

SUPERSEAL 1.0 CONNECTOR

FOR INDUSTRIAL & COMMERCIAL TRANSPORTATION

TERMINALS AND CONNECTORS



SUPERSEAL 1.0 Connector

for Industrial & Commercial Transportation



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

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

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

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

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



Motors and Gearboxes



ABS/EBS Brake Units



Telematics Units



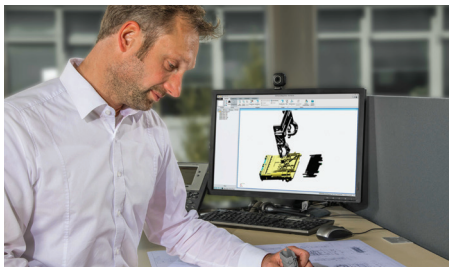
Sensors



Wire-To-Wire Coupling at the Chassis



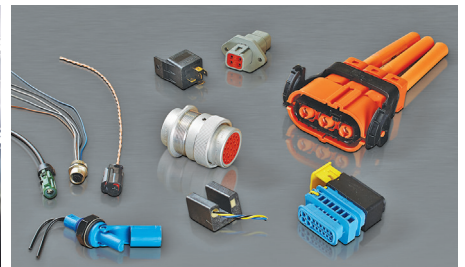
Infotainment Applications



**2,000+
EMPLOYEES**



**10,000
CUSTOMERS**



**20,000+
DIFFERENT PARTS**

MARKETS WE SERVE



ON-HIGHWAY

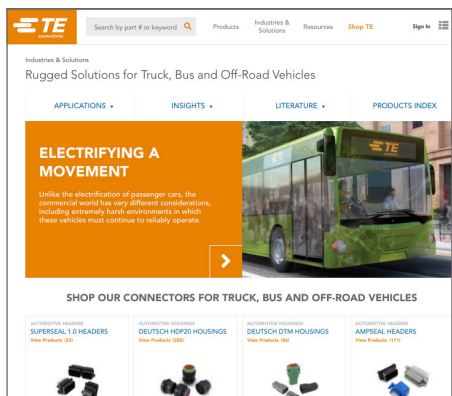


OFF-HIGHWAY

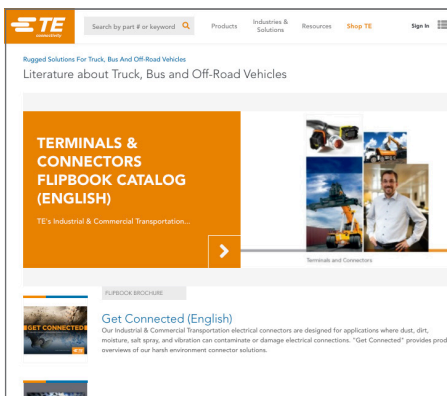


**RECREATIONAL
TRANSPORTATION**

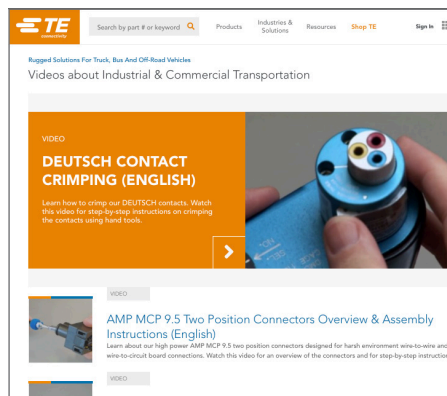
ONLINE RESOURCES



TE.COM/ICT



LITERATURE



VIDEOS



TE SOLUTION CENTER

You can rely on TE Connectivity's helpful Solution Center team to provide answers to your general and technical questions.

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

SUPERSEAL 1.0 Connector

for Industrial & Commercial Transportation



SUPERSEAL 1.0 Connector

TE Connectivity's (TE) SUPERSEAL 1.0 connectors are designed to meet the increasing need for dependable, high-density, printed circuit board applications in harsh environments. SUPERSEAL 1.0 headers are available with right-angle pins. Various locking latch options and keying configurations are also available.

The receptacle connector housings incorporate pre-assembled secondary locks to help ensure correct and complete contact insertion into the housing and help prevent the contacts from backing out during mating. The secondary lock cannot be closed if the contacts are not correctly inserted into the connector housing.

Cavity plugs are available for sealing unused connector cavities. The double spring contact design (main spring and auxiliary anti-overstress spring) ensure low insertion and high contact forces.

TE's SUPERSEAL 1.0 product line provides a general market solution for sealed high-density wire-to-board connection that can withstand harsh environments in engine compartments.

SUPERSEAL 1.0 Connector

for Industrial & Commercial Transportation



- Product Benefits 6
- Product Applications 6
- Product Documentation 7
- Performance Specifications 7
- Material Specifications 7
- Dimensions 8
- Configurations 8
- Ordering Information 9
- Contacts 10
- Sealing Plugs 10

- Tooling 11

SUPERSEAL 1.0 Connector

for Industrial & Commercial Transportation

PRODUCT FEATURES & BENEFITS

- Accepts contact size 1.0 mm (up to 15 amps)
- 1.25-0.50 mm²
- 26, 34, and 60 cavity arrangements
- PCB mount
- Rectangular, thermoplastic housing
- Integrated latch for mating
- TPA confirms contact alignment and retention
- Compact system minimizes packaging requirements
- Sealing reliability proven under harsh conditions
- Designed for ease of manual harness assembly, engine mounting and under hood environments



KEY INDUSTRIES

SUPERSEAL 1.0 products can be utilized in the truck, bus, construction, agriculture, and special vehicles industries.



Truck



Bus



Construction



Agriculture



Special Vehicles

APPLICATIONS

SUPERSEAL 1.0 products can be utilized in the following applications:

- Wire-to-Board (1.0 mm) and ECU applications, under engine hood or any location where sealing is required



Wire-to-Board



ECU

SUPERSEAL 1.0 Connector

for Industrial & Commercial Transportation

PRODUCT DOCUMENTATION

Product Specification	108-78140
Application Specification	114-160220
Application Specification (crimp only)	114-78011

PERFORMANCE SPECIFICATIONS

Current	Up to 15 amps
Temperature	Operating at temperatures -40°C to +125°C
Durability	After cap housing is connected, the plug housing is mated and then 78.4 N force is applied in a rocking motion. 25 test cycles.
Insulation Resistance	100 megohms minimum. Test between adjacent contacts and between contact and earth with insulation resistance meter of 500 volts DC.
Immersion	Per JIS D0203/ IP67 rating
Random Vibration	Tested in each of three mutually perpendicular axis. See figure 8 in product document 108-78140.
Dielectric Withstanding Voltage	Insulation does not breakdown at 1000 volts AC or 1600 volts DC for duration of 1 minute between contacts and between contact and earth.
Voltage	250 volts AC, DC
Flammability	UL 94-V0-rated material

MATERIAL SPECIFICATIONS

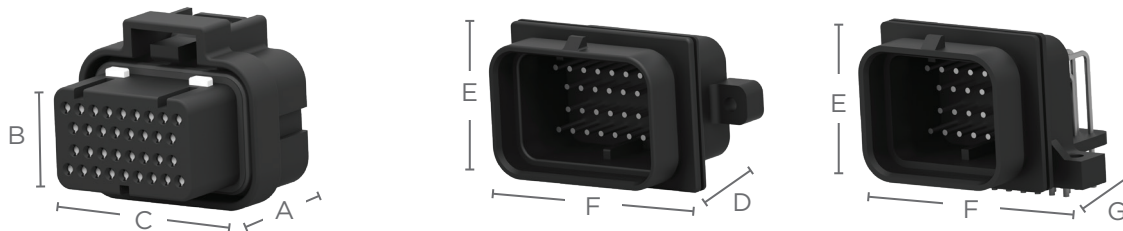
Receptacle Seals	Silicone rubber
Housing	Glass-Filled PBT
TPA	Glass-Filled PBT

SUPERSEAL 1.0 Connector

for Industrial & Commercial Transportation

SUPERSEAL 1.0 CONNECTOR

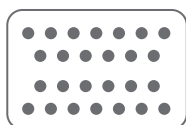
DIMENSIONS



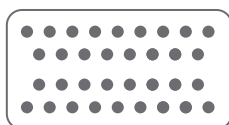
Cavity	SUPERSEAL 1.0 Plug Housing			SUPERSEAL 1.0 Pin Header			
	Overall Length A	Overall Height B	Overall Width C	Overall Length Vertical D	Overall Height E	Overall Width F	Overall Length 90° G
26	1.26 (32.1)	1.36 (34.5)	1.26 (32.1)	1.14 (29.0)	1.23 (31.4)	1.55 (39.5)	1.44 (36.5)
34	1.26 (32.1)	1.49 (38.0)	1.50 (38.2)	1.14 (29.0)	1.23 (31.4)	1.79 (45.5)	1.44 (36.5)
60	-	-	-	-	1.23 (31.4)	3.07 (78.0)	1.44 (36.5)

Dimensions are for reference only

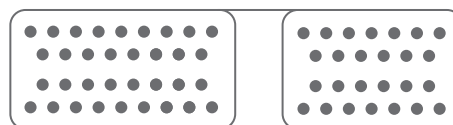
CONFIGURATIONS



26 Positions
26 size 1.0 mm



34 Positions
34 size 1.0 mm



60 Positions
60 size 1.0 mm



26 Positions (2-row design)
26 size 1.0 mm

SUPERSEAL 1.0 MM STICK HEADERS

SUPERSEAL 1.0 mm stick headers are low profile pin carriers available for customers for overmolding and integration into modules.

Position	Stick Header
26	2303344-2
34	2303344-1



26 Positions



34 Positions

SUPERSEAL 1.0 Connector

for Industrial & Commercial Transportation

ORDERING INFORMATION

Position	Pin Header	Receptacle Housing	Keying Type	Locking
26	9-6437287-8	3-1437290-7	1 (4 row)	Upper
	9-6437287-9	3-1437290-8	2 (4 row)	Upper
	6473423-1	1473416-1	3 (4 row)	Upper
	6473423-2	1473416-2	4 (4 row)	Upper
	5-6447223-0	3-1437290-7	1 (4 row)	Lower
	6437288-4	3-1437290-8	2 (4 row)	Lower
	2-6437285-8	2-1437285-2	1 (4 row)	Double
	2-6437285-9	1-1447232-7	2 (4 row)	Double
	6437288-6	3-1437290-7	1 (4 row, vertical)	Upper
	6473418-1	3-1437290-8	2 (4 row, vertical)	Upper
	6473418-2	1473416-1	3 (4 row, vertical)	Upper
	6473711-1	1473712-1	1 (2 row)	Upper
	6473711-2	1473712-1	1 (2 row)	Lower
	34	6437288-1	4-1437290-0	1 (4 row)
6437288-2		4-1437290-1	2 (4 row)	Upper
2-6437285-5		4-1437290-0	1 (4 row)	Lower
2-6437285-6		4-1437290-1	2 (4 row)	Lower
3-6437285-0		2-1437285-3	1 (4 row)	Double
3-6437285-1		3-1437290-9	2 (4 row)	Double
2-6447232-3		4-1437290-0	1 (4 row, vertical)	Upper
2-6447232-4		4-1437290-1	2 (4 row, vertical)	Upper
60	6437288-3	3-1437290-7 (26P), 4-1437290-0 (34P)	1 (4 row)	Upper
	6473427-1	1473416-1 (26P), 4-1437290-1 (34P)	2 + 3 (4 row)	Upper
	6437288-5	3-1437290-7 (26P), 4-143790-0 (34P)	1 (4 row)	Lower
	3-6437285-2	2-1437285-2 (26P), 2-1437285-3 (34P)	1 (4 row)	Double

SUPERSEAL 1.0 Connector

for Industrial & Commercial Transportation

CONTACTS

The SUPERSEAL 1.0 mm connectors commonly use the AMP Superseal double spring, stamped & formed contact system.

1.0 MM CONTACT PERFORMANCE SPECIFICATIONS

Durability	25 cycles, per "Kojiri" (rocking motion) durability test.	
Current Rating	Up to 15 amps; consult TE product specification 108-78140.	
Contact Retention (between contact and housing)	1.0 mm \geq 58.8 N	
Crimp Tensile Strength	Contact Size	Tensile Strength
	0.5 mm ²	\geq 88.2 N
	0.85 mm ²	\geq 127.4 N
	1.25 mm ²	\geq 176.4 N

STAMPED & FORMED RECEPTACLES - 1.0 MM



Size	Receptacle Strip Form	Wire Size (mm ²)	Insulation Diameter (mm)	Finish
1.0 mm	3-1447221-5	0.3	1.4-1.7	Finish Copper alloy Gold over nickel (contact part), Tin over Nickel (crimp area)
	3-1447221-4	0.5	1.6-2.2	Copper alloy Gold over nickel (contact part), Tin over Nickel (crimp area)
	3-1447221-3	0.75-0.85	1.6-2.4	
	3-1447221-3	1.25	1.9-2.2	

SEALING PLUGS

Open cavities provide pathways for contaminants to enter the connectors. To maintain seal integrity, any unused cavity must be filled with the appropriate size sealing plug.



Contact Size	Color	Part Number
1.0 mm	White	4-1437284-3

SUPERSEAL 1.0 Connector

for Industrial & Commercial Transportation

TOOLING

Tools are specific to the contact style. To create a proper crimp and achieve high performance specifications, contacts must be crimped with the recommended tooling.

HAND TOOLS FOR 1.0 MM CONTACTS



Receptacle P/N	Tool P/N	Description
3-1447221-3	1454509-1	CERTI-CRIMP straight action hand tool with fixed dies
3-1447221-4		

AUTOMATED TOOLING FOR 1.0 MM CONTACTS



Receptacle P/N	Tool P/N	Description
3-1447221-3	2151705-1	OCEAN end feed applicator with mechanical feed
3-1447221-4	2151705-2	OCEAN end feed applicator with pneumatic feed

Note: Applicators with additional feed styles are available, contact your representative

ABOUT TE CONNECTIVITY

TE Connectivity is a \$12 billion global industrial technology leader creating a safer, sustainable, productive and connected future. Our broad range of connectivity and sensor solutions, proven in the harshest environments, enable advancements in transportation, industrial applications, medical technology, energy, data communications and the home.

With approximately 80,000 employees, including more than 7,500 engineers, working alongside customers in approximately 140 countries, TE ensures that EVERY CONNECTION COUNTS. Learn more at www.te.com and on LinkedIn, Facebook, WeChat and Twitter.

LET'S CONNECT

We make it easy to connect with our experts and are ready to provide all the support you need. For additional information or product assistance, please contact your field representative or our customer service department. Additional information is also available on the website te.com/ict.

TECHNICAL SUPPORT

www.te.com/support

United States +1 800 522 6752

Germany +49 6151 607 1999

China +86 400 820 6015

Japan +81 44 844 8052

te.com/ict

TE Connectivity, TE, TE connectivity (logo), and EVERY CONNECTION COUNTS are trademarks owned or licensed by the TE Connectivity Ltd. family of companies. All other logos, products and/or company names referred to herein might be trademarks of their respective owners.

The information given herein, including drawings, illustrations and schematics which are intended for illustration purposes only, is believed to be reliable. However, TE Connectivity makes no warranties as to its accuracy or completeness and disclaims any liability in connection with its use. TE Connectivity's obligations shall only be as set forth in TE Connectivity's Standard Terms and Conditions of Sale for this product and in no case will TE Connectivity be liable for any incidental, indirect or consequential damages arising out of the sale, resale, use or misuse of the product. Users of TE Connectivity products should make their own evaluation to determine the suitability of each such product for the specific application.

© 2021 TE Connectivity Corporation. All Rights Reserved.

ict-superseal1p0-cat-a4-1-1773985-2-en Revision 11-2021

TE Connectivity

4849 Hempstead Station Drive
Kettering, OH 45429
USA