

i **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.

i **NOTE**
In the event that there are difference between the information presented in this application specification versus the information found in other instruction material, this application specification will take precedence.

1. INTRODUCTION

This specification covers the requirements for application of DEUTSCH Ø8mm pin and socket contacts. These contacts are used in DEUTSCH or TE connectors having Ø8mm contact cavities. Each contact features a cable crimp barrel, crimp zone, retention shoulder, cable inspection hole, mating end and crimp range identification. The socket features a spring insert (diabolo). In use, the retention shoulder holds the contact in the connector. The contacts are available in loose-piece for terminating using either a pneumatic or manual crimp tool.

When corresponding with personnel, use the terminology provided in this specification to facilitate inquiries for information. Basic terms and features of this product are provided in Figure 1.

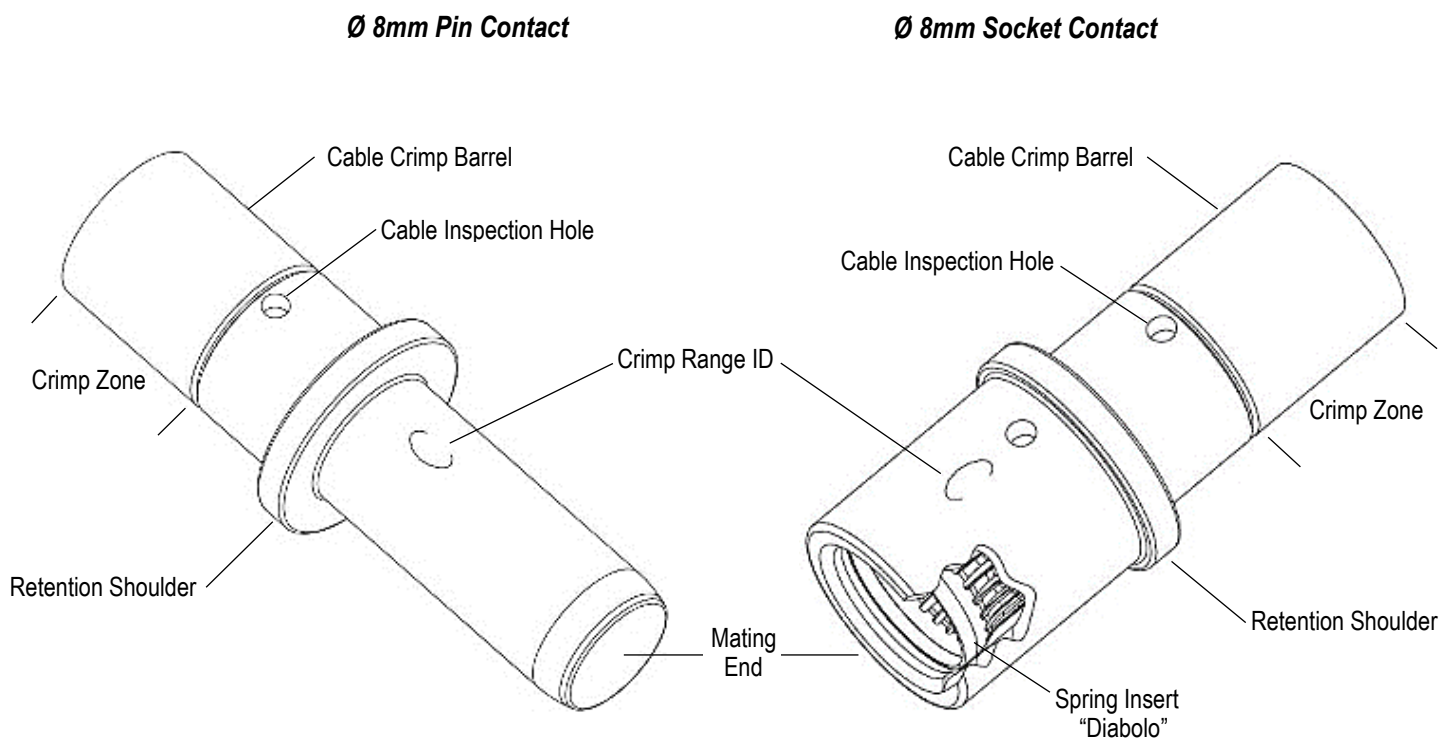


Figure 1

2. REFERENCE MATERIAL

2.1. Revision Summary

Initial Release

2.2. Customer Assistance

Product Base Part Numbers (listed below) and Product Code J829 are representative of DEUTSCH Ø8mm pin and socket contacts. Use of these numbers will identify the product line and help you to obtain product and tooling information. Such information can be obtained by visiting our website at www.te.com or calling the number at the bottom of this page.

Pin: SRK-PC-080

Socket: SRK-SC-080

2.3. Drawings

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

2.4. Instructional Material

[408-151008](http://www.te.com) DEUTSCH Removal Tool DT-RT1 for Front-Release Connectors.

2.5. Global Standards and Publication

DIN 72551-6, Road Vehicles - Low Tension Cables - part 6: Single-Core, Unscreened with Thin Insulation Wall; Dimensions, Materials, Marking

ISO 6722, Road Vehicles - 60V and 600V Single-Core Cables; Dimensions, Test Methods and Requirements

NFC 20-130, Requirements Crimp-Type Copper or Copper Alloy Non-Insulated Lugs for Copper Conductors

SAE J1127, Low Voltage Battery Cable

[TE Technical Paper](#), Overview of the Use of Silver in Connector Application.

3. REQUIREMENTS

3.1. 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 contamination that 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.

Alkalies	Ammonia	Citrates	Phosphates	Citrates	Sulfur Compounds
Amines	Carbonates	Nitrites	Sulfur Nitrites		Tartrates

3.2. Operating Temperature

These contacts are designed to operate in a temperature range of -55 to 125°C [-67 to 257°F].

3.3. Material

Socket Body: Copper, Silver

Insert: Copper, Silver



NOTE

1) Silver plated contacts are provided with an anti-tarnish protective coating. This protective coating loses its protective effect after 6 months to 2 years, depending on the respective ambient conditions. This leads to oxidation (tarnish) of the silver and discoloration be yellow, tan, blue, brown or black. This discolored appearance is normal and does not affect product function. This oxide layer is composed of silver sulphide and is permeated during insertion upon final assembly of the contact system, so that the electrical properties generally continue to be comparable with those of a new part.

2) Use sulfur-free gloves, packaging, etc. when handling silver plated contacts

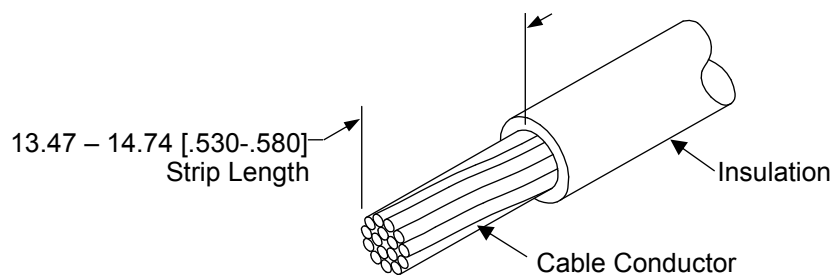
3.4. Wire Size and Preparation

The contacts accept stranded wire sizes and insulation diameters using wire standards in section 2.5. For insulation diameter per contact, refer to the customer drawing for the contact. The wire must be stripped within the dimensions given in Figure 2. Special wire type may require special applicator tooling settings, crimp requirements are not covered in this specification.



CAUTION

The wire conductors and insulation must not be nicked, scrapped, broken, or cut during the stripping operation.



Note: Not to Scale

Figure 2

3.5. Crimp

The contact must be crimped to the cable according to instructions packages with the tool. These requirements apply equally to the pin contact and socket contact. It is essential to have the crimp tool adjusted correctly to ensure the contact is crimped correctly. Refer to the crimp tool instruction sheet for adjustment instructions.

A. Cable Barrel Crimp

The crimp applied to the cable barrel portion of the contact must be the most compressed. All conductors within the cable barrel crimp must show evidence of compression. Good compression is guaranteed by using the correct crimp die set, See Figure 3. The crimp barrel is filled with the conductor strands. All conductor strands within the cable crimp must show evidence of compression. No voids are allowed in the crimped cable barrel. The crimped area must be symmetrical on all sides of the crimp barrel. The thickness of the wall must be uniform.

The crimp barrel inside wall is formed to the shape of the strands for intimate contact. All existing cable strands are enclosed within the cable barrel. Any stranding outside the crimp barrel or broken strands outside the cable crimp is not acceptable.

If low compression occurs, the number of strands has to be checked. To avoid over compression, which would favor cable barrel flash, the correct crimp die set must be used.

All conductors must be centered within and held firmly inside the cable barrel. No strands can be folded back over themselves. There must be no evidence of loose cable strands or cable strands visible outside the crimp barrel

SRK-PC-80-35-601-35mm²

SRK-SC-80-35-601-35mm²


Contact SRK-PC (Pin); SRK-SC (Socket)	Crimp Range ID	Cable Size	Crimp Tensile (Ref) N [lbf]	DIE NUMBER NF C 20-130
SRK-PC-080-25	C	25 mm ² 4 AWG	489 [2175]	25
SRK-SC-080-25				
SRK-PC-080-32	D	2 AWG	562 [2500]	35
SRK-SC-080-32				
SRK-PC-080-35	E	35 mm ²	598 [2660]	35
SRK-SC-080-35				

Figure 3 (End)

C. Cable Conductor Location

The cable conductor must be visible through the cable inspection hole. See Figure 3.

D. Cable Barrel Flash

Cable barrel flash is the formation that may appear on one side of the cable barrel as a result of the crimping process.

E. Mating End

The mating end of the contact must not be bent or damaged in any way. See Figure 3



NOTE

1. Periodic inspections must be made to ensure crimped contact formation is consistent.
2. Periodic inspection of applicator tooling must be made to ensure parts are tightened in the correct position.
3. Perform regular maintenance and tool wear inspection. See applicator instruction sheet for more information.

3.6. Processing

Care must be taken when transporting, storing, or processing crimped contacts and wires that any damage or soiling of the contact body or crimped area is avoided. When processing the end of the wire or anywhere along the wire, damage or impairment of the crimped contact must be avoided.

TE has not tested, nor otherwise verified, contact performance after processing of the connected wire by ultrasonic welding. TE does not make any representation or warranty, expressed or implied, and disclaims any and all liability, on any legal basis whatsoever, for contact performance after ultrasonic welding of the connected wire. Customer takes sole responsibility for the evaluation, application, and use of contacts in such circumstances.

3.7. Replacement and Repair

Damaged or worn contacts cannot be repaired. A contact can be replaced provided there is sufficient slack to insert the new contact into the connector. An extraction tool must be used to remove individual contacts from the connector.

4. QUALIFICATION

Refer to individual product specification for DEUTSCH connectors for qualification and approved agency.

5. TOOLING

Tooling part numbers and related instructional material are given in Figure 4.

5.1. Hand Tools

The hand crimping tools consist of a handle assembly with integral fixed crimping dies. The dies have crimping chambers used to crimp the contact onto pre-stripped wire.

5.2. Extraction Tools and Removal Tool

The extraction tools and removal tool are designed to remove the contacts from the connectors by releasing the contact retention fingers from the housing without overstressing any part of the contact.

5.3. Crimping Dies

The dies are designed to be installed into the appropriate Crimp Tool. The dies form the crimp when crimping the contact.



Removal Tool DT-RT1 for Front-Release Connectors (408-151008)



Daniel Manufacturing Corporation Crimp Tool; HDE 51B (Battery)



Daniel Manufacturing Corporation Crimp Tool; HD 51 (Manual)



Dubuis Crimp Tool; D55 (Battery)



Dubuis Crimp Tool; D36 (Manual)

Figure 4 (Cont'd)

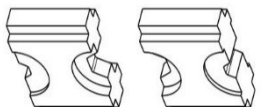
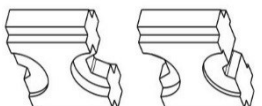
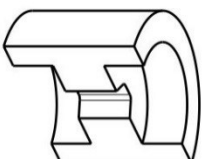


Mecatraction
Crimp Tool; EC-127 (Battery)



Mecatraction
Crimp Tool; HC-120 (Manual)

Approved Crimp Tool Manufacturer	Crimp Tool Model	Crimp Tool Type	Force (kN)	Stroke (mm)	Dimension (mm)	Tool Weight (g)
Daniel Manufacturing Corporation	HDE51B	Battery	55	10.7	391 x 75 x 116	2700 (with Battery)
	HD51	Manual	49	10.7	361 x 75 x 127	2087
Dubuis	D55	Battery	55	13	315 x 80 x 235	3240 (with Battery)
	D36	Manual	55	13	365 x 53 x 130	2500
Mecatraction	EC-127	Battery	120	25	385 x 315 x 75	6280 (with Battery)
	HC-120	Manual	120	25	385 x 185 x 75	3800

Approved Crimp Tool Manufacturer	Crimp Die (NFC 20.130)	Crimp Die Part Number	Number of Crimps	Crimp Width (mm)	Crimp Die Type
Daniel Manufacturing Corporation 526 Thorpe Road, Orlando, FL 32859 USA Phone: 407-855-6161 www.dmctools.com	6/35	HD51-172	1/1	9/9	
	25/95	HD51-175	1/2	9/5	
Dubuis Rue Jules Berthonneau BP 3406-41034 Bloix France Phone: 33 (0) 2 54 52 40 00 www.dubuis.com	6/35	31038	6/35	6/35	
	25/95	31041	1/2	25/95	
Mecatraction B.P.N. 8 – 19231 Pompadour Cedex - France Phone: 33 (0) 5 55 73 89 89 www.mecatraction.fr Email: sales@mecatraction.com	6/35	6/35	6/35	6/35	
	25/95	25/95	25/95	25/95	
	6/35	6/35	6/35	6/35	

Note: Contact approved crimp tool manufacturer for additional accessories

Figure 4 (Cont'd)

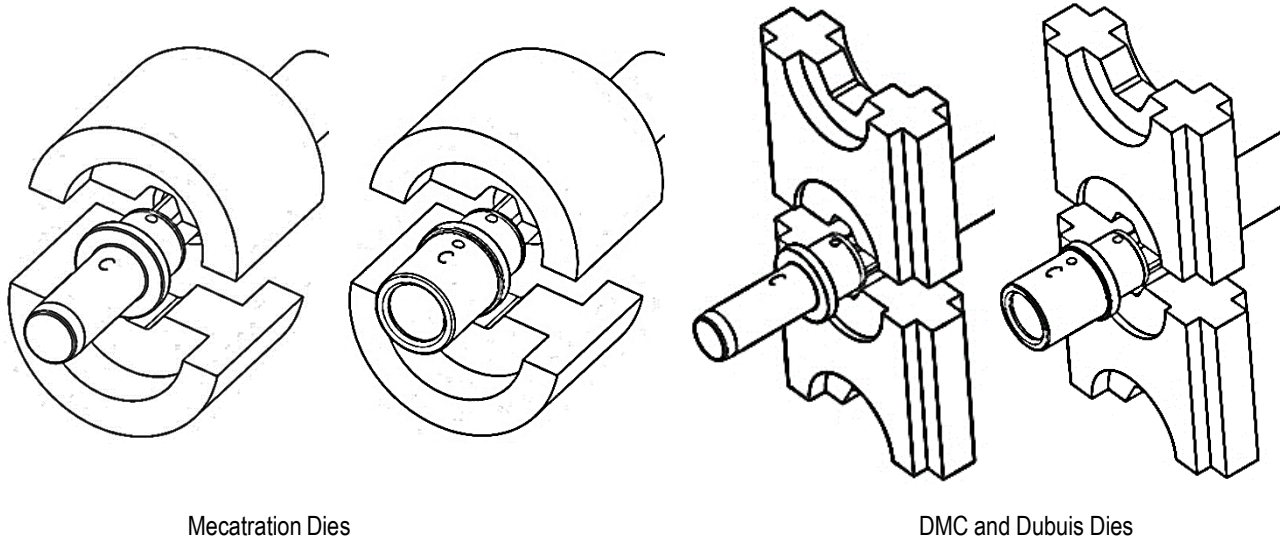


Figure 4 (End)

6. VISUAL AID

The illustration below shows a typical application of DEUTSCH Ø8mm pin and socket contacts. 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 instructional material shipped with the product or tooling.

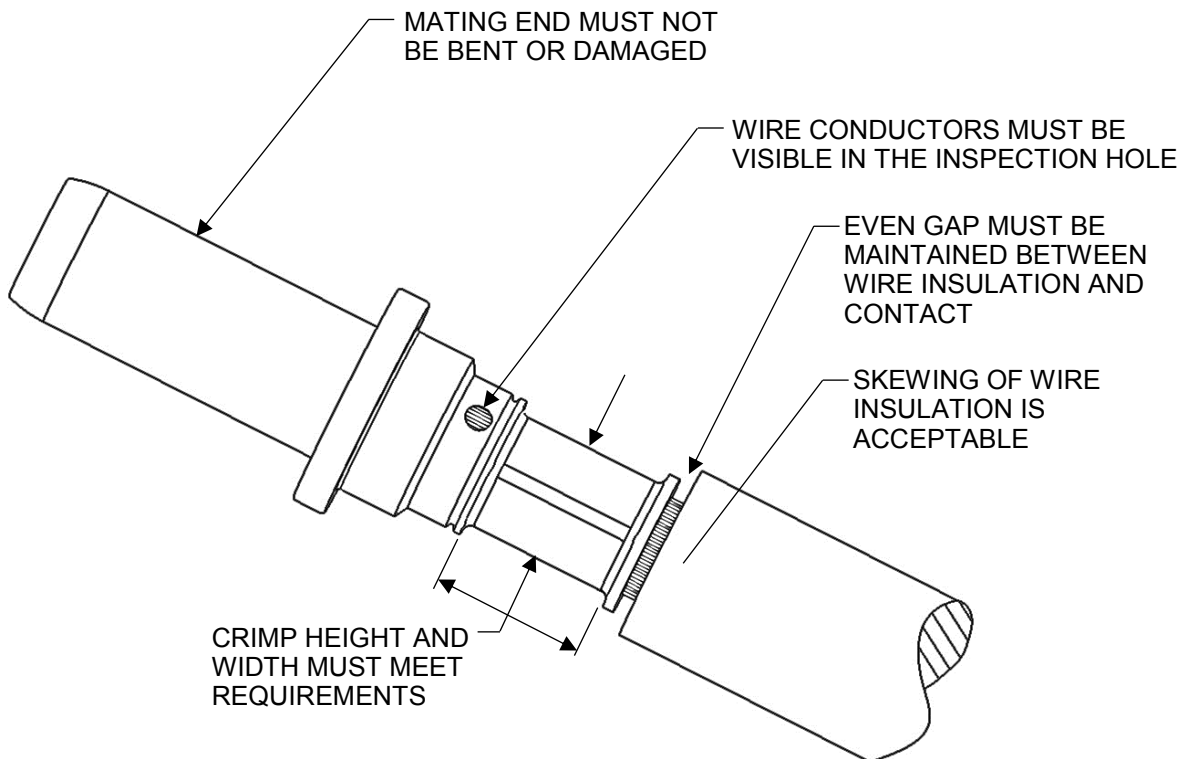


Figure 5

7. REVISION HISTORY

Rev	Description	Date	Dwn	Apvd
A	Initial Release	26-OCT-17	DD	DM
A1	<ol style="list-style-type: none">1. Page 2, Section 2.5, Fixed the TE Technical Paper hyperlink.2. Page 3, Section 3.3 Changed Material Description, added i Note.3. Page 5, Section 4, Changed Qualification note.4. Page 8, Added Section 6, Visual Aid Note and diagram of Ø8mm Crimped Pin.	11-JULY-18	DD	DM