





SOLUTIONS FOR FUTURE MOBILITY

The pace at which the E&E architecture of vehicles is being innovated is one of the major challenges facing the automotive industry. An increasing number of electric and electronic systems enriches modern vehicles and makes them more attractive. At the same time, reliability is one the automotive industry's core strengths. Within this area of potential conflict, everything depends on constant innovation and proven technology. Is that a contradiction in terms? Not for us.

TE Transportation Solutions, which is part of TE Connectivity, is a company driven by technology. With this philosophy, we have become one of the world's largest manufacturers of passive components. It's part of our DNA to reconcile innovation and reliability. To do that, we have invested in the most modern R&D and testing infrastructure. We will show you how leading-edge passive components can contribute to vehicle function enrichment, better efficiency and greater comfort.

POWERTRAIN SYSTEMS



SAFETY & SECURITY SYSTEMS



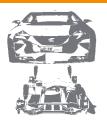
CONVENIENCE



DRIVER INFORMATION



BODY & CHASSIS SYSTEMS



TE AUTOMOTIVE ONLINE

The TE Transportation Solutions website is an innovative and interactive source for application information, product updates and technical solutions.

Please contact us at: www.te.com/automotive

STAY CONNECTED

TE AUTOMOTIVE OFFERS A VARIETY OF PRODUCT SPECIFIC CATALOGS, BROCHURES AND HIGH IMPACT FLYERS TO HELP BETTER SERVE YOU!

Products Industries Resources About TE My Account Innovation Support Center Automotive Technologies MAKE EVERY OUNCE COUNT Changing copport for aluminum write in moot waveledge center MAKE EVERY OUNCE COUNT Changing copport for aluminum write in moot waveledge center MAKE GOVERNMENT And County of the Co

TE Literature

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

TE Products

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

Product Information Center (PIC)

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

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

Please contact us at www.te.com/support-center

INNOVATIVE TECHNOLOGIES

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.



Interconnection Systems

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



Cable Assemblies

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



Hybrid & Electric Mobility Solutions

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





Sensor Solutions

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



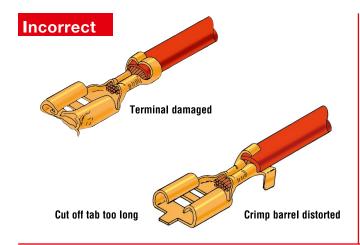
Relays

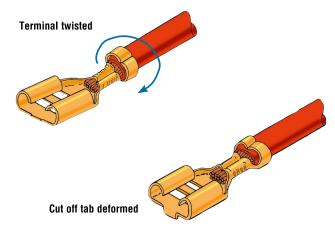
TE Connectivity's 24 V relay product line includes a broad range of robust and versatile relays for many diverse applications within trucks, buses, agricultural tractors, construction equipment and other heavy duty commercial vehicles. With increased contact gaps and other key design features, these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

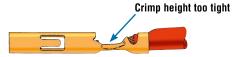


Infotainment

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

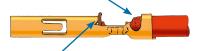




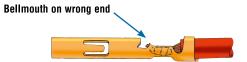








Conductor Brush protruding into terminal body



INSULATION CRIMP











securely held



Insulation material is pierced





Insulation legs are not closed

Insulation is not securely held Legs do not overlap

Insulation is over crimped

WIRE CRIMP

Incorrect applicator adjustment

Asymmetric crimp



Terminal feed incorrectly adjusted

Unacceptable formation excessive flash and/or cracks



Anvil and crimper not aligned or worn

Incorrect terminal/wire selection

Wire size too large



Crimp barrel does not close

Wire size too small



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

Incorrect crimp height adjustment

Crimp height too loose

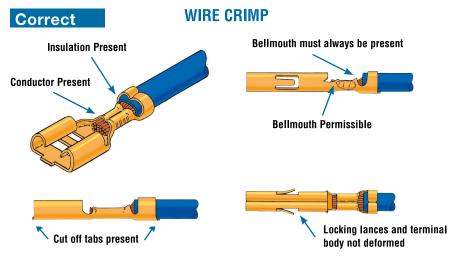


Insufficient deformation, showing voids

Crimp height too tight



Flash at under side of crimp, due to over crimping



Correct selection of wire, terminal and applicator





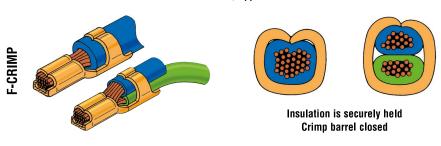
Crimp barrel is closed, legs support each other

Sufficient gap between legs and bottom of crimp

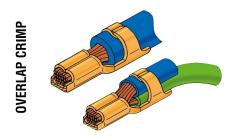
All strands are equally distributed and deformed

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 is securely held Legs overlap

WRAP OVER Crimp

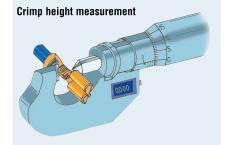




Insulation securely held Legs must pass each other

Test

WIRE CRIMP



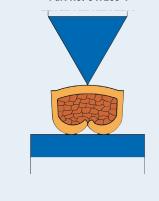
Crimp heights and tolerances

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

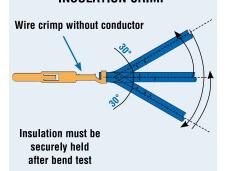
Examples:

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

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



INSULATION CRIMP



1st Digit

Against Foreign Objects (incl. Dust)

1st Digit

Against Foreign Objects (incl. Dust)

0



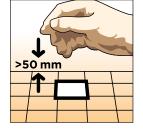
Not protected.

5K



Dust protected.

1



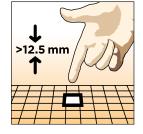
Protected against solid objects greater than 50 mm (ex. back of hand).

6K



Dust tight.

2



Protected against solid objects greater than 12.5 mm (ex. finger).

3



Protected against solid objects greater than 2.5 mm (ex. tool).

4



Protected against solid objects greater than 1.0 mm (ex. wire).

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

9K

Protected against

splashing water with

increased pressure.

high-pressure/

(Automotive).

steam-jet cleaning

4K

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

Getting the information you need

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

The Support Center also provides:

Cross-Reference from Non-compliant to Compliant Products

Ability to browse RoHS Compliant Products in our on-line catalog:

www.te.com/commerce/alt/RohsAltHome.do

Downloadable Technical Data Customer
Information Presentation

More detailed information regarding the definitions used above

RoHS Compliant

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

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

Non-RoHS Compliant

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

5 of 6 Compliant

A "I" symbol identifies these part numbers.

These products do not fully comply with the

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

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

AWG Code	Diameter (Inch)	Diameter (mm)	F (mm²)
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
000	0.3648	9.27	67.5
			53.4
0	0.3249	8.25	
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	0.0220	00.51	0.205
25	0.0179	0.455	0.162
26	0.0179	0.40	0.125
27	0.0139	0.40	0.102
28	0.0142	00.320	0.102
29	0.0113	00.287 00.254	0.0646
30	0.0100		0.0516
31	0.0089	00.226	0.04
32	0.0080	00.203	0.0324
33	0.0071	00.180	0.0255
34	0.0063	00.160	0.02
35	0.0056	00.142	0.0158
36	0.0050	00.127	0.0127
37	0.0045	00.114	0.01
38	0.0040	00.101	0.008
39	0.0035	00.089	0.0062
40	0.0031	00.079	0.0049
41	0.0028	00.071	0.00395
42	0.0025	00.064	0.00321
43	0.0022	00.056	0.00246
44	0.00198	00.050	0.00196
45	0.00176	00.045	
46	0.00157	00.040	
47	0.00140	00.036	
48	0.00124	00.031	
49	0.00110	00.028	
50	0.00099	00.025	
50	0.00099	00.025	

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

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.

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)

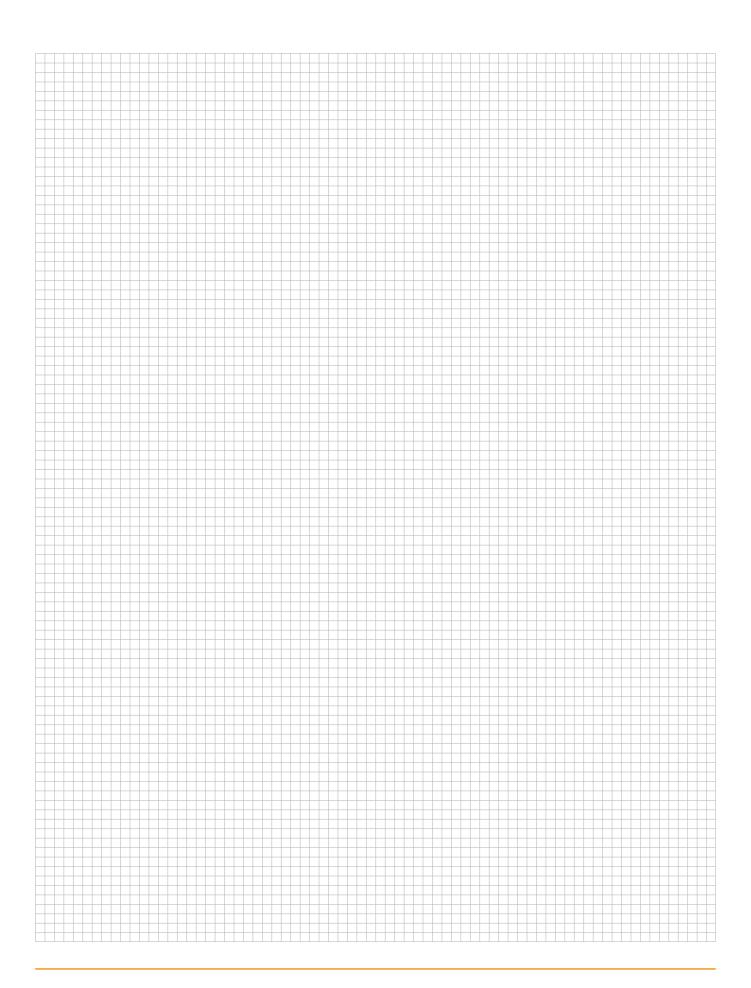
Inch	0	0.001	0.002	0.003	0.004	0.005	0.006	0.007	0.008	0.009
0	0	0.0254	0.0508	0.0762	0.1016	0.1270	0.1524	0.1778	0.2032	0.2286
0.010	0.2540	0.2794	0.3048	0.3302	0.3556	0.3810	0.4064	0.4318	0.4572	0.4826
0.020	0.5080	0.5334	0.5588	0.5842	0.6096	0.6350	0.6604	0.6858	0.7112	0.7366
0.030	0.7620	0.7874	0.8128	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	0.004	0.000	0.000	0.004	0.005	0.000	0.007	0.000	0.000
Inch	0	0.001	0.002	0.003	0.004	0.005	0.006	0.007	0.008	0.009

Conversion Tables Inch / mm

Inch	0	0.001	0.002	0.003	0.004	0.005	0.006	0.007	0.008	0.009
0.500	12.7000	12.7254	12.7508	12.7762	12.8016	12.8270	12.8524	12.8778	12.9032	12.9286
0.510	12.9540	12.9794	13.0048	13.0302	13.0556	13.0810	13.1064	13.1318	13.1572	13.1826
0.520	13.2080	13.2334	13.2588	13.2842	13.3096	13.3350	13.3604	13.3858	13.4112	13.4366
0.530	13.4620	13.4874	13.5128	15.5382	13.5636	13.5890	13.6144	13.6398	13.6652	13.6906
0.540	13.7160	13.7414	13.7668	13.7922	13.8176	13.8430	13.8684	13.8938	13.9192	13.9446
0.550	13.9700	13.9954	14.0208	14.0462	14.0716	14.0970	14.1224	14.1478	14.1732	14.1986
0.560	14.2240	14.2494	14.2748	14.3002	14.3256	14.3510	14.3764	14.4018	14.4272	14.4526
0.570	14.4780	14.5034	14.5288	14.5542	14.5796	14.6050	14.6304	14.6558	14.6812	14.7066
0.580	14.7320	14.7574	14.7828	14.8082	14.8336	14.8590	14.8844	14.9098	14.9352	14.9606
0.590	14.9860	15.0114	15.0368	15.0622	15.0876	15.1130	15.1384	15.1638	15.1892	15.2146
0.600	15.2400	15.2654	15.2908	15.3162	15.3416	15.3670	15.3924	15.4178	15.4432	15.4686
0.610	15.4940	15.5194	15.5448	15.5702	15.5956	15.6210	15.6464	15.6718	15.6972	15.7226
0.620	15.7480	15.7734	15.7988	15.8242	15.8496	15.8750	15.9004	15.9258	15.9512	15.9766
0.630	16.0020	16.0274	16.0528	16.0782	16.1036	16.1290	16.1544	16.1798	16.2052	16.2306
0.640	16.2560	16.2814	16.3068	16.3322	16.3576	16.3830	16.4084	16.4338	16.4592	16.4846
0.650	16.5100	16.5354	16.5608	16.5862	16.6116	16.6370	16.6624	16.6878	16.7132	16.7386
0.660	16.7640	16.7894	16.8148	16.8402	16.8656	16.8910	16.9164	16.9418	16.9672	16.9926
0.670	17.0180	17.0434	17.0688	17.0942	17.1196	17.1450	17.1704	17.1958	17.2212	17.2466
0.680	17.2720	17.2974	17.3228	17.3482	17.3736	17.3990	17.4244	17.4498	17.4752	17.5006
0.690	17.5260	17.5514	17.5768	17.6022	17.6276	17.6530	17.6784	17.7038	17.7292	17.7546
0.700	17.7800	17.8054	17.8308	17.8562	17.8816	17.9070	17.9324	17.9528	17.9832	18.0086
0.710	18.0340	18.0594	18.0848	18.1102	18.1356	18.1610	18.1864	18.2118	18.2372	18.2626
0.720	18.2880	18.3134	18.3388	18.3642	18.3896	18.4150	18.4404	18.4658	18.4912	19.5166
0.730	18.5420	18.5674	18.5928	18.6182	18.6436	18.6690	18.6944	18.7198	18.7452	18.7706
0.740	18.7960	18.8214	18.8468	18.8722	18.8976	18.9230	18.9484	18.9738	18.9992	19.0246
0.750	19.0500	19.0754	19.1008	19.1262	19.1516	19.1170	19.2024	19.2278	19.2532	19.2786
0.760	19.3040	19.3294	19.3548	19.3802	19.4056	19.4310	19.4564	19.4818	19.5072	19.5326
0.770	19.5580	19.5834	19.6088	19.6342	19.6596	19.6850	19.7104	19.7358	19.7612	19.7886
0.780	19.8120	19.8374	19.8628	19.8882	19.9136	19.9390	19.9644	19.9898	20.0152	20.0406
0.790	20.0660	20.0914	20.1168	20.1422	20.1676	20.1930	20.2184	20.2438	20.2692	20.2946
0.800	20.3200	20.3454	20.3708	20.3962	20.4216	20.4470	20.4724	20.4978	20.5232	20.5486
0.810	20.5740	20.5994	20.6248	20.6502	20.6756	20.7010	20.7264	20.7518	20.7772	20.8026
0.820	20.8280	20.8534	20.8788	20.9042	20.9296	20.9550	20.9804	21.0058	21.0312	21.0566
0.830	21.0820	21.1074	21.1328	21.1582	21.1836	21.2090	21.2344	21.2598	21.2852	21.3106
0.840	21.3360	21.3614	21.3868	21.4122	21.4376	21.4630	21.4884	21.5138	21.5392	21.5646
0.850	21.5900	21.6154	21.6408	21.6662	21.6916	21.7170	21.7424	21.7678	21.7932	21.8186
0.860	21.8440	21.8694	21.8948	21.9202	21.9456	21.9710	21.9964	22.0218	22.0472	22.0726
0.870	22.0980	22.1234	22.1488	22.1742	22.1996	22.2250	22.2504	22.2758	22.3012	22.3266
0.880	22.3520	22.3774	22.4028	22.4282	22.4536	22.4790	22.5044	22.5298	22.5552	22.5806
0.890	22.6060	22.6314	22.6568	22.6822	22.7076	22.7330	22.7584	22.7838	22.8092	22.8346
0.900	22.8600	22.8854	22.9108	22.9362	22.9616	22.9870	23.0124	23.0378	23.0632	23.0886
0.910	23.1140	23.1394	23.1648	23.1902	23.2156	23.2410	23.2664	23.2918	23.3172	23.3426
0.920	23.3680	23.3934	23.4188	23.4442	23.4696	23.4950	23.5204	23.5458	23.5712	23.5966
0.930	23.6220	23.6474	23.6728	23.6982	23.7236	23.7490	23.7744	23.7998	23.8252	23.8506
0.940	23.8760	23.9014	23.9268	23.9522	23.9776	24.0030	24.0284	24.0538	24.0792	24.1046
0.950	24.1300	24.1554	24.1808	24.2062	24.2316	24.2570	24.2824	24.3078	24.3332	24.3586
0.960	24.3840	24.4094	24.4348	24.4602	24.4856	24.5110	24.5364	24.5618	24.5812	24.6126
0.970	24.6380	24.6634	24.6888	24.7142	24.7396	24.7650	24.7904	24.8158	24.8412	24.8666
0.980	24.8920	24.9174	24.9428	24.9682	24.9936	25.0190	25.0444	25.0698	25.0952	25.1206
0.990 1.000	25.1460 25.4000	25.1714	25.1968	25.2222	25.2476	25.2730	25.2984	25.3228	25.3492	25.3746
		0.004	0.000	0.002	0.004	0.005	0.006	0.007	0.000	0.000
Inch	0	0.001	0.002	0.003	0.004	0.005	0.006	0.007	0.008	0.009

TH 025 Connector Series	Page	Powertrain Systems	Safety & Security Systems	Convenience	Driver Information	Body & Chassis Systems
Introduction	1					
Contacts	2 - 3					
Receptacle Contacts	2		•	•	•	•
Tab Contacts	3		•	•	•	•
Receptacle Housings	4 - 9					
4 Position (1 row)	4		•	•	•	•
8 Position (2 rows)	5		•	•	•	•
12 Position (2 rows)	6		•	•	•	•
16 Position (2 rows)	7		•	•	•	•
24 Position (2 rows)	8		•	•	•	•
40 Position (2 rows)	9		•	•	•	•
Tab Housings	10 - 14					
4 Position (1 row)	10		•	•	•	•
8 Position (2 rows)	11		•	•	•	•
12 Position (2 rows)	12		•	•	•	•
16 Position (2 rows)	13		•	•	•	•
24 Position (2 rows)	14		•	•	•	•
Handaya Vartical Trus	15 17					
Headers - Vertical Type	15 - 17					
4 Position	15		•	•	•	
24 Position	16		•	•	•	•
40 Position	17			•		
Headers - Right Angle	18 -25					
8 Position	18		•	•	•	•
4 Position	19		•	•	•	•
8 Position	20		•	•	•	•
12 Position	21		•	•	•	•
16 Position	22		•	•	•	•
24 Position	23		•	•	•	•
32 Position	24		•	•	•	•
40 Position	25		•	•	•	•

TH 025 Connector Series	Page	Powertrain Systems	Safety & Security Systems	Convenience	Driver Information	Body & Chassis Systems
Headers - Vertical	26 - 29					
12 Position	26		•	•	•	•
16 Position	27		•	•	•	•
24 Position	28		•	•	•	•
40 Position	29		•	•	•	•
SMD Headers - Vertical	30 - 33					
8 Position	30		•	•	•	•
16 Position	31		•	•	•	•
24 Position	32		•	•	•	•
40 Position	33		•	•	•	•
Application Tooling	35					
Numerical Index	36 - 37					
Imprint	38					
Global Contacts	39					





HIGH DENSITY IN LIMITED SPACES

TH 025 CONNECTOR SERIES INTRODUCTION

Product Features

- TH 025 connectors were designed to provide better connections and performance while securing higher density in limited spaces as required in advanced electronic automotive control systems.
- Another feature is a unique contact design to resist fretting corrosion effectively while employing a lower contact force. As a result, the low insertion force of TH 025 connectors allows a lower connector mating force while offering high density for easy handling.
- This small pitch can help customers to reduce space and weight.
- TH 025 connectors feature a pitch of just 2.2mm, compared to the current standard pitch of 2.54mm.
- TH 025 connector Series have been originally designed in Japan. A European version has been implemented, in order to fulfil the European customer requirements as:
 - Mechanical coding
 - Color coding
 - Reflow leadfree process for headers
- TH European connectors are available in a full range from 4 to 40 positions.

Applications

- Wire-to-Wire, Wire-to-Board and ECU Applications
 - Mirror
 - Multimedia applications
 - Display screens
 - Airbag ECU / Safety applications
 - Switches
 - Hand free cellphone
 - Immobilizer
 - Dashboard
 - Safety applications
 - Electrically controlled trunk lid latch
 - Tyre pressure monitoring system
 - Body controller management

Receptacle Contacts

Receptacle Contacts

Technical Features

- One piece contact designed to minimize fretting corrosion
- Terminal lance design to optimize cavity dimension

TH 025 Receptacle Contacts:

0.635 x 0.635mm

Insertion Force:

2.2 N max.

Contact Force:

2.8 N (at an early stage), 2.0 N (after ageing)

Current Carrying Capacity:

5 A (to 7 A within some conditions)

Wire Size Range:

from 0.13 to 0.5mm², specific 0.75mm² application possible

Contact Finish:

Tin and gold plating

Material:

Copper Alloy

Temperature Range:

 -40° C up to $+105^{\circ}$ C

Contact Retention Force:

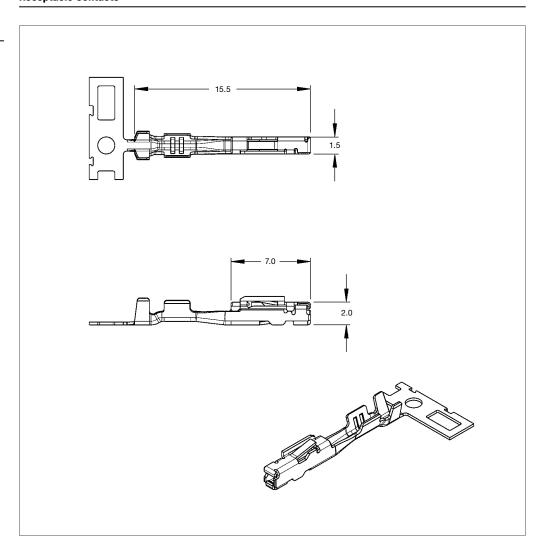
100 N (retainer block)

Product Specification

108-5668 & 108-15299

Application Specification:

114-5250 & 114-15120 (for ISO wire)



Receptacle Contacts

Wire Size	Insulation	Material			Part Numbers		
Range (mm²)	Diameter (mm)	and Finish	Strip Form	Package Quantity	Applicator	Hand Tool	Extraction Tool
0.13-0.22	0.90-1.05	Copper alloy, pre-tin plated	2005097-1	10,000	x-2151966-x	7-1579014-1	_
0.22-0.50	1.10-1.60	Copper alloy, pre-tin plated	1123343-1	10,000	x-2151494-x	7-1579014-2	1276565-1 •)
0.22-0.50	1.10-1.60	Gold plated (0.8 µm)	1801069-2	10,000	on request	-	_
0.22-0.50	1.10-1.60	Gold plated (0.38 µm)	1123343-2	10,000	x-2151494-x	7-1579014-2	1276565-1 •)
0.50-0.75**)	1.30-1.60	Gold plated (0.8 µm)	1801248-2*)	10,000	on request	-	_

^{*)} Recommended for airbag applications (0.5mm²)

^{**) 0.75}mm² – Application depending on wire function

Depending on the assembly of contact and housing

1.5

12.8

2.0

0.64

0.64

Tab Contacts

Technical Features

- One piece contact designed to minimize fretting corrosion
- Terminal lance design to optimize cavity dimension

TH 025 Tab Contacts:

0.635 x 0.635mm Pin

Insertion Force:

2.2 N max.

Contact Force:

2.8 N (at an early stage), 2.0 N (after ageing)

Current Carrying Capacity:

5 A (to 7 A within some conditions)

Wire Size Range:

from 0.13 to 0.5mm²

Contact Finish:

Tin plating

Material:

Brass

Temperature Range:

-40°C up to +105°C

Contact Retention Force:

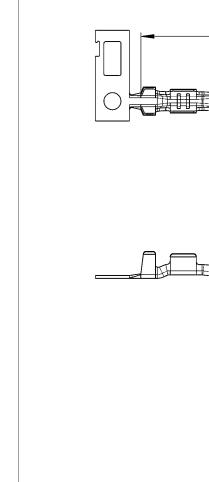
100 N (retainer block)

Product Specification:

108-5668 & 108-15299

Application Specification:

114-5302 & 114-15120 (for ISO wire)



Tab Contacts

Wire Size	Insulation	Material	Part Numbers				
Range (mm²)	Diameter (mm)	and Finish	Strip Form	Package Quantity	Applicator	Hand Tool	Extraction Tool
0.13-0.22	0.90-1.05	Brass, tin plated	2005098-1	10,000	x-2151966-x	7-1579014-1	-
0.22-0.50	1.10-1.60	Brass, tin plated	1674742-1	10,000	x-2151216-x	7-1579014-3	1579007-8 •)

^{•)} Depending on the assembly of contact and housing

Receptacle Housings

4 Position (1 Row) Receptacle Housings

Technical Features

Compact design with 2.2mm pitch

Temperature Range:

-40°C up to +105°C

Secondary Lock:

Hinged Lid

Dielectric Strength:

1000 V AC / 1 min.

Insulation Resistance:

>100 M Ω

Housing Material:

Connector Mating Force:

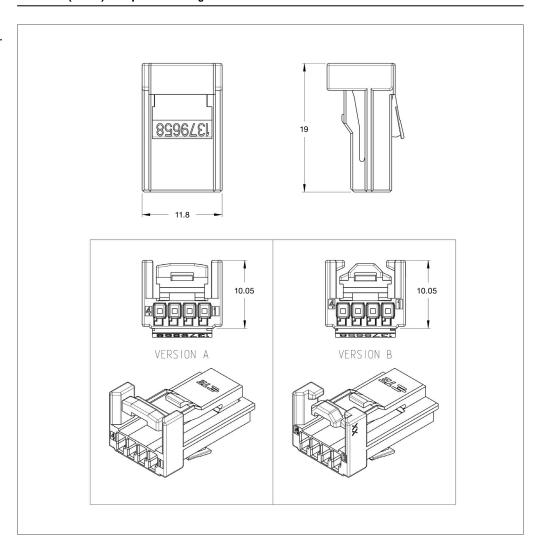
Max. 60 N

Product Specification:

108-15299

Application Specification:

411-15672



No. of	Housing	Vovina	Keying Housing —		Part Numbers			
Positions	Material	Options Color		Receptacle Housing	Package Quantity	Mating Tab Housing		
		1	Black	1379658-1*	900	1379674-1		
		2	Gray	1379658-2	900	1379674-2		
4 (1 row)	PBT	3	Blue	1379658-3*	900	1379674-3*		
(1.1011)		4	Green	1379658-4*	900	1379674-4*		
		Neutral	Natural	1-1379658-1	900	1-1379674-1		

^{*)} Contact your local TE Connectivity Sales Office for availability
**) An alternative design will be available for some items from 2015

Receptacle Housings

8 Position (2 Rows) Receptacle Housings

Technical Features

Compact design with 2.2mm pitch

■ Two Parts (Housing + Retainer Block) = 1 Piece

Temperature Range: -40°C up to +105°C

Secondary Lock:

Housing Retainer Block

Dielectric Strength:

1000 V AC / 1 min.

Insulation Resistance

Insulation Resistance: >100 $\text{M}\Omega$

Housing Material:

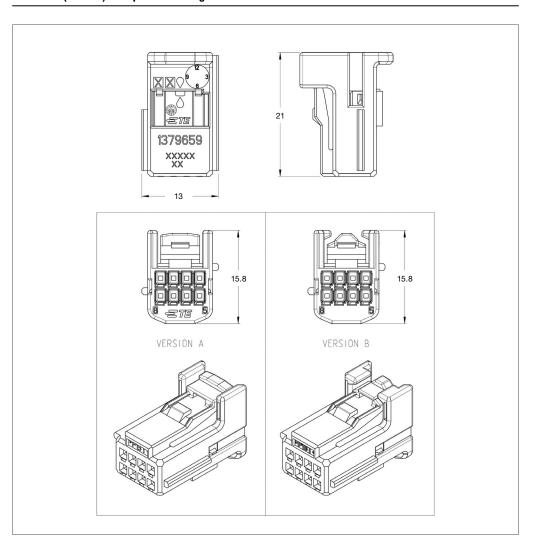
Connector Mating Force:

Max. 60 N

Product Specification:

108-15299

Application Specification: 411-15672



No. of	Housing	Keying	Housing		Part Numbers	
Positions	•	Options	Color	Receptacle Housing	Package Quantity	Mating Tab Housing
		1	Black	1379659-1*	1,100	-
		2	Gray	1379659-2	1,100	-
8 (2 rows)	PBT	3	Blue	1379659-3*	1,100	_
(= : : : :)		4	Green	1379659-4*	1,100	-
		Neutral	Natural	1379659-5*	1,100	1565804-2 [•])

^{•)} Japanese version

^{*)} Contact your local TE Connectivity Sales Office for availability

 $^{^{\}star\star}$) An alternative design will be available for some items from 2015

Receptacle Housings

12 Position (2 Rows) Receptace Housing

Technical Features

- Compact design with 2.2mm pitch
- Two Parts (Housing + Retainer Block) = 1 Piece

Temperature Range:

-40°C up to +105°C

Secondary Lock:

Housing Retainer Block

Dielectric Strength:

1000 V AC / 1 min.

Insulation Resistance:

>100 M Ω

Housing Material:

Connector Mating Force:

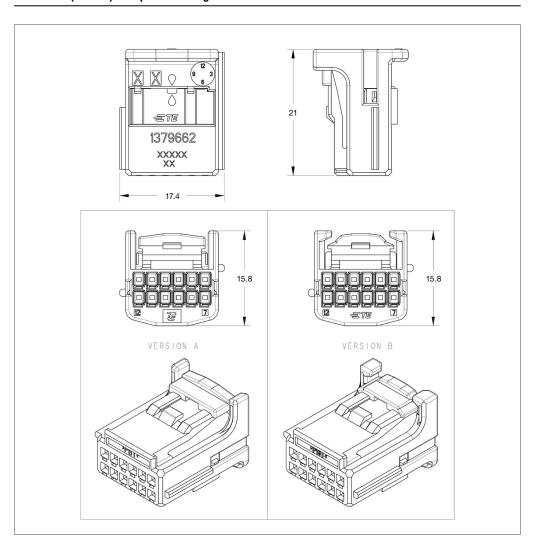
Max. 60 N

Product Specification:

108-15299

Application Specification:

411-15672



No of	No. of Housing		Housing		Part Numbers	
Positions	Material	Keying Housing — Options Color		Receptacle Housing	Package Quantity	Mating Tab Housing
		1	Black	1379662-1	800	1379675-1
40		2	Gray	1379662-2	800	1379675-2
12 (2 rows)	PBT	3	Blue	1379662-3*	800	1379675-3*
(= : 5110)		4	Green	1379662-4*	800	1379675-4*
		Neutral	Natural	1379662-5	800	1379675-5

^{*)} Contact your local TE Connectivity Sales Office for availability
**) An alternative design will be available for some items from 2015

16 Position (2 Rows) Receptace Housing

Technical Features

- Compact design with 2.2mm pitch
- Two Parts (Housing + Retainer Block) = 1 Piece

Temperature Range:

 -40° C up to $+105^{\circ}$ C

Secondary Lock:

Housing Retainer Block

Dielectric Strength:

1000 V AC / 1 min.

Insulation Resistance:

>100 M Ω

Housing Material:

PBT

Connector Mating Force:

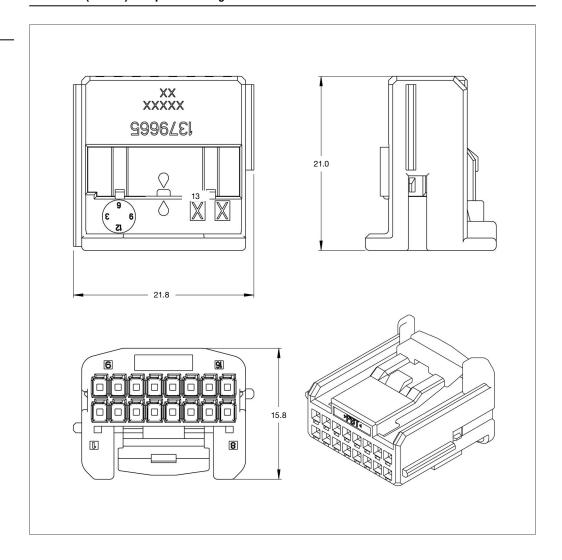
Max. 60 N

Product Specification:

108-15299

Application Specification:

411-15672



No. of	Housing	Keying	Housing	Part Numbers			
Positions		Color	Receptacle Housing	Package Quantity	Mating Tab Housing		
		1	Black	1379665-1	700	1379678-1	
40		2	Gray	1379665-2	700	1379678-2	
16 (2 rows)	PBT	3	Blue	1379665-3	700	1379678-3*	
(= : 5110)		4	Green	1379665-4	700	1379678-4*	
	_	Neutral	Natural	1379665-5	700	1379678-5	

^{*)} Contact your local TE Connectivity Sales Office for availability

Receptacle Housings

24 Position (2 Rows) Receptace Housing

Technical Features

- Compact design with 2.2mm pitch
- Two Parts (Housing + Retainer Block) = 1 Piece

Temperature Range:

-40°C up to +105°C

Secondary Lock:

Housing Retainer Block

Dielectric Strength:

1000 V AC / 1 min.

Insulation Resistance:

>100 M Ω

Housing Material:

PBT

Connector Mating Force:

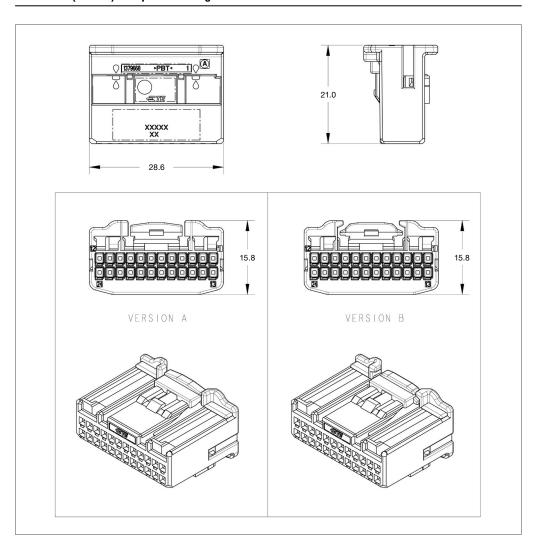
Max. 60 N

Product Specification:

108-15299

Application Specification:

411-15672



No. of	Housing	Keying Options	Housing -		Part Numbers	
Positions	Material		Color	Receptacle Housing	Package Quantity	Mating Tab Housing
		1	Black	1379668-1	500	1379681-1
•		2	Gray	1379668-2	500	1379681-2
24 (2 rows)	PBT	3	Blue	1379668-3*	500	1379681-3*
(2.0110)		4	Green	1379668-4*	500	1379681-4*
		Neutral	Natural	1379668-5	500	1379681-5

^{*)} Contact your local TE Connectivity Sales Office for availability
**) An alternative design will be available for some items from 2015

40 Position (2 Rows) Receptace Housing

Technical Features

Compact design with 2.2mm pitch

■ Two Parts (Housing + Retainer Block) = 1 Piece

Temperature Range:

-40°C up to +105°C

Secondary Lock:

Housing Retainer Block

Dielectric Strength:

1000 V AC / 1 min.

Insulation Resistance:

>100 M Ω

Housing Material:

PBT

Connector Mating Force:

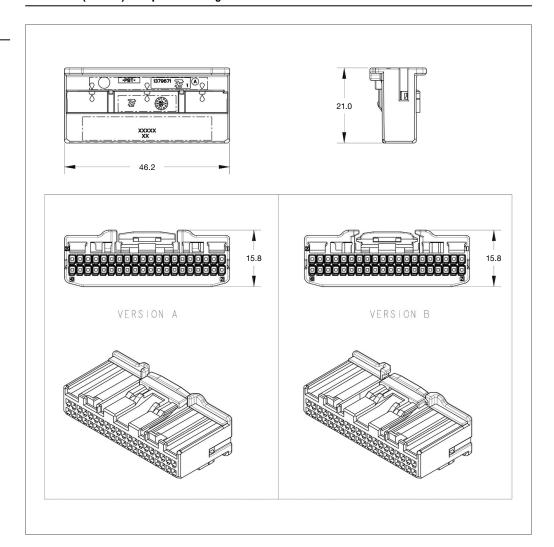
Max. 100 N

Product Specification:

108-15299

Application Specification:

411-15672



No. of	Housing	Keying Options	Housing		Part Numbers	
Positions	Material		Color	Receptacle Housing	Package Quantity	Mating Tab Housing
		1	Black	1379671-1	400	-
40		2	Gray	1379671-2	400	-
40 (2 rows)	PBT	3	Blue	1379671-3	400	-
(= : : : :)	-	4	Green	1379671-4	400	_
		Neutral	Natural	1379671-5	400	-

 $^{^{**}}$) An alternative design will be available for some items from 2015

4 Position (1 Row) Tab Housings

Technical Features

Compact design with 2.2mm pitch

Temperature Range:

-40°C up to +105°C

Secondary Lock:

Hinged Lid

Dielectric Strength:

1000 V AC / 1 min.

Insulation Resistance:

>100 M Ω

Housing Material:

PRT

Connector Mating Force:

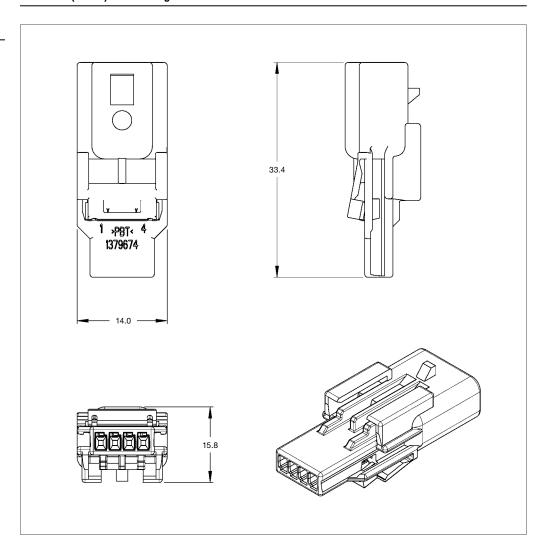
Max. 60 N

Product Specification:

108-15299

Application Specification:

411-15672



No. of	Housing	Keying	Housing		Part Numbers	
Positions	Material	Options	Color	Tab Housing	Package Quantity	Mating Receptacle Housing
		1	Black	1379674-1	800	1379658-1
		2	Gray	1379674-2	800	1379658-2
4 (1 row)	PBT	3	Blue	1379674-3*	800	1379658-3*
(1.1611)	-	4	Green	1379674-4*	800	1379658-4*
		Neutral	Natural	1-1379674-1	800	1-1379658-1

^{*)} Contact your local TE Connectivity Sales Office for availability

8 Position (2 Row) Tab Housings

Technical Features

2.2mm pitch (Japanese Version)

■ Two Parts (Housing + Retainer Block) = 1 Piece

Temperature Range: -40°C up to +105°C

Secondary Lock:

Housing Retainer Block **Dielectric Strength:**

1000 V AC / 1 min.

Insulation Resistance: >100 $\text{M}\Omega$

Housing Material: PBT

Connector Mating Force: Max. 60 N

Product Specification: 108-5787

Application Specification: 411-78011

14.2

No. of	Housing	Keying	Housing -		Part Numbers	
Positions	Material	Options	Color	Tab Housing	Package Quantity	Mating Receptacle Housing
8 (2 rows)	PBT	Neutral	Natural	1565804-2	200	1379659-5

12 Position (2 Rows) Tab Housings

Technical Features

- Compact design with 2.2mm pitch
- Two Parts (Housing + Retainer Block) = 1 Piece

Temperature Range:

 $-40\,^{\circ}\,\text{C}$ up to $+105\,^{\circ}\,\text{C}$

Secondary Lock:

Housing Retainer Block

Dielectric Strength:

1000 V AC / 1 min.

Insulation Resistance:

>100 M Ω

Housing Material:

PBT

Connector Mating Force:

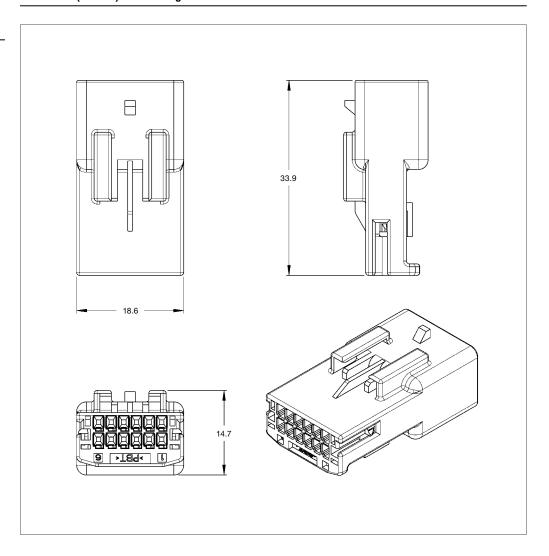
Max. 60 N

Product Specification:

108-15299

Application Specification:

411-15672



No. of	Housing	Keying	Housing		Part Numbers	
Positions	Material	Options	Color	Tab Housing	Package Quantity	Mating Receptacle Housing
		1	Black	1379675-1	500	1379662-1
40		2	Gray	1379675-2	500	1379662-2
12 (2 rows)	PBT	3	Blue	1379675-3*	500	1379662-3*
(2.5)	- -	4	Green	1379675-4*	500	1379662-4*
		Neutral	Natural	1379675-5	500	1379662-5

^{*)} Contact your local TE Connectivity Sales Office for availability

16 Position (2 Rows) Tab Housings

Technical Features

Compact design with 2.2mm pitch

■ Two Parts (Housing + Retainer Block) = 1 Piece

Temperature Range:

-40°C up to +105°C

Secondary Lock: Housing Retainer Block

Dielectric Strength: 1000 V AC / 1 min.

Insulation Resistance: >100 $\text{M}\Omega$

Housing Material: PBT

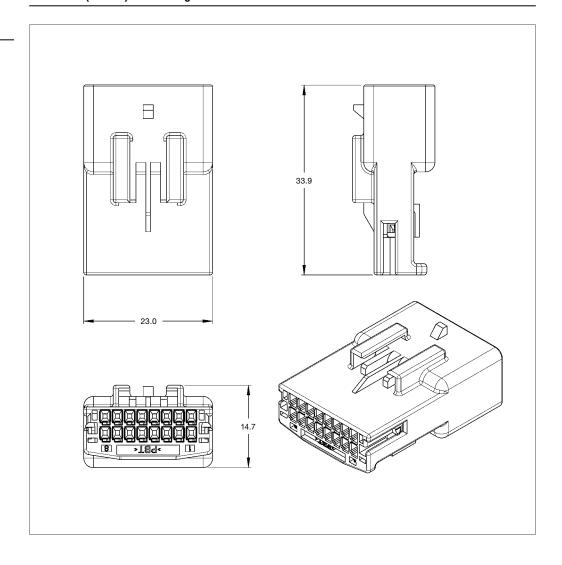
Connector Mating Force:

Max. 60 N **Product Specification:**

108-15299

Application Specification:

411-15672



No. of	Housing	Keying Options	Housing		Part Numbers	
Positions	Material		Color	Tab Housing	Package Quantity	Mating Receptacle Housing
		1	Black	1379678-1	400	1379665-1
40	-	2	Gray	1379678-2	400	1379665-2
16 (2 rows)	PBT	3	Blue	1379678-3*	400	1379665-3*
(2.5.0)	-	4	Green	1379678-4*	400	1379665-4*
		Neutral	Natural	1379678-5	400	1379665-5

^{*)} Contact your local TE Connectivity Sales Office for availability

24 Position (2 Rows) Tab Housings

Technical Features

- Compact design with 2.2mm pitch
- Two Parts (Housing + Retainer Block) = 1 Piece

Temperature Range:

-40°C up to +105°C

Secondary Lock:

Housing Retainer Block

Dielectric Strength:

1000 V AC / 1 min.

Insulation Resistance:

>100 M Ω

Housing Material:

PBT

Connector Mating Force:

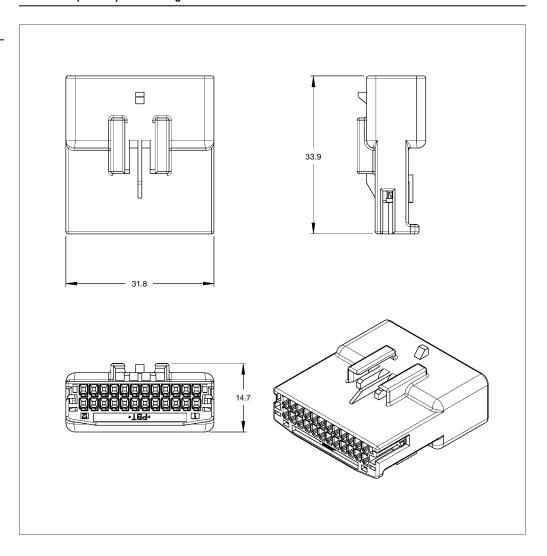
Max. 60 N

Product Specification:

108-15299

Application Specification:

411-15672



No. of	Housing	Keying	Housing		Part Numbers	
Positions	Material	Options	Color	Tab Housing	Package Quantity	Mating Receptacle Housing
		1	Black	1379681-1	300	1379668-1
		2	Gray	1379681-2	300	1379668-2
24 (2 rows)	PBT	3	Blue	1379681-3*	300	1379668-3*
(2.5)		4	Green	1379681-4*	300	1379668-4*
		Neutral	Natural	1379681-5	300	1379668-5

^{*)} Contact your local TE Connectivity Sales Office for availability

Headers - Vertical Type

4 Position Vertical Header

Technical Features

- Compact design with 2.2mm pitch
- Designed for Reflow Leadfree Process
- Board Locks
- Locating Pin (PCB Mechanical Coding)

Housing Material:

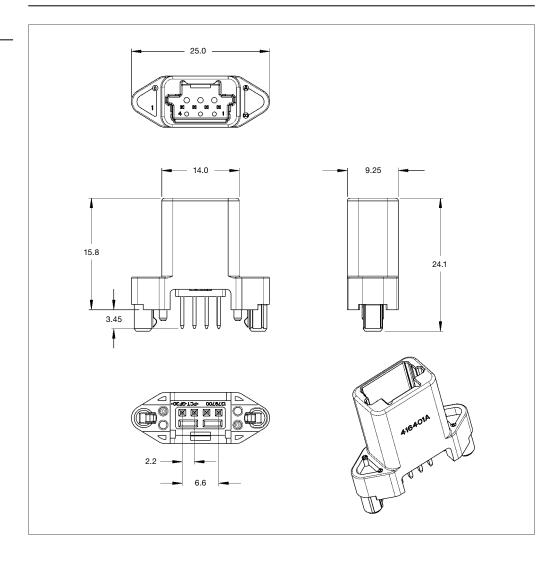
PC1

Pin Material:

Copper Alloy

Product Specification:

108-15326



4 Position Vertical Header

No. of	No. of Housing Positions Material	Keying	Housing	Part Numbers				
		Options Color	Header	Package Quantity	Packaging	Mating Receptacle Housing		
4	PCT	1	Black	1379700-1	1,400	Tray	1379658-1	
-	. 51	2	Gray	1379700-2	1,400	Tray	1379658-2	

Headers - Vertical Type

24 Position Vertical Header

Technical Features

- Compact design with 2.2mm pitch
- Designed for Reflow Leadfree Process
- Board Locks
- Locating Pin(PCB Mechanical Coding)

Housing Material:

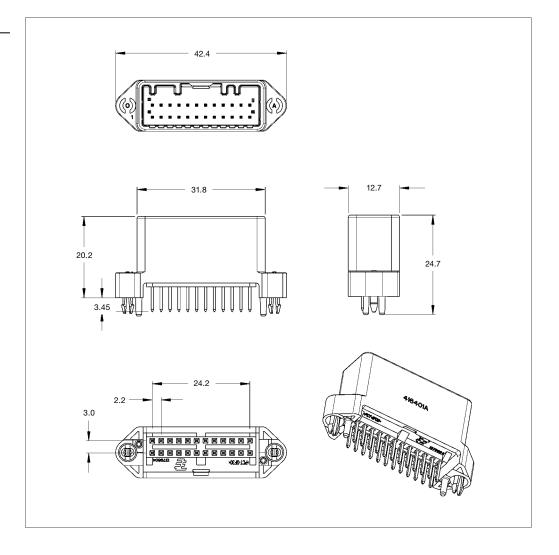
р∩т

Pin Material:

Copper Alloy

Product Specification:

108-15422



24 Position Vertical Header

No. of	No. of Housing	Keying Housing		Part Numbers				
Positions	Material	Options	Color	Header	Package Quantity	Packaging	Mating Receptacle Housing	
24	PCT	1	Black	1379604-1	650	Tray	1379668-1	
24	24 FUI		Gray	1379604-2	650	Tray	1379668-2	

Headers - Vertical Type

40 Position Vertical Header

Technical Features

- Compact design with 2.2mm pitch
- Designed for Reflow Leadfree Process
- Board Locks
- Locating Pin (PCB Mechanical Coding)

Housing Material:

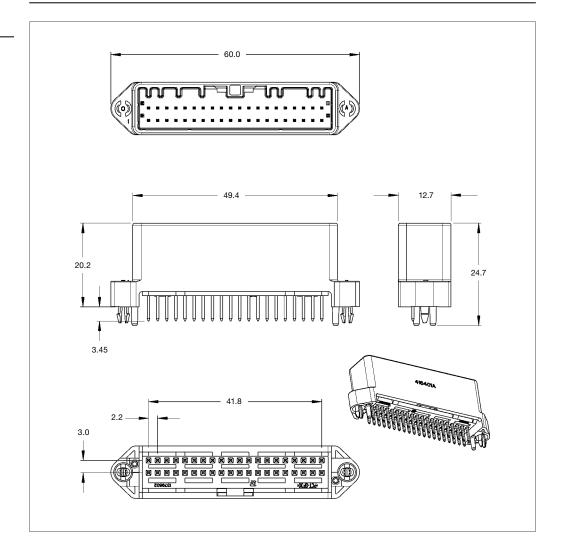
PC1

Pin Material:

Copper Alloy

Product Specification:

108-15422



40 Position Vertical Header

No. of	Housing	Keying	eying Housing	Part Numbers				
Positions		Options	Color	Header	Package Quantity	Packaging	Mating Receptacle Housing	
		1	Black	1-1379602-1	390	Tray	1379671-1	
40	PCT	2	Gray	1-1379602-2	390	Tray	1379671-2	
		4	Green	1-1379602-4	390	Tray	1379671-4	

Other designs available on request

Headers - Right Angle

8 Position Right-Angle Header

Technical Features

- Compact design with 2.2mm pitch
- Designed for Reflow Leadfree Process
- Board Locks
- Locating Pin(PCB Mechanical Coding)

Housing Material:

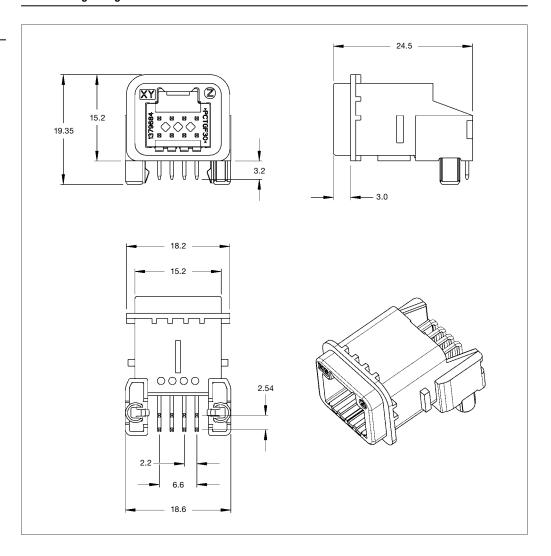
DCT

Pin Material:

Copper Alloy

Product Specification:

108-15383



8 Position Right-Angle Header

No. of	Housing	Keying	Housing		Part N	umbers	
Positions	Material	Options	Color	Header	Package Quantity	Packaging	Mating Receptacle Housing
		1	Black	1379684-1	1,210	Tray	1379659-1
		2	Gray	1379684-2	1,100	Special Tray	1379659-2
		3	Blue	1379684-3	1,100	Special Tray	1379659-3
8	PCT	1	Black	1379684-4	1,600	Tubes	1379659-1
U	101	2	Gray	1379684-5	1,600	Tubes	1379659-2
		3	Blue	1379684-6	1,600	Tubes	1379659-3
		3	Blue	1379684-7	1,210	Tray	1379659-3
		1	Black	1-1379684-1	1,100	Special Tray	1379659-1

4 Position Right-Angle Header

Technical Features

- Compact design with 2.2mm pitch
- Board fixation screw

Housing Material:

See table

Pin Material:

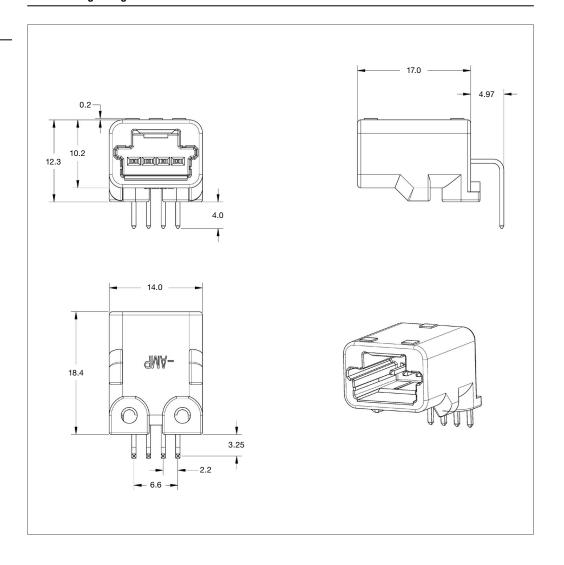
Brass

Product Specification:

108-5664

Application Specification:

114-5250



4 Position Right-Angle Header

No. of	Housing	Keying	Housing	Part Numbers					
Positions	Material	Options	Color	Header	Package Quantity	Packaging	Mating Recep for use in EMEA	tacle Housing for use in Asia	
	PBT	1	Natural	1565749-1	-	Tube	1379658-1	1473672-1	
	PBT	2	Gray	1565749-3	_	Tube	1379658-2	1473672-2	
	SPS	2	Gray	1565749-4	_	Tube	1379658-2	1473672-2	
	SPS	2	Gray	1565749-5	_	Tube	1379658-2	1473672-2	
	PBT	1	Natural	1565749-6	-	Tube	1379658-1	1473672-1	
4	SPS	1	Natural	1565749-7	_	Tube	1379658-1	1473672-1	
	SPS	2	Gray	1565749-8	-	Tube	1379658-2	1473672-2	
	SPS	1	Natural	1-1565749-0	_	Tube	1379658-1	1473672-1	
	PBT	1	Natural	1-1565749-1	-	Tube	1379658-1	1473672-1	
	PBT	2	Gray	1-1565749-2	-	Tube	1379658-2	1473672-2	
	PBT	2	Gray	1-1565749-3	_	Tube	1379658-2	1473672-2	

This header will mate with both the EMEA and Asia receptacle. Please review receptacle features prior to selection.

8 Position Right-Angle Header

Technical Features

- Compact design with 2.2mm pitch
- Board fixation screw

Housing Material:

See table

Pin Material:

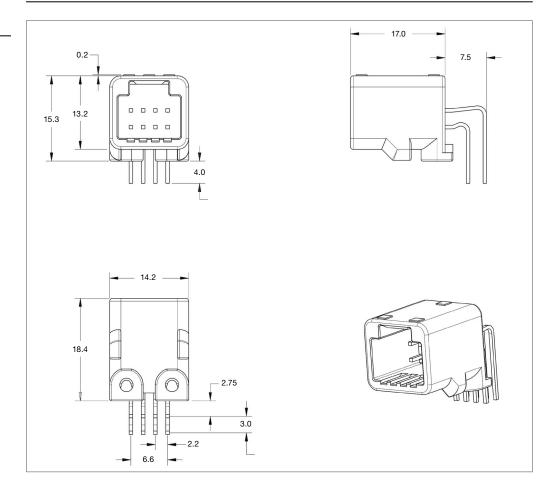
Brass

Product Specification:

108-5668

Application Specification:

114-5250



8 Position Right-Angle Header

No. of Positions	Housing Material	Keying Options	Housing Color	Part Numbers				
				Header	Package Quantity	Packaging	Mating Recept for use in EMEA	acle Housing for use in Asia
	PBT		Natural	1376350-1				
	PBT		Natural	1376350-2				
	PBT		Natural	1376350-3	_			
	PBT		Black	1376350-4	_			
	PBT		Black	1376350-6				
	PBT		Natural	1376350-7	_			
	PBT		Black	1376350-8				
	SPS		Natural	1376350-9	_			
	SPS		Natural	1-1376350-0				
	SPS		Black	1-1376350-1				
	SPS		Natural	1-1376350-2				
8	SPS	Neutral	Natural	1-1376350-3		Tube	1379659-5	1376352-1
	PBT		Black	1-1376350-4				
	PBT		Black	1-1376350-5				
	PBT		Black	1-1376350-6	_			
	PBT		Natural	6376350-3	_			
	PBT		Black	6376350-4	_			
	PBT		Natural	1-1376350-7				
	SPS	•	Black	1-1376350-9	_			
	SPS		Natural	2-1376350-0				
	PBT		Natural	2-1376350-1	_			
	PBT		Black	2-1376350-2	_			
	SPS		Natural	2-1376350-3	_			
	SPS		Natural	2-1376350-5	_			

This header will mate with both the EMEA and Asia receptacle. Please review receptacle features prior to selection.

12 Position Right-Angle Header

Technical Features

- Compact design with 2.2mm pitch
- Board fixation screw

Housing Material:

see table

Pin Material:

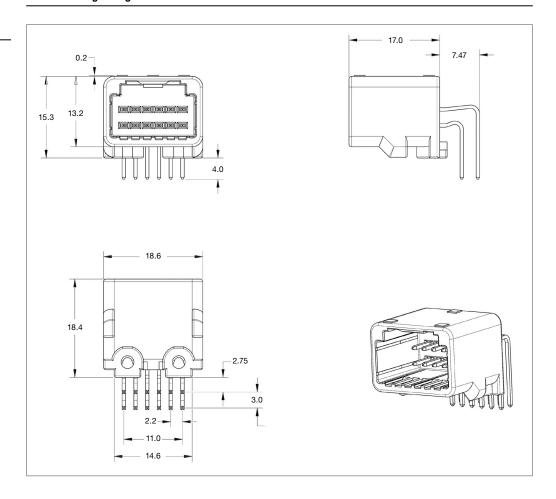
Brass

Product Specification:

108-5668

Appication Specification:

114-5250



12 Position Right-Angle Header

No. of	Housing	Vovina	Housing	·	·	Part Numbers	·	
No. of Positions	Material	Keying Options	Housing Color	Header	Package Quantity	Packaging	Mating Recept for use in EMEA	tacle Housing for use in Asia
	PBT		Natural	1318772-1				
	PBT		Natural	1318772-2	_			
	PBT		Natural	1318772-3	_			
	PBT		Black	1318772-4				
	PBT		Black	1318772-5	_			
	PBT		Natural	1318772-6	_			
	PBT		Black	1318772-7	_			
	PBT		Natural	1318772-9	_			
	PBT		Black	1-1318772-0	_			
	PBT		Black	1-1318772-2	_			
	SPS		Natural	1-1318772-3	_			
	SPS		Natural	1-1318772-4	_			
12	SPS	Neutral	Black	1-1318772-5		Tube	1379662-5	1318774-1
	SPS		Natural	1-1318772-6	_			
	SPS		Black	1-1318772-7	_			
	SPS		Black	1-1318772-8	_			
	SPS		Natural	1-1318772-9	_			
	PBT		Black	2-1318772-0	_			
	PBT		Black	2-1318772-1	_			
	PBT		Natural	6318772-3	_			
	PBT		Black	6318772-4	_			
	PBT		Black	6318772-5	_			
	PBT		Natural	2-1318772-2	_			
	PBT		Black	2-1318772-3	_			
	SPS		Black	2-1318772-4	_			

16 Position Right-Angle Header

Technical Features

- Compact design with 2.2mm pitch
- Board fixation screw

Housing Material:

See table

Pin Material:

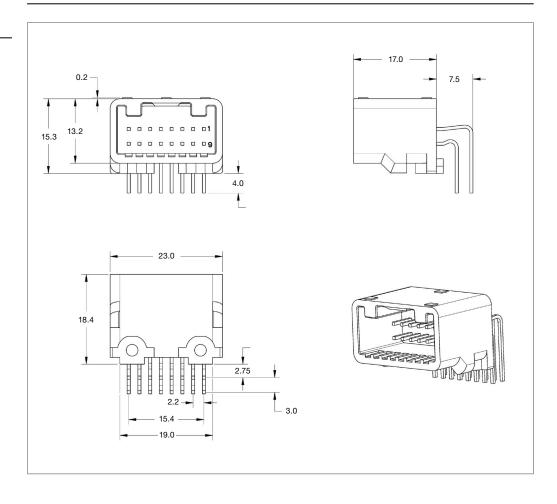
Brass

Product Specification:

108-5668

Application Specification:

114-5250



16 Position Right-Angle Header

No. of	Housing	Vovina	Housing			Part Numbers		
Positions	Housing Material	Keying Options	Housing Color	Header	Package Quantity	Packaging	Mating Recept for use in EMEA	tacle Housing for use in Asia
	PBT		Natural	1318382-1				
	PBT		Natural	1318382-2	_			
	PBT	-	Natural	1318382-3	-			
	PBT	_	Natural	1318382-4	-			
	PBT	_	Black	1318382-5	_			
	PBT	_	Natural	1318382-6	_			
	SPS	_	Natural	1318382-8	_			
	PBT	_	Black	1318382-9	-			
	PBT	_	Black	1-1318382-0	_			
16	SPS	- Neutral	Natural	1-1318382-1	_	Tube	1379665-5	1318386-1
	SPS	_	Natural	1-1318382-2	-			
	PBT	_	Black	1-1318382-3	-			
	SPS	_	Natural	1-1318382-4	_			
	SPS	_	Natural	1-1318382-5	_			
	SPS	_	Natural	1-1318382-6	_			
	SPS	_	Natural	1-1318382-7	-			
_	PBT	 	Natural	1-1318382-8	-			
	PBT		Natural	6318382-3	_			
	PBT		Black	6318382-5				
	PBT	_	Natural	6318382-6	-			

24 Position Right-Angle Header

Technical Features

- Compact design with 2.2mm pitch
- Board fixation screw

Housing Material:

see table

Pin Material:

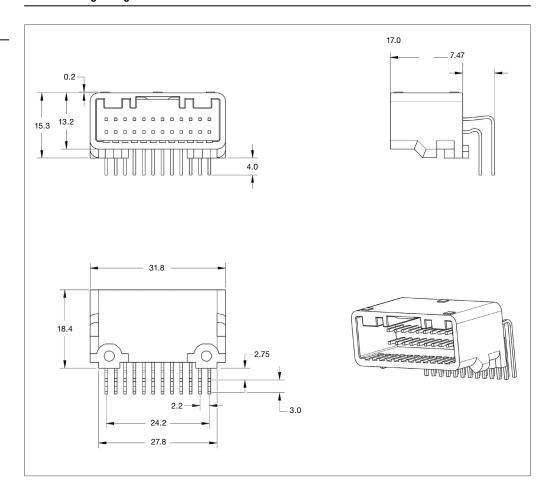
Brass

Product Specification:

108-5668

Appication Specification:

114-5250



24 Position Right-Angle Header

No. of	Housing	Vovina	Housing			Part Numbers		
Positions	Material	Keying Options	Color	Header	Package Quantity	Packaging	Mating Recept for use in EMEA	tacle Housing for use in Asia
	PBT		Natural	1318853-1	quantity		IOI USC III LINLA	ioi usc iii Asia
					-			
	PBT		Natural	1318853-2	_			
	PBT		Natural	1318853-3	_			
	PBT		Black	1318853-4	-			
	PBT	_	Black	1318853-5	-			
	PBT	-	Natural	1318853-8	-			
24	PBT	Neutral	Black	1318853-9	_	Tube	1379668-5	1318917-1
	PBT		Natural	1-1318853-0	-			
	PBT	_	Black	1-1318853-1	-			
	PBT	 	Natural	1-1318853-2	-			
- - -	SPS		Natural	1-1318853-3	-			
	SPS		Black	1-1318853-6				
	SPS	_	Natural	1-1318853-7	-			

TH 025 Connector Series

Headers - Right Angle

32 Position Right-Angle Header

Technical Features

- Compact design with 2.2mm pitch
- Board fixation screw

Housing Material:

See table

Pin Material:

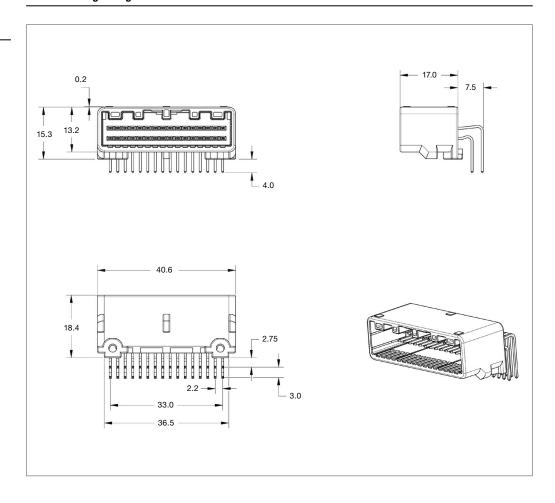
Brass

Product Specification:

108-5668

Application Specification:

114-5250



32 Position Right-Angle Header

No of	Hausian	Varian	Haveine			Part Numbers		
No. of Positions	Housing Material	Keying Options	Housing Color	Header	Package	Packaging	Mating Recept for use in EMEA	-
					Quantity		IOI USE III EIVICA	for use in Asia
	PBT	_		1318745-1				
	PBT	_		1318745-2	_			
	PBT	_		1318745-3				
	PBT			1318745-4				
32	SPS	Neutral	al Natural	1318745-5		Tube	NA	1318747-1
	PBT			1318745-6				
	SPS	-		1318745-7	_			
	SPS	_		1318745-8	_			
	PBT	_		1318745-9	_			
	PBT	_		1-1318745-0				

TH 025 Connector Series

Headers - Right Angle

40 Position Right-Angle Header

Technical Features

- Compact design with 2.2mm pitch
- Board fixation screw

Housing Material:

see table

Pin Material:

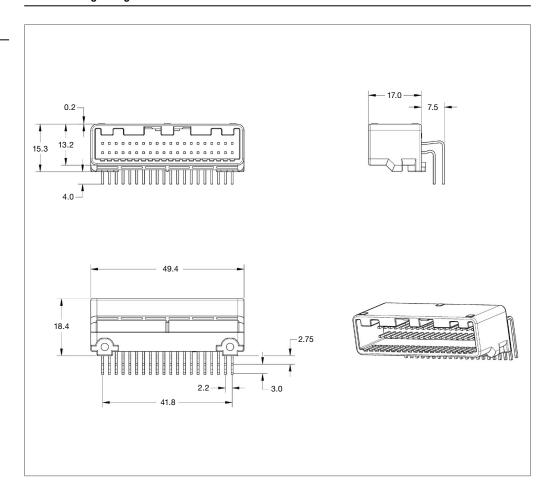
Brass

Product Specification:

108-5668

Appication Specification:

N/A



40 Position Right-Angle Header

No. of	Housing	Vovina	Uouoina			Part Numbers		
Positions	Material	Keying Options	Housing Color	Header	Package Quantity	Packaging	Mating Recept for use in EMEA	tacle Housing for use in Asia
	PBT		Natural	1318384-1	quantity		TOT USC III LINILA	TOT USC III ASIC
	PBT		Natural	1318384-2	_			
	PBT		Natural	1318384-4	_			
	PBT		Natural	1318384-5	_			
	PBT		Natural	1318384-7	_			
	PBT		Black	1-1318384-0	_			
	SPS		Natural	1-1318384-2	_			
	SPS		Natural	1-1318384-3	_			
	PBT		Black	1-1318384-4	_			
40	PBT	 Neutral	Natural	1-1318384-5	_	Tube	1379671-5	1318389-1
	PBT		Natural	1-1318384-6	_			
	SPS		Natural	1-1318384-7	_			
	PBT		Natural	1-1318384-8	_			
	PBT		Natural	1-1318384-9	_			
	PBT		Natural	6318384-5	_			
-	SPS	 	Natural	2-1318384-0				
	SPS		Natural	2-1318384-3				
	PBT		Black	2-1318384-4				
	PBT	_	Natural	2-1318384-6				

Technical Features

- Compact design with 2.2mm pitch
- Board fixation screw

Housing Material:

See table

Pin Material:

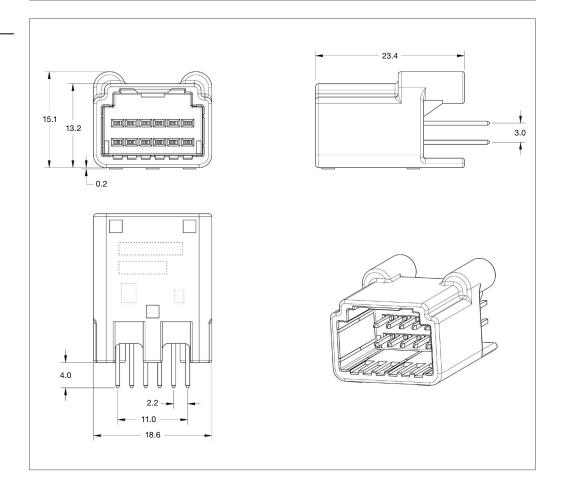
Brass

Product Specification:

108-5668

Application Specification:

114-5250



12 Position Vertical Header

No. of	Uouoina	Vovina	Housing			Part Numbers		
Positions	Housing Material	Keying Options	Housing Color	Header	Package Quantity	Packaging	Mating Recept for use in EMEA	tacle Housing for use in Asia
	PBT		Natural	1473898-1	quantity		TOT GOO III EINEA	TOT USC III ASIA
	SPS		Natural	1473898-2				
	SPS		Natural	1473898-3	_			
	SPS		Natural	1473898-4	_			
12	SPS	— Neutral	Natural	1473898-5	_ _	Tube	1379662-5	1318774-1
	PBT		Natural	1473898-6				
	SPS		Natural	1473898-7	_			
-	SPS	 	Gray	1473898-8	_			
	SPS		Gray	1473898-9	_			
	PBT		Natural	1-1473898-1				

Technical Features

- Compact design with 2.2mm pitch
- Board fixation screw

Housing Material:

See table

Pin Material:

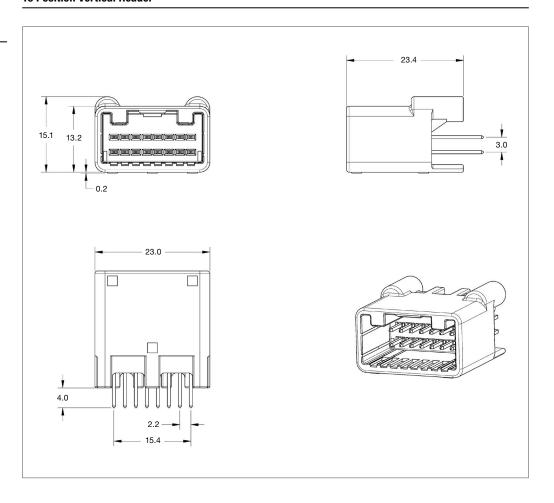
Brass

Product Specification:

108-5668

Application Specification:

114-5250



16 Position Vertical Header

No. of	Housing	Keying	Housing			Part Numbers			
Positions	Material	Options	Color	Header	Package Quantity	Packaging	Mating Recept for use in EMEA	Mating Receptacle Housing for use in EMEA for use in Asia	
			Natural	1565476-1	quantity		TOT USO III EINEA	TOT USC III ASIU	
16	PBT	Neutral	Black	1565476-2		Tube	1379665-5	1318386-1	
			Natural	1565476-4					

Technical Features

- Compact design with 2.2mm pitch
- Board fixation screw

Housing Material:

See table

Pin Material:

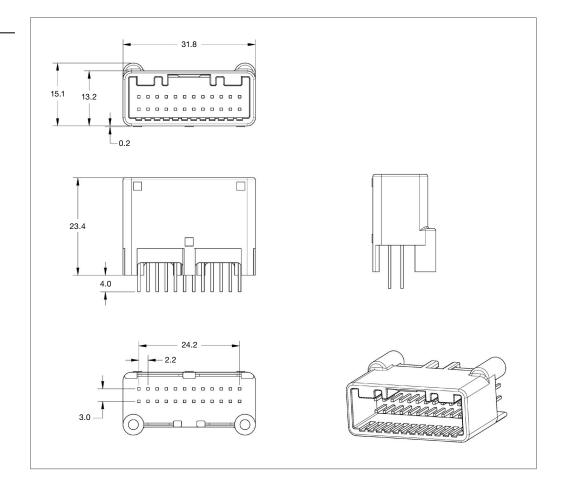
Brass

Product Specification:

108-5668

Application Specification:

114-5250



24 Position Vertical Header

No. of	Housing	Vovina	Housing	-	-	Part Numbers	-	-
Positions	Housing Material	Keying Options	Color	Header	Package Quantity	Packaging	Mating Recept for use in EMEA	tacle Housing for use in Asia
	PBT		Natural	1376111-1				
	PBT		Natural	1376111-2				
	SPS		Natural	1376111-5				
	SPS		Natural	1376111-6	_			
24	PBT	Neutral	Natural	1376111-7		Tube	1379668-5	1318917-1
	SPS	_	Black	1376111-8				
	SPS		Black	1376111-9				
-	SPS		Natural	1-1376111-1	_			
	SPS	_	Black	1-1376111-3				

Technical Features

- Compact design with 2.2mm pitch
- Board fixation screw

Housing Material:

See table

Pin Material:

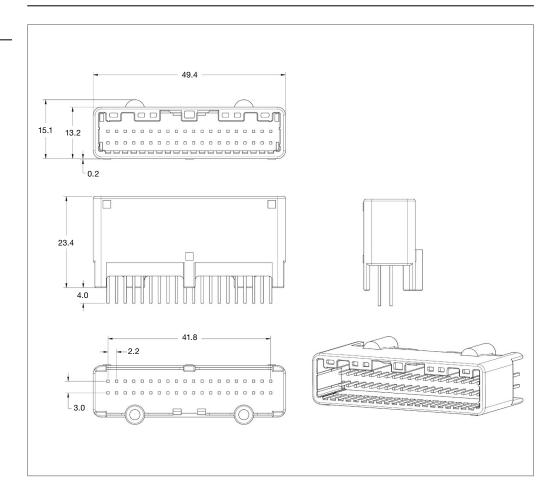
Brass

Product Specification:

108-5668

Application Specification:

114-5250



40 Position Vertical Header

No. of	Housing	Keying	Housing			Part Numbers		
Positions	Material	Options	Color	Header	Package Quantity	Packaging	Mating Recept for use in EMEA	acle Housing for use in Asia
	PBT		Natural	1376113-1	_			
	PBT		Natural	1376113-2				
	SPS		Natural	1376113-5				
	PBT		Natural	1376113-6				
40	SPS	Neutral	Natural	1376113-7		Tube	1379668-5	1318917-1
	PBT		Natural	1376113-8				
	SPS	 	Natural	1376113-9				
_	SPS		Black	1-1376113-1	_			
	PBT		Natural	1-1376113-3				

SMD Headers - Vertical

8 Position SMD Header – Vertical

Technical Features

- Compact design with 2.2mm pitch
- Designed for Reflow Leadfree Process
- Board fixation screw
- Locating Pin(PCB Mechanical Coding)

Housing Material:

See table

Pin Material:

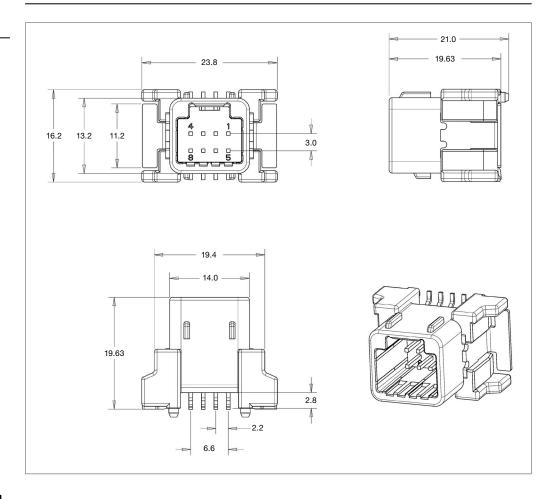
Brass

Product Specification:

108-78295

Application Specification:

411-78145



8 Position SMD Header – Vertical

No. of	Housing	Keying	Housing	Part Numbers				
Positions	Material	Options	Color	Header	Package Quantity	Packaging	Mating Recep for use in EMEA	tacle Housing for use in Asia
				1939403-1	-	Tube		
8	PPS	Neutral	Black	1939403-2	-	Tube	1379659-5	1376352-1
				1939403-3	_	Tray		

TH 025 Connector Series

SMD Headers - Vertical

16 Position SMD Header - Vertical

Technical Features

- Compact design with 2.2mm pitch
- Designed for Reflow Leadfree Process
- Board fixation screw
- Locating Pin (PCB Mechanical Coding)

Housing Material:

See table

Pin Material:

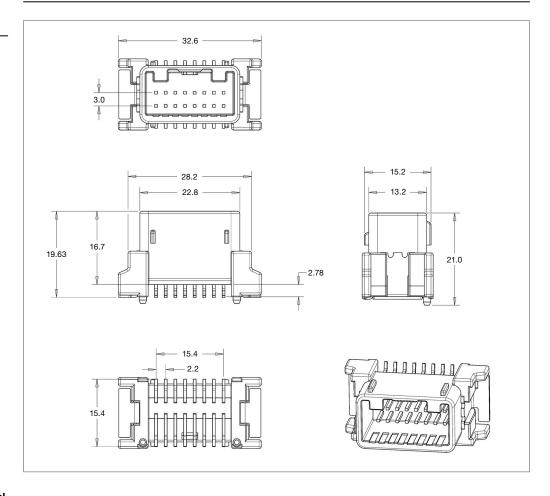
Brass

Product Specification:

108-78295

Application Specification:

411-78145



16 Position SMD Header – Vertical

No. of	Housing	Keying	Housing	Part Numbers				
Positions	Material	Options	Color	Header	Package Quantity	Packaging	Mating Recept for use in EMEA	tacle Housing for use in Asia
				1717396-1	–	Tube	TOT USC III LINILA	ioi usc iii Asia
16	PPS	Neutral	Black	1717396-2	_	Tube	1379665-5	1318386-1
.0			Diadit	1717396-3	_	Tray	10.0000	.0.0000

TH 025 Connector Series SMD Headers - Vertical

24 Position SMD Header - Vertical

Technical Features

- Compact design with 2.2mm pitch
- Designed for Reflow Leadfree Process
- Board fixation screw
- Locating Pin(PCB Mechanical Coding)

Housing Material:

See table

Pin Material:

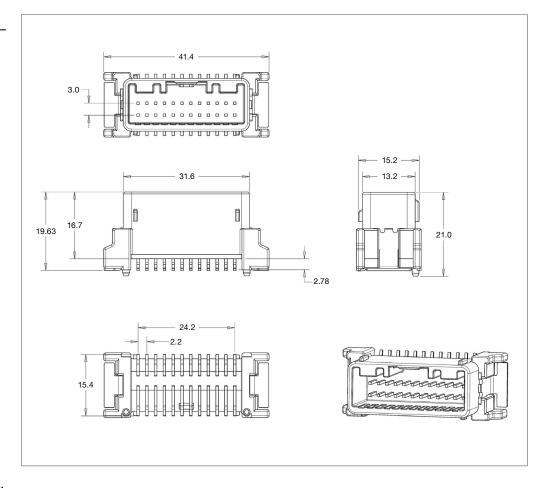
Brass

Product Specification:

108-78295

Application Specification:

411-78145



24 Position SMD Header – Vertical

No. of	Housing	Keying	Housing		Part Numbers				
Positions	Material	Options	Color	Header	Package Quantity	Dackaning	Mating Recept for use in EMEA	tacle Housing for use in Asia	
24	PPS	Neutral	Black	1717394-1	_	Tube	1379668-5	1318917-1	
23	110	Would	Black	1717394-2		Tubo	107 3000 0	1010317 1	

TH 025 Connector Series SMD Headers - Vertical

40 Position SMD Header - Vertical

Technical Features

- Compact design with 2.2mm pitch
- Designed for Reflow Leadfree Process
- Board fixation Solder peg
- Locating Pin

Housing Material:

See table

Pin Material:

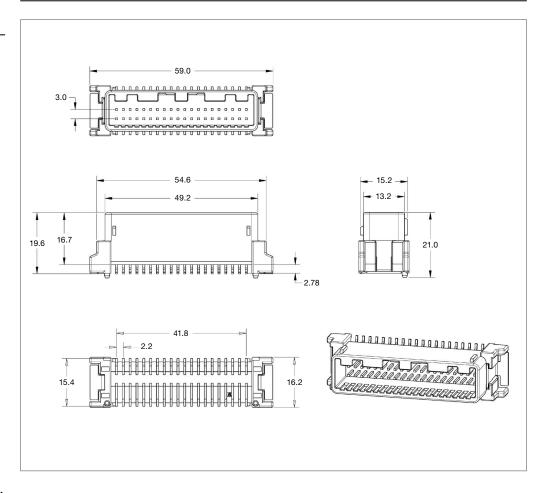
Brass

Product Specification:

108-78295

Application Specification:

411-78145



40 Position SMD Header – Vertical

No. of Positions	Housing Material	Keying Options	Housing Color	Part Numbers				
				Header	Package Quantity	Packaging	Mating Recept for use in EMEA	acle Housing for use in Asia
40	PPS	Neutral	Black	1747642-1	-	Tube	1379671-5	1318389-1
40				1747642-2				



Application Tooling



APPLICATION TOOLING AND EQUIPMENT

FOR TH 025 CONNECTOR SERIES

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

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

Equipment is segregated into two types and managed accordingly:

Generic equipment

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

Specialised Equipment

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

Finding Equipment Online

www.tooling.te.com

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

Regional Assistance

www.te.com/support-center

Numerical Index

Part Number	Page	Part Number	Page	Part Number	Page
1-1318382-0	22	1-1565749-3	19	1376113-6	29
1-1318382-1	22	1-1612446-8	28	1376113-7	29
1-1318382-2	22	1123343-2	2	1376113-8	29
1-1318382-3	22	1276565-1	2	1376113-9	29
1-1318382-4	22	1318382-1	22	1376350-1	20
1-1318382-5	22	1318382-2	22	1376350-2	20
1-1318382-6	22	1318382-3	22	1376350-3	20
1-1318382-7	22	1318382-4	22	1376350-4	20
1-1318382-8	22	1318382-5	22	1376350-6	20
1-1318384-0	25	1318382-6	22	1376350-7	20
1-1318384-2	25	1318382-8	22	1376350-8	20
1-1318384-3	25	1318382-9	22	1376350-9	20
1-1318384-4	25	1318384-1	25	1376352-1	20, 30
1-1318384-5	25	1318384-2	25	1379604-1	16
1-1318384-6	25	1318384-4	25	1379604-2	16
1-1318384-7	25	1318384-5	25	1379658-1	4, 10, 15, 19
1-1318384-8	25	1318384-7	25	1379658-2	4, 10, 15, 19
1-1318384-9	25	1318386-1	22, 27, 31	1379658-3	4
1-1318745-0	24	1318389-1	25, 33	1379658-3	10
1-1318772-0	21	1318745-1	24	1379658-4	4, 10
1-1318772-2	21	1318745-2	24	1379659-1	5, 18
1-1318772-3	21	1318745-3	24	1379659-2	5, 18
1-1318772-4	21	1318745-4	24	1379659-3	5, 18
1-1318772-5	21	1318745-5	24	1379659-4	5
1-1318772-6	21	1318745-6	24	1379659-5	5, 11, 20, 30
1-1318772-7	21	1318745-7	24	1379662-1	6, 12
1-1318772-8	21	1318745-8	24	1379662-2	6, 12
1-1318772-9	21	1318745-9	24	1379662-3	6, 12
1-1318853-0	23	1318747-1	24	1379662-4	6, 12
1-1318853-1	23	1318772-1	21	1379662-5	6, 12
1-1318853-2	23	1318772-2	21	1379662-5	21, 26
1-1318853-3	23	1318772-3	21	1379665-1	7, 13
1-1318853-6	23	1318772-4	21	1379665-2	7, 13
1-1318853-7	23	1318772-5	21	1379665-3	7, 13
1-1376111-1	28	1318772-6	21	1379665-4	7, 13
1-1376111-3	28	1318772-7	21	1379665-5	7, 13
1-1376113-1	29	1318772-9	21	1379665-5	22, 27, 31
1-1376113-3	29	1318774-1	21, 26	1379668-1	8, 14, 16
1-1376350-0	20	1318853-1	23	1379668-2	8, 14, 16
1-1376350-1	20	1318853-2	23	1379668-3	8, 14
1-1376350-2	20	1318853-3	23	1379668-4	8, 14
1-1376350-3	20	1318853-4	23	1379668-5	8, 14, 23, 28,
1-1376350-4	20	1318853-5	23		29, 32
1-1376350-5	20	1318853-8	23	1379671-1	9, 17
1-1376350-6	20	1318853-9	23	1379671-2	9, 17
1-1376350-7	20	1318917-1	23, 28,	1379671-3	9
1-1376350-9	20		29, 32	1379671-4	9, 17
1-1379602-1	17	1376111-1	28	1379671-5	9, 25, 33
1-1379602-2	17	1376111-2	28	1379674-1	4, 10
1-1379602-4	17	1376111-5	28	1379674-2	4, 10
1-1379658-1	4, 10	1376111-6	28	1379674-3	4, 10
1-1379674-1	4, 10	1376111-7	28	1379674-4	4, 10
1-1379684-1	18	1376111-8	28	1379675-1	6, 12
1-1473898-1	26	1376111-9	28	1379675-2	6, 12
1-1565749-0	19	1376113-1	29	1379675-3	6, 12
1-1565749-1	19	1376113-2	29	1379675-4	6, 12
1-1565749-2	19	1376113-5	29	1379675-5	6, 12

Numerical Index

Part Number	Page		
1379678-1	7, 13	1939403-3	30
1379678-2	7, 13	1939403-4	30
1379678-3	7, 13	2-1318384-0	25
1379678-4	7, 13	2-1318384-3	25
1379678-5	7, 13	2-1318384-4	25
1379681-1	8, 14	2-1318384-6	25
1379681-2	8, 14	2-1318772-0	21
1379681-3	8, 14	2-1318772-1	21
1379681-4	8, 14	2-1318772-2	21
1379681-5	8, 14	2-1318772-3	21
1379684-1	18	2-1318772-4	21
1379684-2	18	2-1376350-0	20
1379684-3	18	2-1376350-1	20
1379684-4	18	2-1376350-2	20
1379684-5	18	2-1376350-3	20
1379684-6	18	2-1376350-5	20
1379684-7	18	2005097-1	2
1379700-1	15	2005098-1	3
1379700-2	15	6318382-3	22
1473672-1	19	6318382-5	22
1473672-2	19	6318382-6	22
1473898-1	26	6318384-5	25
1473898-2	26	6318772-3	21
1473898-3	26	6318772-4	21
1473898-4	26	6318772-5	21
1473898-5	26	6376350-3	20
1473898-6	26	6376350-4	20
1473898-7	26		
1473898-8	26		
1473898-9	26		
1565476-1	27		
1565476-2	27		
1565476-4	27		
1565749-1	19		
1565749-3	19		
1565749-4	19		
1565749-5	19		
1565749-6	19		
1565749-7	19		
1565749-8	19		
1565804-2	5		
1565804-2	11		
1579007-8	3		
1674298-1	2		
1674742-1	3		
1717394-1	32		
1717394-2	32		
1717396-1	31		
1717396-2	31		
1717396-3	31		
1747642-1	33		
1747642-2	33		
1801069-2	2		
1801248-2	2		
1939403-1	30		
1939403-2	30		

Disclaimer

While TE Connectivity (TE) has made every reasonable effort to ensure the accuracy of the information in this catalog, TE does not guarantee that it is error-free, nor does TE make any other representation, warranty or guarantee that the information is accurate, correct, reliable or current. TE reserves the right to make any adjustments to the information contained herein at any time without notice..

TE expressly disclaims all implied warranties regarding the information contained herein, including, but not limited to, any implied warranties of merchantability or fitness for a particular purpose. The dimensions in this catalog are for reference purposes only and are subject to change without notice. Specifications are subject to change without notice. Consult TE for the latest dimensions and design specifications.

Trademarks

TE, TE Connectivity, TE connectivity (logo), and EVERY CONNECTION COUNTS are trademarks.

Other product names, logos, and company names mentioned herein may be trademarks of their respective owners.

Copyright

© 2014 TE Connectivity family of companies. All rights reserved.

AMERICAS

Argentina - Buenos Aires (Chile, Colombia. **Ecuador, Venezuela)** Phone: +54-11-4733-2202

+54-11-4733-2250 Fax.

Brasil - São Paulo Phone: +55-11-2103-6105 +55-11-2103-6204 Canada - Toronto Phone: +1-905-475-6222

+1-905-474-5520 **Product Information Center:** Phone: +1-905-470-4425 +1-905-474-5525 Fax:

Mexico - Mexico City Phone: +52-55-1106-0800 +01-800-733-8926

+52-55-1106-0910

United States

Harrisburg, PA Phone: +1-717-564-0100 +1-717-986-7575 Fax: **Product Information Center:**

Phone: +1-800-522-6752 Fax: +1-717-986-7575

For South American Countries not shown

Phone: +54-11-4733-2015 Fax: +54-11-4733-2083

ASIA/PACIFIC

Australia - Sydney Phone: +61-2-9554-2600 Fax: +61-2-9502-2556 **Product Information Center:**

Phone: +61-2-9840-8200 +61-2-9634-6188

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

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

Korea - Seoul

Phone: +82-2-3415-4500 Fax: +82-2-3486-3810

Malaysia - Kuala Lumpur Phone: +60-3-7806-7688 +60-3-7805-3066

New Zealand - Auckland Phone: +64-9-634-4580 +64-9-634-4586 Fax:

Philippines - Makati City Phone: +632-988-9400 +632-659-7737

People's Republic of China

Hong Kong Phone: +852-2738-8731 +852-2735-0243 Fax:

Shanghai

Phone: +86-21-3398-0000 +86-21-3398-1999

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

Taiwan - Taipei

Phone: +886-2-8768-2788 +886-2-8768-2268

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

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

EUROPE/MIDDLE EAST/AFRICA

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

Phone: +43-1-905-60-1228 +43-1-905-60-1333

Belarus - Minsk

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

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

Czech Republic and Slovakia Czech Republic - Kurim, Brno

Phone: +420-541-162-108 +420-541-162-104 Fax: **Product Information Center:** Phone: +420-541-162-113 Fax: +420-541-162-104

Denmark - Glostrup Phone: +45-43-48-04-00 +46-8-50-72-50-01 **Product Information Center:** Phone: +46-8-50-72-50-00

Egypt - Cairo Phone: +20-2-24192334 +20-2-24177647

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

Finland - Helsinki Phone: +358-95-12-34-20 +46-8-50-72-50-01 **Product Information Center:** Phone: +46-8-50-72-50-00

France - Cergy-Pontoise

Cedex

Phone: +33-1-3420-8888 +33-1-3420-8800 Fax: **Product Information Center:** Phone: +33-1-3420-8686 +33-1-3420-8624 Fax:

France Export Divisions -

Cergy-Pontoise Cedex Phone: +33-1-3420-8866 +33-1-3420-8300

Germany - Bensheim (Switzerland)

Phone: +49-6251-133-0 +49-6251-133-1600 **Product Information Center:** Phone: +49-6251-133-1999 +49-6251-133-1988

Hungary - Budapest Phone: +36-1-289-1000 Fax: +36-1-289-1010 **Product Information Center:** Phone: +36-809-874-04 (toll free)

India - Bangalore Phone: +91-080-2854-0800 +91-080-2854-0820/21

Italy - Collegno (Torino) Phone: +39-011-4012-111 +39-011-4031-116 **Product Information Center:** Phone: +39-011-4012-632 +39-011-4028-7632

Lithuania and Latvia

Lithuania - Vilnius Phone: +370-5-213-1402 +370-5-213-1403 Morocco - Tangier

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

Netherlands - 's-Hertogenbosch

(Belgium, Luxemburg) Phone: +31-73-6246-246 +31-73-6212-365 Fax: Product Information Center: Phone: +31-73-6246-999 +31-73-6246-998 Fax:

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

Poland - Warsaw Phone: +48-22-4576-700 +48-22-4576-720 Fax:

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

+40-21-312-0574 Russia - Moscow Phone: +7-495-790-7902

+7-495-721-1893 Product Information Center: Phone: +7-495-790-7902 Fax: +7-495-721-1893

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

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

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

Spain - Barcelona

Phone: +34-93-291-0300 Fax: +34-93-564-4819 Fax: **Product Information Center:** Phone: +34-93-291-0366 Fax: +34-93-209-1030

Sweden - Upplands Väsby Phone: +46-8-50-72-50-00 Fax: +46-8-50-72-50-01 Product Information Center: Phone: +46-8-50-72-50-00

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

+90-212-339-9202

Ukraine - Kiev

Phone: +380-44-206-2265 +380-44-206-2264 **Product Information Center:** Phone: +380-44-206-2265 +380-44-206-2264

United Kingdom and

Ireland - Swindon Phone: +44-8706-080208 +44-208-954-6234 **Product Information Center:** Phone: +44-800-267-666

For further contact information or countries not shown please go to:

www.TE.com/support-center

Status 04/2013



Tyco Electronics AMP GmbH a TE Connectivity Ltd. company

AMPèrestrasse 12-14 64625 Bensheim | Germany Phone: +49 (0)6251 133-0

Fax: +49 (0)6251 133-1600



www.te.com

www.te.com/automotive

Tyco Electronics AMP GmbH certified acc. ISO 14001 and ISO/TS 16949:2002

889783-1 | Revised 10-2014 | 3M · ST

