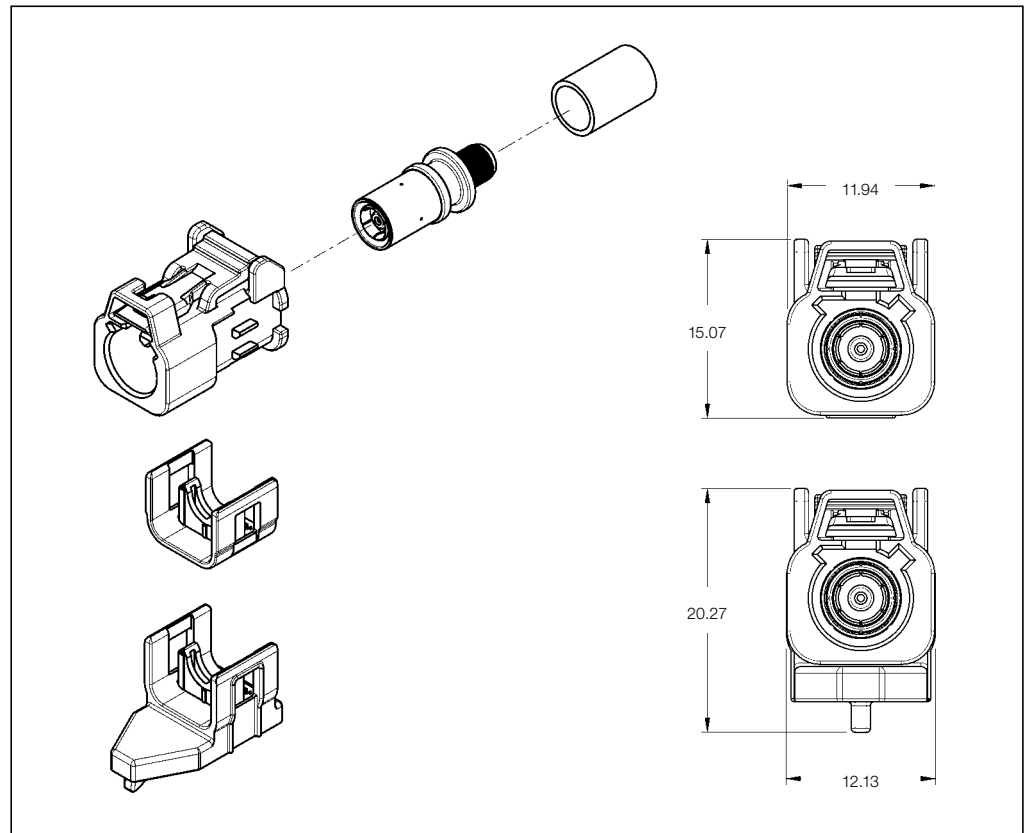
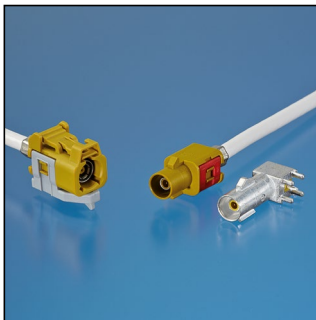
RG 58, RG 58 Low Loss
and RG 59 Mini

Product Specification:

DIN 72594-1

Application Specification:

114-13157



1 Position Kit, Female

Keying Options	Housing Color	Part Numbers									
		Female Kit	Contacts*	Mating Male Kit							
A	Jet Black	1438919-1	1438896-2 or 1438896-4	1438911-1							
		5-1438919-1									
B	Signal White	1438919-2		1438896-2 or 1438896-4	1438911-2						
		5-1438919-2									
C	Signal Blue	1438919-3			1438896-2 or 1438896-4	1438911-3					
		5-1438919-3									
D	Claret Violet	1438919-4				1438896-2 or 1438896-4	1438911-4				
		5-1438919-4									
E	Leaf Green	1438919-5					1438896-2 or 1438896-4	N/A			
		5-1438919-5									
F	Nut Brown	1438919-6						1438896-2 or 1438896-4	1438911-6		
		5-1438919-6									
G	Blue Gray	1438919-7							1438896-2 or 1438896-4	N/A	
		5-1438919-7									
H	Heather Violet	1438919-8								1438896-2 or 1438896-4	1438911-8
		5-1438919-8									
K	Curry	1-1438919-0	1438896-2 or 1438896-4								1-1438911-0
		6-1438919-0									

*) Socket Contact Part No. 1438896-2 must be purchased separately for RG 58 and RG 58LL.
Socket Contact Part No. 1438896-4 must be purchased separately for RG 59 Mini.
5-xxx or 6-xxx indicates body clip slot on lock.

1 Position Right-Angle Female Kit for RG 58, RG 58 Low Loss, and RG 59 Mini

Technical Features

No. of Positions:

1 Position Kit, Female, un-assembled

Housing Material:

Polyester PBT

Wire Size Range:

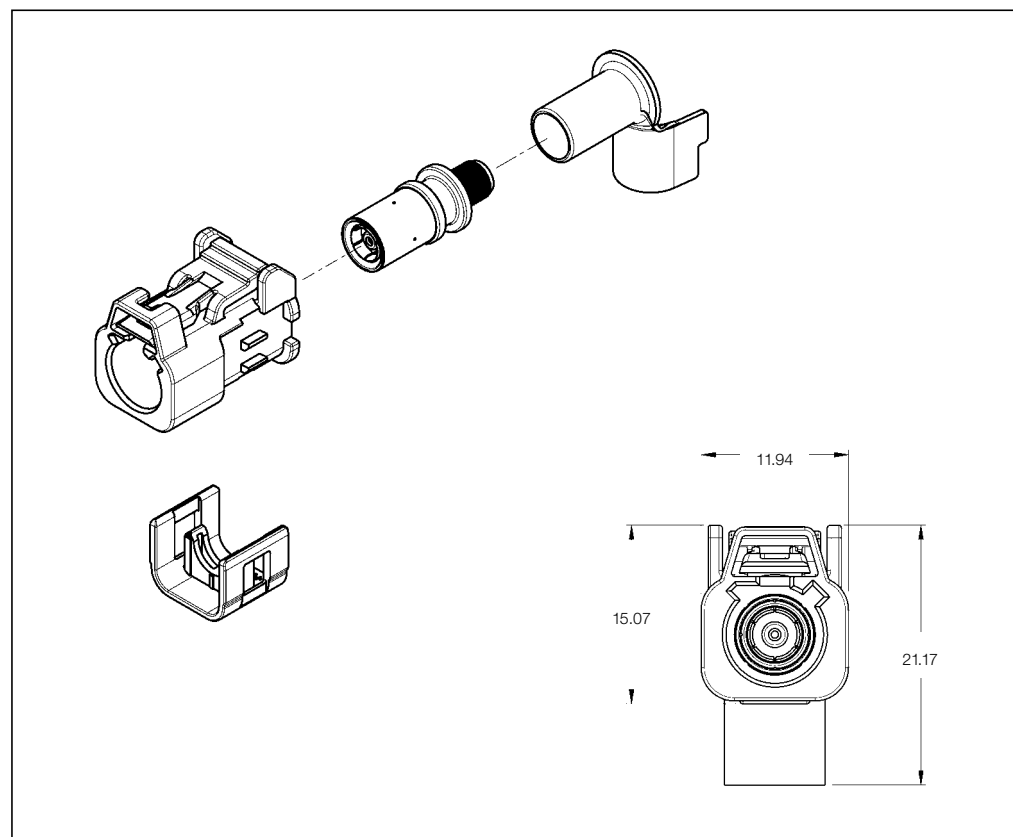
RG 58, RG 58 Low Loss and RG 59 Mini

Product Specification:

DIN 72594-1

Application Specification:

114-13157



1 Position Kit, Female

Keying Options	Housing Color	Part Numbers		
		Female Kit	Contacts *	Mating Male Kit
A	Jet Black	1438920-1		1438911-1
B	Signal White	1438920-2		1438911-2
C	Signal Blue	1438920-3		1438911-3
D	Claret Violet	1438920-4	1438896-2	1438911-4
E	Leaf Green	1438920-5	or	N/A
F	Nut Brown	1438920-6	1438896-4	1438911-6
G	Blue Gray	1438920-7		N/A
H	Heather Violet	1438920-8		1438911-8
K	Curry	1-1438920-0		1-1438911-0

*) Socket Contact Part No. 1438896-2 must be purchased separately for RG 58 and RG 58LL.
Socket Contact Part No. 1438896-4 must be purchased separately for RG 59 Mini.

1 Position Kit, Female for RG 316, RG 174 and RG 179

Technical Features

No. of Positions:

1 Position Kit, Female,
un-assembled

Housing Material:

Polyester PBT

Wire Size Range:

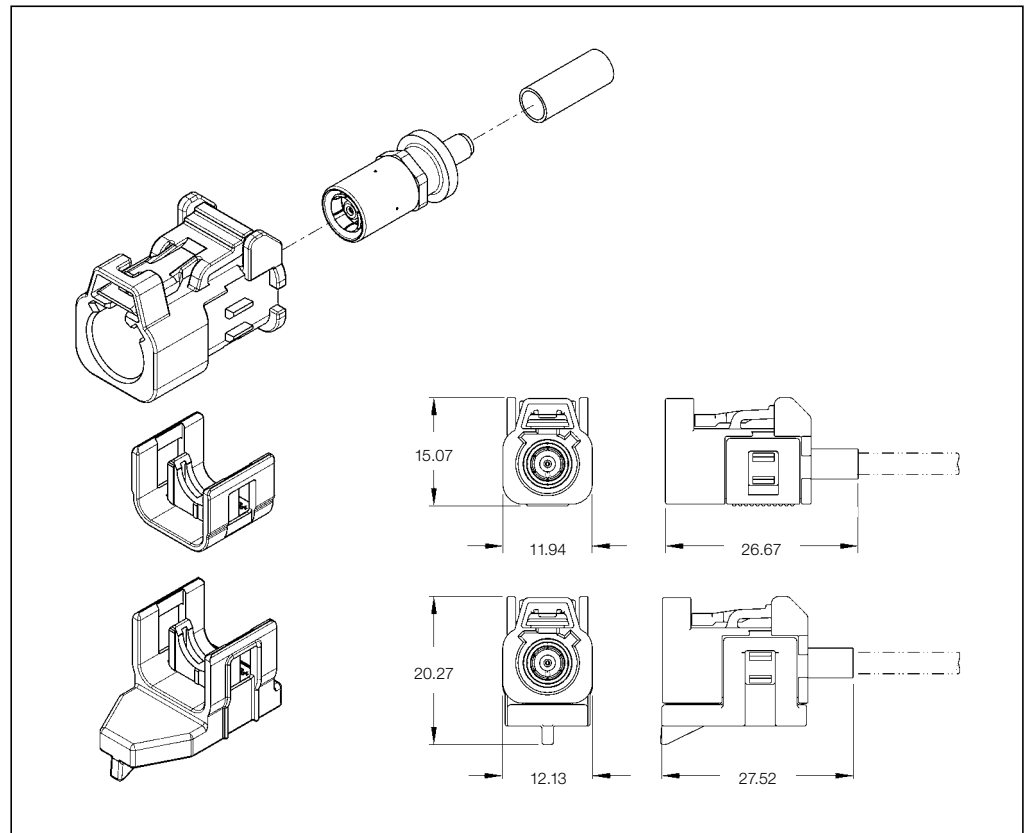
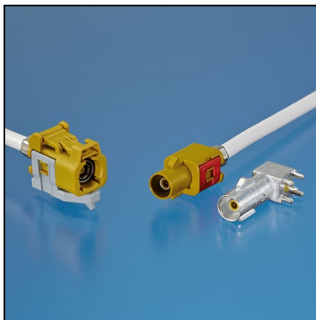
RG 316, RG 174 and RG 179

Product Specification:

DIN 72594-1

Application Specification:

114-13157



1 Position Kit, Female

Keying Options	Housing Color	Part Numbers									
		Female Kit	Contacts*	Mating Male Kit							
A	Jet Black	1924792-1	1438896-4 or 1438896-6	1438912-1							
		5-1924792-1									
B	Signal White	1924792-2		1438896-4 or 1438896-6	1438912-2						
		5-1924792-2									
C	Signal Blue	1924792-3			1438896-4 or 1438896-6	1438912-3					
		5-1924792-3									
D	Claret Violet	1924792-4				1438896-4 or 1438896-6	1438912-4				
		5-1924792-4									
E	Leaf Green	1924792-5					1438896-4 or 1438896-6	N/A			
		5-1924792-5									
F	Nut Brown	1924792-6						1438896-4 or 1438896-6	1438912-6		
		5-1924792-6									
G	Blue Gray	1924792-7							1438896-4 or 1438896-6	N/A	
		5-1924792-7									
H	Heather Violet	1924792-8								1438896-4 or 1438896-6	1438912-8
		5-1924792-8									
K	Curry	1-1924792-0	1-1438912-0								
		6-1924792-0									

*) Socket Contact Part No. 1438896-4 must be purchased separately for RG 316 and RG 174.
Socket Contact Part No. 1438896-6 must be purchased separately for RG 179.
5-xxx or 6-xxx indicates body clip slot on lock.

1 Position Right-Angle Female Kit for RG 316, RG 174, and RG 179

Technical Features

No. of Positions:

1 Position Kit, Female, un-assembled

Housing Material:

Polyester PBT

Wire Size Range:

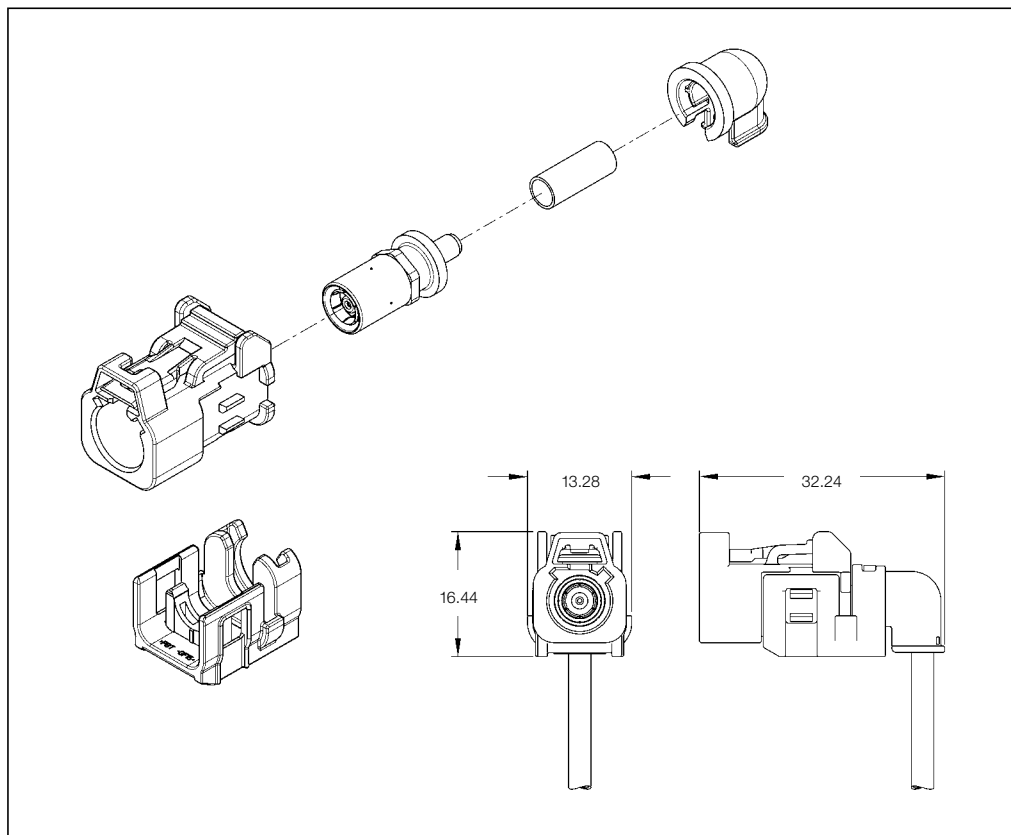
RG 316, RG 174 and RG 179

Product Specification:

DIN 72594-1

Application Specification:

114-13157



1 Position Kit, Female

Keying Options	Housing Color	Part Numbers		
		Female Kit	Contacts*	Mating Male Kit
A	Jet Black	2035141-1		1438912-1
B	Signal White	2035141-2		1438912-2
C	Signal Blue	2035141-3		1438912-3
D	Claret Violet	2035141-4	1438896-4	1438912-4
E	Leaf Green	2035141-5	or	N/A
F	Nut Brown	2035141-6	1438896-6	1438912-6
G	Blue Gray	2035141-7		N/A
H	Heather Violet	2035141-8		1438912-8
K	Curry	1-2035141-0		1-1438912-0

*) Socket Contact Part No. 1438896-4 must be purchased separately for RG 316 and RG 174.
Socket Contact Part No. 1438896-6 must be purchased separately for RG 179.

1 Position Kit, Female for RG 62U/M

Technical Features

No. of Positions:

1 Position Kit, Female,
un-assembled

Housing Material:

Polyester PBT

Wire Size Range:

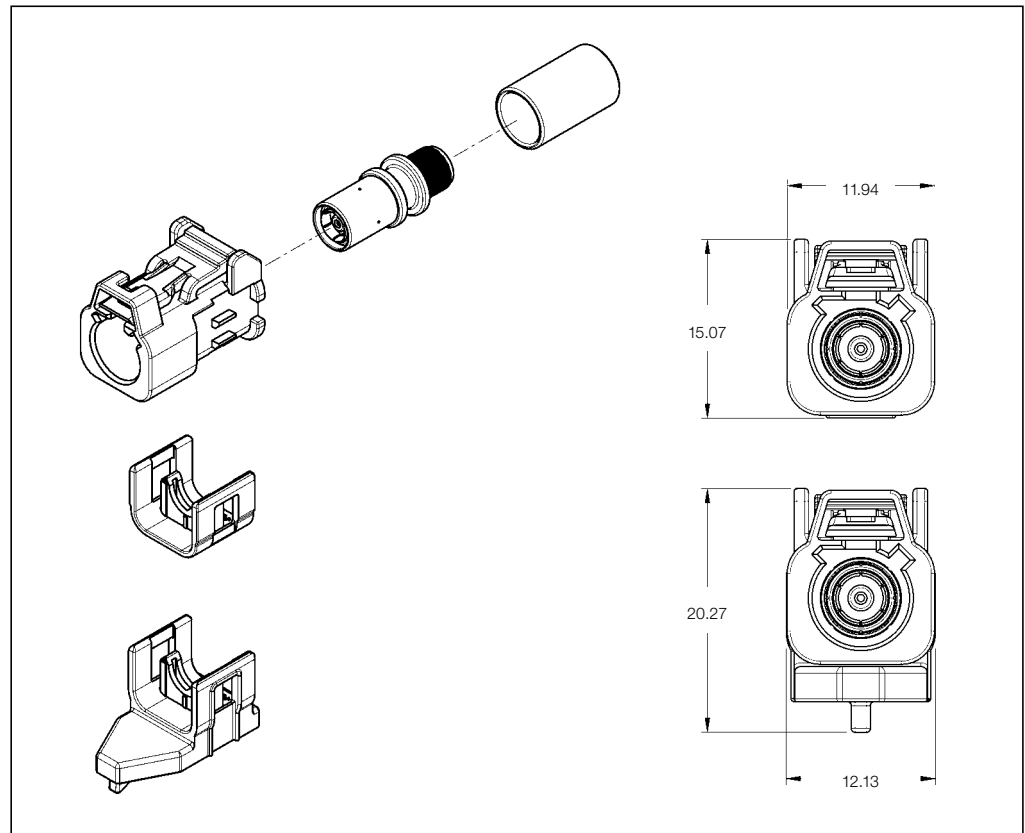
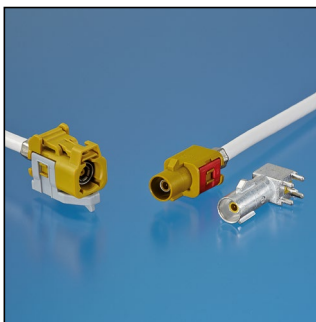
RG 62U/M

Product Specification:

DIN 72594-1

Application Specification:

114-13157



1 Position Kit, Female

Keying Options	Housing Color	Part Numbers						
		Female Kit	Contacts*	Mating Male Kit				
A	Jet Black	1438922-1	1438896-6	1438924-1				
		5-1438922-1						
B	Signal White	1438922-2		1438896-6	1438924-2			
		5-1438922-2						
C	Signal Blue	1438922-3			1438896-6	1438924-3		
		5-1438922-3						
D	Claret Violet	1438922-4				1438896-6	1438924-4	
		5-1438922-4						
E	Leaf Green	•)					1438896-6	N/A
F	Nut Brown	•)						•)
G	Blue Gray	1438922-7						N/A
H	Heather Violet	1438922-8	1438896-6					1438924-8
		5-1438922-8						
K	Curry	1-1438922-0		1438896-6				1-1438924-0
		6-1438922-0						

*) Socket Contact Part No. 1438896-6 must be purchased separately.
5-xxx or 6-xxx indicates body clip slot on lock.

*) Available on request. Please contact your local TE sales representative.

1 Position Right-Angle Female Kit for RG 62U/M

Technical Features

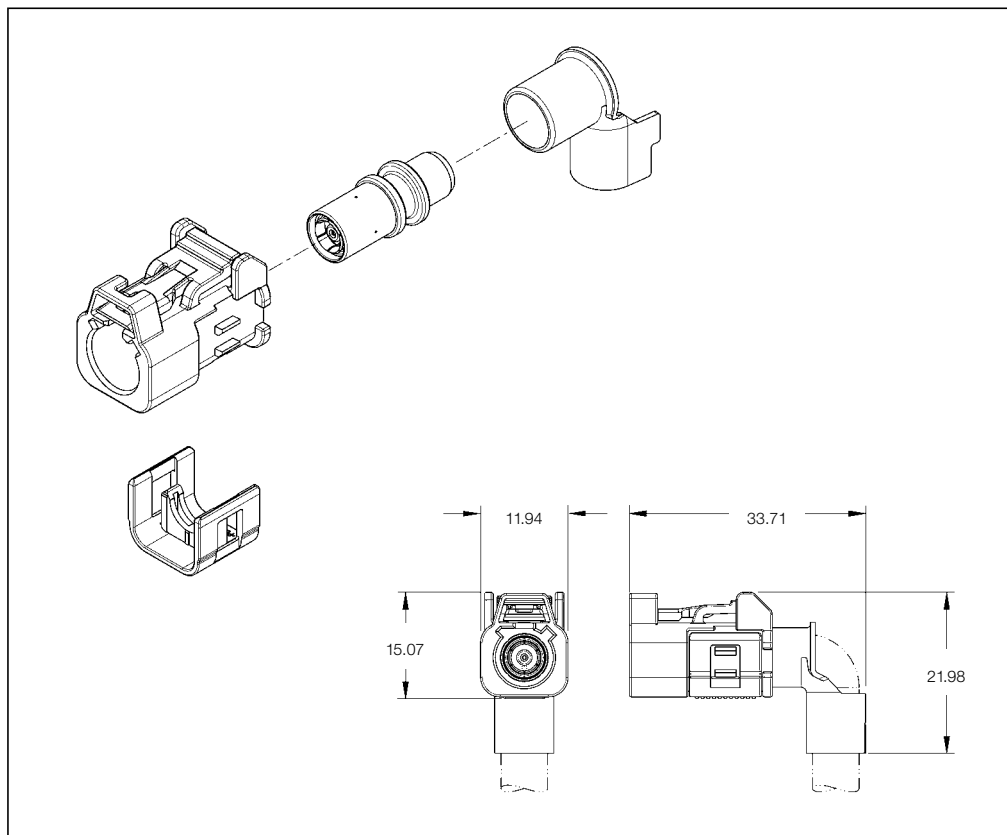
No. of Positions:
1 Position Kit, Female,
un-assembled

Housing Material:
Polyester PBT

Wire Size Range:
RG 62U/M

Product Specification:
DIN 72594-1

Application Specification:
114-13157



1 Position Kit, Female

Keying Options	Housing Color	Part Numbers		
		Female Kit	Contacts *	Mating Male Kit
A	Jet Black	1438923-1		1438924-1
B	Signal White	1438923-2		1438924-2
C	Signal Blue	1438923-3		1438924-3
D	Claret Violet	1438923-4		1438924-4
E	Leaf Green	•)	1438896-6	N/A
F	Nut Brown	•)		•)
G	Blue Gray	•)		N/A
H	Heather Violet	1438923-8		1438924-8
K	Curry	1-1438923-0		1-1438924-0

*) Socket Contact Part No. 1438896-6 must be purchased separately.

•) Available on request. Please contact your local TE sales representative.

1 Position Kit, Female for RG 71

Technical Features

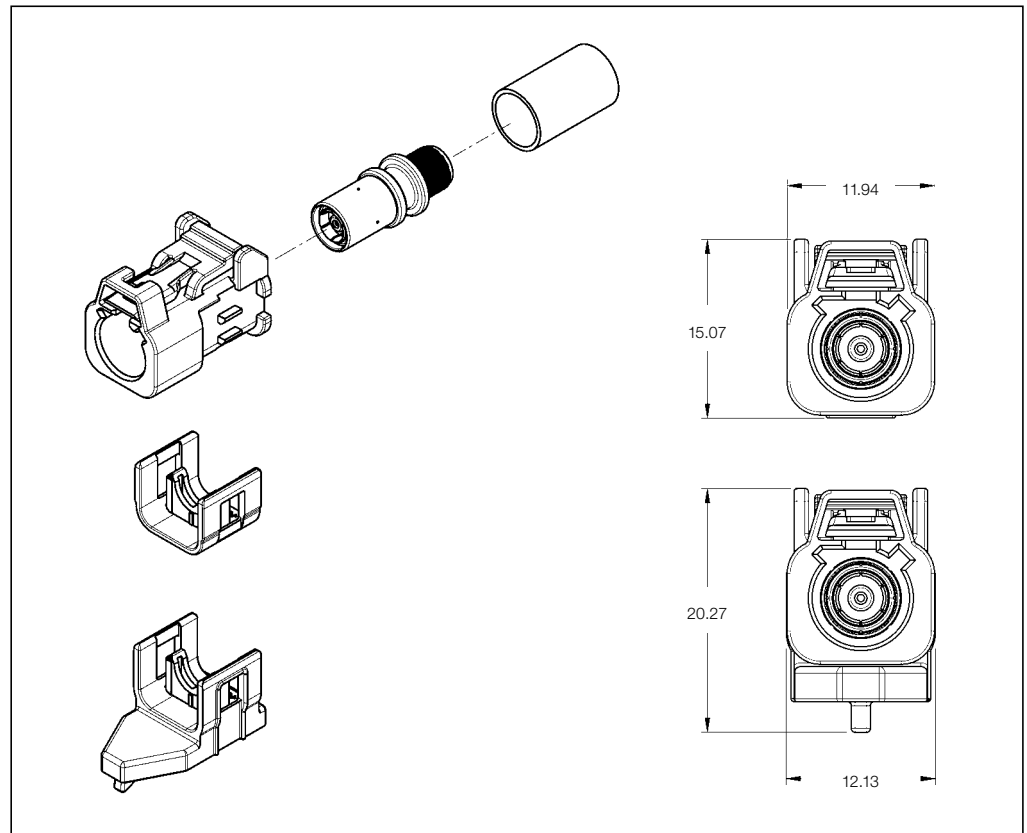
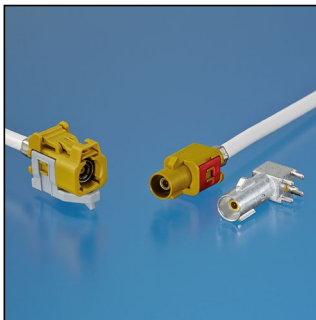
No. of Positions:
1 Position Kit, Female,
un-assembled

Housing Material:
Polyester PBT

Wire Size Range:
RG 71

Product Specification:
DIN 72594-1

Application Specification:
114-13157



1 Position Kit, Female

Keying Options	Housing Color	Part Numbers						
		Female Kit	Contacts*	Mating Male Kit				
A	Jet Black	1438955-1	1438896-4	1438957-1				
		5-1438955-1						
B	Signal White	1438955-2		1438896-4	1438957-2			
		5-1438955-2						
C	Signal Blue	1438955-3			1438896-4	1438957-3		
		5-1438955-3						
D	Claret Violet	1438955-4				1438896-4	1438957-4	
		5-1438955-4						
E	Leaf Green	•)					1438896-4	N/A
F	Nut Brown	•)						N/A
G	Blue Gray	•)						N/A
H	Heather Violet	1438955-8						1438896-4
		5-1438955-8						
K	Curry	1-1438955-0	1438896-4					
		6-1438955-0						

*) Socket Contact Part No. 1438896-4 must be purchased separately.
5-xxx or 6-xxx indicates body clip slot on lock.

*) Available on request. Please contact your local TE sales representative.

1 Position Right-Angle Female Kit for RG 71

Technical Features

No. of Positions:

1 Position Kit, Female, un-assembled

Housing Material:

Polyester PBT

Wire Size Range:

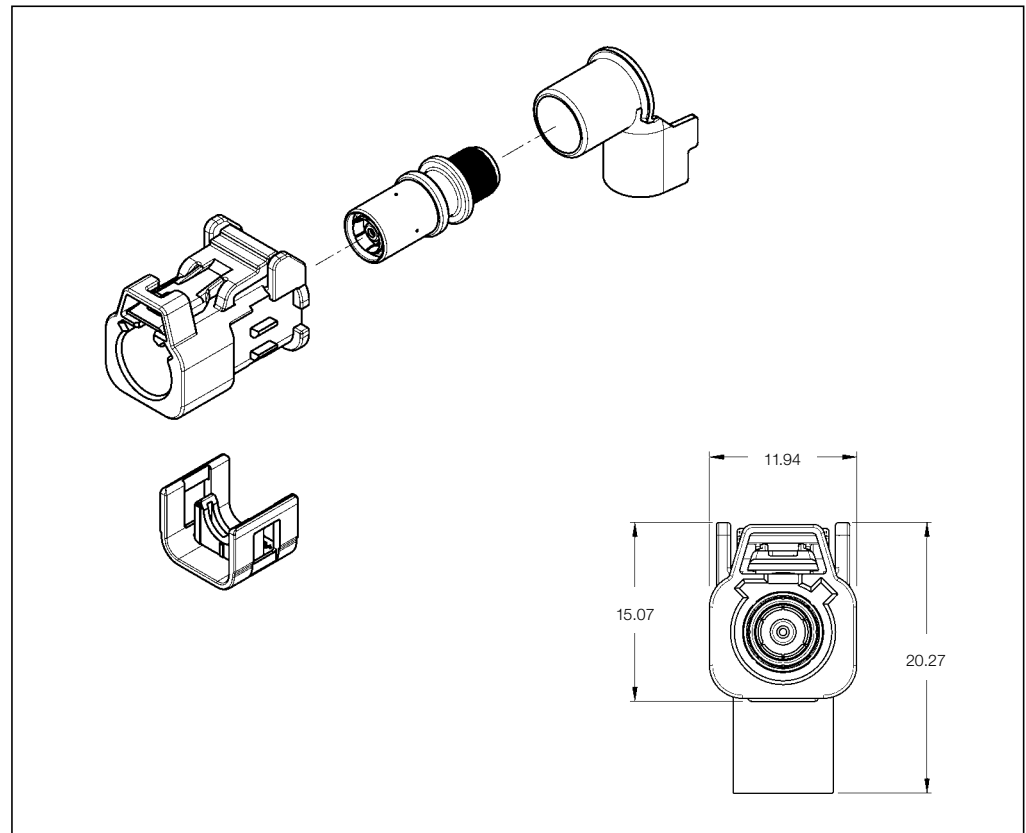
RG 71

Product Specification:

DIN 72594-1

Application Specification:

114-13157



1 Position Kit, Female

Keying Options	Housing Color	Part Numbers		
		Female Kit	Contacts *	Mating Male Kit
A	Jet Black	1438956-1		1438957-1
B	Signal White	1438956-2		1438957-2
C	Signal Blue	1438956-3		1438957-3
D	Claret Violet	1438956-4		1438957-4
E	Leaf Green	•)	1438896-4	N/A
F	Nut Brown	•)		•)
G	Blue Gray	•)		N/A
H	Heather Violet	1438956-8		1438957-8
K	Curry	1-1438956-0		1-1438957-0

*) Socket Contact Part No. 1438896-4 must be purchased separately.

•) Available on request. Please contact your local TE sales representative.

1 Position Kit, Female for RG 71U/M

Technical Features

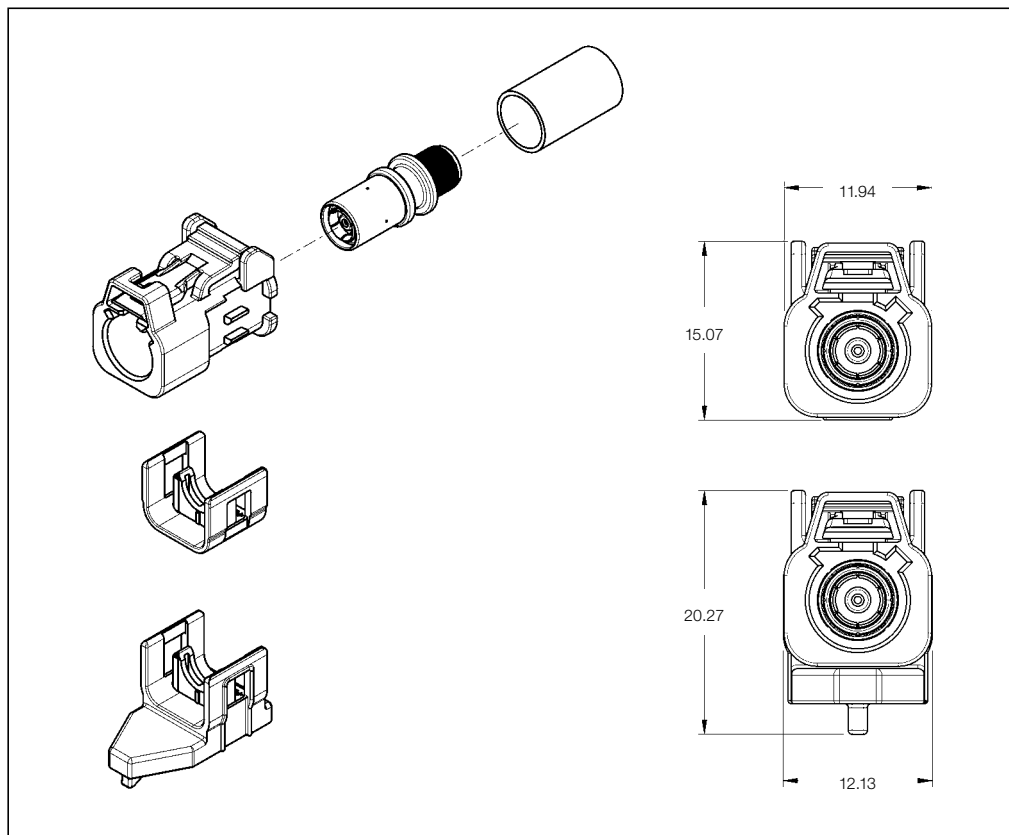
No. of Positions:
1 Position Kit, Female,
un-assembled

Housing Material:
Polyester PBT

Wire Size Range:
RG 71U/M

Product Specification:
DIN 72594-1

Application Specification:
114-13157



1 Position Kit, Female

Keying Options	Housing Color	Part Numbers										
		Female Kit	Contacts*	Mating Male Kit								
A	Jet Black	1438958-1	1438896-6	1438960-1								
		5-1438958-1										
B	Signal White	1438958-2		1438896-6	1438960-2							
		5-1438958-2										
C	Signal Blue	1438958-3			1438896-6	1438960-3						
		5-1438958-3										
D	Claret Violet	1438958-4				1438896-6	1438960-4					
		5-1438958-4										
E	Leaf Green	•)					1438896-6	N/A				
F	Nut Brown	•)						1438896-6	•)			
G	Blue Gray	•)							1438896-6	N/A		
H	Heather Violet	1438958-8								1438896-6	1438960-8	
		5-1438958-8										
K	Curry	1-1438958-0									1438896-6	1-1438960-0
		6-1438958-0										

*) Socket Contact Part No. 1438896-6 must be purchased separately.
5-xxx or 6-xxx indicates body clip slot on lock.

*) Available on request. Please contact your local TE sales representative.

1 Position Right-Angle Female Kit for RG 71U/M

Technical Features

No. of Positions:

1 Position Kit, Female, un-assembled

Housing Material:

Polyester PBT

Wire Size Range:

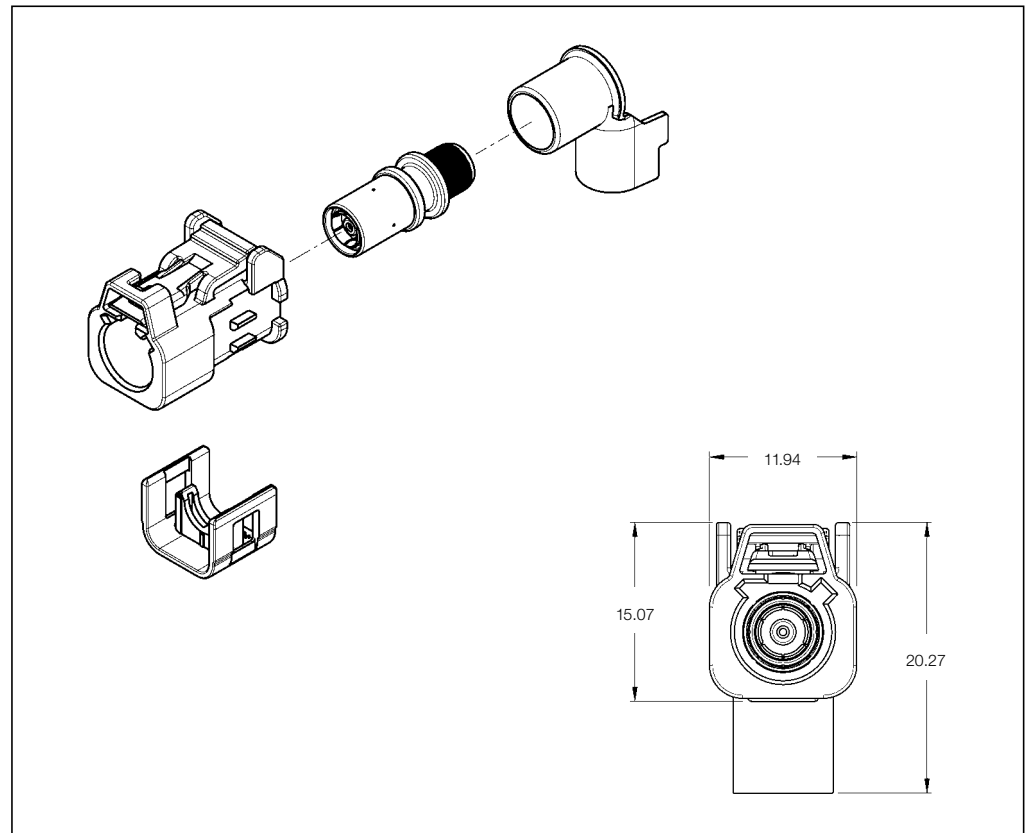
RG 71U/M

Product Specification:

DIN 72594-1

Application Specification:

114-13157



1 Position Kit, Female

Keying Options	Housing Color	Part Numbers		
		Female Kit	Contacts *	Mating Male Kit
A	Jet Black	1438959-1		1438960-1
B	Signal White	1438959-2		1438960-2
C	Signal Blue	1438959-3		1438960-3
D	Claret Violet	1438959-4		1438960-4
E	Leaf Green	•)	1438896-6	N/A
F	Nut Brown	•)		•)
G	Blue Gray	•)		N/A
H	Heather Violet	1438959-8		1438960-8
K	Curry	1-1438959-0		1-1438960-0

*) Socket Contact Part No. 1438896-6 must be purchased separately.

•) Available on request. Please contact your local TE sales representative.

1 Position Kit, Female for 1.5DS-QFB

Technical Features

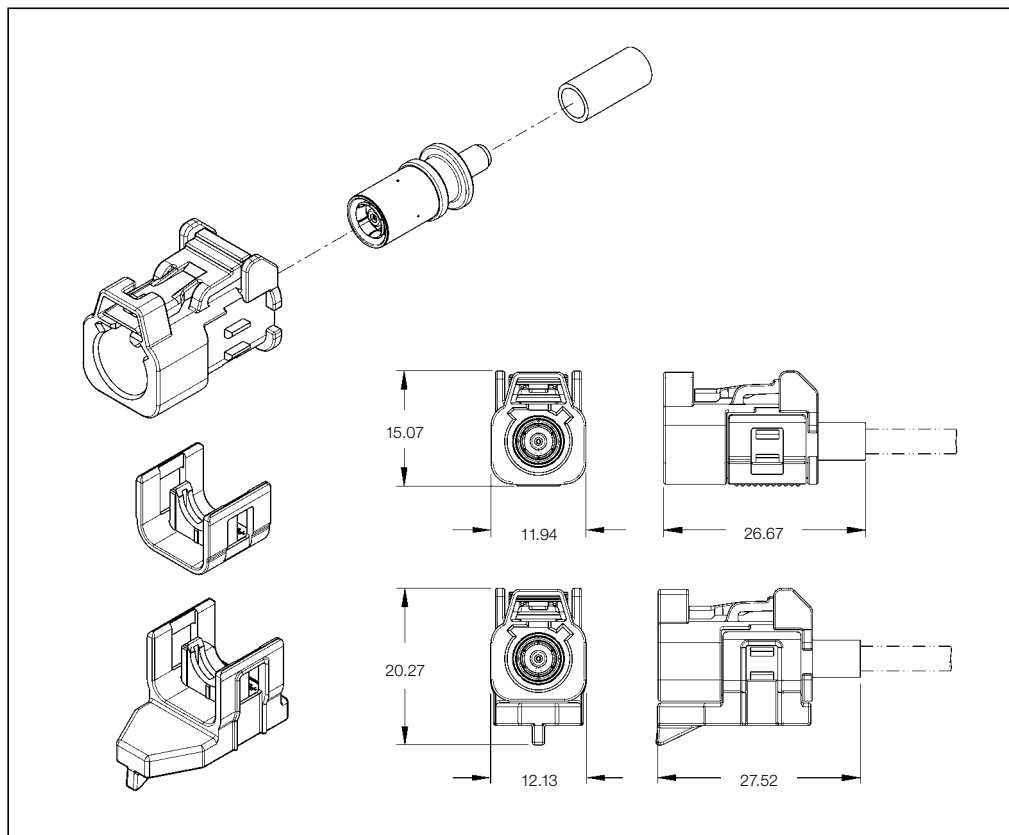
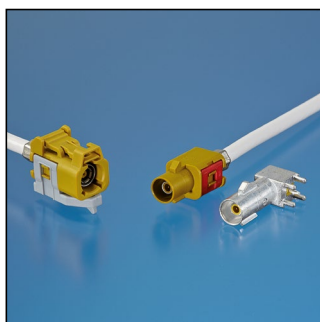
No. of Positions:
1 Position Kit, Female,
un-assembled

Housing Material:
Polyester PBT

Wire Size Range:
1.5DS-QFB

Product Specification:
DIN 72594-1

Application Specification:
114-13157



1 Position Kit, Female

Keying Options	Housing Color	Part Numbers									
		Female Kit	Contacts *	Mating Male Kit							
A	Jet Black	1924134-1	1438896-4	1924133-1							
		5-1924134-1									
B	Signal White	1924134-2		1438896-4	1924133-2						
		5-1924134-2									
C	Signal Blue	1924134-3			1438896-4	1924133-3					
		5-1924134-3									
D	Claret Violet	1924134-4				1438896-4	1924133-4				
		5-1924134-4									
E	Leaf Green	1924134-5					1438896-4	N/A			
		5-1924134-5									
F	Nut Brown	1924134-6						1438896-4	1924133-6		
		5-1924134-6									
G	Blue Gray	*)							1438896-4	N/A	
H	Heather Violet	1924134-8								1438896-4	1924133-8
		5-1924134-8									
K	Curry	1-1924134-0	1438896-4								1-1924133-0
		6-1924134-0									

*) Socket Contact Part No. 1438896-4 must be purchased separately.
5-xxx or 6-xxx indicates body clip slot on lock.

*) Available on request. Please contact your local TE sales representative.

1 Position Kit, Female for RG 59

Technical Features

No. of Positions:

1 Position Kit, Female, un-assembled

Housing Material:

Polyester PBT

Wire Size Range:

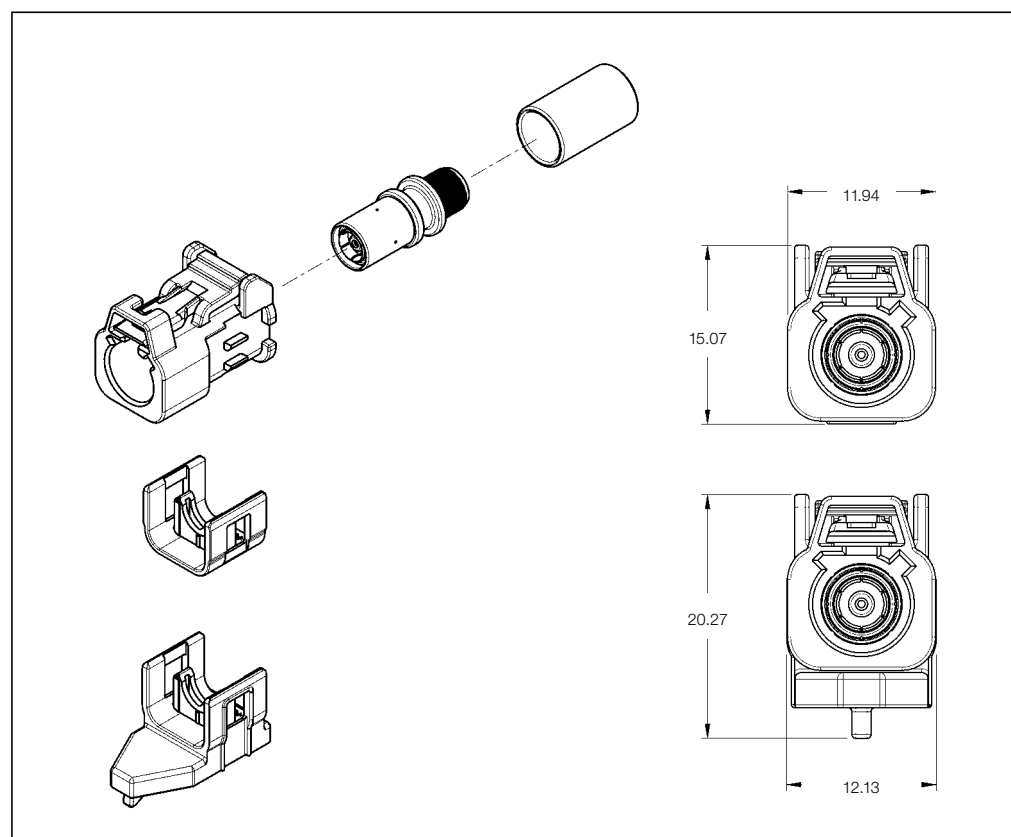
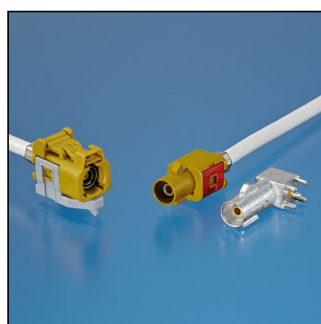
RG 59

Product Specification:

DIN 72594-1

Application Specification:

114-13157



1 Position Kit, Female

Keying Options	Housing Color	Part Numbers						
		Female Kit	Contacts*	Mating Male Kit				
A	Jet Black	776682-1	1438896-4	776681-1				
		5-776682-1						
B	Signal White	776682-2		1438896-4	776681-2			
		5-776682-2						
C	Signal Blue	776682-3			1438896-4	776681-3		
		5-776682-3						
D	Claret Violet	776682-4				1438896-4	776681-4	
		5-776682-4						
E	Leaf Green	•)					1438896-4	N/A
F	Nut Brown	•)						N/A
G	Blue Gray	•)	N/A					
H	Heather Violet	776682-8	1438896-4					776681-8
		5-776682-8						
K	Curry	1-776682-0		1438896-4				1-776681-0
		6-776682-0						

*) Socket Contact Part No. 1438896-4 must be purchased separately.
5-xxx or 6-xxx indicates body clip slot on lock.

•) Available on request. Please contact your local TE sales representative.

1 Position Right-Angle Female Kit for RG 59

Technical Features

No. of Positions:

1 Position Kit, Female, un-assembled

Housing Material:

Polyester PBT

Wire Size Range:

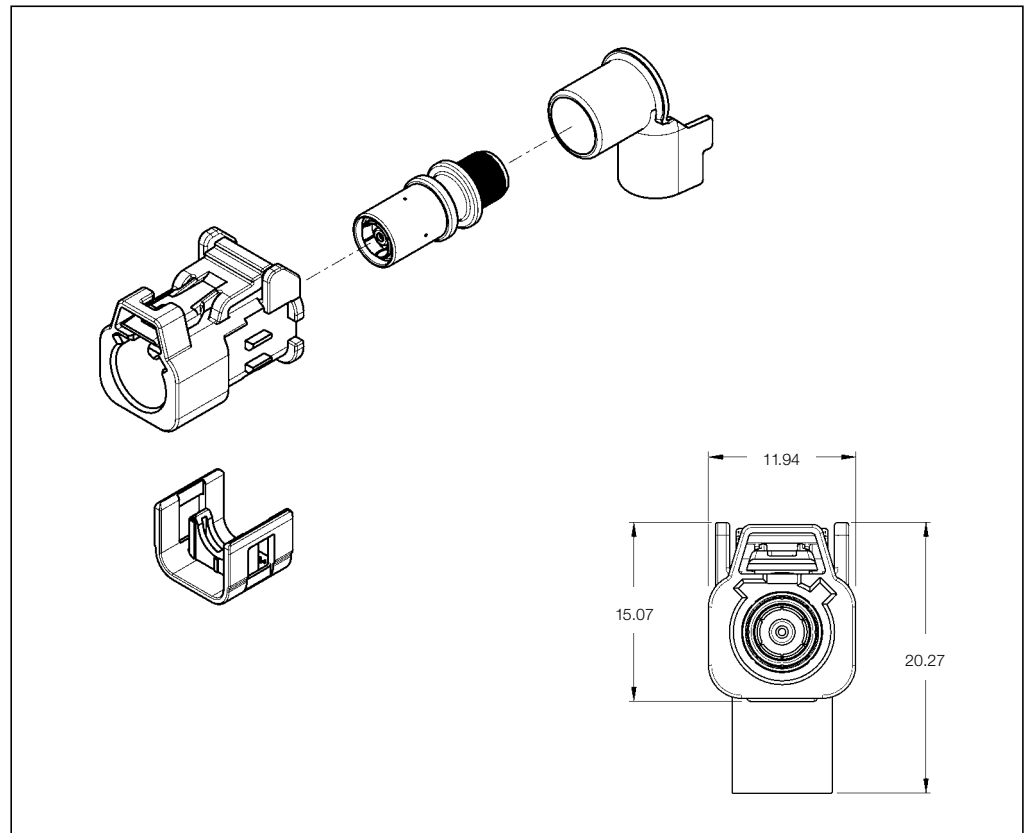
RG 59

Product Specification:

DIN 72594-1

Application Specification:

114-13157



1 Position Kit, Female

Keying Options	Housing Color	Part Numbers		
		Female Kit	Contacts*	Mating Male Kit
A	Jet Black	776683-1		776681-1
B	Signal White	776683-2		776681-2
C	Signal Blue	776683-3		776681-3
D	Claret Violet	776683-4		776681-4
E	Leaf Green	•)	1438896-4	N/A
F	Nut Brown	•)		•)
G	Blue Gray	•)		N/A
H	Heather Violet	776683-8		776681-8
K	Curry	1-776683-0		1-776681-0

*) Socket Contact Part No. 1438896-4 must be purchased separately.

•) Available on request. Please contact your local TE sales representative.

2 Position Kit, Male for RG 174, and RG 174

Technical Features

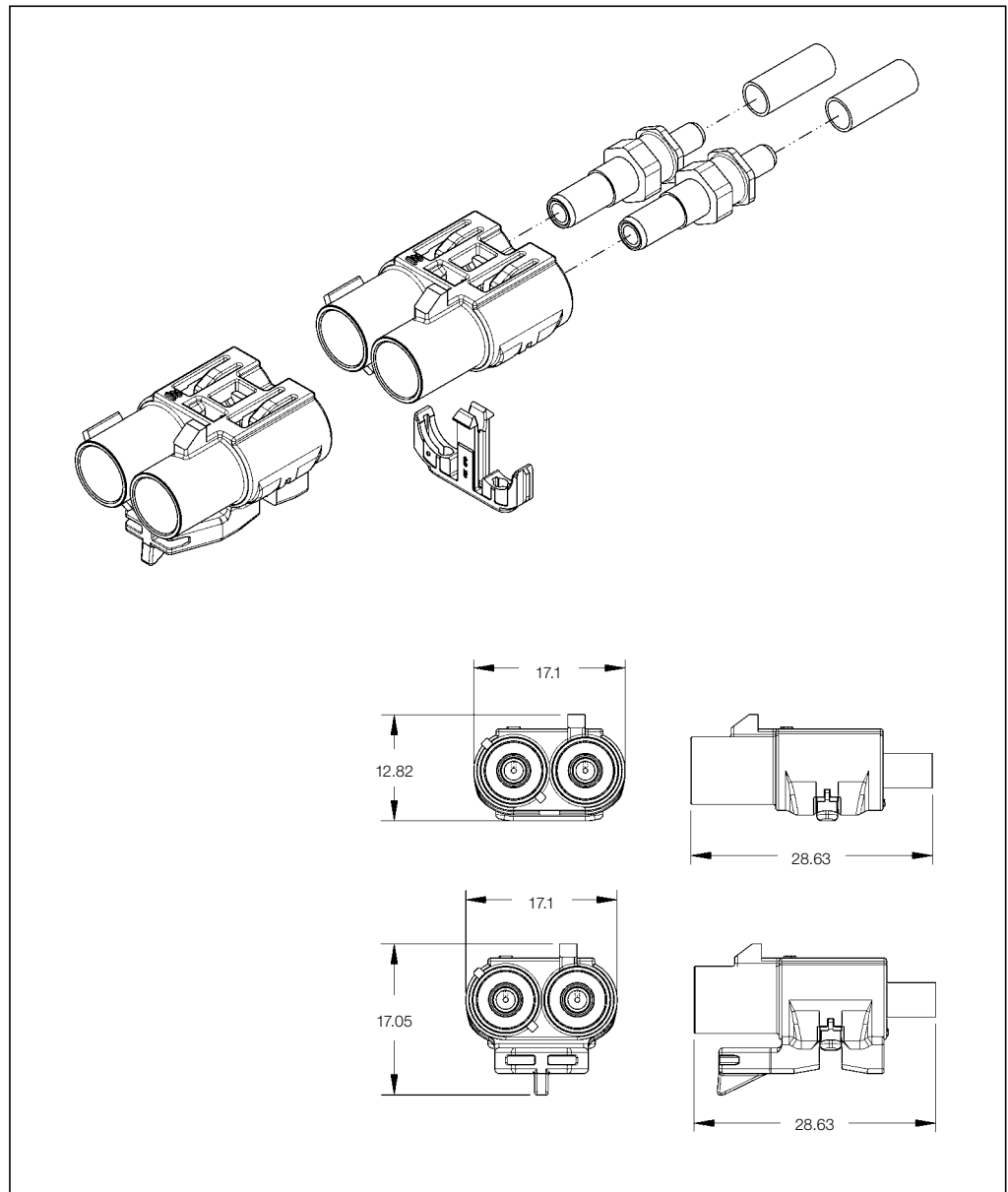
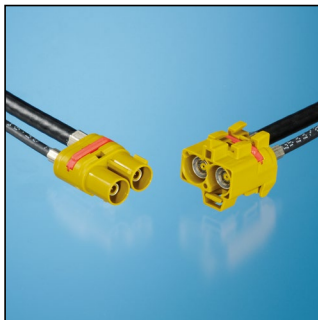
No. of Positions:
2 Position Kit, Male,
un-assembled

Housing Material:
Polyester PBT

Wire Size Range:
RG 174

Product Specification:
DIN 72594-1

Application Specification:
114-13157



2 Position Kit, Male

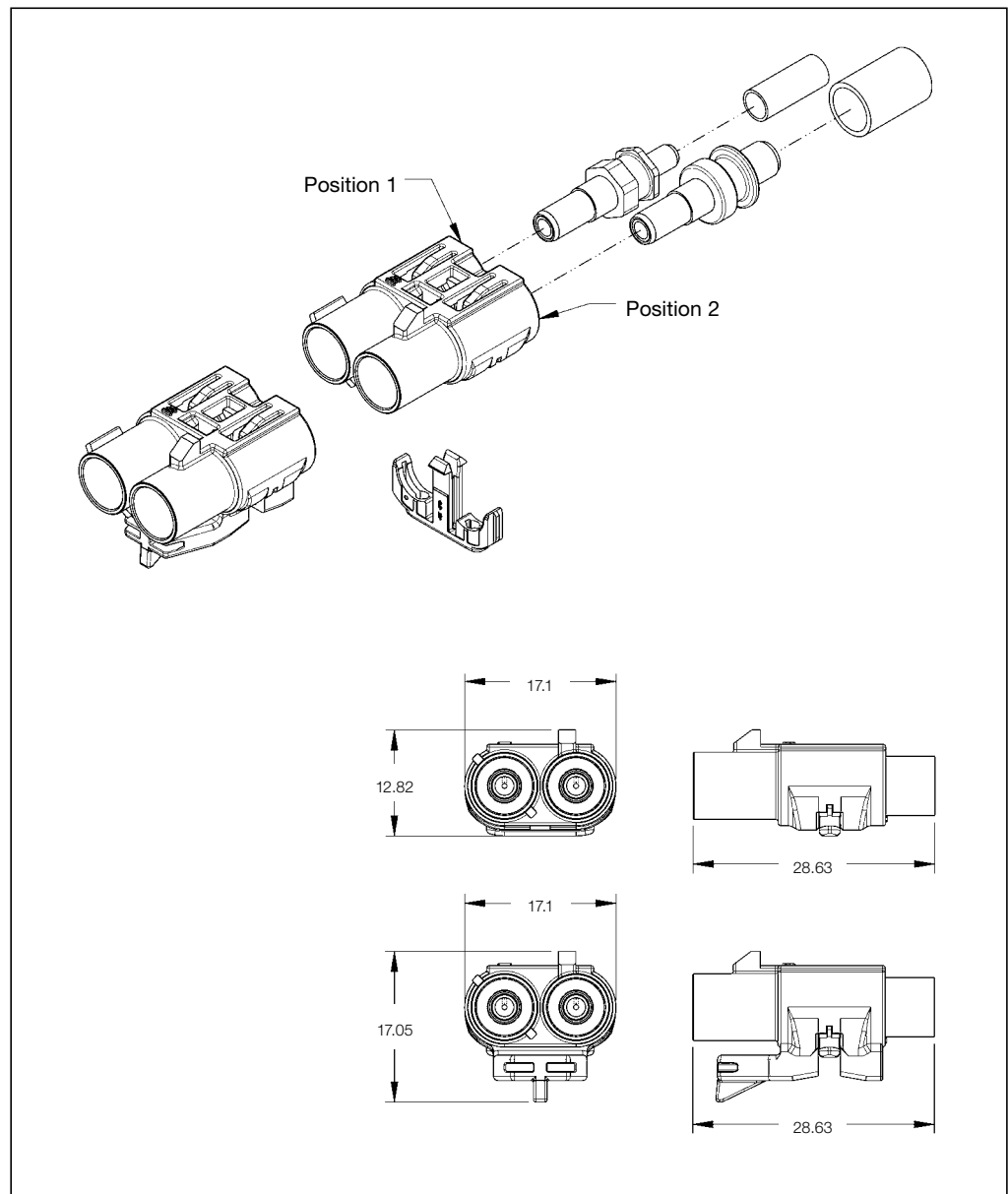
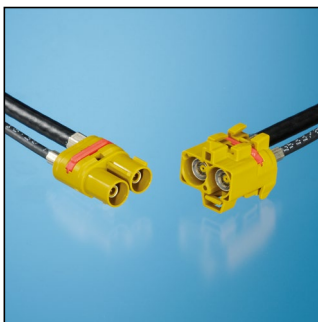
Keying Options	Housing Color	Part Numbers		
		Male Kit	Contacts *	Mating Female Kit
C2	Signal Blue	2035049-3	1438890-8	2035050-3
		1-2035049-3		

*) Pin Contact Part No. 1438890-8 must be purchased separately.
Part Number 1-2035049-3 has body clip slot.

2 Position Kit, Male for RG 174, and RG 58/RG 58LL

Technical Features

- No. of Positions:**
2 Position Kit, Male, un-assembled
- Housing Material:**
Polyester PBT
- Wire Size Range:**
RG 174 and RG 58/RG 58LL
- Product Specification:**
DIN 72594-1
- Application Specification:**
114-13157



2 Position Kit, Male

Keying Options	Housing Color	Part Numbers		
		Male Kit	Contacts *	Mating Female Kit
C2	Signal Blue	2035242-3	1438890-7	2035243-3
		1-2035242-3	and 1438890-8	

*) Pin Contact Part No. 1438890-7 must be purchased separately for RG 58 and RG 58LL.
Pin Contact Part No. 1438890-8 must be purchased separately for RG 174 Mini.
Part Number 1-2035242-3 has body clip slot.

2 Position Kit, Male for 1.5DS, and 1.5DS

Technical Features

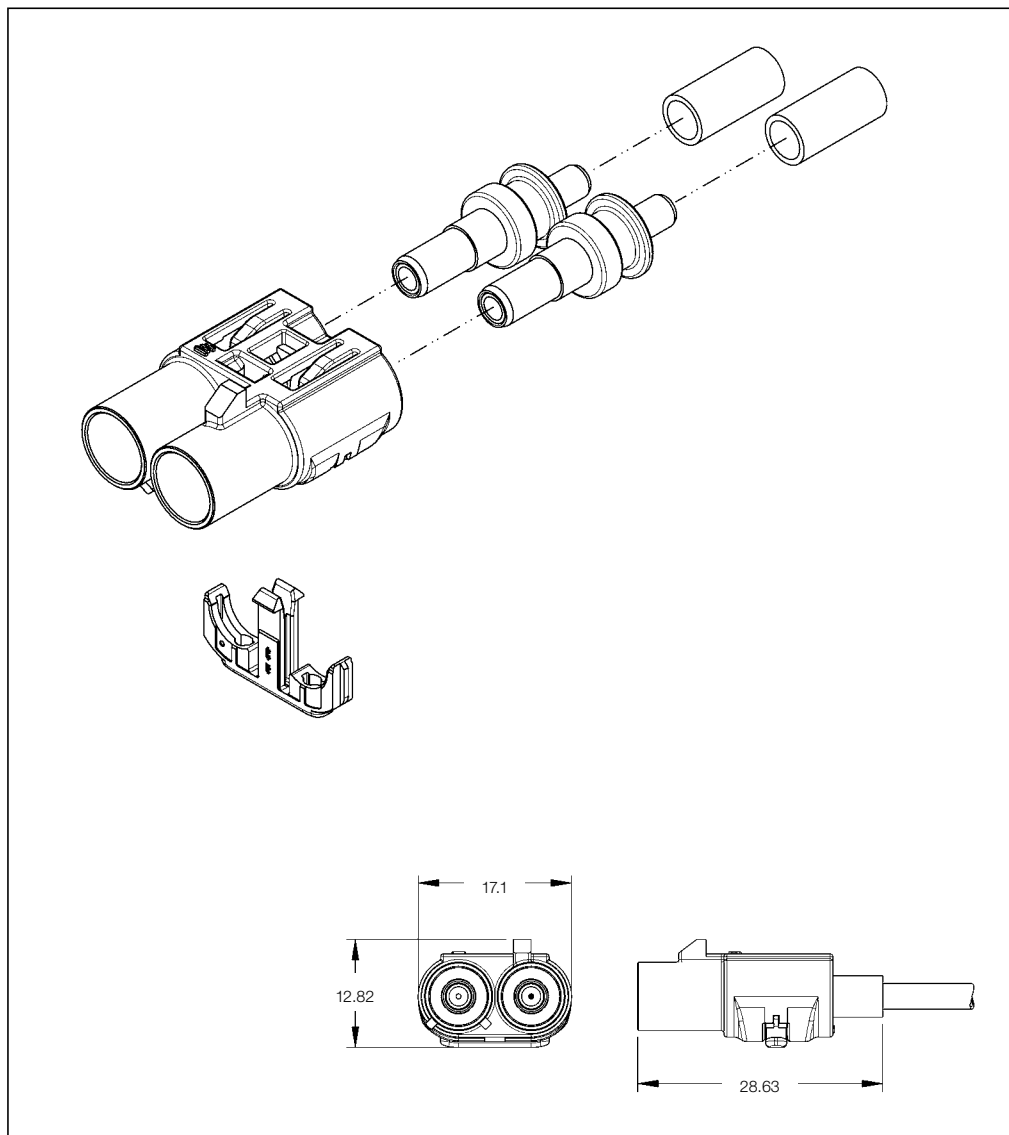
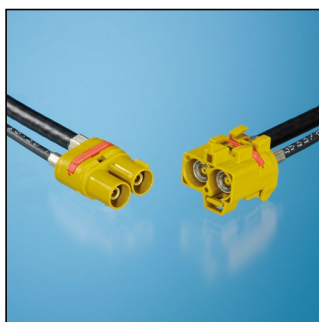
No. of Positions:
2 Position Kit, Male,
un-assembled

Housing Material:
Polyester PBT

Wire Size Range:
1.5DS

Product Specification:
DIN 72594-1

Application Specification:
114-13157



2 Position Kit, Male

Keying Options	Housing Color	Part Numbers		
		Male Kit	Contacts*	Mating Female Kit
K2	Curry	1-2098134-0	1438890-8	6-2098140-0

*) Pin Contact Part No. 1438890-8 must be purchased separately.

2 Position Kit, Male for RG 174, and RG 71U/M

Technical Features

No. of Positions:

2 Position Kit, Male, un-assembled

Housing Material:

Polyester PBT

Wire Size Range:

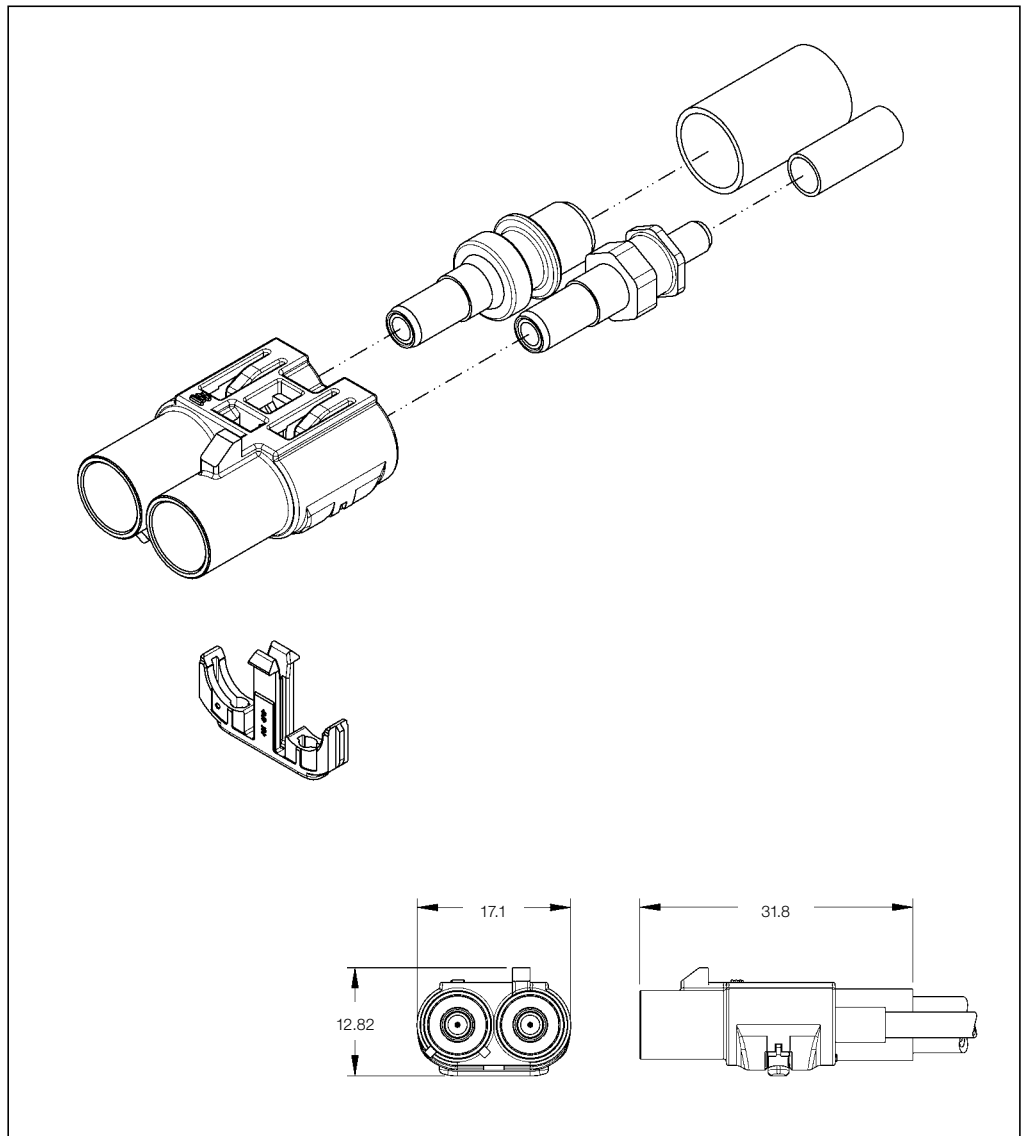
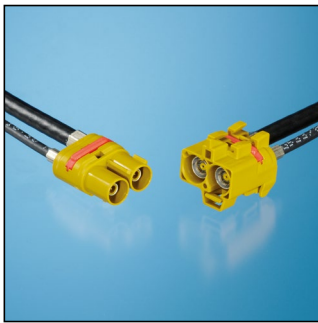
RG 174 and RG 71U/M

Product Specification:

DIN 72594-1

Application Specification:

114-13157



2 Position Kit, Male

Keying Options	Housing Color	Part Numbers		
		Male Kit	Contacts*	Mating Female Kit
K2	Curry	1-2098135-0	1438890-8 and 1438890-9	6-2098141-0

*) Pin Contact Part No. 1438890-8 must be purchased separately for RG 174.
Pin Contact Part No. 1438890-9 must be purchased separately for RG 71U/M.

2 Position Kit, Male for 1.5DS, and RG 71U/M

Technical Features

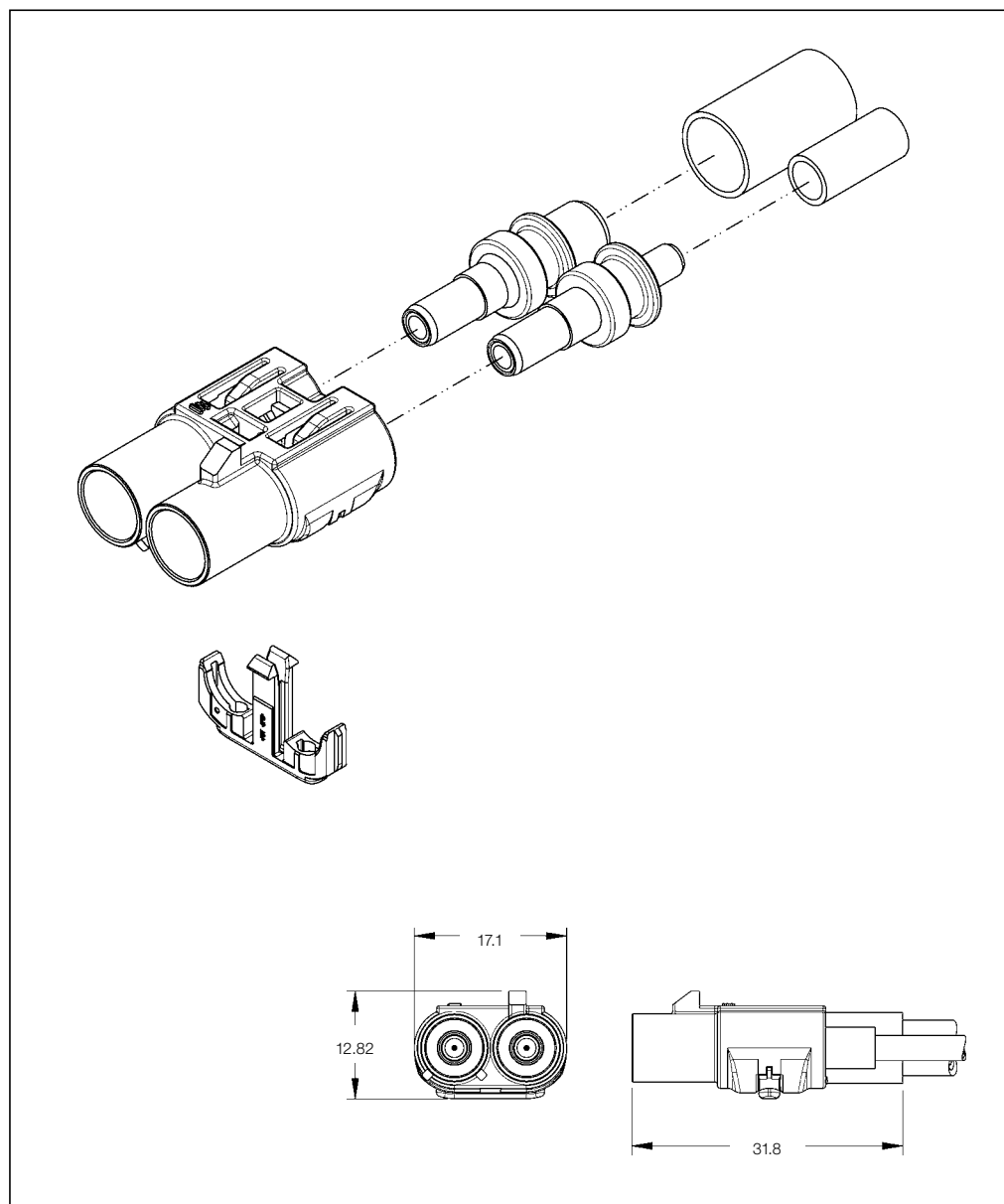
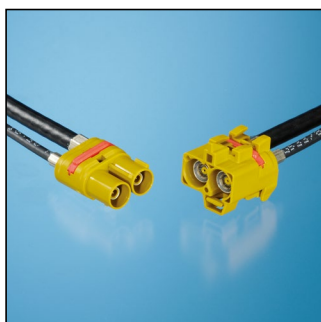
No. of Positions:
2 Position Kit, Male,
un-assembled

Housing Material:
Polyester PBT

Wire Size Range:
1.5DS and RG 71U/M

Product Specification:
DIN 72594-1

Application Specification:
114-13157



2 Position Kit, Male

Keying Options	Housing Color	Part Numbers		
		Male Kit	Contacts *	Mating Female Kit
K2	Curry	1-2098136-0	1438890-8 and 1438890-9	6-2098142-0

*) Pin Contact Part No. 1438890-8 must be purchased separately for 1.5DS.
Pin Contact Part No. 1438890-9 must be purchased separately for RG 71U/M.

2 Position Kit, Female for RG 174, and RG 174

Technical Features

No. of Positions:

2 Position Kit, Female, un-assembled

Housing Material:

Polyester PBT

Wire Size Range:

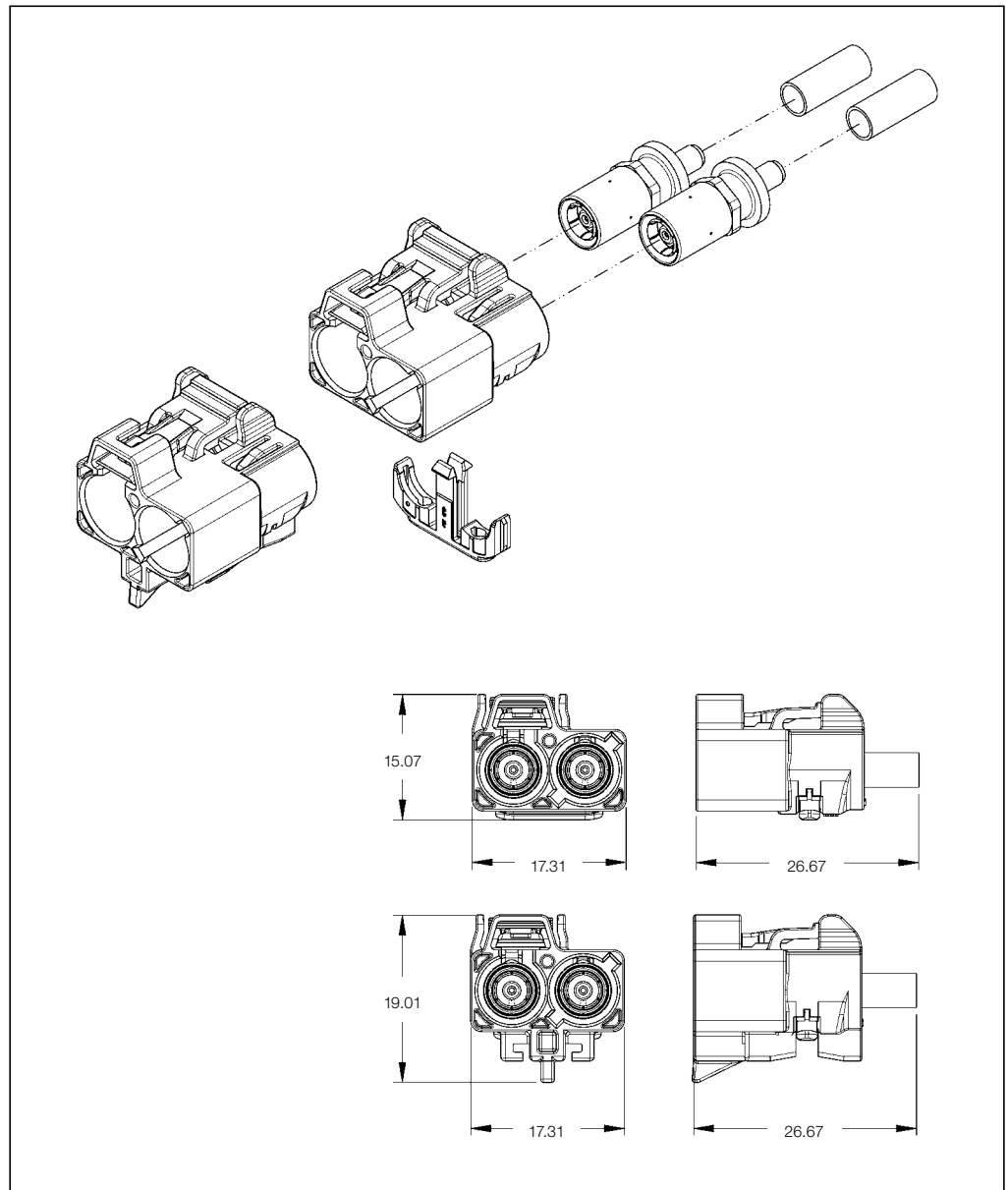
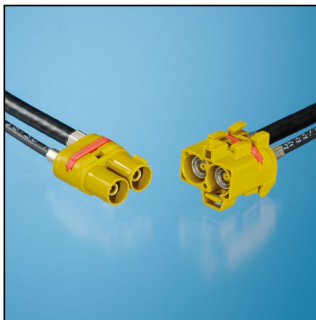
RG 174

Product Specification:

DIN 72594-1

Application Specification:

114-13157



2 Position Kit, Female

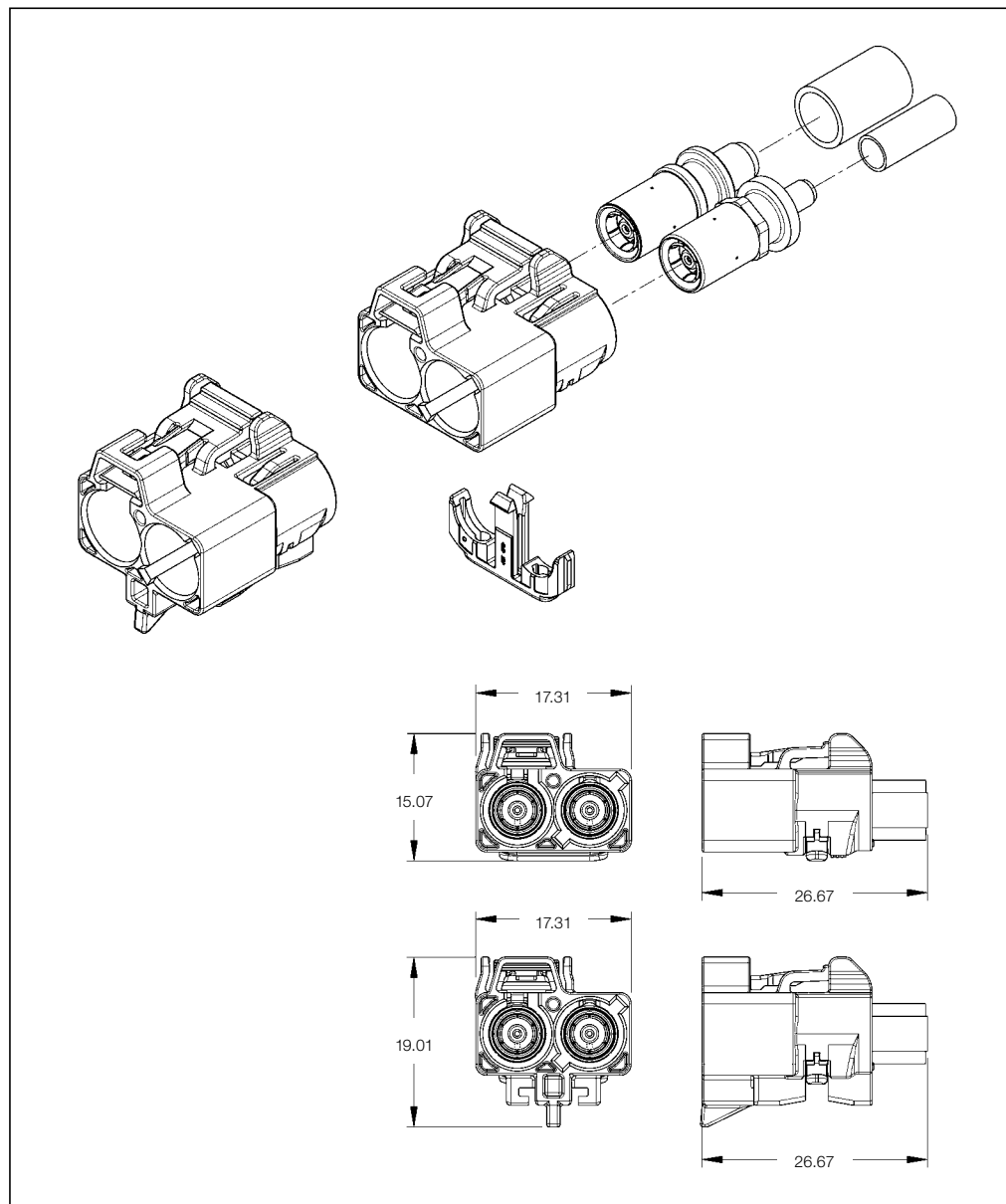
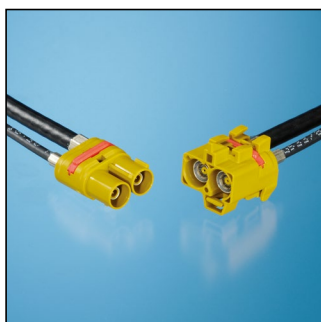
Keying Options	Housing Color	Part Numbers		
		Male Kit	Contacts *	Mating Female Kit
C2	Signal Blue	2035050-3	1438896-4	2035049-3
		1-2035050-3		

*) Socket Contact Part No. 1438896-4 must be purchased separately.
Part Number 1-2035050-3 has body clip slot.

2 Position Kit, Female for RG 174, and RG 58/RG 58LL

Technical Features

- No. of Positions:**
2 Position Kit, Female,
un-assembled
- Housing Material:**
Polyester PBT
- Wire Size Range:**
RG 174 and RG 58/RG 58LL
- Product Specification:**
DIN 72594-1
- Application Specification:**
114-13157



2 Position Kit, Female

Keying Options	Housing Color	Part Numbers		
		Female Kit	Contacts *	Mating Male Kit
C2	Signal Blue	2035243-3	1438896-2	2035242-3
		1-2035243-3	and 1438896-4	

*) Socket Contact Part No. 1438896-2 must be purchased separately for RG 58 or RG 58LL.
Socket Contact Part No. 1438896-4 must be purchased separately for RG 174.
Part Number 1-2035243-3 has body clip slot.

Housings and Connectors

2 Position Kit, Female for RG 174, and RG 174

Technical Features

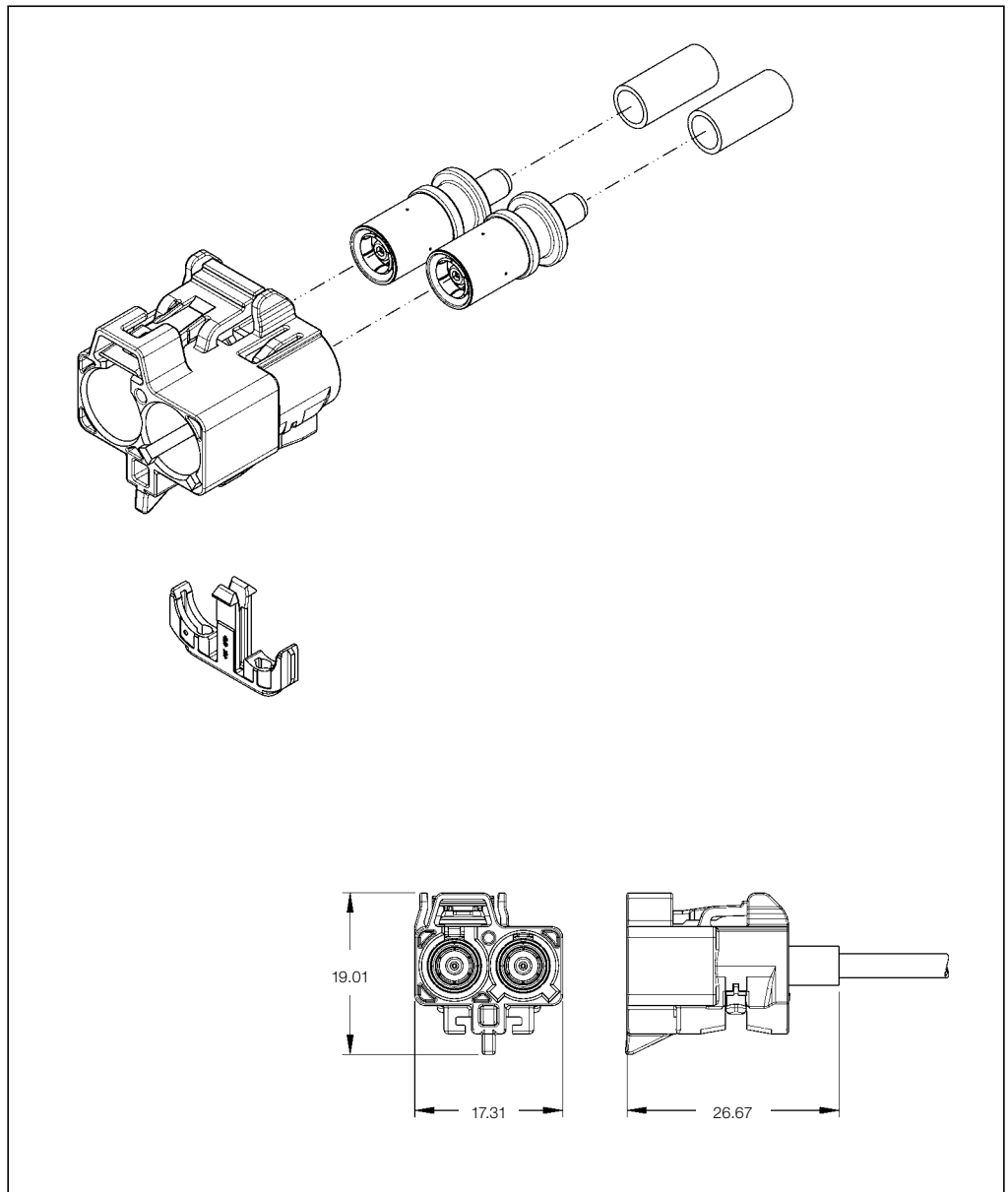
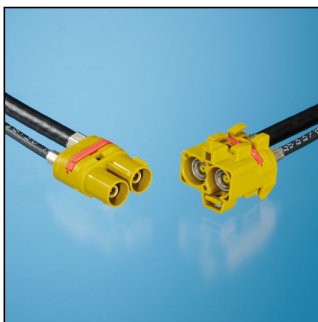
No. of Positions:
2 Position Kit, Female,
un-assembled

Housing Material:
Polyester PBT

Wire Size Range:
RG 174

Product Specification:
DIN 72594-1

Application Specification:
114-13157



2 Position Kit, Female

Keying Options	Housing Color	Part Numbers		
		Female Kit	Contacts *	Mating Male Kit
K2	Curry	6-2098140-0	1438896-4	1-2098134-0

*) Socket Contact Part No. 1438896-4 must be purchased separately.
Part Number 6-2098140-0 has body clip slot.

2 Position Kit, Female for RG 174, and RG 71U/M

Technical Features

No. of Positions:

2 Position Kit, Female, un-assembled

Housing Material:

Polyester PBT

Wire Size Range:

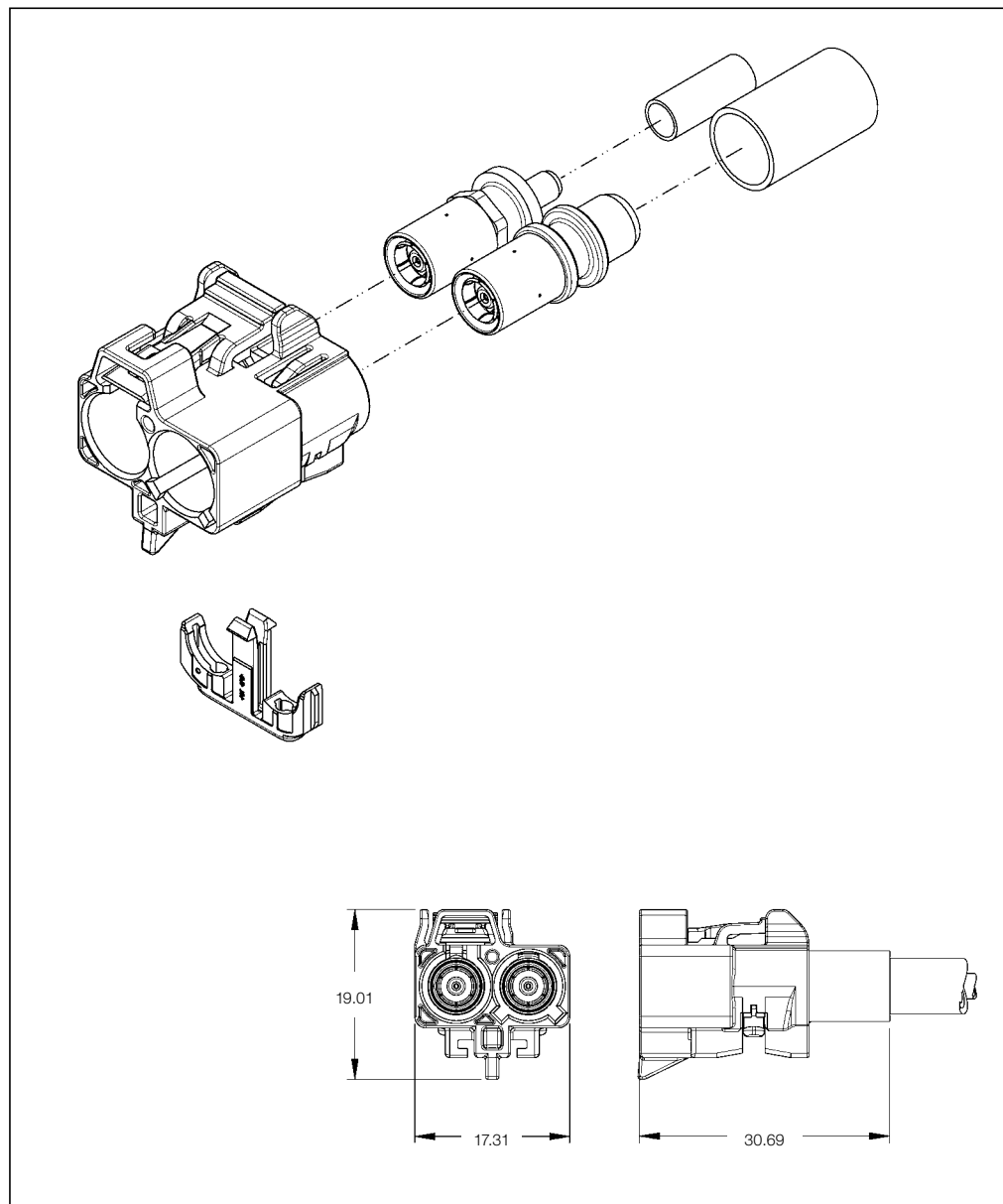
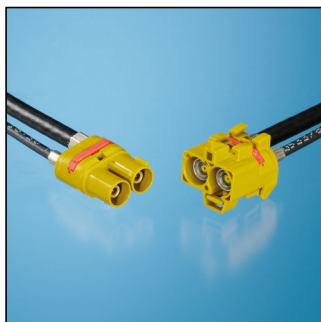
RG 174 and RG 71U/M

Product Specification:

DIN 72594-1

Application Specification:

114-13157



2 Position Kit, Female

Keying Options	Housing Color	Part Numbers		
		Female Kit	Contacts *	Mating Male Kit
K2	Curry	6-2098141-0	1438896-4 and 1438896-6	1-2098135-0

*) Socket Contact Part No. 1438896-4 must be purchased separately for RG 174.
Socket Contact Part No. 1438896-6 must be purchased separately for RG 71U/M.
Part Number 6-2098141-0 has body clip slot.

2 Position Kit, Female for 1.5DS, and RG 71U/M

Technical Features

No. of Positions:

2 Position Kit, Female, un-assembled

Housing Material:

Polyester PBT

Wire Size Range:

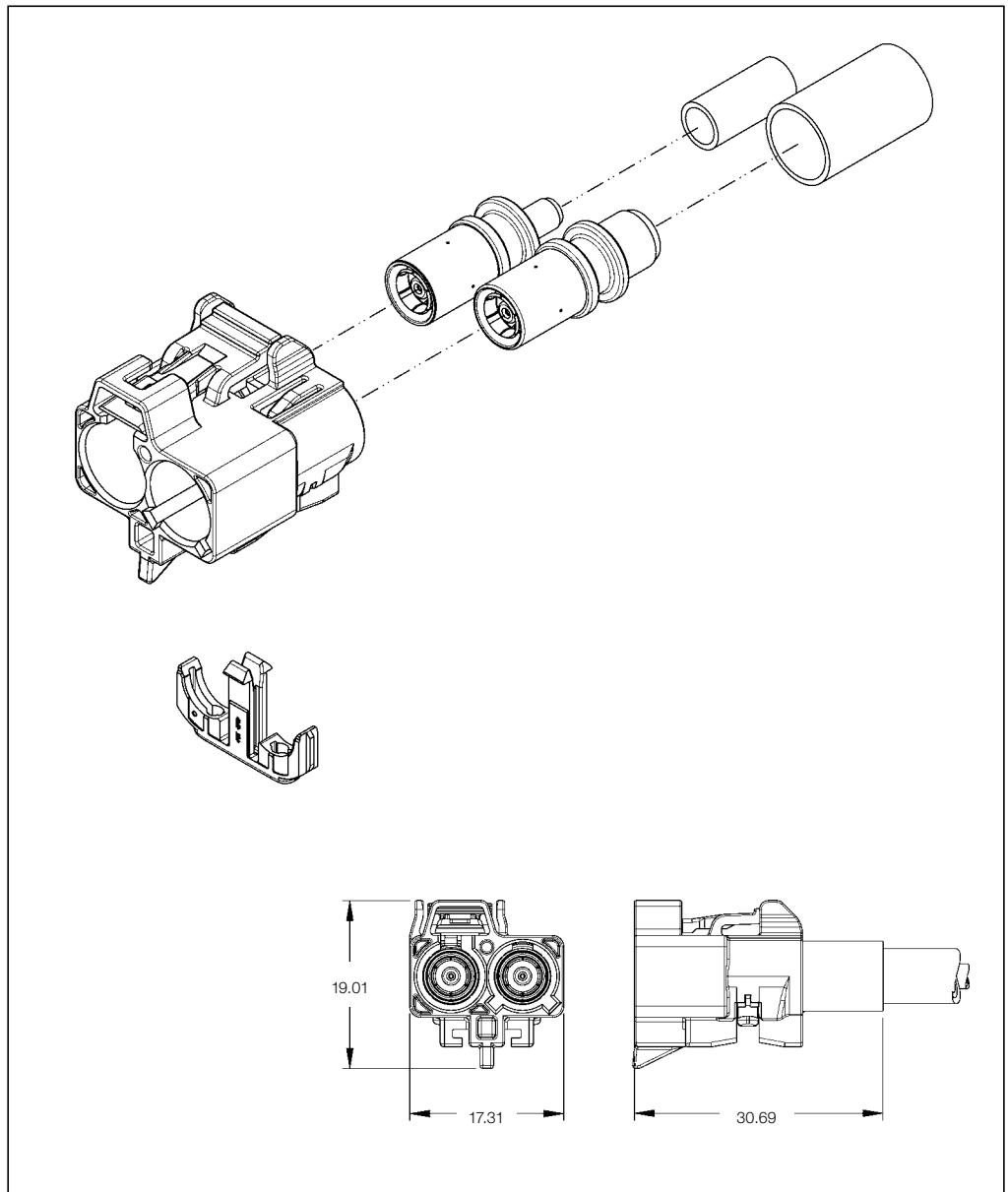
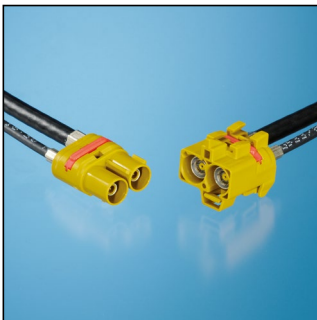
1.5DS and RG 71U/M

Product Specification:

DIN 72594-1

Application Specification:

114-13157



2 Position Kit, Female

Keying Options	Housing Color	Part Numbers		
		Female Kit	Contacts *	Mating Male Kit
K2	Curry	6-2098142-0	1438896-4 and 1438896-6	1-2098136-0

*) Socket Contact Part No. 1438896-4 must be purchased separately for 1.5DS.
Socket Contact Part No. 1438896-6 must be purchased separately for RG 71U/M.
Part Number 6-2098142-0 has body clip slot.

2 Position Kit, Male for Hybrid

Technical Features

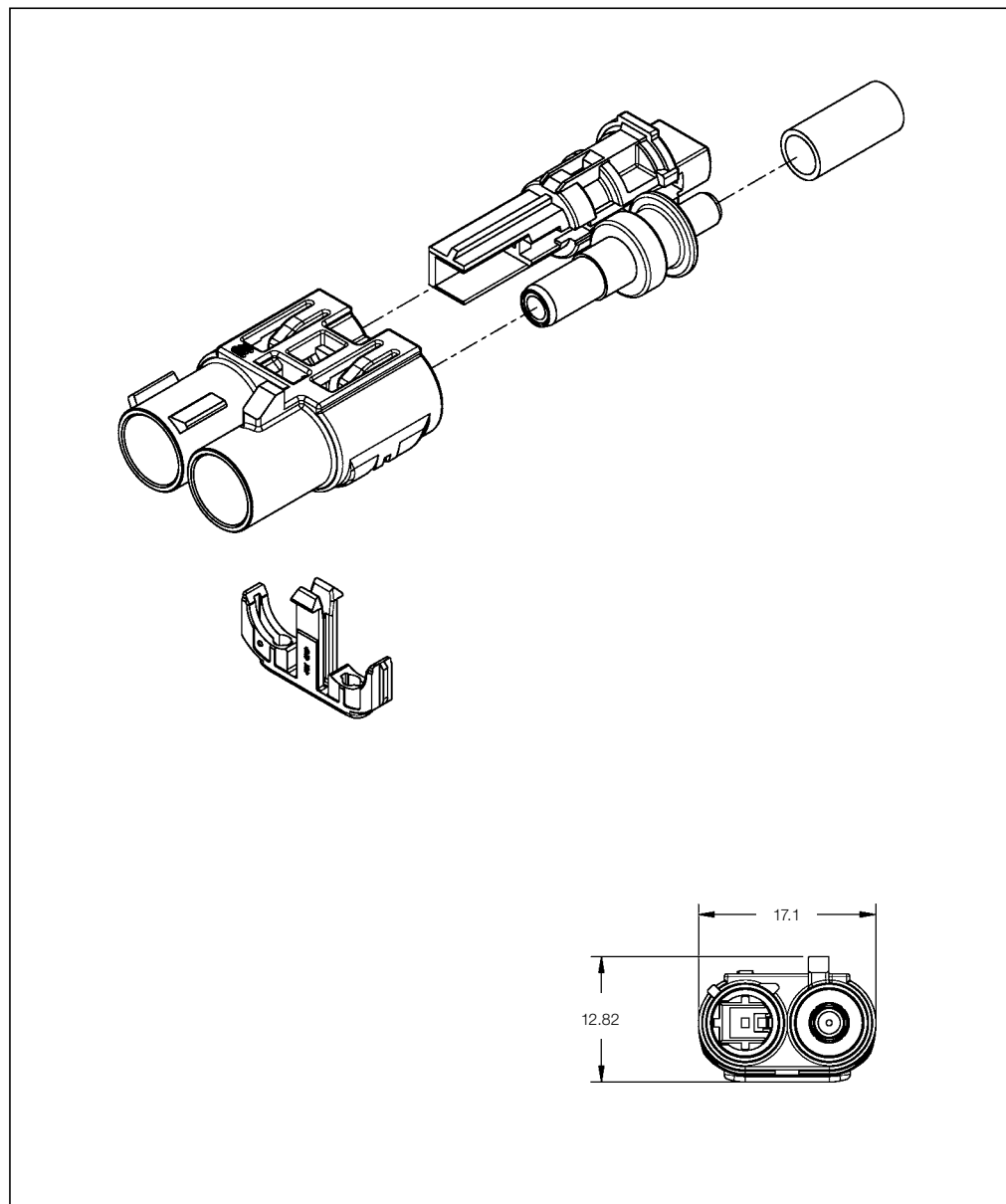
No. of Positions:
2 Position Kit, Male,
un-assembled

Housing Material:
Polyester PBT

Wire Size Range:
N/A

Product Specification:
DIN 72594-1

Application Specification:
114-13157



2 Position Kit, Male

Keying Options	Housing Color	Part Numbers		
		Male Housing	Contacts *	Mating Female Housing
C2	Jet Black	7-1924855-1	2035306-1	1924856-1

*) Power Contact

2 Position Kit, Female for Hybrid

Technical Features

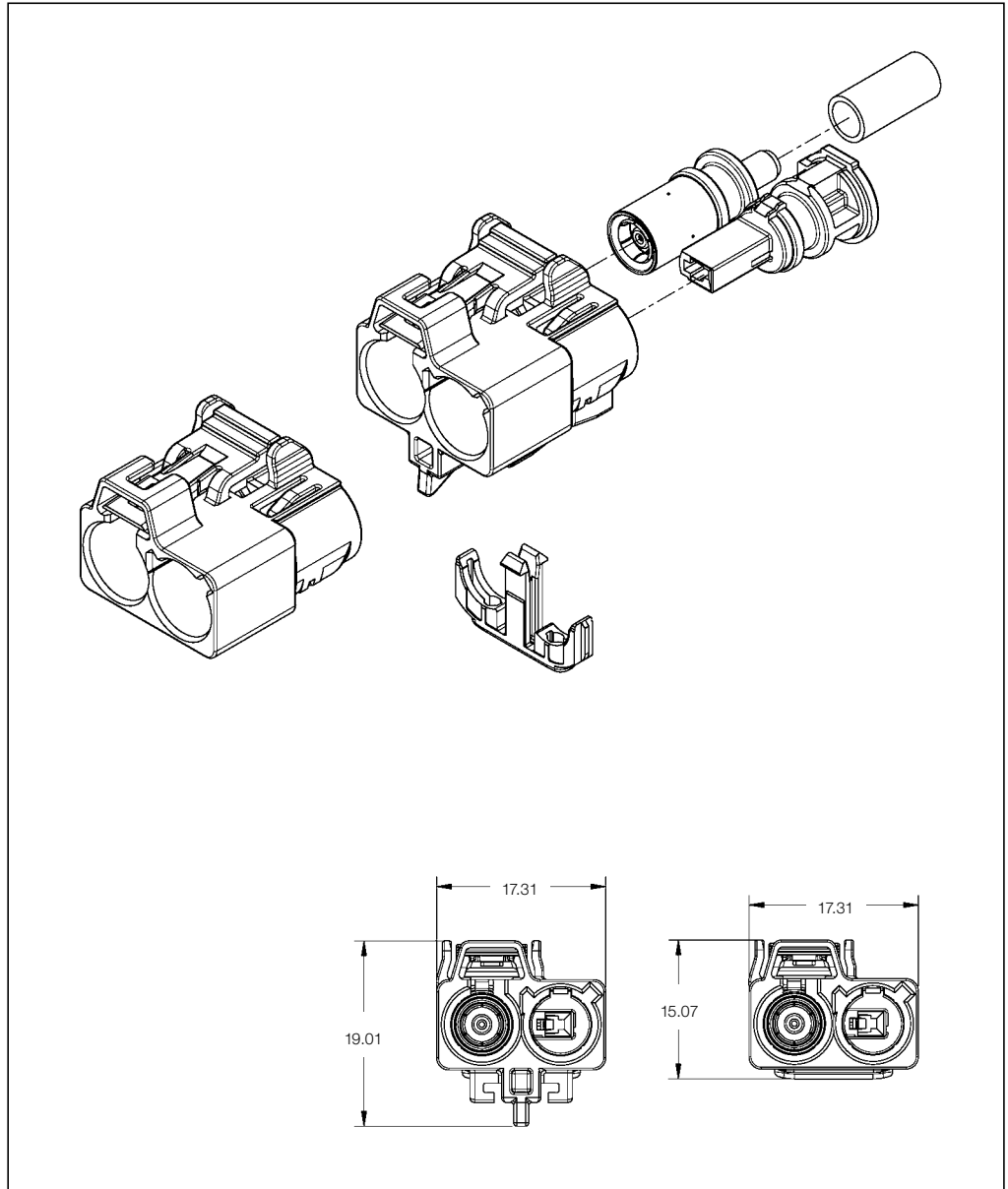
No. of Positions:
2 Position Kit, Female,
un-assembled

Housing Material:
Polyester PBT

Wire Size Range:
N/A

Product Specification:
DIN 72594-1

Application Specification:
114-13157



2 Position Kit, Female

Keying Options	Housing Color	Part Numbers		
		Female Housing	Contacts *	Mating Male Housing
C2	Signal Blue	1922436-1	2035307-1	7-1924855-1

*) Power Contact

1 Position Printed Circuit Board Header 90° Version

Technical Features

Contact Material

Center Contact:

CuZn

Dielectric:

PA

Outer Contact:

Zn-cast

Surface Finish

Center Contact:

Au

Outer Contact:

Sn

Rating

Frequency Range:

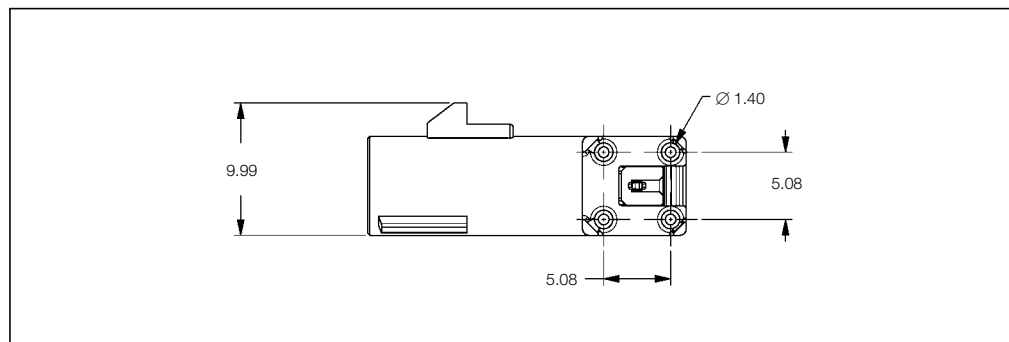
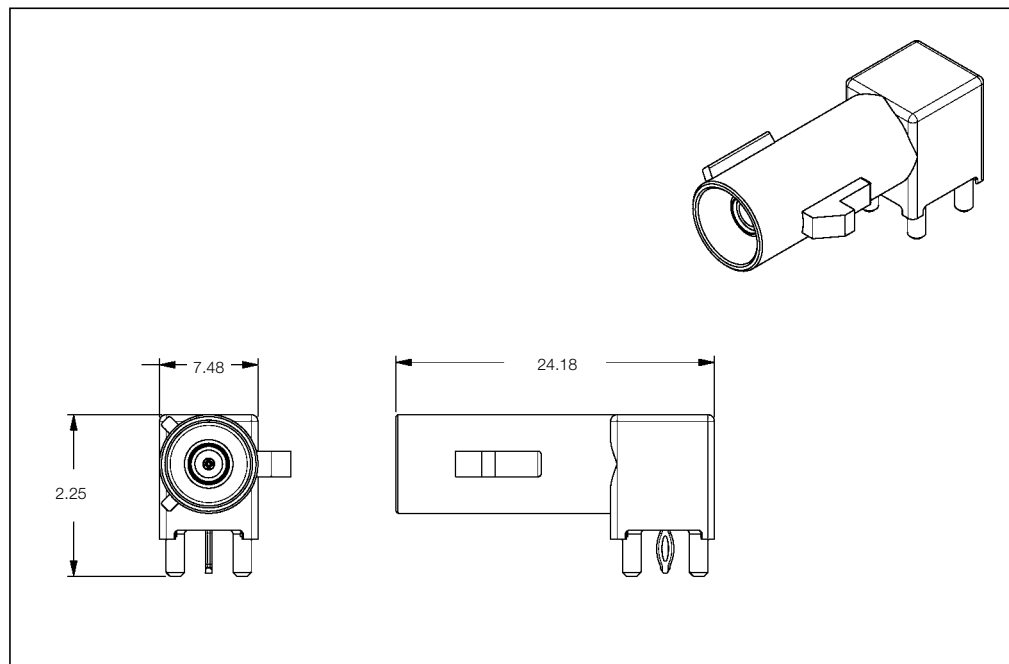
0 to 3,000 MHz

Product Specification:

108-18079

Application Specification:

114-18862



1 Position Printed Circuit Board Header 90° Version

No. of Positions	Keying Options	Housing Color	PCB Header Right-Angle*	Part Numbers	
				Mating Receptacle Housings*	
				180° Housing	90° Housing
1	A	Jet Black	See customer drawing	1452484-1	1719261-1
	B	Signal White		1452484-2	1719261-2
	C	Signal Blue		1452484-3	1719261-3
	D	Claret Violet		1452484-4	1719261-4
	E	Leaf Green		1452484-5	1719261-5
	F	Nut Brown		1452484-6	1719261-6
	G	Blue Gray		1452484-7	1719261-7
	H	Heather Violet		1452484-8	1719261-8
	I	Beige		1452484-9	1719261-9
	K	Curry	1-776687-0	1-1452484-0	1-1719261-0
	Z	Water Blue	See customer drawing	1-1452484-1	1-1719261-1
	M	Pastel Orange	See customer drawing	1-1452584-3	1-1719261-3

Note: All Part Numbers are RoHS and ELV compliant.

*) Additional coding on request. • Additional housing versions in turnable and non-turnable available. For example: **2141494-1; 2-2141494-1; 2-1719361-1.**

1 Position Printed Circuit Board Header 90° Version

Technical Features

Contact Material

Center Contact:

CuZn

Dielectric:

PA

Outer Contact:

Zn-cast

Surface Finish

Center Contact:

Au

Outer Contact:

Sn

Rating

Frequency Range:

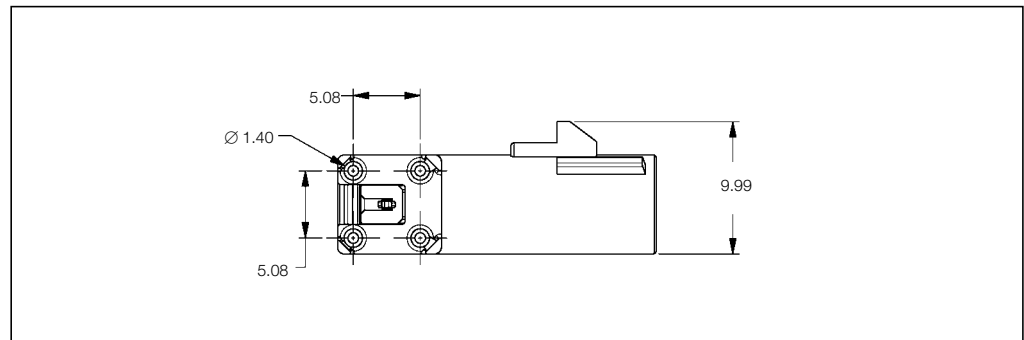
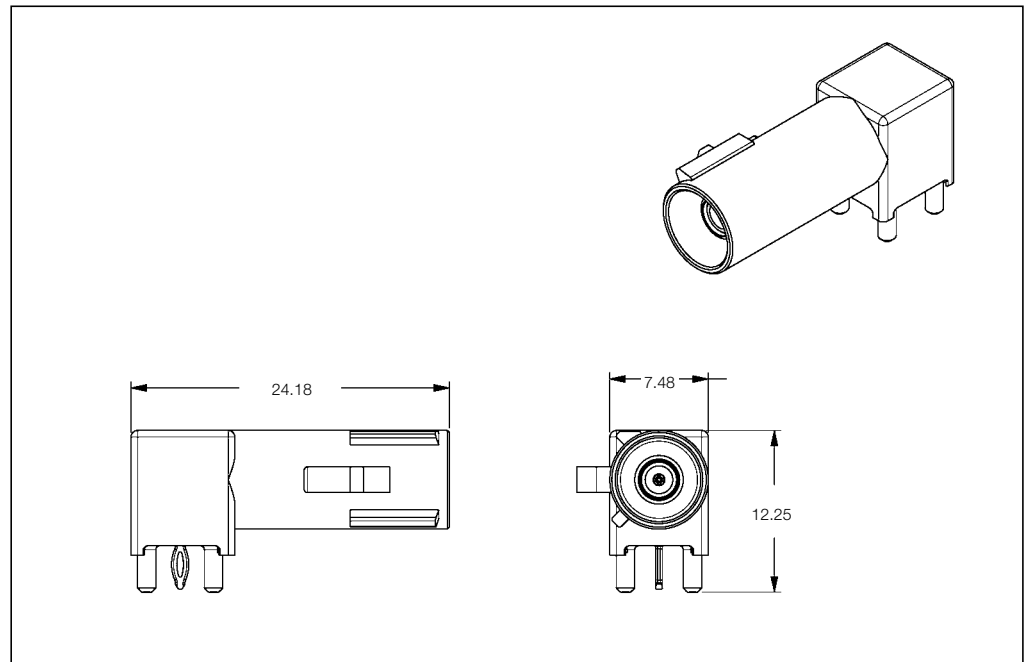
0 to 3,000 MHz

Product Specification:

108-18079

Application Specification:

114-18862



1 Position Printed Circuit Board Header 90° Version

No. of Positions	Keying Options	Housing Color	PCB Header Right-Angle*	Part Numbers	
				Mating Receptacle Housings*	
				180° Housing	90° Housing
1	A	Jet Black	–	1452484-1	1719261-1
	B	Signal White	776689-2	1452484-2	1719261-2
	C	Signal Blue		1452484-3	1719261-3
	D	Claret Violet		1452484-4	1719261-4
	E	Leaf Green		1452484-5	1719261-5
	F	Nut Brown		1452484-6	1719261-6
	G	Blue Gray		1452484-7	1719261-7
	H	Heather Violet		1452484-8	1719261-8
	I	Beige		1452484-9	1719261-9
	K	Curry		1-1452484-0	1-1719261-0
	Z	Water Blue		1-1452484-1	1-1719261-1
	M	Pastel Orange		1-1452584-3	1-1719261-3

Note: All Part Numbers are RoHS and ELV compliant.

*) Additional coding on request. • Additional housing versions in turnable and non-turnable available. For example: **2141494-1; 2-2141494-1; 2-1719361-1.**

1 Position Printed Circuit Board Header 90° Version

Technical Features

Contact Material

Center Contact:

CuZn

Dielectric:

PA

Outer Contact:

Zn-cast

Surface Finish

Center Contact:

Au

Outer Contact:

Sn

Rating

Frequency Range:

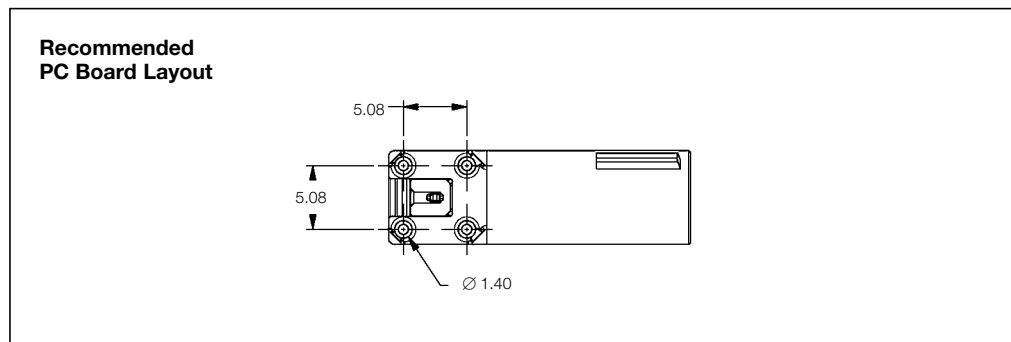
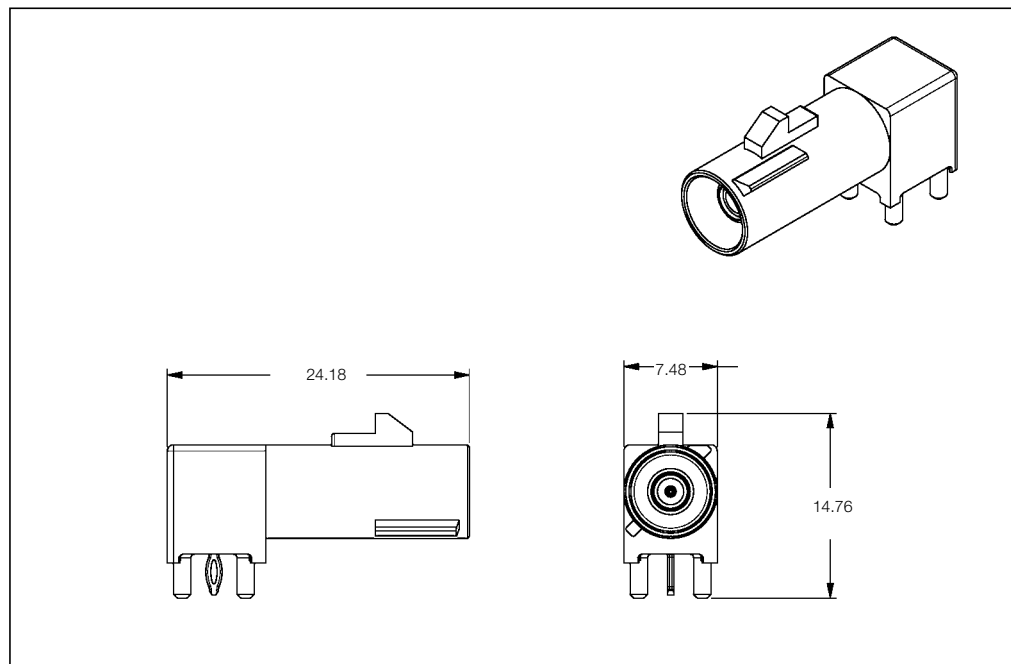
0 to 3,000 MHz

Product Specification:

108-18079

Application Specification:

114-18862



1 Position Printed Circuit Board Header 90° Version

No. of Positions	Keying Options	Housing Color	PCB Header Right-Angle*	Part Numbers		
				Mating Receptacle Housings*		
				180° Housing	90° Housing	
1	A	Jet Black	See customer drawing	1452484-1	1719261-1	
	B	Signal White		1452484-2	1719261-2	
	C	Signal Blue		1452484-3	1719261-3	
	D	Claret Violet		1452484-4	1719261-4	
	E	Leaf Green		1452484-5	1719261-5	
	F	Nut Brown		1452484-6	1719261-6	
	G	Blue Gray		776865-7	1452484-7	1719261-7
	H	Heather Violet		776865-8	1452484-8	1719261-8
	I	Beige		-	1452484-9	1719261-9
	K	Curry	1-776865-0	1-1452484-0	1-1719261-0	
	Z	Water Blue	•)	1-1452484-1	1-1719261-1	
	M	Pastel Orange	-	1-1452584-3	1-1719261-3	

Note: All Part Numbers are RoHS and ELV compliant.

*) Additional coding on request. • Additional housing versions in turnable and non-turnable available. For example: **2141494-1**; **2-2141494-1**; **2-1719361-1**.

•) Available on request. Please contact your local TE sales representative.

1 Position Printed Circuit Board Header 90° Version

Technical Features

Contact Material

Center Contact:

CuZn

Dielectric:

PA

Outer Contact:

Zn-cast

Surface Finish

Center Contact:

Au

Outer Contact:

Sn

Rating

Frequency Range:

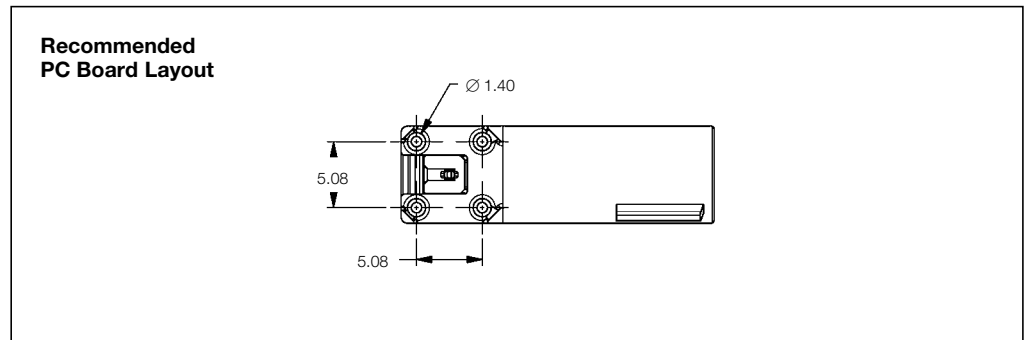
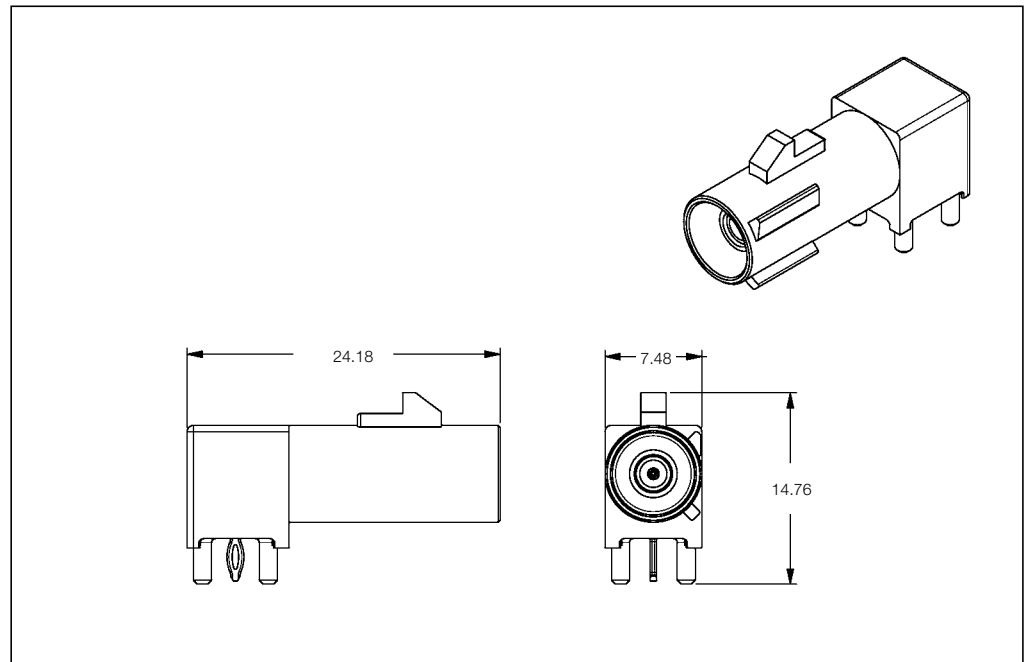
0 to 3,000 MHz

Product Specification:

108-18079

Application Specification:

114-18862



1 Position Printed Circuit Board Header 90° Version

No. of Positions	Keying Options	Housing Color	PCB Header Right-Angle*	Part Numbers	
				Mating Receptacle Housings*	
				180° Housing	90° Housing
1	A	Jet Black	–	1452484-1	1719261-1
	B	Signal White	1456933-2	1452484-2	1719261-2
	C	Signal Blue	1456933-3	1452484-3	1719261-3
	D	Claret Violet	1456933-4	1452484-4	1719261-4
	E	Leaf Green		1452484-5	1719261-5
	F	Nut Brown	See customer drawing	1452484-6	1719261-6
	G	Blue Gray		1452484-7	1719261-7
	H	Heather Violet	1456933-8	1452484-8	1719261-8
	I	Beige	–	1452484-9	1719261-9
	K	Curry	1-1456933-0	1-1452484-0	1-1719261-0
	Z	Water Blue	•)	1-1452484-1	1-1719261-1
	M	Pastel Orange	–	1-1452584-3	1-1719261-3

Note: All Part Numbers are RoHS and ELV compliant.

*) Additional coding on request. • Additional housing versions in turnable and non-turnable available. For example: **2141494-1; 2-2141494-1; 2-1719361-1.**

•) Available on request. Please contact your local TE sales representative.

1 Position Printed Circuit Board Header 90° Version

Technical Features

Contact Material

Center Contact:

CuZn

Dielectric:

PA

Outer Contact:

Zn-cast

Surface Finish

Center Contact:

Au

Outer Contact:

Sn

Rating

Frequency Range:

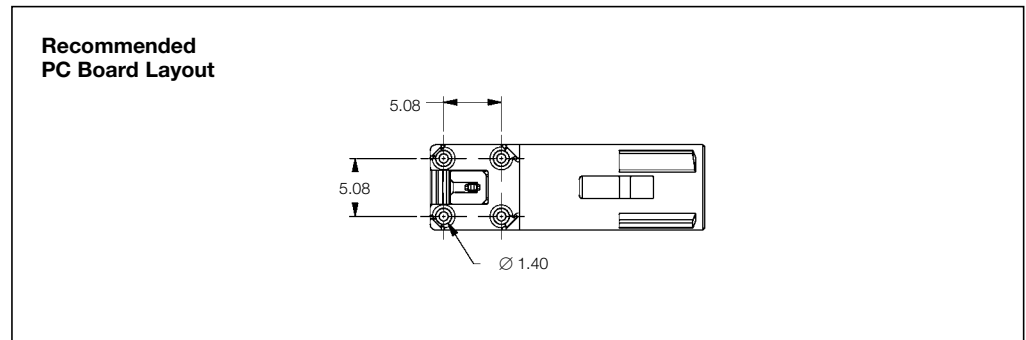
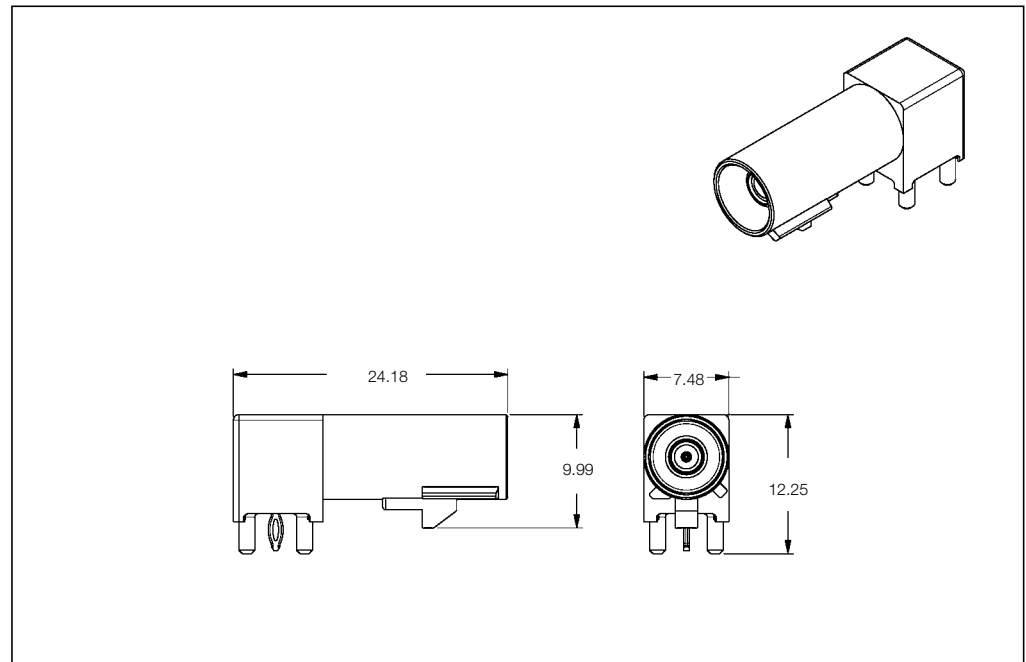
0 to 3,000 MHz

Product Specification:

108-18079

Application Specification:

114-18862



1 Position Printed Circuit Board Header 90° Version

No. of Positions	Keying Options	Housing Color	PCB Header Right-Angle*	Part Numbers	
				Mating Receptacle Housings*	
				180° Housing	90° Housing
1	A	Jet Black	1456944-1	1452484-1	1719261-1
	B	Signal White		1452484-2	1719261-2
	C	Signal Blue		1452484-3	1719261-3
	D	Claret Violet		1452484-4	1719261-4
	E	Leaf Green		1452484-5	1719261-5
	F	Nut Brown		1452484-6	1719261-6
	G	Blue Gray		1452484-7	1719261-7
	H	Heather Violet		1452484-8	1719261-8
	I	Beige		1452484-9	1719261-9
	K	Curry		1-1452484-0	1-1719261-0
	Z	Water Blue		1-1452484-1	1-1719261-1
	M	Pastel Orange		1-1452584-3	1-1719261-3

Note: All Part Numbers are RoHS and ELV compliant.

*) Additional coding on request. • Additional housing versions in turnable and non-turnable available. For example: **2141494-1; 2-2141494-1; 2-1719361-1.**

1 Position Printed Circuit Board Header 90° Version

Technical Features

Contact Material

Center Contact:

CuZn

Dielectric:

PA

Outer Contact:

Zn-cast

Surface Finish

Center Contact:

Au

Outer Contact:

Sn

Rating

Frequency Range:

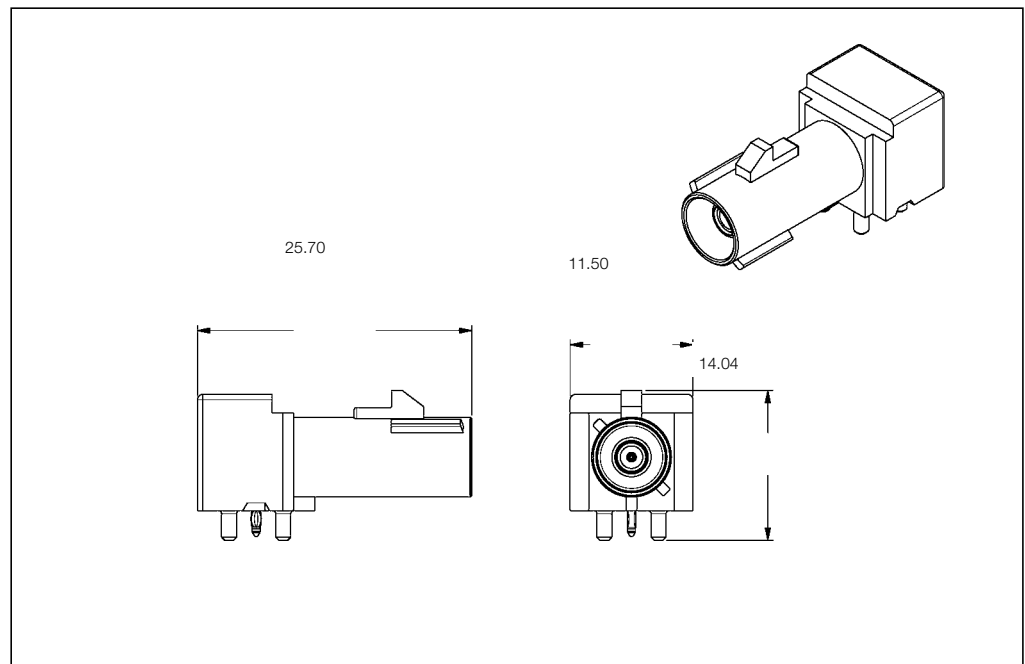
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Product Specification:

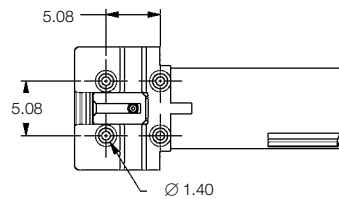
108-18079

Application Specification:

114-18862



Recommended PC Board Layout



1 Position Printed Circuit Board Header 90° Version

No. of Positions	Keying Options	Housing Color	PCB Header Right-Angle*	Part Numbers	
				Mating Receptacle Housings*	
				180° Housing	90° Housing
1	A	Jet Black	1456914-1	1452484-1	1719261-1
	B	Signal White	1456914-2	1452484-2	1719261-2
	C	Signal Blue	1456914-3	1452484-3	1719261-3
	D	Claret Violet	1456914-4	1452484-4	1719261-4
	E	Leaf Green	•)	1452484-5	1719261-5
	F	Nut Brown		1452484-6	1719261-6
	G	Blue Gray	See customer drawing	1452484-7	1719261-7
	H	Heather Violet		1452484-8	1719261-8
	I	Beige	1456914-9	1452484-9	1719261-9
	K	Curry		1-1452484-0	1-1719261-0
	Z	Water Blue	See customer drawing	1-1452484-1	1-1719261-1
	M	Pastel Orange		1-1452584-3	1-1719261-3

Note: All Part Numbers are RoHS and ELV compliant.

*) Additional coding on request. • Additional housing versions in turnable and non-turnable available. For example: **2141494-1; 2-2141494-1; 2-1719361-1.**

•) Available on request. Please contact your local TE sales representative.

Engineering Notes

A large grid of graph paper for engineering notes, consisting of a uniform pattern of small squares covering the majority of the page.

Engineering Notes

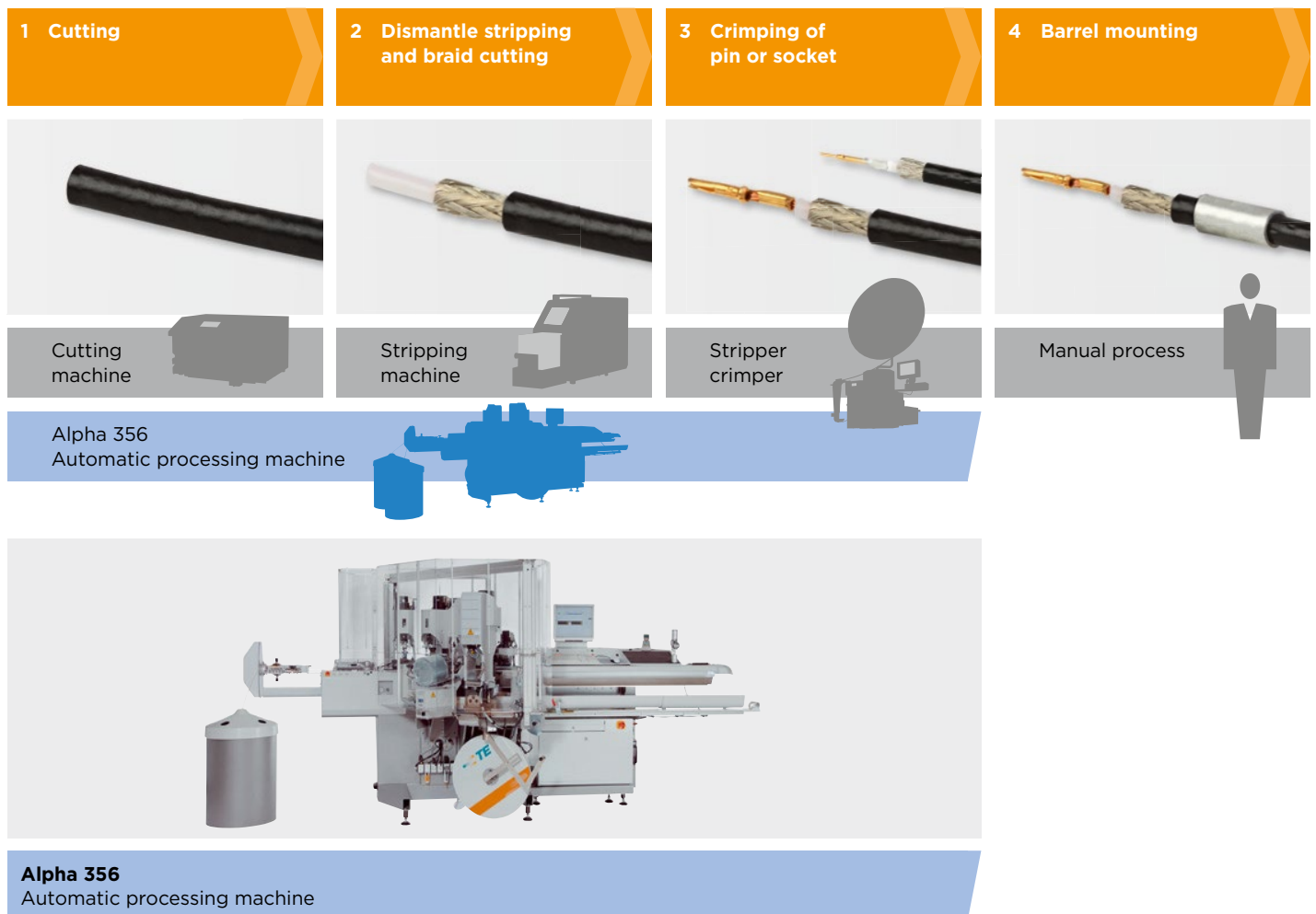
A large grid area for engineering notes, consisting of a uniform grid of small squares. The grid is empty and occupies the majority of the page's vertical space.

Partial or semi-automatic termination of cable assemblies with FAKRA connectors

The choice is yours

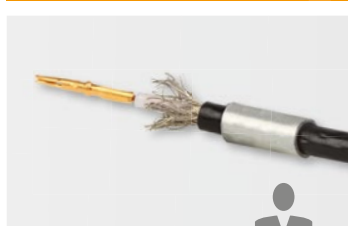
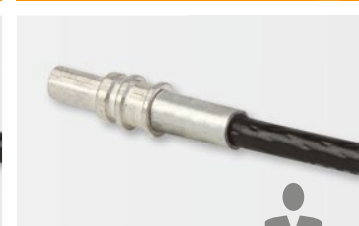






Depending on the degree of automation you want for your cable assemblies with FAKRA connectors, process steps 1-3 can be either fully or partially automatic. The diagram shows the processing stages of a coaxial cable, from preparation to the mounting of FAKRA connectors on both ends. Although this shows a cable with a 180° connector, 90° connectors can be processed in a similar way. In addition, TE Application Tooling provides a full range of wire termination solutions, in a wide variety of configurations.

Pin and Socket 180°



Process stages:

- Reeling in of the cable
- Cutting the cable to length
- Cutting the cable jacket and shielding braid
- Removing the jacket and shielding braid
- Stripping of the inner conductor
- Manufacturing the crimp connection with crimp quality monitoring
- Storing the crimped cable

5 Braid fanning	6 Sub-assembly mounting	7 Barrel crimping	8 Housing assembly
			
Manual process 	Manual process 	Crimping machine 	Manual process 



AMP 3/K-40 Terminator
Semi automatic wire termination machine

Features:

- Tool-less removal of applicators and guards for quick and simple maintenance and product change over
- Tool-less precision crimp height adjust
- CQM capability
- Batch counter
- Universal electrical input
- Quiet and fast operation



AT-SC
Pneumatic safety crimping machines for loose piece terminals

Features:

- Adjustable pre-crimp pressure and speed
- Parallel closing mechanism
- Variable closing speed
- Simplify operation by a safety double foot pedal
- Electronic piece counter
- Safety system

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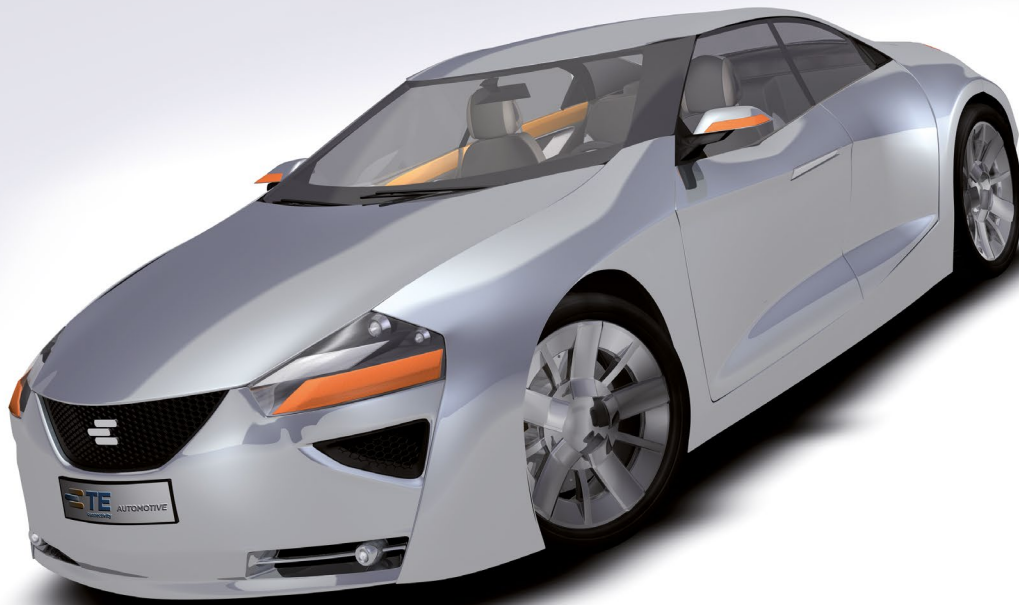
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