



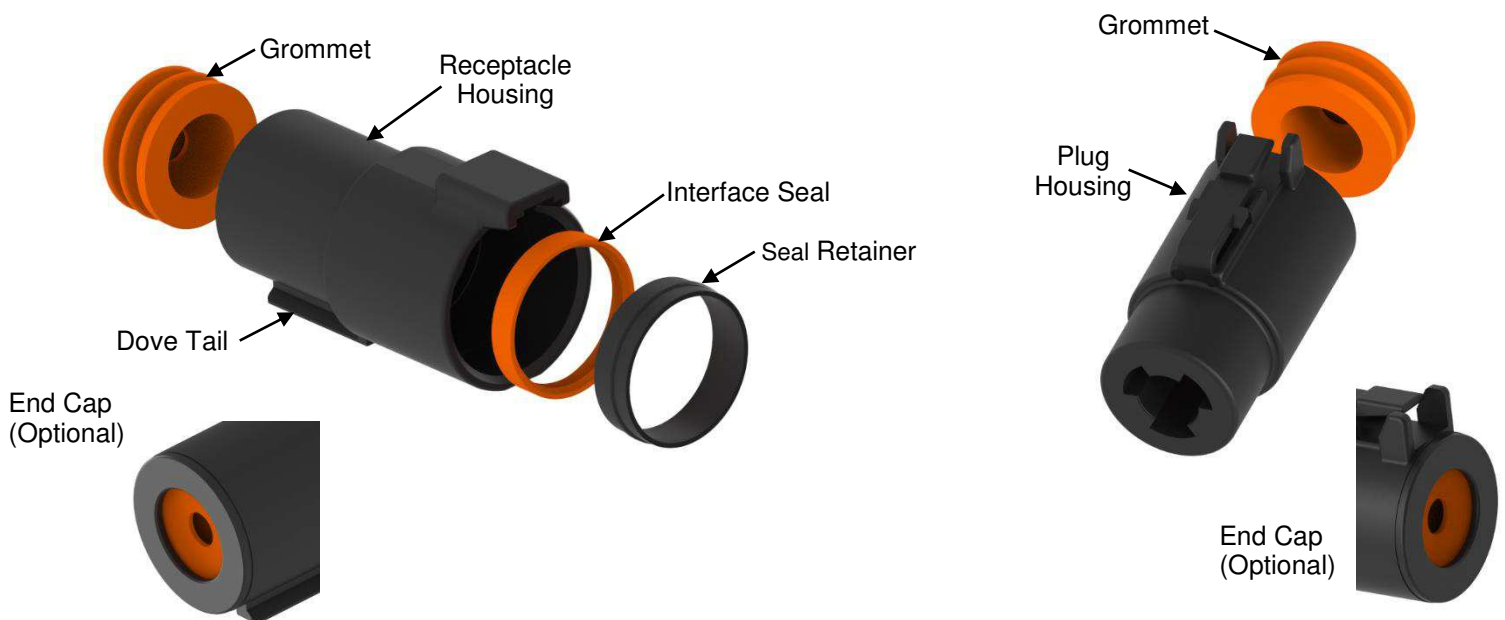
NOTE

All numerical values are in metric units [with U.S. customary units in brackets]. Dimensions are in millimeters [and inches]. Unless otherwise specified, dimensions have a tolerance of ± 0.13 [$\pm .005$] and angles have a tolerance of $\pm 2^\circ$. Figures and illustrations are for identification only and are not drawn to scale.

1. INTRODUCTION

This specification covers the requirements for application of DEUTSCH DTHD series connector system. The system features a plug and receptacle that offers single pole arrangement which accept DEUTSCH size 4, 8 and 12 solid (machined) and size 12 stamped & formed contacts.

The DTHD series features a rear insertion/rear removal contact system. Basic terms and features of this product are provided below.



Standard Features All Sizes
(Size 4 shown as example)

1.1. Receptacle



Size 12
DTHD04-1-12P
DTHD04-1-12P-E003



Size 8
DTHD04-1-8P
DTHD04-1-8P-E003



Size 4
DTHD04-1-4P
DTHD04-1-4P-E003



Size 4
DTHD04-1-4P-L009



Size 4
DTHD04-1-4P-L013

1.2. Plug



Size 12
DTHD06-1-12S
DTHD06-1-12S-E003



Size 8
DTHD06-1-8S
DTHD06-1-8S-E003



Size 4
DTHD06-1-4S
DTHD06-1-4S-E003

1.3. Product Dimensions

See connector product drawing for product dimensions. See Section 2.3

2. REFERENCE MATERIAL

2.1. Revision Summary

See Section 7.

2.2. Customer Assistance

Product Code J841 is representative of DEUTSCH DTHD series connector system. Use of these numbers will identify the product line and help you to obtain product and tooling information when visiting www.te.com or calling the number at the bottom of page 1.

2.3. Drawings

Customer drawings for product part numbers are available from www.te.com. Information contained in the customer drawing takes priority.

Product Drawing	Description	Product Drawing	Description
DTHD04-1-4P	REC, 1P, BLK, N, SZ 4	DTHD06-1-4S	PLG, 1P, BLK, N, SZ 4
DTHD04-1-4P-E003	REC, 1P, BLK, N, SZ 4, CAP	DTHD06-1-4S-E003	PLG, 1P, BLK, N, SZ 4, CAP
DTHD04-1-4P-L009	REC, 1P, BLK, N, SZ 4, FLG	DTHD06-1-8S	PLG, 1P, BLK, N, SZ 8
DTHD04-1-4P-L013	REC, 1P, BLK, N, SZ 4, REV FLG	DTHD06-1-8S-E003	PLG, 1P, BLK, N, SZ 8, CAP
DTHD04-1-8P	REC, 1P, BLK, N, SZ 8	DTHD06-1-12S	PLG, 1P, BLK, N, SZ 12
DTHD04-1-8P-E003	REC, 1P, BLK, N, SZ 8, CAP	DTHD06-1-12S-E003	PLG, 1P, BLK, N, SZ 12, CAP
DTHD04-1-12P	REC, 1P, BLK, N, SZ 12		
DTHD04-1-12P-E003	REC, 1P, BLK, N, SZ 12, CAP		

2.4. Specifications

- [108-151000](#) Product Specification for DEUTSCH Stamped and Formed Contacts
- [108-151004](#) Product Specification for DEUTSCH Solid Contacts
- [114-151002](#) Application Specification for DEUTSCH Size 12 S&F Pin and Socket Contacts
- [114-151004](#) Application Specification for DEUTSCH size 4-20 Solid Pin & Socket
- [114-151006](#) Application Specification for DEUTSCH Size 12 S&F Pin and Socket Contacts

2.5. Instructional Material

Instruction sheets (408-series) provide product assembly instructions or tooling setup, and operation procedures and customer manuals (409-series) provide machine setup and operating procedures. Instructional material that pertain to this product are:

- [408-151007](#) DEUTSCH Extraction Tools for Rear-Release Connectors

3. REQUIREMENTS

3.1. Safety

Do not stack product shipping containers so high that the containers buckle or deform.

3.2. Storage

A. Ultraviolet Light

Prolonged exposure to ultraviolet light may deteriorate the chemical composition used in the product material.

B. Shelf Life

The product should remain in the shipping containers until ready for use to prevent deformation to components. The product should be used on a first in, first out basis to avoid storage deterioration could adversely affect performance.

C. Chemical Exposure

Do not store product near any chemical listed below as they may cause stress corrosion cracking in the material.

Acids Alkalis Amines Ammonia Carbonates Chloroform Citrates Methylene Chlorine
 Methyl Ethyl Ketone Nitrites Phenol (Aqueous) Phosphates Sulfur Nitrites Sulfur Compounds
 Tartrates Toluene Xylene

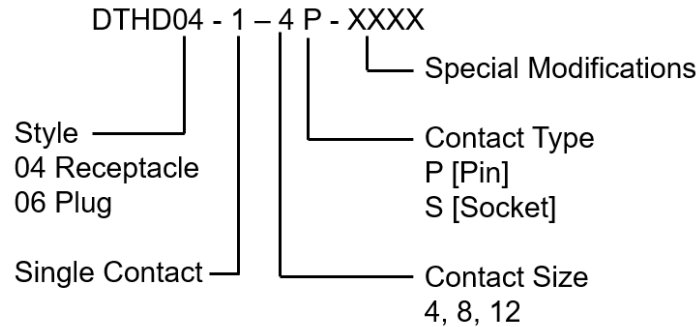


NOTE:

1) Resistance depends on chemical concentration, temperature, and exposure medium.

3.3. Characteristics

A. Part Numbering System



Note:

Pins used in receptacle and Sockets used in plug.

B. Pin Arrangement

DTHD is a single pin arrangement. See product drawing.

C. Materials




Receptacle and Plug Housing:	PEI (black)
Cap:	PEI (black)
Flange:	PEI (black)
Seal Retainer:	PEI (black)
Interface Seal:	VMQ (red-orange)
Grommet:	VMQ (red-orange)

D. Sealing Range

Size	Conductor Range AWG [mm ²]	Insulation OD Sealing Range in [mm]
4	6 [13.0 - 16.0]	.261 - .420 [6.63 - 10.67]
8	8 – 10 [5.0 – 6.0]	.190 - .240 [4.83 – 6.09]
12	12 – 14 [2.0 – 3.0]	.134 - .170 [3.40 – 4.32]

E. Sealing Plugs

Sealing plug can be used in either plug or receptacle to make a simple blank end cap.

Part Number	Size	Material	Color	Sealing Plug
114019	4	VMQ	Red-Orange	
114018	8	PBT	White	
114017	12	PBT	White	

F. Modification

Modification	Description
E003	Black with End Cap
L009	Black with Flange and No End Cap
L013	Black with Reverse Flange and No End Cap

G. MOUNTING CLIPS

Mounting clips are installed on the receptacle to mount the connector. To meet design needs, the clips are available for several configurations and in plastic, stainless steel, or steel with zinc plating.

Part Number	Mounting Direction	Material	Plating Color	Mounting Hole	Size
1027-003-1200	Straight	Stainless Steel	None	11 [.433]	4, 8, 12
1027-005-1200				13 [.512]	
1027-004-1200		Steel	Zinc/Yellow		
1011-026-0205		PA66	Black	5.08 [.200]	
1011-030-0205				T-Stud Mount	
1011-310-0205² 1924487-1/2		Fir-Tree Mount			
1027-008-1200	Side	Steel	Zinc/Yellow	11 [.433]	
1027-017-1200				8.2 [.323]	

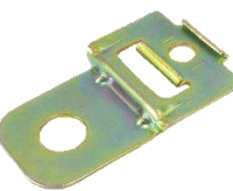


NOTES:

- 1) Zinc is RoHS compliant
- 2) Retention force is 89N [20 lbf] except [1011-310-0205](#) is 50N [11.2 lbf].



Straight Hole Mount



Slide Hole Mount



Hole Mount



T-Stud Mount



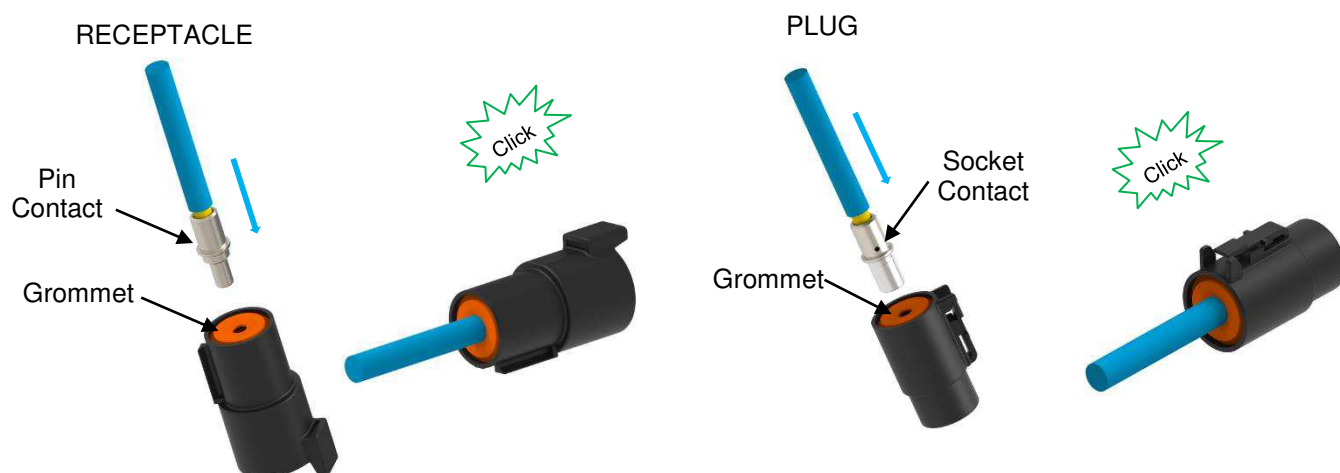
Fir-Tree Mount

3.4. Contact Insertion

1. The crimped contact must meet these specifications:

- [114-151002](#) Application Specification for DEUTSCH Size 12 S&F Pin and Socket Contacts
- [114-151006](#) Application Specification for DEUTSCH Size 4-20 Solid Pin and Socket Contacts
- [114-151004](#) Application Specification for DEUTSCH Size 12 S&F Pin and Socket Contacts

2. Grasp crimped contact approximately 25.4 [1.00] behind the contact crimp barrel and hold the connector with grommet facing you.
3. Push contact straight into grommet until positive stop is felt. The contact will lock into place. A slight tug on wire will confirm that is properly locked in place.



NOTE:

- 1) Pins used in receptacle, sockets used in plug.
- 2) Wire insulation outside diameter must meet connector wire sealing range per section 3.3.D.

3.5. Contact Removal

DEUTSCH removal tools are designed to simplify contact removal and field service repair in 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.

Each extraction tool is designed to extract individual DEUTSCH solid and stamped and formed (S&F) pin and socket contacts from rear-release connectors. See [408-151007](#) for instructions.




1. USING THE TOOL

1. From the rear of the connector, align the tool tip with the contact cavity of the contact to be removed. Place the wire of the contact over the tool wire entry slot and apply light pressure on the wire until it enters the wire entry slot.
2. Slide the tool along the wire and into the contact cavity until the tool tip engages the contact and resistance is felt.
3. Gently pull the tool with the wire until the contact is removed.



Note:

If rear grommet comes out, inspect it for cuts, cracks or other damage. Replace if necessary. Reinstall

Part Number	Size	Material	Color	Removal Tool
114009	4	POM	White	
114008	8	POM	Green	
114010	12	POM	Yellow	

3.6. Sealing Plug Installation and Removal

Step 1:

Holding the sealing plug with large diameter end away from the connector, gently apply downward pressure to force the sealing plug into the cavity.



Step 2:

With perpendicular motion, apply downward pressure to the large diameter end of the sealing plug.



Note:

The large diameter end must be flush with cavity opening. Do not push all the way through.

Step 4:

To remove sealing plug from connector, grasp the large diameter end with fingers or small long nose pliers and pull until sealing plug is removed. If there is no end cap on the connector, it may be necessary to hold the rear grommet in place with fingers while removing the sealing plug.



Note:

If rear grommet comes out, inspect it for cuts, cracks or other damage. Replace if necessary. Reinstall

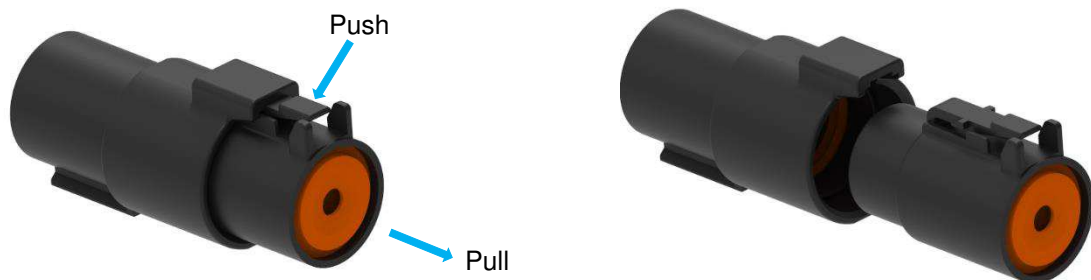
3.7. Connector Mating

To mate the plug and receptacle align the plug latch with the receptacle latch box. Then push plug into the receptacle until there is an audible and tactile click. Verify plug latch is in full latched position.



3.8. Connector Unmating

To un-mate the plug from the receptacle, push the plug latch until a hard stop is felt. Pull the plug from the receptacle until they are fully separated.



3.9. MOUNTING CLIP - RECEPTACLE

To install a clip onto a receptacle, first align the clip mounting features of the housing with the clip. Then push the clip straight onto the back of the connector until a positive stop and a snap is felt. Clip retention force is 89N [20 Lbf] minimum, except 1011-310-0205 is 50N [11.2 Lbf] minimum.



Note:
Mounting clip is removable. Damage to receptacle retention feature may occur.

3.10. Panel Installation

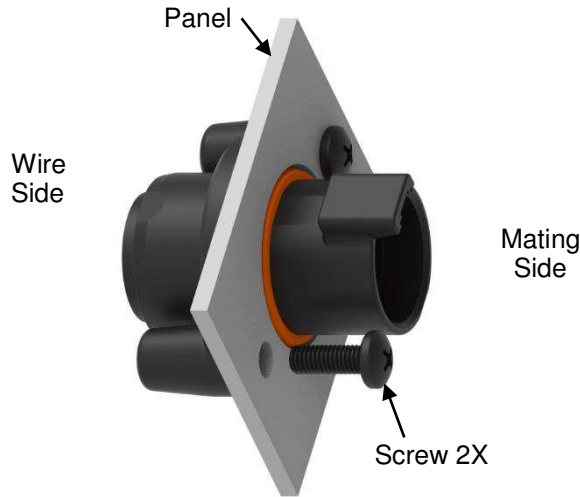
Receptacles with flanges may be mounted to a panel as shown. Refer to product drawings for panel cutout information. Mounting hardware is customer supplied.

Recommended screw size is #10-14 [M5] thread forming screw, single helix ([Plastite 48](#)).

Screw length dependent on application.

Recommended screw torque is 2.26-2.82 Nm [20-25 in-lb.].

Recommended panel thickness is 6.35 [.250] max



DTHD04-1-4P-L009 Shown as Example



NOTE:

1. Do not over tighten fastener. This will prevent damaged or broken receptacle and/or flange.
2. Do not side load the receptacle. This will prevent damage or broken receptacle and/or flange.
3. Weld-on flange is intended for non-pressurized fluid splash only

3.11. Replacement and Repair

Damaged or defective connectors must not be used. These connectors cannot be repaired.

4. QUALIFICATION

Contact Product Information Center, 1-800-522-6752 for qualification and approved agency.

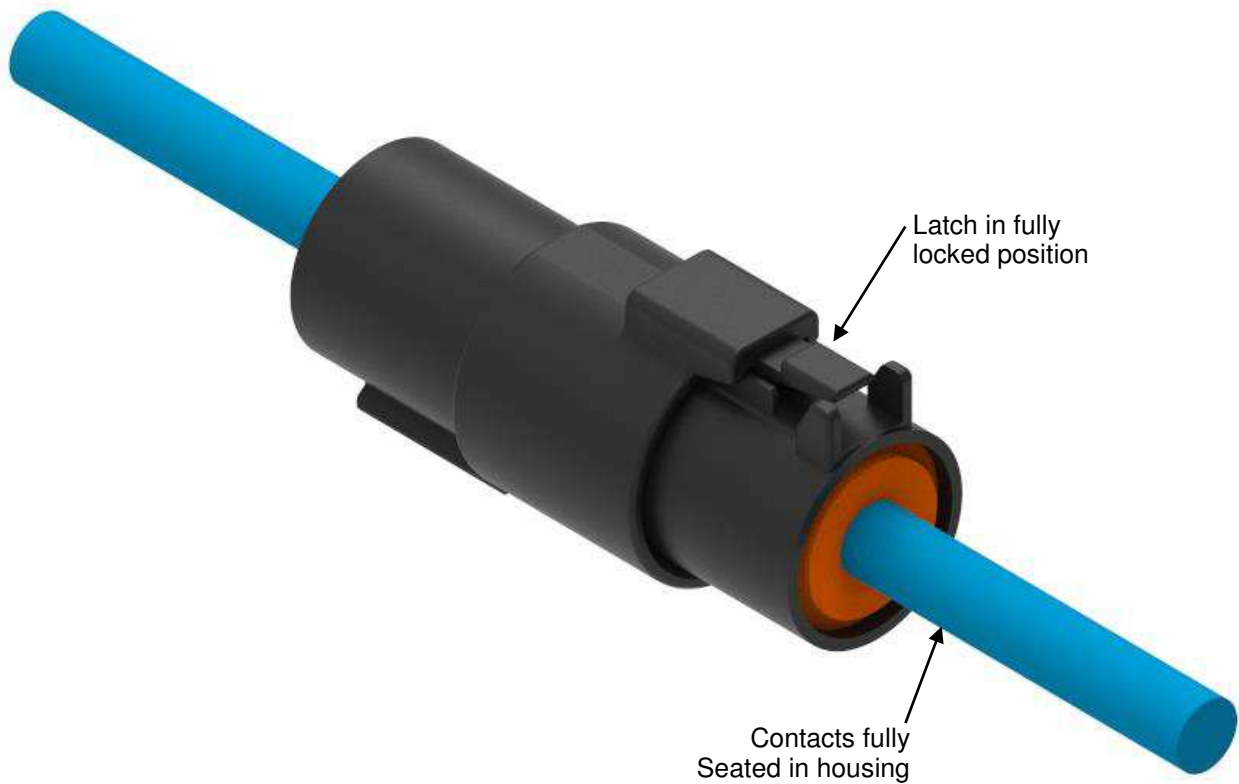
5. TOOLING

Refer to the following application specifications for reference on all pin and socket contact termination tooling.

- [114-151002](#) Application Specification for DEUTSCH Size 12 S&F Pin and Socket Contacts
- [114-151004](#) Application Specification for DEUTSCH Size 4-20 Solid Pin and Socket Contacts
- [114-151006](#) Application Specification for DEUTSCH Size 12 S&F Pin and Socket Contacts
- [408-151007](#) DEUTSCH Extraction Tools for Rear-Release Connectors

6. VISUAL AID

Below shows a typical application of the DTHD Series Connector. This illustration should be used by production personnel to ensure a correctly applied product. Applications which DO NOT appear correct should be inspected using the information in the preceding pages of this specification and in the instruction, material shipped with the product or tooling.



7. REVISION HISTORY

Rev	Brief Description of Change	Date	Dwn	Apvd
A	Initial Release	05/14/2021	DM	IG