

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



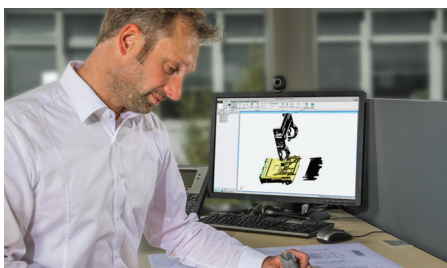
Sensors



Wire-To-Wire
Coupling at
the Chassis



Infotainment
Applications



**2,000+
EMPLOYEES**



**10,000
CUSTOMERS**



**20,000+
DIFFERENT PARTS**

MARKETS WE SERVE



ON-HIGHWAY

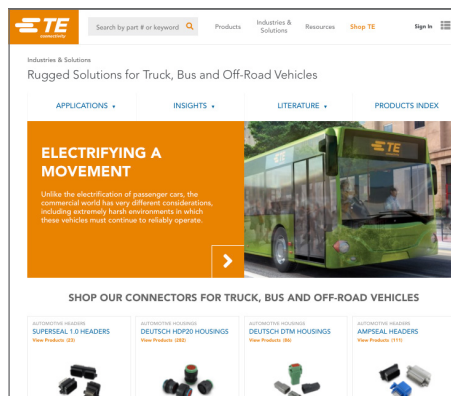


OFF-HIGHWAY

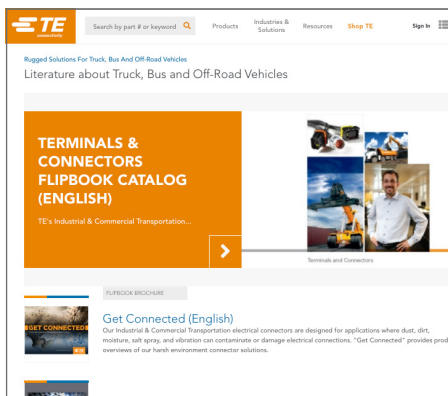


**RECREATIONAL
TRANSPORTATION**

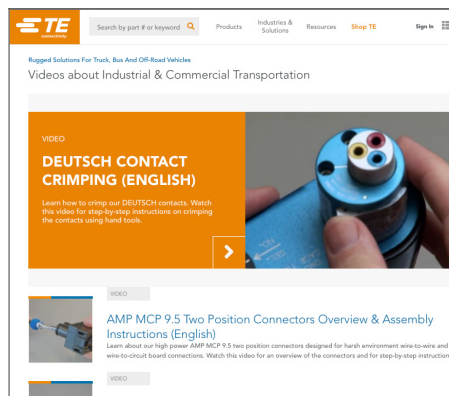
ONLINE RESOURCES



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

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.



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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

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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

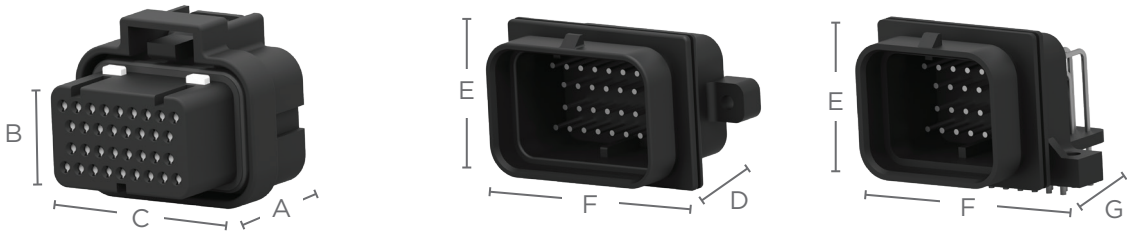
MATERIAL SPECIFICATIONS

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

SUPERSEAL 1.0 Connector

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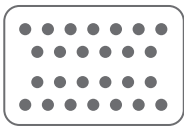
DIMENSIONS



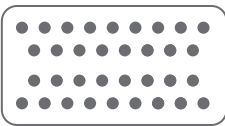
Cavity	SUPERSEAL 1.0 Plug Housing			SUPERSEAL 1.0 Pin Header			
	Overall Length A	Overall Height B	Overall Width C	Overall Length Vertical D	Overall Height E	Overall Width F	Overall Length 90° G
26	1.26 (32.1)	1.36 (34.5)	1.26 (32.1)	1.14 (29.0)	1.23 (31.4)	1.55 (39.5)	1.44 (36.5)
34	1.26 (32.1)	1.49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

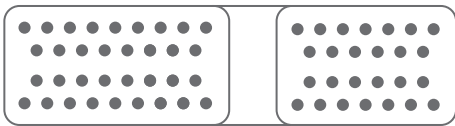
CONFIGURATIONS



26 Positions
26 size 1.0 mm



34 Positions
34 size 1.0 mm



60 Positions
60 size 1.0 mm

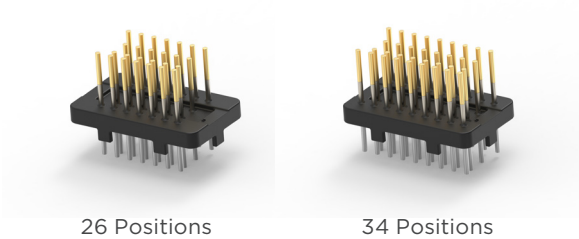


26 Positions (2-row design)
26 size 1.0 mm

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



SUPERSEAL 1.0 Connector

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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)	Upper
	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

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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

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

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