

LEAVYSEAL CONNECTORS

FOR INDUSTRIAL & COMMERCIAL TRANSPORTATION

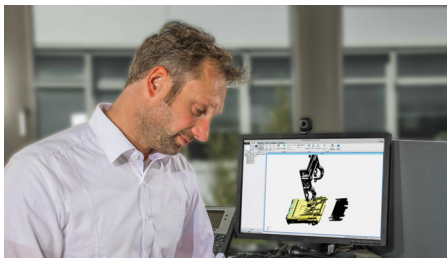
TERMINALS AND CONNECTORS





WE GO TO EXTREMES TO MAKE SURE EVERY CONNECTION COUNTS.

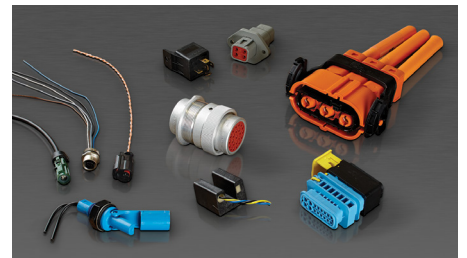
TE Connectivity (TE) Industrial & Commercial Transportation (ICT) is a reliable provider of solutions for even the harshest environment. With a focus on employee expertise and durable products, we deliver the solutions and support our customers can count on.



2,000+ Employees



10,000+ Customers



20,000+ Different Parts

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 these 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 harsh 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/EBR Brake Units



Telematics Units



Sensors



Wire-To-Wire Coupling at the Chassis



Infotainment Applications

MARKETS WE SERVE



On-Highway



Off-Highway



Recreational
Transportation

ONLINE RESOURCES

To learn more about TE Connectivity Industrial & Commercial Transportation, its products, and to view their corresponding documents and videos, please check out the following pages on TE.com:

te.com/ictliterature

te.com/ictvideos

te.com/ict



Leavyseal Connectors

Our LEAVYSEAL connectors are a sealed high pin count solution, offering flexible usage for a wide range of applications. With in-line/flange or PCB mount options, arrangements from 15 to 120 positions and mixed terminal sizes in one housing, LEAVYSEAL connectors provide a large portfolio available in seven housing groups including a wide range of accessories.

Variants made of flame-retardant UL 94 V-0 material, the high temperature range of -40 to +140 °C and a high level of IP protection (IP67, IP69K with cover) - make LEAVYSEAL connectors a secure solution for harsh environment applications.

The latest modifications include high density coupling and reversed exit housings, offering more flexibility for design-in and smooth exit housings for jacket wire usage.

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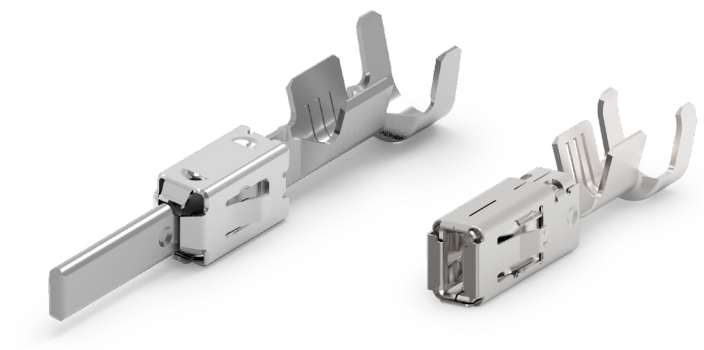
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Leavyseal Connectors Series

BENEFITS

- Design flexibly with seven housing sizes, in-line/flange or PCB mounting options and mixed terminal sizes in one housing
- Facilitate easy assembly with lever design
- Minimize mismating and misidentification with seven connector colors and mechanical polarized keyings
- Connect securely with an integrated secondary locking device
- Protect against harsh environments with IP67 and IP69K (when used with a backshell) ratings

KEY INDUSTRIES

LEAVYSEAL connectors can be utilized in the truck, bus, construction, agriculture, special vehicles industries, and more.



Truck



Bus



Construction



Agriculture



Special Vehicles



Mining



Automotive



Marine



Lift Truck



Industrial

APPLICATIONS

LEAVYSEAL connectors can be used in the following applications:



Motors and Gearboxes



ABS/EBS Brake Units



Actuators



Bulkhead



Fuse and Relay Boxes



E-Motor



Chassis



EV Battery



Lighting



Wire-To-Wire



Wire-To-Board



After-Treatment

PRODUCT DOCUMENTATION

Additional documentation is available for LEAVYSEAL connectors. The following TE Connectivity document may be helpful:

[2293396 \(Product Group Drawing\)](#)

The table for all LEAVYSEAL connector product and application specifications is at page 28 of this catalog.



PERFORMANCE SPECIFICATIONS

Current	Up to 40 amps
Temperature	Operating at temperatures ranges -40°C to +140°C; see individual product specifications for specific range.
Durability	Up to 20 cycles (tin), up to 50 cycles (silver), up to 100 cycles (gold); see individual product specifications for additional details.
Insulation Resistance	500 volts DC, see individual product specifications for testing conditions.
Immersion	IP67 rating, IP69K with cover.
Voltage	42 volts AC/DC
Dielectric Withstanding Voltage	No flash over or breakdown between adjacent contacts and outer contour of the housing permitted at 500 volts AC and 50 or 60 Hz for 60 seconds.
Flammability	Product with a UL 94 V-0 rate material is available.

MATERIAL SPECIFICATIONS

Flange Seal	Silicone rubber
Housing	Glass-filled PBT
Secondary Locking	Glass-filled PBT

Leavyseal Receptable Housing & Tab Housing



DIMENSIONS

Group	Overall Length A	Height B	Overall Width C	Overall Length D	Height E	Overall Width F
1	1.46 (37.0)	1.57 (40.0)	2.33 (57.9)	1.48 (37.6)	1.93 (49.0)	1.91 (48.4)
2	1.49 (37.9)	1.72 (43.7)	2.73 (69.4)	1.81 (46.1)	2.03 (51.5)	2.62 (66.6)
3	1.73 (44.0)	1.64 (41.7)	3.64 (92.5)	2.19 (55.5)	2.47 (62.7)	3.62 (92.0)
4	1.43 (36.4)	1.71 (43.5)	4.09 (104.0)	-	-	-
5	1.73 (44.0)	1.81 (46.0)	4.04 (102.5)	1.80 (45.8)	2.78 (70.7)	4.46 (113.3)
6	1.83 (46.6)	1.79 (45.5)	5.26 (133.5)	-	-	-

Dimensions are for reference only.

GROUP 1 CONFIGURATIONS

15 Positions
15 size 2.8

18 Positions
12 size 1.5K
6 size 2.8

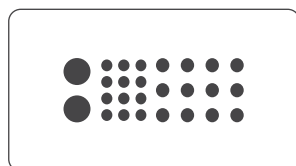
22 Positions
16 size 1.5K
6 size 2.8

GROUP 2 CONFIGURATIONS

21 Positions
21 size 2.8

25 Positions
23 size 1.5K
2 size 6.3/4.8K

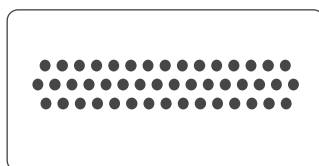
29 Positions
26 size 1.5K
2 size 2.8
1 size 6.3

GROUP 3 CONFIGURATIONS**26 Positions**

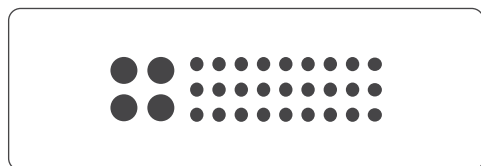
12 size 1.5K

12 size 2.8

2 size 6.3/4.8K

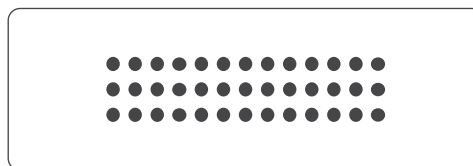
GROUP 4 CONFIGURATIONS**46 Positions**

46 size 1.5K

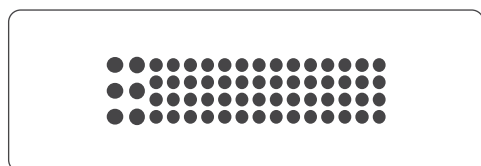
GROUP 5 CONFIGURATIONS**31 Positions**

27 size 2.8

4 size 6.3/4.8K

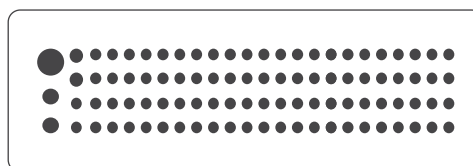
**39 Positions**

39 size 2.8

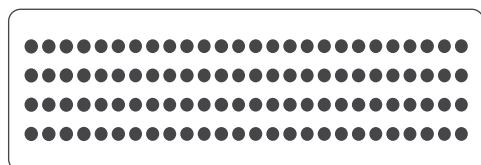
**62 Positions**

56 size 1.5K

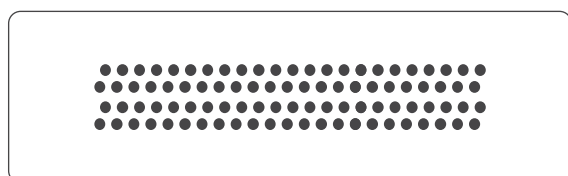
6 size 2.8

**95 Positions**

92 size MCON 1.2

2 size AMP MCP 2.8
and 1 size 6.3/4.8K**104 Positions**

104 size MCON 1.2

GROUP 6 CONFIGURATIONS**92 Positions**

92 size 1.5K

Other configurations available upon request. Please contact TE for additional information.

ORDERING INFORMATION – RECEPTACLE HOUSING & TAB HOUSING

GROUP 1 HOUSING

Position	Material	Contact Size	Keying	Housing Color	Receptacle Housing	Tab Housing	
						Without Flange	With Flange
15	HB	2.8	A	Black	1-1534126-1	1703799-1	*
			B	Natural	2-1534126-1	*	*
			C	Blue	3-1534126-1	*	*
18	V-O	(12) 1.5K (6) 2.8	A	Black	1-1823440-2	*	1-1823448-2
22	V-O	(16) 1.5K (6) 2.8	A	Black	1-1823440-3	1-1823449-1	*
			B	Gray	2-1823440-3	2-1823449-1	*
			C	Blue	3-1823440-3	3-1823449-1	*
			D	Green	4-1823440-3	*	*
22	V-O	(16) 1.5K (6) 2.8	A	Black	1-1823440-1 (gray lever)	*	*

GROUP 2 HOUSING

Position	Material	Contact Size	Keying	Housing Color	Receptacle Housing	Reversed Exit	Tab Housing	
							Without Flange	With Flange
21	HB	2.8	A	Black	1-1534127-1	1-2333508-1	*	1-2112162-1
			B	Natural	2-1534127-1	*	*	2-2112162-1
			C	Blue	3-1534127-1	*	*	3-2112162-1
			D	Violet	4-1534127-1	*	*	4-2112162-1
21	V-O	2.8	A	Black	1-2208686-1	*	*	*
25	V-O	(23) 1.5K (2) 6.3	A	Black	1-2328352-2	*	*	*
29	V-O	(26) 1.5K (2) 2.8 (1) 6.3	A	Black	1-1823402-1	*	*	*
			B	Gray	2-1823402-1	*	*	*
			C	Blue	3-1823402-1	*	*	*

GROUP 3 HOUSING

Position	Material	Contact Size	Keying	Housing Color	Receptacle Housing	Tab Housing	
						Without Flange	With Flange
26	V-O	(12) 1.5K (12) 2.8 (2) 6.3	A	Black	1-2112035-1	*	1-2112041-1 (outlet left)
						*	1-2112041-2 (outlet right)

GROUP 4 HOUSING

Position	Material	Contact Size	Keying	Housing Color	Receptacle Housing	Tab Housing	
						Without Flange	With Flange
46	HB	1.5K	A	Black	1-2112231-1	*	*
46	V-O	1.5K	A	Black	3-2112231-1	*	*
			B	Gray	3-2112231-2	*	*
			C	Blue	3-2112231-3	*	*

*Other configurations available upon request. Please contact TE for additional information.

GROUP 5 HOUSING

Position	Material	Contact Size	Keying	Housing Color	Receptacle Housing	Reversed Exit	Tab Housing	
							Without Flange	With Flange
31	HB	(27) 2.8 (4) 6.3	A	Bordeaux	1-1564297-6	*	*	*
31	V-O	(27) 2.8 (4) 6.3	E	Bordeaux	1-2208685-6	1-2368394-6/ 1-2368394-8 (smooth exit)	*	*
		(27) 2.8 (4) 6.3	F	Fawn Brown	2-2208685-6	*	*	*
39	HB	2.8	E	Emerald Green	5-1718321-3	*	5-1718323-1***	*
			F	Fawn Brown	6-1718321-3	*	6-1718323-1***	*
39	V-O	2.8	E	Emerald Green	5-2208684-3	*	*	*
			F	Fawn Brown	6-2208684-3	*	*	*
39	V-O	2.8	E	Emerald Green	5-2385846-1	5-2368393-3 / 5-2368393-7 (smooth exit)	*	5-2387150-1
			F	Fawn Brown	6-2385846-1	6-2368393-3 / 6-2368393-7 (smooth exit)	*	6-2387150-1
62	HB	(56) 1.5K (6) 2.8	A	Black	1-1418883-1	*	2423482-1**/ 1-1718324-1***	*
			B	Dusty Gray	2-1418883-1	*	2-1718324-1***	*
			C	Blue	3-1418883-1	*	3-1718324-1***	*
			D	Green	4-1418883-1	*	*	*
62	HB	(56) 1.5K (6) 2.8	A	Black	1-2293551-1 (smooth exit)	*	1-1718324-1***	*
			B	Dusty Gray	2-2293551-1 (smooth exit)	*	2-1718324-1***	*
			C	Blue	3-2293551-1 (smooth exit)	*	3-1718324-1***	*
62	V-O	(56) 1.5K (6) 2.8	A	Black	1-1823498-1	*	*	*
			B	Dusty Gray	2-1823498-1	*	*	*
			C	Blue	3-1823498-1	*	*	*
			D	Green	4-1823498-1	*	*	*

In bold: new part numbers.

*Other configurations available upon request. Please contact TE for additional information.

**4-way wire distributor.

***These connectors can be used as a flanged connector with the Adaptor for group 5 (Page 14).

GROUP 5 HOUSING

Position	Material	Contact Size	Keying	Housing Color	Receptacle Housing	Reversed Exit	Tab Housing	
							Without Flange	With Flange
62	V-O	(56) 1.5K (6) 2.8	A	Black	1-2385838-1	1-2366619-2/ 1-2366619-3 (smooth exit)	1-2387146-1***	*
			B	Dusty Gray	2-2385838-1	2-2366619-2/ 2-2366619-3 (smooth exit)	2-2387146-1***	*
			C	Blue	3-2385838-1	3-2366619-2/ 3-2366619-3 (smooth exit)	3-2387146-1***	*
			D	Green	4-2385838-1	*	4-2387146-1***	*
95	V-O	(92) MCON 1.2 (2) 2.8 (1) 6.3/4.8K	A	Black	1-2344950-1	*	1-2383353-1***	*
			B	Dusty Gray	2-2344950-1	*	2-2383353-1***	*
104	V-O	(104) MCON 1.2	A	Green	1-2344951-2	*	1-2383354-2***	*

In bold: new part numbers.

*Other configurations available upon request. Please contact TE for additional information.

** 4-way wire distributor.

*** These connectors can be used as a flanged connector with the Adaptor for group 5 (Page 14).

SECONDARY LOCK

Secondary Locks help provide additional secured locking.

These are available for the new high density variants of 95 and 104 Position Receptacle and Tab Housings.



Group	Position	Part Number	Color	Description
5	95	2327845-1	Yellow	For use with receptacle housing part number: 1-2344950-1 and 2-2344950-1
		2383363-1	Yellow	For use with tab housing part number: 1-2383353-1 and 2-2383353-1
	104	2327845-2	Yellow	For use with receptacle housing part number: 1-2344951-2
		2383363-2	Yellow	For use with tab housing part number: 1-2383354-2

GROUP 6 HOUSING

Position	Material	Contact Size	Keying	Housing Color	Receptacle Housing	Tab Housing	
						Without Flange	With Flange
92	HB	1.5K	A	Black	1703998-1 (NW 26 wire exit)	*	*
					3-1703998-1 (NW 29 wire exit)	*	*
			B	Black	4-1703998-1 (NW 29 wire exit)	*	*
					5-1703998-1 (NW 29 wire exit)	*	*

*Other configurations available upon request. Please contact TE for additional information.

REVERSED EXIT MODIFICATION

Reversed exit housing offers an opposite cable exit compared with the standard housing versions. This allows for more design-in flexibility regarding the positioning of the connector.

SMOOTH EXIT MODIFICATION

As standard housings and 90° backshells come with ribs to accommodate corrugated tubing, there are also smooth exit modifications available to prevent damaging the cable jackets when used with jacket wires.

WIRE EXIT SIZE MODIFICATION

To allow for different corrugated tube sizes, the 92P Group 6 housings and backshells are available with NW 26 and NW 29 wire exit options.

ORDERING INFORMATION - PCB HEADER

Group	Position	Contact Size	Keying	Housing Color	PCB Header	
					90°	180°
2	21	2.8	A	Black	*	1534238-1
			A	Black	*	1-2331098-1
4	46	1.5K	A	Black	*	1-2331102-1
			B	Gray	*	2-2331102-1
			C	Blue	*	3-2331102-1
5	39	2.8	E	Emerald Green	5-1418363-3	5-1418363-1
	39	2.8	F	Fawn Brown	*	6-1418363-1
	62	(56) 1.5K (6) 2.8	A	Black	1-1418362-3	1-1418362-1
			B	Gray	2-1418362-3	2-1418362-1
6	92	1.5K	A	Black	*	1-1452228-9



In bold: new part number.

*Other configurations available upon request. Please contact TE for additional information.

Leavyseal Connectors Accessories

ACCESSORIES

Backshells, adapters, locking slides, and protective covers are accessory items available for use with LEAVYSEAL connectors. These accessories help you to meet and exceed design requirements by assisting with mounting, providing additional protection, and offering improved aesthetics.

BACKSHELLS/COVERS

To achieve an IP69K rating, backshells must be used with the LEAVYSEAL connectors. The 90° backshells are available with ribs to accommodate corrugated tubing and smooth exit for jacket wire usage.



Group	Positions	Housing	Part Number	Tubing
1	15	Receptacle	9-1394049-1	NW 13
		Tab	9-1394049-1	NW 13
1	22	Receptacle	2112452-1	NW 17
1	22 (smooth exit)	Receptacle	2112452-2	*
2	21	Receptacle	9-1394050-1	NW 17
		Tab	2112167-1	NW 17
2	25 & 29	Receptacle	2327810-1	NW 22
3	26	Receptacle or Tab	2112046-1	NW 22
3	26 (smooth exit)	Receptacle or Tab	2112046-2	*
4	46	Receptacle	2112233-1	NW 26
5	39 & 62	Receptacle or Tab	1418882-1	NW 26
5	39 & 62	Receptacle or Tab (V-0)	1823500-1	NW 26
5	95 & 104	Receptacle or Tab (V-0)	2344956-1	NW 29
6	92	Receptacle (NW 26 wire exit)	1703997-1	NW 26
		Receptacle (NW 29 wire exit)	2141345-1	NW 29

In bold: new part number.

ADAPTERS

Adapters are available to aid in mounting LEAVYSEAL connectors. The adapters are available in multiple sizes and can mount up to four LEAVYSEAL connectors.



Group	Positions	Part Number	Description
1	15 & 22	1703806-1	1 bay, sealed
1	22	1823444-1	1 bay, unsealed
1	22	1823444-2	1 bay, unsealed
5	39 & 62	2236721-1	1 bay, sealed
5	39 & 62	1718329-1	1 bay, unsealed
5	39 & 62	1813123-1	2 bays, sealed
5	39 & 62	1813123-2	2 bays, 1 bay closed, sealed
5	39 & 62	2098891-2	4 bays, sealed

*Other configurations available upon request. Please contact TE for additional information.

Leavyseal Connectors

for Industrial & Commercial Transportation

LOCKING SLIDES

Locking slides are used to help secure LEAVYSEAL connectors while mounting them. The locking slides may be used with adapters or panels with a thickness of 2.5 mm, 3.0 mm or 3.5 mm.



Group	Positions	Part Number	Color	Description
1	15 & 22	1703804-1	Red	For use with adapter
2	21	2112166-1	Red	For use with 2.5 mm panel thickness
		2112166-2	Yellow	For use with 3 mm panel thickness
		2112166-3	Gray	For use with 3.5 mm panel thickness
3	26	2112045-1	Red	For use with 2.5 mm panel thickness
		2112045-2	Yellow	For use with 3 mm panel thickness
		2112045-3	Gray	For use with 3.5 mm panel thickness
5	39 & 62	1718328-1	Red	For use with adapter

INTERFACE PROTECTION COVER

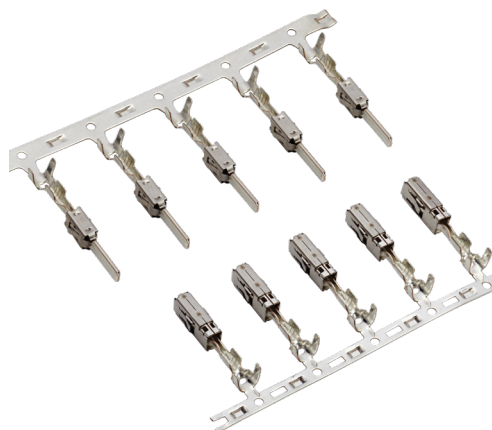
The LEAVYSEAL connectors protection cover provides an environmental seal and is used to protect the connector interface when the two halves are not mated.

Group	Positions	Part Number	Color
2	21	1-1394052-1	Black
3	26	2458893-1 [#]	Black
5	62	1718295-1	Black

[#]Dustcap only.

Leavyseal Connectors Contact

LEAVYSEAL connectors utilize the common AMP MCP stamped and formed contact system.



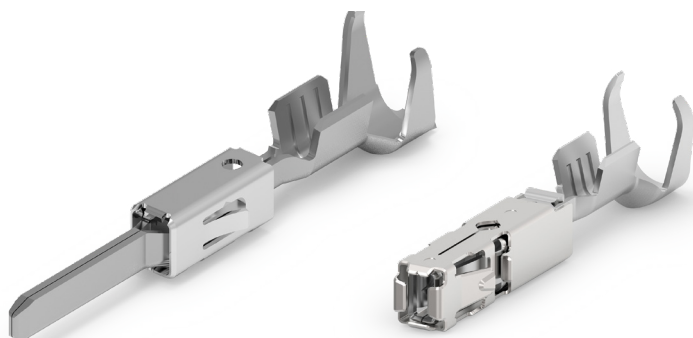
AMP MCP Contact Performance Specifications

Durability
10 cycles (tin)
50 cycles (silver)
100 cycles (gold)

Current Rating	
Contact Size	Max Current
1.5K	Up to 20 A
2.8	Up to 30 A
6.3/4.8K	Up to 40 A

Contact Retention	
Contact Size	Min. Load
1.5K	40/60 N
2.8	80 N
6.3/4.8K	80 N

Crimp Tensile Strength	
Contact Size	Tensile Strength
1.5K	
.22 mm ²	≥ 32 N
.35 mm ²	≥ 50 N
.50 mm ²	≥ 60 N
.75 mm ²	≥ 85 N
1.0 mm ²	≥ 108 N
1.25 mm ²	≥ 135 N (16 AWG)
1.5 mm ²	≥ 135 N
2.8	
.22 mm ²	≥ 28 N
.35 mm ²	≥ 50 N
.50 mm ²	≥ 60 N
.75 mm ²	≥ 85 N
1.0 mm ²	≥ 108 N
1.5 mm ²	≥ 150 N
2.5 mm ²	≥ 200 N
6.3/4.8K	
.35 mm ²	≥ 50 N
.50 mm ²	≥ 60 N
.75 mm ²	≥ 85 N
1.0 mm ²	≥ 108 N
1.5 mm ²	≥ 150 N
2.5 mm ²	≥ 200 N
4.0 mm ²	≥ 310 N
6.0mm ²	≥ 450 N



AMP MCP 1.5K Contacts

Stamped and formed tabs and receptacles with single wire sealing system.

1.5K	Wire Size (mm ²)	Insulation Diameter FLR (mm)	Strip Form Part Number	Loose Piece Part Number	Finish Code
Receptacle Contacts	0.2-0.35	1.1-1.4	1564324	1564325	-1; -2; -3
	0.5-1.0	1.4-2.1	1241380*	1241381	-1; -2; -3; 1-x-2*
	>1.0-1.5	1.9-2.4	1418884	1418885	-1; -3
Tab Contacts	0.2-0.5	1.15-1.6	969028	969029	-2; -3; -5
			963902	963903	-1; -2; -3
	0.35		2141884*	2141885	-2; -3; -5; 2-x-2*
	0.5-1.0	1.4-2.1	963904	963905	-1; -2; -3
			964269*	964270	-2; -3; -5; 2-x-2*
	1.5	1.95-2.4	1703278	1703279	-2; -5

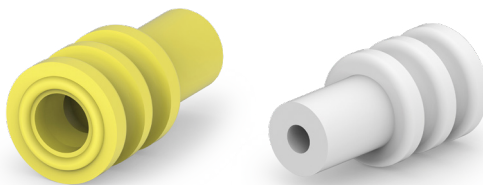
Material and Finish Codes with "*" are available only on their corresponding strip form or loose piece part number.

AMP MCP 1.5K Terminal Material and Finish Codes

	Finish Code	-1	-2	-3	-5	1-x-2	2-x-2
Receptacle Contacts	Material	CuNiSi	CuNiSi	CuNiSi	*	CuNiSi	*
	Plating	Pre-Tin	Select Gold	Select Silver	*	1.27um Select Gold	*
Tab Contacts	Finish Code	-2	-3	-5	1-x-1	1-x-2	1-x-3
	Material	CuSn4	CuFe2	CuSn4	CuSn4	CuFe2	CuFe2
	Plating	Pre-Tin	Pre-Tin	Select Gold	Select Silver	Select Silver	Select Silver

*Other configurations available upon request. Please contact TE for additional information.

Leavyseal Wire Seals & Sealing Plugs



AMP MCP 1.5K Wire Seals

Wire Seals are required for connectors without an integrated rear seal, to maintain an environmental seal.

Insulation Diameter (mm)	Cavity Size (mm)	Color	Part Number
0.9-1.2	3.6	Green	1718705-1
		Red	1718705-2
1.2-1.6		Red	964971-1
		Blue	1394133-1
1.4-1.9		Green	963530-1
1.9-2.4		Yellow	964972-1 [†]
2.2-2.4		Green	2287497-1 [†]
		Brown	2287497-2 [†]

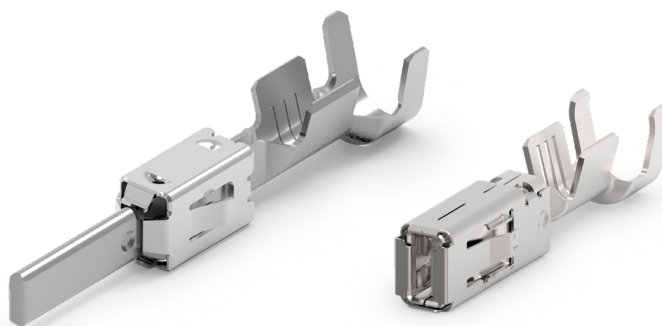
- [†] 2287497-1 with reduced 120°C temperature limit but improved insertion performance.
964972-1 has 140°C temperature limit but increased insertion force into housing cavity.
2287497-2 with 140° temperature limit and improved insertion performance.

AMP MCP 1.5K 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.

Cavity Size (mm)	Color	Part Number
3.6	White	963531-1
	Natural	1394132-1

Leavyseal Connectors Contact



AMP MCP 2.8 Contacts

Stamped and formed tabs and receptacles with single wire sealing system.

2.8	Wire Size (mm ²)	Insulation Diameter FLR (mm)	Strip Form Part Number	Loose Piece Part Number	Material/Finish Codes
Receptacle Contacts	0.2-0.5	1.2-1.4	2141859	-	1-x-1; 1-x-2; 1-x-3
	0.5-1.0	1.4-2.1	968855	968875	1-x-1; 1-x-2; 1-x-3
	1.5-2.5	2.2-3.0	968857*	968876	1-x-1; 1-x-2*; 1-x-3; 2-x-3
	4.0	3.4-3.7	968859	968877	1-x-1; 1-x-3; 2-x-3
	12 AWG	3.0-3.8	1719506	-	1-x-1; 1-x-3
Tab Contacts	0.2-0.5	MAX 2.1	965982	965983	1-x-1; 1-x-3
	0.5-1.0	MAX 2.1	962915*	963748	1-x-1; 1-x-2; 1-x-3; 2-x-1; 2-x-2; 2-x-3; 6-x-6*
	>1.0-2.5	MAX 3.0	962916	963749	1-x-1; 1-x-2; 1-x-3; 2-x-1; 2-x-2; 2-x-3
	>2.5-4.0	MAX 3.7	968947	968966	1-x-1; 1-x-2; 2-x-1; 2-x-2; 3-x-1
	12 AWG	MAX 3.0	1719504	1719503	1-x-1; 1-x-2

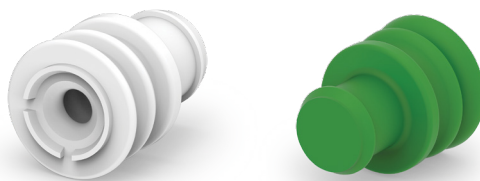
Material and Finish Codes with “*” are available only on their corresponding strip form or loose piece part number.

AMP MCP 2.8 Terminal Material and Finish Codes

	Finish Code	1-x-1	1-x-2	1-x-3	2-x-1	2-x-2	2-x-3	3-x-1	6-x-6
Receptacle Contacts	Material	CuNiSi	CuNiSi	CuNiSi	*	*	CuNiSi	*	*
	Plating	Pre-Tin	Select Gold	Select Silver	*	*	Select Silver	*	*
Tab Contacts	Material	CuSn4	CuSn4	CuSn4	CuFe	CuFe	CuFe	CuSn 0.20	CuSn4
	Plating	Pre-Tin	Select Silver	Select Gold	Pre-Tin	Select Silver	Select Gold	Pre-Tin	Select Gold

*Other configurations available upon request. Please contact TE for additional information.

Leavyseal Wire Seals & Sealing Plugs



AMP MCP 2.8 Wire Seals

Wire seals are required for connectors without an integrated rear seal to maintain an environmental seal.

Insulation Diameter (mm)	Cavity Size (mm)	Color	Part Number
1.2-2.1	5.6	Light Blue	828904-1
			828904-2
			828904-3
2.2-3.0		White	828905-1

AMP MCP 2.8 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.

Cavity Size (mm)	Color	Part Number
5.4	Natural	828922-1
	Green	828922-2

Leavyseal Connectors Contact



AMP MCP 6.3/4.8K Contacts

Stamped and formed tabs and receptacles with single wire sealing system

6.3/4.8K	Wire Size (mm ²)	Insulation Diameter FLR (mm)	Strip Form Part Number	Loose Piece Part Number	Material/Finish Codes
Receptacle Contacts	0.35-0.5	1.2-2.3	1241410*	1241411	-1; -3*; 5-x-1*; 5-x-3*
	0.5-1.0	1.4-2.7	1241412	1241413	-1; -3
	>1.0-2.5	2.2-3.7	1241414	1241415	-1; -3
	>2.5-4.0	3.4-4.5	1241416	1241417	-1; -3
	4.0-6.0	3.4-4.3	1241418*	1241419	-4; 1-x-3; 2-x-3*
Tab Contacts	0.5-1.0	1.4-2.1	962917	963742	1-x-1; 1-x-2; 2-x-1
	>1.0-2.5	2.2-3.0	962918	963743	1-x-1; 1-x-2; 2-x-1; 2-x-2
	4.0	2.7-3.7	962919	963744	1-x-1; 1-x-2; 2-x-2
	6.0, 10 AWG	4.0-4.3	2112966	2112965	2-x-2

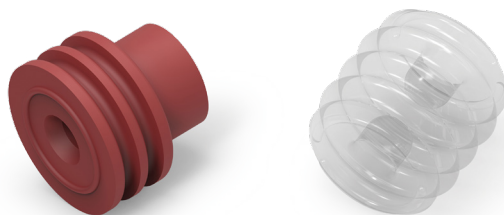
Material and finish codes with “*” are available only on their corresponding strip form or loose piece part number.

AMP MCP 6.3/4.8K Terminal Material and Finish Codes

	Finish Code	-1	-3	-4	1-x-1	1-x-2	1-x-3	2-x-1	2-x-2	2-x-3	5-x-1	5-x-3
Receptacle Contacts	Material	CuNiSi			*	*	CuNiSi	*	*	CuNiSi		
	Plating	Pre-Tin	Select Silver	Pre-Tin	*	*	Select Silver	*	*	Select Silver	Pre-Tin	Select Silver
Tab Contacts	Material	*	*	*	CuSn4		*	CuFe2		*	*	*
	Plating	*	*	*	Pre-Tin	Select Silver	*	Pre-Tin	Select Silver	*	*	*

*Other configurations available upon request. Please contact TE for additional information.

Leavyseal Wire Seals & Sealing Plugs



AMP MCP 6.3/4.8K Wire Seals

Wire seals are required for connectors without an integrated rear seal, to maintain an environmental seal.

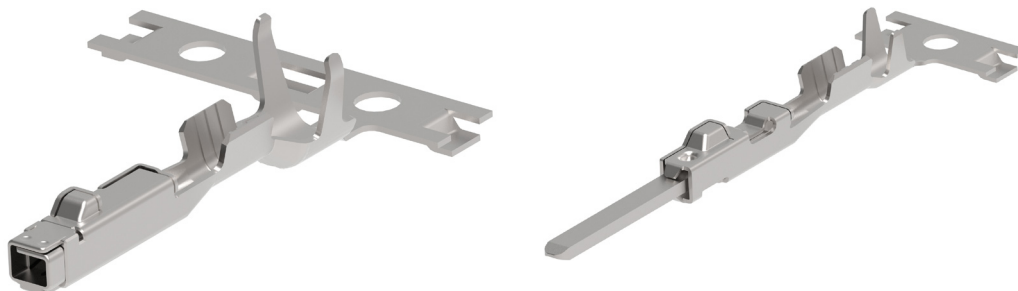
Insulation Diameter (mm)	Cavity Size (mm)	Color	Part Number
1.4-2.0	8.5	Yellow	2177018-1
2.0-2.7		White	1394511-1
2.7-3.0		Red-Brown	1823111-1
3.4-3.7		Blue	1394512-1
4.0-4.5		Green	1719043-1

AMP MCP 6.3/4.8K 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.

Cavity Size (mm)	Color	Part Number
8.5	Transparent	967652-1

Leavyseal Connectors Contact



MCON 1.2 Contact System

MCON 1.2 Contacts Stamped and formed tabs and receptacles

Durability
20 cycles (tin)
20 cycles (silver)
100 cycles (gold)

Current Rating	
Contact Size	Max Current
1.2	Up to 17 A

Contact Retention	
Contact Size	Min. Load
1.2	40 N

Contact Size Tensile Strength	
Contact Size: 1.2	Tensile Strength
0.13-0.22 mm ²	≥ 50N
0.35 mm ²	≥ 50N
0.5 mm ²	≥ 60N
0.75 mm ²	≥ 85N
1.0 mm ²	≥ 108N
1.5 mm ²	≥ 150N

MCON 1.2 Contacts

Stamped and formed tabs and receptacles

MCON 1.2	Wire Size (mm ²)	Insulation Diameter FLR (mm)	Strip Form Part Number	Loose Piece Part Number	Material/Finish Codes
Receptacle Contacts	0.25-0.35	1.1 – 1.75	1534594	1534595	-1; -2; -3
	0.5-0.75	1.4 – 1.9	1670144	1670145	-1; -2; -3
	1.0-1.5	1.9 – 2.4	1452503	1452504	-1; -2; -3
Tab Contacts	0.25-0.35	1.1 – 1.75	1718348	1703698	-1; -2; -3
	0.5-0.75	1.4 – 1.9	1718350	1718390	-1; -2; -3
	1.0-1.5	1.9 – 2.4	1718352	*	-1; -2; -3

*Other configurations available upon request. Please contact TE for additional information.

MCON 1.2 Terminal Material and Finish Codes

	Finish Code	-1	-2	-3
Receptacle Contacts	Material	CuNiSi		
	Plating	Pre-Tin	Gold	Silver
Tab Contacts	Material	CuNiSi		
	Plating	Pre-Tin	Gold	Silver

Leavyseal Sealing Plugs

MCON 1.2 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.



Cavity Size (mm)	Color	Part Number
1.4-1.9	Brown	1-1452424-1
	Natural	1-1452424-3
1.9-2.4	Blue	1-1452424-2

Leavyseal Connectors

Tooling

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



DIE SETS MCON 1.2 CONTACT SYSTEM

Contact Size	Strip	Loose	Die set no. (for Handtool 539635-1)
Receptacle	1534594	1534595	0-1579001-6
	1670144	1670145	5-1579021-6
	1452503	1452504	1-1579001-3
Tab	1718348	1703698	2363758-1
	1718350	1718390	2-1579016-1
	1718352	*	1-1579001-3

*Other configurations available upon request. Please contact TE for additional information.

AUTOMATED FOR MCON 1.2 CONTACTS

Contact Size	Contact Type	Strip Form Part Number	Feed	Type	Applicator Part number
1.2	Receptacle	1534594	Side	Mechanical	2151041-1
				Pneumatic	2151041-2
		1670144		Mechanical	2151037-1
				Pneumatic	2151037-2
		1452503		Mechanical	2151468-1
				Pneumatic	2151468-2
	Tab	1718348	Side	Mechanical	2151042-1
				Pneumatic	2151042-2
		1718350		Mechanical	2151037-1
				Pneumatic	2151037-2
		1718352		Mechanical	2151468-1
				Pneumatic	2151468-2

EXTRACTION AND INSERTION TOOLS FOR MCON 1.2 CONTACTS

Contact Size	Contact Type	Tool Type	Part Number
1.2	Receptacle	Extraction (inner row)	9-1579028-0
		Extraction (outer row)	5-1579028-0
	Tab	Extraction	2394627-1



APPLICATION & PRODUCT SPECIFICATIONS

Group	Position	Product Specification	Application Specification
1	15	108-18696	114-18376
	18 & 22	108-94025	114-18993
2	21	108-18696	114-18376
		108-18696-1	
	25	108-94663	114-94538
	29	108-94215	114-94011
3	26 & 28	108-94214	114-94010
4	46	108-94216	114-94012
5	31 & 39	108-18946	114-18660
	62	108-18946	114-18660
	62	108-18397-001	114-18390
	62 (new lever)	108-18946	114-94724
	95 & 104	108-94800	114-94670
6	92	108-94174	114-18963
Contact Systems			
AMP MCP		108-18716	114-18386
MCON 1.2		108-94800	114-18464

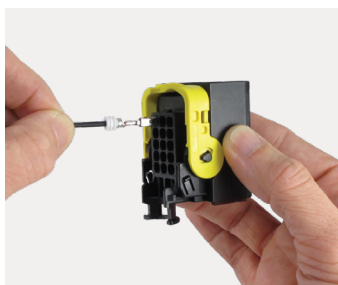
How-To Instructions

CONTACT INSERTION



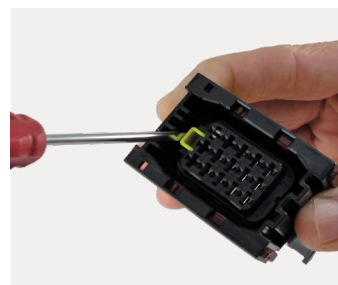
Step 1:

Grasp crimped contact approximately one inch behind the contact barrel.



Step 2:

Verify the integrated secondary lock is in the unlocked position. Make sure the contact is in the correct orientation. Push contact straight into connector until a click is felt. A slight tug will confirm that it is properly locked in place.



Step 3:

Push the integrated secondary lock into the locked position with a DT-RT1 or a screwdriver.

CONTACT REMOVAL



Step 1:

Using a DT-RT1 or a screwdriver, unlock the integrated secondary lock.



Step 2:

Using the appropriate extraction tool, insert the blades into the contact cavity until they stop.



Step 3:

Pull contact wire assembly out of connector.

ABOUT TE CONNECTIVITY

TE Connectivity is a global industrial technology leader creating a safer, sustainable, productive, and connected future. Our broad range of connectivity and sensor solutions enable the distribution of power, signal and data to advance next-generation transportation, renewable energy, automated factories, data centers, medical technology and more. With more than 85,000 employees, including 8,000 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, Instagram and X (formerly Twitter).

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TECHNICAL SUPPORT

www.te.com/support

United States +1 800 522 6752

Germany +49 6151 607 1999

China +86 400 820 6015

Japan +86 044 844 8052

te.com/ict

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