



# Tooling

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## Tooling Overview

Deutsch Industrial manufactures two types of contacts, solid and stamped & formed. Both styles of contacts are designed for crimp style terminations, no solder is required or recommended. A crimp style termination displaces the wire strands creating a superior bond between the wire and the contact.

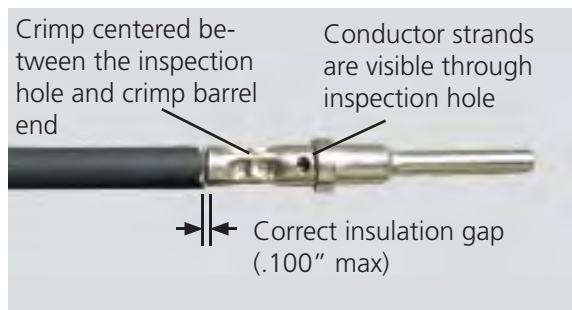
Deutsch offers several types of tools to assist with hand and production wire crimping, wire insertion and removal and wedgelock/terminal position assurance removal. The tools are specific to the solid contacts or the stamped & formed contacts. To ensure a proper crimp and achieve the highest performance specifications, Deutsch contacts must be crimped with Deutsch tooling. Deutsch can only warrant electrical performance when proper parts, procedures, and tooling are used.

### ■ Benefits of Crimping

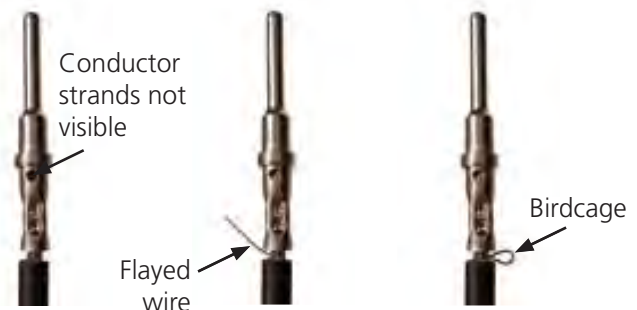
Mechanically crimping contacts is the dominant wire termination method, for some very good reasons:

1. Since no wet process is involved, corrosion is not a problem. No adhesive, flux, or additives are used.
2. Strength, accuracy and overall reliability of a crimped contact are controlled by the crimp tool, not the operator. The field tools (except size 4 solid style) release the contact only after the full crimping cycle is completed.
3. The crimp tool is universal, accepts both pins and sockets of many sizes.
4. Crimping can be done anywhere, without special preparation. Terminations are replaced or modified in the field exactly the same as in the shop, using the same tools and the same techniques, and with the same ease of operation and certainty of results.
5. Total installed and maintenance costs are lower.

### ■ Solid Contact Crimp Inspection

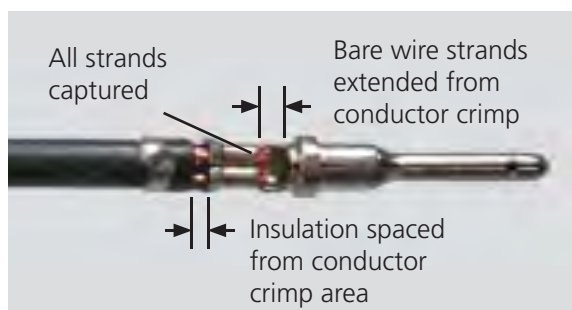


**Acceptable Crimp**

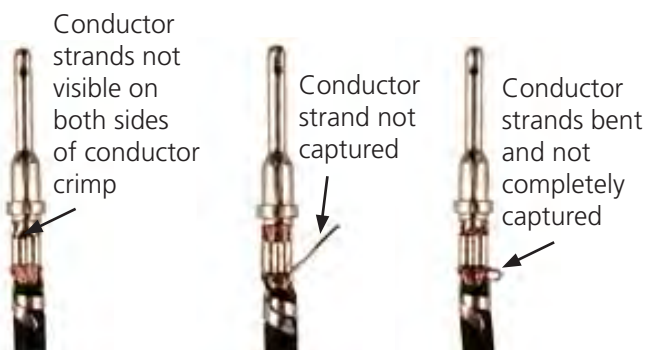


**Unacceptable Crimps**

### ■ Stamped & Formed Contact Crimp Inspection



**Acceptable Crimp**



**Unacceptable Crimps**

## Automated Tooling Overview

For higher production volumes, Deutsch offers a pneumatic power crimp tool for the solid contacts, and applicator dies for stamped & formed contacts. The HDP-400, the pneumatic solid crimp tool, is a fast, bench-top tool that crimps all of the contacts in the Deutsch Industrial Common Contact System. The HDP-400 has a foot control, and easy-to-change dies and locators for each contact size. Deutsch's stamped & formed applicator dies are heavy duty mini-dies that work in many industry standard presses. Deutsch's applicator dies offer simple adjustments and the flexibility to accept different sized Deutsch contacts and wire gauge.

### Automated Tooling for Solid Contacts



Tool P/N	Contact Size	Contact Part Number
HDP-400	4	0460-204-0490
		0462-203-04141
	8	0460-204-08141
		0462-203-08141
	12	0460-204-12**
		0462-203-12**
	16	0460-202-16**
		0462-201-16**
		0460-215-16**
		0462-209-16**
20	0460-202-20**	
	0462-201-20**	



### HDP-400 Dies and Locators

Crimp Tool Part Number	Drawing Number Reference
HDP-400	0425-205-0000

### HDP-400 Tooling Accessories



### Go-No-Go Gauges

Part Number	Go-No-Go Gauges
GA20N	HDP-400 Size 20
450GA-16N	HDP-400 Size 16
450GA-12N	HDP-400 Size 12
GA8-SPEC	HDP-400 Size 8
450GA-4-SPEC	HDP-400 Size 4

## ■ Automated Tooling for Stamped & Formed Contacts

Tool P/N	Contact Size	Contact Part Number
DCT12-02-00	12	1060-12-01** 1062-12-01**
DCT12-02-01		1060-12-02** 1062-12-02**
DCT16-02-00	16	1060-16-01** 1062-16-01**
DCT1620-02-00		1060-16-06** 1062-16-06**
DCT20-02-00 DCT1620-02-00	20	1060-20-01** 1062-20-01**



### DCT Applicator Punches and Anvils



Applicator Part Number	Drawing Number Reference
DCT12-02-00	0425-208-0000
DCT12-02-01	0425-041-0000
DCT16-02-00	0425-203-0000
DCT1620-02-00	0425-059-0000
DCT20-02-00	0425-207-0000

## ■ DCT Tooling Accessories



### Bolster plate for mounting Deutsch DCT applicators to AMP K press

Part Number	Bolster Plate Accessories
BOLSTER PLATE	Bolster Plate
BOLSTER PLATE BAR	Bolster Plate Bar
BOLSTER PLT CLAMP	Bolster Plate Clamp



### Oiler for DCT Series applicators

Part Number	Oiler Accessories
20000082	Oiler Unit
E807	Terminal Lubricant

## Hand Tool Overview

For field service, prototype, and low-volume production, Deutsch offers several easy-to-use hand crimp tools for both solid barrel and stamped & formed contacts. All Deutsch hand crimp tools provide a tight, complete crimp with minimal effort. The HDT-48-00, the most commonly used tool for solid contacts, crimps a wide range of contact sizes with no need to change out dies or locators. It provides a symmetrical four indent crimp, is compact and easy-to-use for field service, yet sturdy and reliable enough for low volume production. Hand crimp tools for stamped & formed contacts are wire gauge specific and simultaneously crimp the insulation and conductor, saving time and effort during field service.

### Hand Tools for Solid Contacts



HDT-04-08



HDT-48-00



HDT-50-00



HDT-1561

Contact Size	Contact Part Number	Tool Part Number	Crimp Type
4	0460-204-0490 0462-203-04141	HDT-04-08	Two Indent Crimp
8	0460-204-08141 0462-203-08141	HDT-04-08	Two Indent Crimp
12	0460-204-12** 0462-203-12**	HDT-48-00	Four Indent Crimp
		HDT-1561	Two Indent Crimp
		HDT-50-00	One Indent Crimp
16	0460-202-16** 0462-201-16** 0460-215-16** 0462-209-16**	HDT-48-00	Four Indent Crimp
		HDT-1561	Two Indent Crimp
		HDT-50-00	One Indent Crimp
		HDT-48-00	Four Indent Crimp
20	0460-202-20** 0462-201-20**	HDT-1561	Two Indent Crimp
		HDT-50-00	One Indent Crimp
		HDT-48-00	Four Indent Crimp

### HDT-48-00 Hand Tool Accessories



#### HDT-48-00 Adjustment Screw and Locking Nut

Part Number	Crimp Tool Replacement Part
0426-209-0000	Adjustment Screw and Locking Nut
M2700-395-10	Locking Nut



*Go-no-go gauges are used to inspect crimp tooling. The G454 gauge is used with the HDT-48-00 hand tool.*



#### Go-No-Go Gauge

Part Number	Description
G454	HDT-48-00 Go-No-Go Gauge



## ■ Hand Tools for Stamped & Formed Contacts



DTT-12-00



DTT-12-01



DTT-16-00  
DTT-16-01  
DTT-20-00  
DTT-20-02

Contact Size	Contact Part Number	Tool Part Number
12	1060-12-01** 1062-12-01**	DTT-12-00
	1060-12-02** 1062-12-02**	DTT-12-01
16	1060-16-01** 1062-16-01**	DTT-16-00 (14-16 AWG)
	1060-16-06** 1062-16-06**	DTT-16-01 (18-20 AWG)
20	1060-20-01** 1062-20-01**	DTT-20-00
	1060-20-02** 1062-20-02**	DTT-20-02










## ■ DT-RT1

The DT-RT1 is a multi-use tool with a small hook on one end to remove the wedgelock, and a small screwdriver on the other end to push back the locking fingers and release the contact. The DT-RT1 is a helpful tool for the DT, DTM, DTP, DTV, DRB, and STRIKE series of connectors.



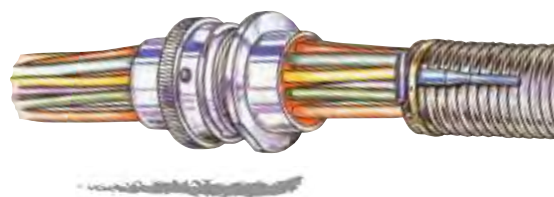
## ■ Removal Tools

Deutsch Industrial removal tools are designed to simplify contact removal and field service repair in all connectors that utilize a round shoulder contact retention system. Removal tools are compact, easy-to-use, and manufactured of heavy duty plastic to remove contacts without damage to the wire, insulation, connector seals, or connector body. The removal tools are required for wire removal in the DTHD, Jiffy Splices, HD10, HDP20, HD30, DRC, AEC, and WT Series.

Removal Tool	Part Number	Contact Size	Wire Gauge Range	Color
	0411-027-0405	Size 4	4 AWG	Black
	114009	Size 4	6 AWG	White
	114008	Size 8	8-10 AWG	Green
	0411-353-0805	Size 8 for HD Box	8-10 AWG	Green Extended
	114010	Size 12	12 AWG	Yellow
	0411-337-1205	Size 12	12-14 AWG Extra Thin Wall (E-Seal)	Orange
	0411-291-1405	Size 16	14-16 AWG	Green
	0411-310-1605	Size 16	16-18 AWG	Light Blue
	0411-336-1605	Size 16	16-18 AWG Extra Thin Wall (E-Seal)	Dark Blue
	0411-240-2005	Size 20	20-24 AWG	Red



*A contact removal tool taped or tie wrapped to the harness will make it easily available, should repairs be needed.*



## Series Specific Tools

### ■ Crimp Tools for STRIKE Series



Contact Size	Contact Style	Hand Crimp Tool	Production Crimp Tool
Ø8mm, Ø12mm	Solid	Hex shaped crimp per NFC20.130 standard*	
12-20	Solid	HDT-48-00	HDP-400
12	Stamped & Formed	DTT-12-00, DTT-12-01	DCT12-02-00, DCT12-02-01
16	Stamped & Formed	DTT-16-00, DTT-16-01, DTT-16-02	DCT1620-02-00
20	Stamped & Formed	DTT-20-00, DTT-20-02	DCT1620-02-00

\*See drawing 8925-003-0000 for full specifications.

### ■ Assembly/Removal Tools for STRIKE Series







#### Contact Removal Tools

The STRIKE Series Ø8mm and Ø12mm contacts require the following removal tools.

Tool	Part Number	Connector	Description
	SRK-EXT-80	Plug and Receptacle	Removal tool for Ø8mm contacts
	SRK-EXT-120	Plug and Receptacle	Removal tool for Ø12mm contacts

#### TPA Tools

The STRIKE Series has integrated TPA, which require removal tools. Multiple STRIKE tools may be needed to service a single connector. TPA removal tools are specific to each connector half and some cavity arrangements.

Tool	Part Number	Connector	Description
	SRK-RT-02	Receptacle	TPA removal tool for receptacles Not for use with 18 cavity insert
	SRK-RT-02-G2	Receptacle	TPA removal tool for receptacles For use with 18 cavity insert
	SRK-RT-06	Plug	TPA removal tool for plugs Not for use with 18 cavity insert
	SRK-RT-06-G2	Plug	TPA removal tool for plugs For use with 18 cavity insert
	SRK-MT-02	Receptacle	TPA mounting tool for receptacles
	DT-RT1	Plug and Receptacle	Field service removal tool (TPA or contacts) for plugs and receptacles



## ■ Tools for IMC and Quick Connect Series

The Industrial Micro Connect and Quick Connect Series use special contacts and tools. The contacts are smaller and designed for high pin density. Removal tools along with multiple crimp tools are available and are designed to work with the smaller contacts and tighter pin arrangements. The common contact system and tools are not compatible with the IMC or QC Series.

Tools for Solid Contacts	
<b>Part Number</b>	<b>Adjustable Hand Crimp Tools</b>
MH860	QC/IMC #22 crimp tool, adjustable AWG ranges, requires 86-5
86-5	QC/IMC crimp tool positioner for MH860
AF8-TH163	QC/IMC #20 and #16 crimp tool, adjustable AWG ranges
	<b>Single Gauge Hand Crimp Tools</b>
AMSC22/1	QC/IMC #22 crimp tool, low cost, only crimps 22 AWG wire
AMSC20/1	QC/IMC #20 crimp tool, low cost, only crimps 20 AWG wire
AMSC16/A/1	QC/IMC #16 crimp tool, low cost, only crimps 16 AWG wire
	<b>Insert/Removal Tools</b>
6757-201-2201	Insert/Removal Tool #22
6757-201-2001	Insert/Removal Tool #20
6757-201-1601	Insert/Removal Tool #16



## How To Instructions

### ■ Wire Stripping



#### Step 1:

1. Choose the correct AWG for the contact being used.
2. Measure from the end of the wire the recommended strip length according to the contact size.
3. Place the wire into a stripping tool at the recommended strip length. Strip the wire according to stripping tool instructions.



#### Step 2:

1. After stripping, a small piece of the insulation should come off.
2. Check for any broken strands or for a dent in the wire. If either exist, the wire is damaged and should be cut and stripped again.

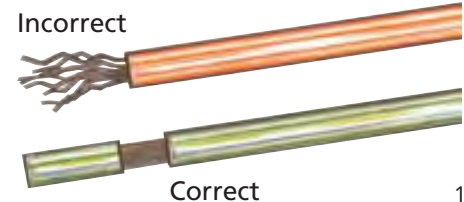


#### Step 3:

1. Measure the exposed strands to be sure the crimp length is correct.



*Leaving the stripped portion of the insulation on the wire until prior to crimping will avoid flayed wire strands.*



## ■ Crimping with the HDT-48-00 Hand Tool



### Notice

Tool must be adjusted for each type/size of contact.



#### Step 1:

1. Strip insulation from wire.
2. Raise selector knob and rotate until arrow is aligned with wire size to be crimped.
3. Loosen locknut, turn adjusting screw in until it stops.



#### Step 2:

Insert contact with barrel up. Turn adjusting screw counterclockwise until contact is flush with indenter cover. Tighten locknut.



#### Step 3:

1. Insert wire into contact. Contact must be centered between indentors. Close handles until crimp cycle is completed.
2. Release handles and remove crimped contact.

## ■ Crimping with DTT Style Hand Tools (size 16 & 20)



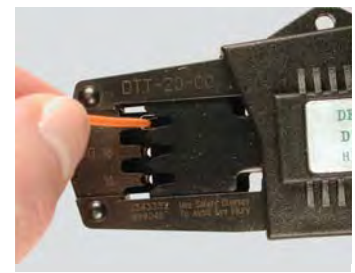
#### Step 1:

Cycle the hand tool to the open position. Place the contact into the correct die nest.



#### Step 2:

Partially close the tool until the contact is held in place.



#### Step 3:

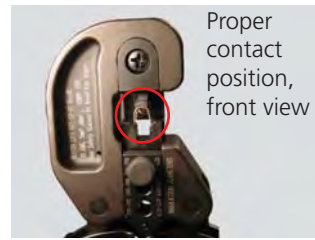
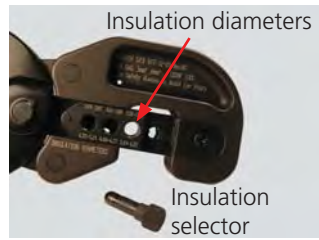
Insert the prestripped wire into the crimp area of the contact.



#### Step 4:

Close the tool until the ratchet releases. The ratchet is released when a loud click is heard and crimp is complete.

## ■ Crimping with DTT-12-01 Hand Tool



**Step 1:**  
Cycle handles to release ratchet and fully open crimp jaws. Pull out insulation selector and push into proper diameter using the chart below.

**Step 2:**  
1. Insert contact into locator. Adjust alignment and width of crimp wings if necessary to ensure capture by crimp jaws.  
2. Insert stripped wire into the contact. Close crimp tool until full-cycle ratchet control releases.

Wire Type	Insulation Selector
10 TXL	.150-.170
10 GXL	.160-.180
10 SXL	.170-.205
5.0 mm <sup>2</sup>	.160-.180
6.0 mm <sup>2</sup>	.170-.205

## ■ Crimping with DTT-12-00 Hand Tool



**Step 1:**  
Cycle the tool to release ratchet and open tool. Lift the locator gate, and place the contact into the correct die nest. Adjust alignment of crimp wings to ensure capture by crimp jaws.



**Step 2:**  
Partially close the tool until the contact is held in place.



**Step 3:**  
Insert the prestripped wire into the crimp area of the contact.



**Step 4:**  
Close the tool until the ratchet releases. The ratchet is released when a loud click is heard and crimp is complete.





# Additional Resources

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## Modification List

Mod #	Series	Description
<b>059</b>	HD30	Addition of threaded adapter and cable clamp assembly
<b>072</b>	HD30	Addition of threaded adapter
<b>A004</b>	DRC	Receptacle with molded-in PCB pins, 24 and 40 way
<b>AG02</b>	PCB	Some terminals are gold plated
<b>B010</b>	HD10	Plug with coupling ring added
<b>B016</b>	DT, DT13/15	Receptacle has extended shell and additional keys, plug has enhanced seal retention (P012), 12 way
<b>B022</b>	HD10	Receptacle with D-hole panel mount, J1939, black
<b>B026</b>	DTMF15	PCB receptacle with alternate keying position
<b>B028</b>	DT	Grommet around PCB pins to meet 5 psi requirement
<b>BE01</b>	DT	Receptacle has extended shell, additional keys and end cap, plug has enhanced seal retention (P012), 12 way
<b>BL04</b>	DT	Receptacle with extended shell and additional keys (B016), welded flange
<b>BL08</b>	DT	Receptacle with extended shell and additional keys (B016), welded flange, black
<b>BL10</b>	DT	Receptacle with extended shell and enhanced keys (B016), sealed flange, reduced diameter seals (E seal), shrink boot adapter, threaded stainless steel flange inserts
<b>BP03</b>	HD10	Receptacle with D-hole panel mount, J1939 Type II, green
<b>C015</b>	DT	Reduced diameter seals (E seal)
<b>C023</b>	PCB	5mm <sup>2</sup> threaded insert mounting holes
<b>C030</b>	HD30, HDP20	Four size 16 cavities blocked (1, 2, 5, 6)
<b>C038</b>	HDP20	Three size 4 cavities, four size 16 cavities, requires 5960-203-04** and 5962-203-04** size 4 contacts
<b>CL03</b>	DT	Reduced diameter seals (E seal), welded flange
<b>CL07</b>	DT	Reduced diameter seals (E seal), sealed flange, shrink boot adapter
<b>CL09</b>	DT	Reduced diameter seals (E seal), sealed flange, end cap, black
<b>E003</b>	DT, DTHD, DTM, DTP	End cap
<b>E004</b>	DT, DTM, DTP, HD10	Connector body black
<b>E005</b>	DT, DTM	Connector body black, end cap
<b>E007</b>	DTM	Shrink boot adapter
<b>E008</b>	DT	Shrink boot adapter
<b>E016</b>	EEC	Standard EEC box, molded in transparent Ultem material
<b>EE04</b>	DTM	High temp 150° C, black
<b>EE05</b>	DT	High temp 150° C, end cap, plug has enhanced seal retention (P012), black

Mod #	Series	Description
G002	DRC	Outside rows of pins are gold plated and rest are tin plated
G003	DT13/15, STRIKE	Gold plated pins
GR01	DTM13 (EEC headers)	Snap-in DTM PCB mounted header for EEC enclosure, 12 and 24 pins , gold plated pins
GR02	DT13 (EEC headers)	Snap-in DT PCB mounted header for EEC enclosure, 12, 24, 36, and 48 pins, gold plated pins
L006	HD30	059 modification using adapter without drain holes
L009	DTHD	Sealed flange, inside mount
L012	DT, DTP, DTM	Welded flange
L013	DTHD	Sealed flange, outside mount
L015	HDP20	Threaded adapter for backshell strain relief
L017	HDP20	Ring adapter for backshell strain relief
L018	DRB	Wire router
LE01	DT	Sealed flange, inside mount, gasket, end cap
LE05	DT	Sealed flange, inside mount, gasket, end cap
LE06	DT	Sealed flange, inside mount, reduced diameter seals (E seal), end cap
LE07	DT, DTP	Welded flange, end cap
LE08	DT	Welded flange, shrink boot adapter (J1939), gray
LE09	DT	Sealed flange, o-ring, end cap, black
LE10	DT	Sealed flange, inside mount, gasket, end cap, black
LE11	DT	Welded flange, end cap, black
LE12	DT	Welded flange, shrink boot end cap (J1939), black
LE14	DT	Welded flange, black
LE17	DT	Sealed flange, gasket sold separately, end cap, black
LE21	DT	Receptacle with extended shell and enhanced keys (B016), sealed flange, reduced diameter seals (E seal), end cap, one piece connector design, threaded stainless steel flange inserts
N005	HD10	Receptacle with molded in PCB pins, modified shell
N012	DRC	One piece connector design
P012	DT	Plug with enhanced seal retention, 2-6 way are black, 8 and 12 way "A" key is gray, "B" key is black, "C" key is green, "D" key is brown
P064	HD30, HDP20	24-91 arrangement without internal jumper
P080	HD10	J1939 Type II, green
R008	DTM13 (EEC headers)	Snap-in DTM PCB mounted header for EEC enclosure, 12 and 24 pins
R015	DT13 (EEC headers)	Snap-in DT PCB mounted header for EEC enclosure, 12, 24, 36, and 48 pins

**Notice**  
 For additional modifications, please consult the factory.



# Requirements & Standards

## ■ Requirements

### IMDS

The International Material Data System (IMDS) is a collective, computer-based material data system developed as a collaborative effort by large automotive OEMs to manage environmentally relevant aspects of parts used in vehicles. It has been adopted as the global standard for reporting material content in the automotive industry. IMDS was originally developed in response to the European ELV directive. Deutsch Industrial recognizes IMDS and will work with customers that use the system.

### RoHS

RoHS is a European directive on the Restriction of Hazardous Substances in electrical and electronic equipment. The directive restricts the use of lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls, and polybrominated diphenyl ether in new electrical and electronic components. All Deutsch Industrial products and LADD Industries' boots, backshells, and gaskets are RoHS compliant.

## ■ Standards

### IP Rating

The IP Rating system is a way of classifying the degree of protection provided against the intrusion of solid objects, dust, and water in electrical enclosures. Deutsch Industrial connectors do not have a published IP rating, but their 3 foot submersion rating comes close to meeting the requirements of IP 67. The 6 in IP 67 means that the connectors have to be completely sealed from fine dust which they are. The 7 in IP 67 means that the connector needs to be protected from the effects of a one meter submersion. Deutsch connectors are rated for three feet submersion, which is just short of the one meter requirement.

### IP 6K9K

IP 6K9K is similar to the standard IP Ratings, but is commonly referred to as a pressure washing spec. The letter K is used after the numbers to denote special testing. The 6K means the connectors need to be completely sealed from fine dust. The 9K means the connector needs to be protected from the penetrating effects of water used for high pressure/steam jet cleaning purposes. Several connectors in the DT, DTM, DRC, and DRB series have been through independent lab testing and pass IP 6K9K.

### J1939/11, J1939/13, and J1939/15

See CAN section.

### UL Recognized

A UL Recognized component is one that is expected to be installed within a larger assembly by a manufacturer, and this larger assembly is then expected to be tested by UL to become UL Listed. Many Deutsch Industrial connectors are UL Recognized including the AEC, DRC, DT, DTM, DTP, HD10, and HDP20 Series. Not every variation and/or modification within a series may be UL Recognized.





# Glossary

**AWG (American Wire Gauge):** Standardized system of wire diameter measurement. Commonly referred to as wire gauge. (Reference: National Bureau of Standards, Copper Wire Table [Handbook 100] AVS.)

**Adapter:** Device attached to a connector to allow connection to a second device that it would not otherwise be able to attach to. In the HD30 Series, a threaded adapter is swedged onto the connector to allow rear hardware, cable clamps, or backshells to be attached. Adapter in HD30 Series is designated by the -072 modification.

**Ambient Temperature:** The temperature of a medium (gas or liquid) surrounding an object.

**Ampere (AMP):** The unit of current. One ampere is the current flowing through one ohm of resistance at one volt potential.

**ARC Resistance:** Time required for an electrical current to render the surface of a material conductive due to carbonization by the arc flame. Or, the time required for an arc to establish a conductive path in a material.

**Applicator:** Tooling used in automatic machines to crimp stamped and formed contacts.

**Backshell:** A secondary attachment for the rear of a connector to provide strain relief, environmental protection, and/or improved aesthetics.

**Barrel:** (1) Conductor Barrel: the section of the terminal, splice, or contact that accommodates the stripped wire. (2) Insulation Barrel: the section of the terminal, splice, or contact that accommodates the unstripped wire.

**Barrel Chamfer:** Beveled entry at mating end of the socket contact. Reduces contact mating force for easier connector mating.

**Blocked Cavities:** Unused holes or contact positions in a connector which have been filled with sealing plugs or made inaccessible by modification to the rear grommet.

**Breakaway:** Connector with a slotted coupling ring. Coupling ring is intended to fragment and allow connectors to separate without damage to the implement in the event of an unintended pull-away. Commonly used in HD Series (HDB prefixed part numbers).

**Boot:** Attachment for the back of a connector. Boots are typically flexible, made from plastic or plastisol, and may provide wire strain relief, environmental protection, and/or improved aesthetics.

**Bulkhead:** Dividing wall or partition. Bulkhead connectors are designed to be mounted to a dividing wall through a cutout.

**Buss (also bussbar, bus or busbar):** A thin conductive strip connecting multiple contacts within the body of a connector. Used to distribute electrical current to the branches of a circuit.

**Cable Clamp:** An attachment to provide support and strain relief to the wire bundle where it exits the connector. In the HD30 Series, the cable clamp is designated by the -059 modification, which includes the -072 adapter modification.

**Cavity:** Hole in the connector grommet and housing, into which the contact must fit.

**Cold Heading:** Process by which contacts are formed from individual pieces of metal using dies and punches.

**Compression Nut:** Secondary backshell assembly. Threads onto rear of backshell to compact wire bundle and provide additional support.



**Conductivity:** The capability of a material to carry an electrical current.

**Conductor:** Any material capable of carrying an electrical charge easily. The most common materials for wire and cable applications are aluminum and copper (bare or coated).

**Contact:** Conductive device crimped or soldered onto the end of conductor wire to allow the transfer of electricity or data to a second conductor. Contacts are most frequently used in multiples in connectors. Also commonly referred to as terminals, pins and/or sockets.

**Contact, Crimp:** Wire termination engineered to be permanently applied to conductor wire end with pressure. Does not use solder or heat.

**Contact, Insertable/Removable:** Wire termination that can be mechanically joined to or removed from the connector body.

**Contact, Pin:** Wire termination with solid mating end. Provides connection by insertion into a female or socket contact. Also referred to as male contact.

**Contact, Socket:** Wire termination with hollow mating end into which the pin or male terminal is inserted. Also referred to as a female contact.

**Contact, Solder:** Wire termination joined to the wire conductor with a metal joining compound. Contacts intended for solder will typically have a cup, hollow-cylinder eyelet or hook to accept a conductor and retain the applied solder.

**Contact Area:** The area where two conductors, a wire termination and a conductor, or two wire terminations touch, permitting the flow of electricity.

**Contact Arrangement:** The number, spacing, and organization of cavities in a connector.

**Contact Rating:** The maximum recommended amperage to be passed through a wire terminal.

**Contact Resistance:** The measurement of opposition to electrical flow through a pair of mated wire terminations. Resistance may be measured in ohms or in millivolt drop at a specified current over the mated terminals.

**Contact Retention:** The axial load in either direction that a terminal can withstand without being dislodged from its correct position in the connector.

**Contact Shoulder:** A small flange or collar on a terminal that limits the contact's travel into or removal from the connector.

**Contact Size:** Overall size of barrel determined by size of wire it will accept.

**Corrosion Resistance:** The ability of a substance to withstand corrosion.

**Coupling Ring:** Attached cylindrical ring used to lock mated connectors together.

**Crimping:** To mechanically secure a terminal or splice to a conductor by use of pressure.

**Crimping Die:** The part of a crimping tool that physically compresses the contact barrel and shapes the crimp.

**Crimp Tool:** Implement that permanently attaches a contact to a wire using pressure.

**Current (I):** The rate of transfer of electricity usually expressed in amperes.

**Current Rating:** The maximum continuous electrical flow of a current recommended for a given wire situation. Expressed in amperes.

**Dielectric Strength:** The voltage which an insulating material can withstand before breakdown occurs, usually expressed as a voltage gradient (such as volts/mil).

**Dielectric Test:** A test in which a voltage higher than the rated voltage is applied for a specific time to determine the adequacy of the insulation under normal conditions.

**Dielectric Withstanding Voltage:** The amount of leakage current that flows through the insulation.

**Diode:** Electronic component that allows electrical flow in one direction only.