



## Common Contact System Overview

The word “common” is used to describe the Deutsch contact system because the contacts are used interchangeably in many Deutsch Industrial connectors and across most connector series. The common contact system improves performance, reliability, and maintainability by reducing changes in the assembly of the wire harness. The use of a common contact system eliminates many of the failures reported in harnesses where hundreds of different terminations are used.

### ■ Contacts

Deutsch offers two styles of contacts, stamped & formed and solid. Both contact types use a crimp style termination, eliminating the need for solder. All Deutsch Industrial terminals protect the split socket tines. The only variations in the Deutsch Common Contact System are those dictated by wire gauge and contact style.

#### **Solid**

The solid contacts are designed for use with larger wire size and heavy duty applications. Solid contacts are manufactured using a cold heading process with solid copper alloy wire and are available with either a nickel or gold plating finish.

Solid contacts terminate wire from 3/0 AWG to 20 AWG (95 - 0.5mm<sup>2</sup>) and are available in 7 sizes each of the pin and socket. The applicable contact is determined by the size of the conductor only. The solid style contacts are sold in bulk.

### ■ Design Materials and Selection

Deutsch engineers combined superior material selection with mechanical CAD/CAM designs to create stamped & formed contacts that exceed the demands of today's industrial electrical systems.

To provide exceptional durability, performance, corrosion, and oxidation resistance, contacts are made from copper alloys, finished with nickel, tin, or gold plating. To guarantee resistance to crimp relaxation and displacement of metal, the contacts are designed with the conductor wings formed in the direction of the crimp to achieve gas tight crimps that eliminate the need for solder. All Deutsch socket tines are protected to provide controlled contact pressure for maximum conductivity with minimum surface wear.

#### **Stamped & Formed**

Deutsch stamped & formed contacts are designed for use where wire termination costs are of primary concern without sacrificing reliability of electrical circuits. The stamped & formed contacts are made on a precision stamping machine using flat strip stock, then a durable and corrosion proof nickel, tin, or optional gold plating is applied.

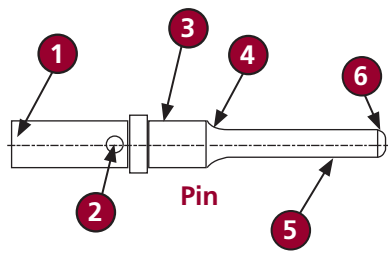
The stamped & formed style contacts terminate wire from 10 AWG to 22 AWG (6.0 - 0.35mm<sup>2</sup>) and are available in multiple sizes to accommodate a wide range of wire insulation. The specific contact is determined by the outside diameter of wire insulation and conductor size. The stamped & formed contacts are sold on reels.



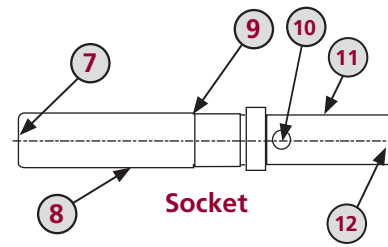
In keeping with the Deutsch commitment to total quality, all stamped & formed contacts are manufactured using statistical process controls and are subjected to extensive rigorous testing programs, in the lab and in actual field performance.



## ■ Solid Contact Features

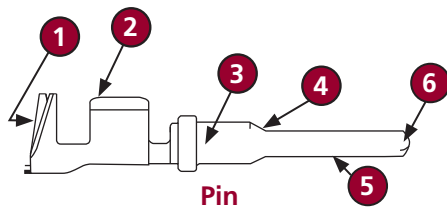


- 1 Wire lead-in chamfer to aid wire insertion
- 2 Inspection hole
- 3 Maximum diameter to prevent bending
- 4 Radius for added strength
- 5 Smooth finish to minimize mating forces
- 6 Radius for smooth engagement and prevent misalignment

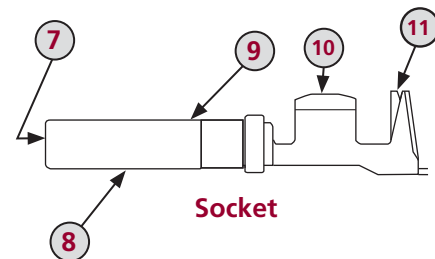


- 7 Closed entry to prevent probe damage and prevent misalignment, chamfered lead-in to prevent misalignment
- 8 Durable tines for superior electrical performance
- 9 Stainless steel sleeve for maximum socket tine protection (except sleeveless sockets)
- 10 Inspection hole
- 11 Crimp barrel
- 12 Wire lead-in chamfer to aid wire insertion

## ■ Stamped & Formed Contact Features



- 1 Insulation wings for additional wire support
- 2 Conductor wings for minimal contact resistance
- 3 Maximum diameter to prevent bending
- 4 Chamfered for added strength
- 5 Smooth finish to minimize mating forces
- 6 Radius for smooth engagement and prevent misalignment



- 7 Closed entry to prevent probe damage and prevent misalignment, chamfered lead-in to prevent misalignment
- 8 Durable tines for superior electrical performance
- 9 Stainless steel sleeve for maximum socket tine protection (except sleeveless sockets)
- 10 Conductor wings for minimal contact resistance
- 11 Insulation wings for additional wire support

## ■ Benefits of Deutsch Contacts

- Solid shoulder for high tensile strength pin retention.
- Nickel plating standard for corrosion resistance.
- Solder is not recommended, eliminating flux corrosion.
- No retention tangs required, eliminating contact damage.



## ■ Performance Specifications

Deutsch can only warrant electrical performance when proper parts, procedures, and tooling are used.

### Durability

No electrical or mechanical defects after 100 cycles of engagement and disengagement.

### Current Rating (Contact current rating @ 125° C continuous)

| Contact Size | Max. Current |
|--------------|--------------|
| Size 20      | 7.5 amps     |
| Size 16      | 13 amps      |
| Size 12      | 25 amps      |
| Size 8       | 60 amps      |
| Size 4       | 100 amps     |
| Ø8mm         | 150 amps*    |
| Ø12mm        | 300 amps*    |

\*Max current is achieved when using max wire gauge only

### Crimp Tensile Strength (Solid)

| Contact Size | Tensile Strength |
|--------------|------------------|
| Size 20      | 20 lbs           |
| Size 16      | 25 lbs           |
| Size 12      | 70 lbs           |
| Size 8       | 90 lbs           |
| Size 4       | 300 lbs          |
| Ø8mm         | 367-598 lbs      |
| Ø12mm        | 639-898 lbs      |

### Crimp Tensile Strength (Stamped & Formed)

| Contact Size | Tensile Strength |
|--------------|------------------|
| Size 20      | 20 lbs           |
| Size 16      | 25 lbs           |
| Size 12      | 70 lbs           |

### Contact Retention (Solid and Stamped & Formed)

Contacts withstand a minimum load of:

- 20 lbs (89 N) for size 20
- 25 lbs (111 N) for size 16
- 30 lbs (133 N) for size 12
- 35 lbs (156 N) for size 8
- 35 lbs (156 N) for size 4
- 56 lbs (250 N) for size Ø8mm
- 56 lbs (250 N) for size Ø12mm



*A crimp tensile test easily and rapidly identifies a proper crimp.*



### Contact Millivolt Drop

| Contact Size | Test Current Amps | Millivolt Drop Solids | Millivolt Drop* S&F |
|--------------|-------------------|-----------------------|---------------------|
| 20           | 7.5               | 60                    | 100                 |
| 16           | 13                | 60                    | 100                 |
| 12           | 25                | 60                    | 100                 |
| 8            | 60                | 60                    | N/A                 |
| 4            | 100               | 60                    | N/A                 |

\*Less drop through wire

## ■ Wire Sealing Ranges

Dimensions are for reference only.

### HD30, HDP20, DRC Series Rear Grommet Sealing Ranges

| Contact Size                              | Normal Seal N-Seal        | Thin Seal T-Seal         | T-Seal Modified*         | Extra Thin Seal E-Seal   | E-Seal Modified*         |
|---|---------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 4<br>4 AWG (21.0mm <sup>2</sup> )         | .311-.420<br>(7.90-10.67) | N/A                      | N/A                      | N/A                      | N/A                      |
| 4<br>6 AWG (13.0mm <sup>2</sup> )         | .280-.292<br>(7.11-7.42)  | .261-.292<br>(6.63-7.42) | N/A                      | .261-.292<br>(6.63-7.42) | N/A                      |
| 8<br>8-10 AWG (8.0-5.0mm <sup>2</sup> )   | .190-.240<br>(4.83-6.10)  | .170-.240<br>(4.32-6.10) | N/A                      | .135-.220<br>(3.43-5.59) | N/A                      |
| 12<br>10-14 AWG (5.0-2.0mm <sup>2</sup> ) | .134-.170<br>(3.40-4.32)  | .113-.170<br>(2.87-4.32) | N/A                      | .097-.158<br>(2.46-4.01) | .097-.158<br>(2.46-4.01) |
| 16<br>14-20 AWG (2.0-0.5mm <sup>2</sup> ) | .100-.134<br>(2.54-3.40)  | .088-.134<br>(2.23-3.40) | .088-.106<br>(2.24-2.69) | .053-.120<br>(1.35-3.05) | .053-.103<br>(1.35-2.62) |
| 20<br>16-20 AWG (1.0-0.5mm <sup>2</sup> ) | .040-.095<br>(1.02-2.41)  | .040-.095<br>(1.02-2.41) | N/A                      | .040-.095<br>(1.02-2.41) | .040-.083<br>(1.01-2.10) |

\*Deutsch cavity arrangements 24-29, 24-47, and 24-31 are only available with the modified seals. Arrangement 24-31 Modified E Seal = .053-.106. Please see drawings 0425-016-0000 and 0425-021-0000 for full specifications.

### DT, DTM, DTP Series Rear Grommet Sealing Ranges

| Contact Size                              | Standard Seal            | Extra Thin Seal E-Seal   |
|---|--------------------------|--------------------------|
| 12<br>10-14 AWG (5.0-2.0mm <sup>2</sup> ) | .134-.170<br>(3.40-4.32) | .097-.158<br>(2.46-4.01) |
| 16<br>14-20 AWG (2.0-0.5mm <sup>2</sup> ) | .088-.145<br>(2.23-3.68) | .053-.120<br>(1.35-3.05) |
| 20<br>16-20 AWG (1.0-0.5mm <sup>2</sup> ) | .053-.120<br>(1.35-3.05) | N/A                      |

### Quick Connect Series Rear Grommet Sealing Ranges

| Contact Size    | Standard Seal            |
|-----------------|--------------------------|
| 16<br>16-20 AWG | .065-.109<br>(1.65-2.77) |
| 20<br>20-24 AWG | .040-.083<br>(1.02-2.11) |
| 22<br>22-26 AWG | .030-.054<br>(.76-1.37)  |

### AEC Series Rear Grommet Sealing Ranges

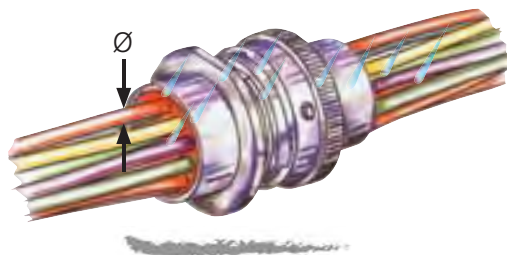
| Contact Size                              | Standard Seal            | Extra Thin Seal E-Seal   |
|---|--------------------------|--------------------------|
| 16<br>14-20 AWG (2.0-0.5mm <sup>2</sup> ) | .100-.134<br>(2.54-3.40) | .053-.120<br>(1.35-3.05) |

### WT Series Rear Grommet Sealing Ranges

| Contact Size                              | Standard Seal            |
|---|--------------------------|
| 4<br>6 AWG (13.0mm <sup>2</sup> )         | .261-.292<br>(6.63-7.42) |
| 16<br>14-20 AWG (2.0-0.5mm <sup>2</sup> ) | .065-.109<br>(1.65-2.77) |



Proper wire outside diameters assure water tight seals.





## ■ Wire Sealing Ranges (continued)

Dimensions are for reference only.

### DRB Series Rear Grommet Sealing Ranges

| Contact Size                              | Extra Thin Seal E-Seal   |
|---|--------------------------|
| 4<br>6 AWG (13.0mm <sup>2</sup> )         | .261-.292<br>(6.63-7.42) |
| 8<br>8-10 AWG (8.0-5.0mm <sup>2</sup> )   | .135-.220<br>(3.43-5.59) |
| 12<br>10-14 AWG (5.0-2.0mm <sup>2</sup> ) | .097-.158<br>(2.46-4.01) |
| 16<br>14-20 AWG (2.0-0.5mm <sup>2</sup> ) | .053-.120<br>(1.35-3.05) |
| 20<br>16-20 AWG (1.0-0.5mm <sup>2</sup> ) | .040-.095<br>(1.02-2.41) |

### STRIKE Series Sealing Ranges

| Contact Size                               | Standard Seal              |
|--|----------------------------|
| Ø12mm<br>3/0-1 AWG (95-40mm <sup>2</sup> ) | .413-.787<br>(10.50-20.00) |
| Ø8mm<br>2-6 AWG (35-16mm <sup>2</sup> )    | .283-.472<br>(7.20-12.00)  |
| 12<br>12-14 AWG (3.0-2.0mm <sup>2</sup> )  | .077-.158<br>(1.96-4.01)   |
| 16<br>14-20 AWG (2.0-0.5mm <sup>2</sup> )  | .061-.120<br>(1.55-3.05)   |
| 20<br>16-20 AWG (1.0-0.5mm <sup>2</sup> )  | .061-.095<br>(1.55-2.41)   |

### HD10 Series Rear Grommet Sealing Ranges

| Contact Size                              | Standard Seal            | Extra Thin Seal E-Seal   |
|---|--------------------------|--------------------------|
| 4<br>6 AWG (13.0mm <sup>2</sup> )         | .280-.292<br>(7.11-7.42) | N/A                      |
| 12<br>10-14 AWG (5.0-2.0mm <sup>2</sup> ) | .134-.170<br>(3.40-4.32) | N/A                      |
| 16<br>14-20 AWG (2.0-0.5mm <sup>2</sup> ) | .100-.150<br>(2.54-3.81) | .053-.120<br>(1.35-3.05) |

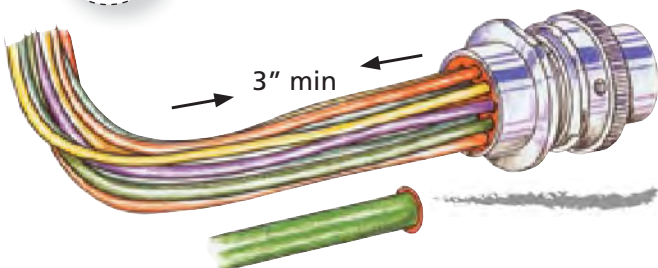
### Typical Wire Insulation Ranges

(measured in diameter inches)

| Wire Gauge | TXL       | GXL       | SXL       |
|------------|-----------|-----------|-----------|
| 6          | N/A       | N/A       | .287-.294 |
| 8          | .178-.185 | .209-.221 | .222-.236 |
| 10         | .146-.157 | .170-.185 | .190-.196 |
| 12         | .120-.128 | .137-.146 | .159-.168 |
| 14         | .098-.105 | .114-.122 | .138-.145 |
| 16         | .082-.091 | .097-.107 | .116-.123 |
| 18         | .073-.084 | .089-.098 | .103-.110 |
| 20         | .065-.072 | .080-.087 | .092-.099 |

helpful hint

Proper wire routing assures water tight seal performance.



■ Solid Contacts

**Solid Contacts - Common Contact System**

| Size | Solid Contact Part Numbers |               | Wire Size AWG (mm <sup>2</sup> ) | Recommended Strip Length Inches (mm) | Min. Contact Retention | Ref Crimp Tensile Lbs. (N) | Max Rated Amps at 125° Continuous |
|------|----------------------------|---------------|----------------------------------|--------------------------------------|------------------------|----------------------------|-----------------------------------|
|      | Pin                        | Socket        |                                  |                                      |                        |                            |                                   |
| 20   | 0460-202-20**              | 0462-201-20** | 20<br>(0.50)                     | .156-.218<br>(3.96-5.54)             | 20<br>(89)             | 20<br>(89)                 | 7.5                               |
| 20   | 0460-010-20**              | 0462-005-20** | 16-18<br>(1.0-0.75)              | .156-.218<br>(3.96-5.54)             | 20<br>(89)             | 20<br>(89)                 | 7.5                               |
| 16   | 0460-202-16**              | 0462-201-16** | 16-20<br>(1.5-0.50)              | .250-.312<br>(6.35-7.92)             | 25<br>(111)            | 35-20<br>(156-89)          | 13                                |
| 16   | 0460-215-16**              | 0462-209-16** | 14<br>(2.0)                      | .250-.312<br>(6.35-7.92)             | 25<br>(111)            | 70<br>(311)                | 13                                |
| 12   | 0460-204-12**              | 0462-203-12** | 12-14<br>(3.0-2.0)               | .222-.284<br>(5.64-7.21)             | 30<br>(134)            | 75-70<br>(334-311)         | 25                                |
| 8    | 0460-204-08**              | 0462-203-08** | 8-10<br>(8.0-5.0)                | .430-.492<br>(10.92-12.50)           | 35<br>(156)            | 125-90<br>(556-400)        | 60                                |
| 4    | 0460-204-04**              | 0462-203-04** | 6<br>(13.0)                      | .430-.492<br>(10.92-12.50)           | 35<br>(156)            | 300<br>(1334)              | 100                               |

\*\* = Plating Codes. Consult factory for custom finish needs.

**Solid Contacts - C038 Modification**

| Size | Solid Contact Part Numbers |                | Wire Size AWG (mm <sup>2</sup> ) | Recommended Strip Length Inches (mm) | Min. Contact Retention | Ref Crimp Tensile Lbs. (N) | Max Rated Amps at 125° Continuous |
|------|----------------------------|----------------|----------------------------------|--------------------------------------|------------------------|----------------------------|-----------------------------------|
|      | Pin                        | Socket         |                                  |                                      |                        |                            |                                   |
| 4    | 5960-203-04141             | 5962-203-04141 | 4<br>(21.0)                      | .430-.492<br>(10.92-12.50)           | 35<br>(156)            | 300<br>(1334)              | 100                               |

*Notice*

See information drawing 0425-015-0000. Consult factory for alternate finishes.

**Solid Contact Plating Codes**

| Part Number Suffix (**) | Material                 |
|-------------------------|--------------------------|
| 31                      | Gold                     |
| 90                      | Nickel (Size 4 pin only) |
| 141                     | Nickel                   |





## Solid Contacts - STRIKE Series Ø8mm & Ø12mm

| Size  | Solid Contact Part Numbers |                   | Wire Size AWG (mm <sup>2</sup> ) | Recommended Strip Length Inches (mm) | Min. Contact Retention | Ref Crimp Tensile Lbs. (N) | Max Rated Amps at 125° Continuous |
|-------|----------------------------|-------------------|----------------------------------|--------------------------------------|------------------------|----------------------------|-----------------------------------|
|       | Pin                        | Socket            |                                  |                                      |                        |                            |                                   |
| Ø8mm  | SRK-PC-080-16-601          | SRK-SC-080-16-601 | 6 (16)                           | .530-.580 (13.47-14.74)              | 56 (250)               | 367 (632)                  | ---                               |
| Ø8mm  | SRK-PC-080-20-601          | SRK-SC-080-20-601 | 5                                | .530-.580 (13.47-14.74)              | 56 (250)               | 416 (1850)                 | ---                               |
| Ø8mm  | SRK-PC-080-25-601          | SRK-SC-080-25-601 | 4 (25)                           | .530-.580 (13.47-14.74)              | 56 (250)               | 489 (2175)                 | ---                               |
| Ø8mm  | SRK-PC-080-32-601          | SRK-SC-080-32-601 | 2                                | .530-.580 (13.47-14.74)              | 56 (250)               | 562 (2500)                 | ---                               |
| Ø8mm  | SRK-PC-080-35-601          | SRK-SC-080-35-601 | (35)                             | .530-.580 (13.47-14.74)              | 56 (250)               | 598 (2660)                 | 150                               |
| Ø12mm | SRK-PC-120-40-601          | SRK-SC-120-40-601 | 1 (40)                           | .837-.887 (21.27-22.54)              | 56 (250)               | 639 (2840)                 | ---                               |
| Ø12mm | SRK-PC-120-50-601          | SRK-SC-120-50-601 | 1/0 (50)                         | .837-.887 (21.27-22.54)              | 56 (250)               | 720 (3200)                 | ---                               |
| Ø12mm | SRK-PC-120-70-601          | SRK-SC-120-70-601 | 2/0 (70)                         | .837-.887 (21.27-22.54)              | 56 (250)               | 819 (3640)                 | ---                               |
| Ø12mm | SRK-PC-120-95-601          | SRK-SC-120-95-601 | 3/0 (95)                         | .837-.887 (21.27-22.54)              | 56 (250)               | 898 (3990)                 | 300                               |

Deutsch has tested Ø8mm contacts using 35mm<sup>2</sup> wire at 150 amps at 125°C continuous, and Ø12mm contacts using 95mm<sup>2</sup> wire at 300 amps at 125°C continuous. Therefore, these contacts are rated at full current at 125°C using the max wire gauge cable only. The amperage capacities for the remaining Ø8mm and Ø12mm contact options using smaller gauge cable will need to be tested based on individual applications.

Amperage ratings are based on single circuits. The test data does not take into account multiple contacts, mixed wire gauges, and other variables that may be present in an actual application.

### Notice

See information drawing 8925-003-0000 for STRIKE Series. Consult factory for alternate finishes.

### Solid Contact Plating Codes

| Part Number Suffix | Material |
|--------------------|----------|
| 601                | Silver   |

## Solid Contacts - IMC/QC Series

| Size | Solid Contact Part Numbers |                | Wire Size AWG (mm <sup>2</sup> ) | Recommended Strip Length Inches (mm) | Min. Contact Retention | Ref Crimp Tensile Lbs. (N) | Max Rated Amps at 125° Continuous |
|------|----------------------------|----------------|----------------------------------|--------------------------------------|------------------------|----------------------------|-----------------------------------|
|      | Pin                        | Socket         |                                  |                                      |                        |                            |                                   |
| 22   | 6860-201-22278             | 6862-201-22278 | 22-26                            | .160-.190 (4.06-4.83)                | 10 (44)                | ---                        | 5                                 |
| 20   | 6860-201-20278             | 6862-201-20278 | 20-24                            | .230-.260 (5.84-6.60)                | 15 (67)                | ---                        | 7.5                               |
| 16   | 6860-201-16278             | 6862-201-16278 | 16-20                            | .230-.260 (5.84-6.60)                | 25 (111)               | ---                        | 13                                |

■ **Stamped & Formed Contacts**

| Size | Stamped & Formed Contact Part Numbers |                         | Carrier Strip Identification | Wire Size AWG (mm <sup>2</sup> ) | Wire Insulation O.D. Range | Recommended Strip Length Inches (mm) | Min. Contact Retention | Max Rated Amps at 125° Continuous |
|------|---------------------------------------|-------------------------|------------------------------|----------------------------------|----------------------------|--------------------------------------|------------------------|-----------------------------------|
|      | Pin                                   | Socket                  |                              |                                  |                            |                                      |                        |                                   |
| 20   | 1060-20-01**                          | 1062-20-01**            | 20-01                        | 16-22 (1.5-0.50)                 | .075-.125 (1.91-3.18)      | .150-.200 (3.81-5.08)                | 20 (89)                | 7.5                               |
| 20   | 1060-20-02**                          | 1062-20-02**            | 20-02                        | 16-22 (1.5-0.50)                 | .051-.085 (1.30-2.16)      | .150-.200 (3.81-5.08)                | 20 (89)                | 7.5                               |
| 20   | N/A                                   | 1062-20-03** sleeveless | 20-03                        | 16-22 (1.5-0.50)                 | .075-.125 (1.91-3.18)      | .150-.200 (3.81-5.08)                | 20 (89)                | 7.5                               |
| 20   | 1060-20-06**                          | 1062-20-06**            | 20-06                        | 14-16 (2.5-1.0)                  | .075-.125 (1.91-3.18)      | .150-.200 (3.81-5.08)                | 20 (89)                | 7.5                               |
| 16   | 1060-14-01**                          | 1062-14-01**            | 14-16                        | 14-18 (2.0-.75)                  | .095-.150 (2.41-3.81)      | .150-.200 (3.81-5.08)                | 25 (111)               | 13                                |
| 16   | 1060-14-10**                          | 1062-14-10**            | 14-16                        | 14-18 (2.0-.75)                  | .095-.150 (2.41-3.81)      | .150-.200 (3.81-5.08)                | 25 (111)               | 13                                |
| 16   | 1060-16-01**                          | 1062-16-01**            | 16-18                        | 14-18 (2.0-.75)                  | .075-.140 (1.90-3.55)      | .150-.200 (3.81-5.08)                | 25 (111)               | 13                                |
| 16   | 1060-16-06**                          | 1062-16-06**            | 0.5-1.0                      | 16-20 (1.0-.50)                  | .055-.100 (1.40-2.54)      | .150-.200 (3.81-5.08)                | 25 (111)               | 13                                |
| 16   | 1060-16-09**                          | 1062-16-09**            | 16-18                        | 14-18 (2.0-.75)                  | .075-.140 (1.90-3.55)      | .150-.200 (3.81-5.08)                | 25 (111)               | 13                                |
| 16   | 1060-16-12**                          | 1062-16-12**            | 1.0-2.5                      | 12-16 (2.5-1.0)                  | .075-.140 (1.90-3.55)      | .175-.225 (4.45-5.72)                | 25 (111)               | 13                                |
| 16   | N/A                                   | 1062-16-14** sleeveless | 14-16                        | 12-16 (2.5-1.0)                  | .075-.140 (1.90-3.55)      | .175-.225 (4.45-5.72)                | 25 (111)               | 13                                |
| 12   | 1060-12-01**                          | 1062-12-01**            | 12-14                        | 12-14 (4.0-2.0)                  | .113-.176 (2.87-4.47)      | .225-.275 (5.72-6.99)                | 30 (134)               | 25                                |
| 12   | 1060-12-02**                          | 1062-12-02**            | 10-12                        | 10† (6.0-4.0)                    | .140-.204 (3.56-5.18)      | .225-.275 (5.72-6.99)                | 30 (134)               | 25                                |

\*\* = Plating Codes. Consult factory for custom finish needs.

† = TXL wire insulation is preferred

**S&F Contact Plating Codes**

| Part Number Suffix (**) | Material       |
|-------------------------|----------------|
| 22                      | Nickel         |
| 44                      | Gold           |
| 66                      | Tin/Nickel     |
| 77                      | Tin            |
| 88                      | Selective Gold |







## PCB Pins

Deutsch Industrial offers a complete line of straight reduced diameter extended pins that may be installed in any of the Deutsch family of connectors. The use of removable contacts provides design flexibility and a low cost alternative to meet application needs. These solid copper alloy pins may be specified in various platings and assembled in HD30, HDP20, HD10, DRC, or DT receptacles.

### Material

Copper alloy

### Plating

31: Gold

90: Tin

141: Nickel

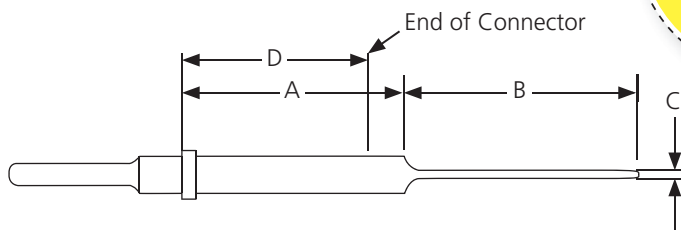
### PCB Mounting

Consult factory for PCB mounting details and pin positions.



### Notice

See information drawing 0425-202-0000 for full specifications.



| Part Number   | A             | B            | C           |
|---------------|---------------|--------------|-------------|
| 0460-208-16** | 1.300 (33.02) | .248 (6.30)  | .025 (.64)  |
| 0460-229-16** | .545 (13.84)  | .248 (6.30)  | .025 (.64)  |
| 0460-238-12** | .714 (18.14)  | .549 (13.94) | .043 (1.09) |
| 0460-241-16** | 1.305 (33.15) | .160 (4.06)  | .040 (1.02) |
| 0460-245-16** | .976 (24.79)  | .400 (10.16) | .041 (1.04) |
| 0460-245-12** | 1.024 (26.01) | .500 (12.70) | .041 (1.04) |
| 0460-257-16** | .793 (20.14)  | .248 (6.30)  | .025 (.64)  |
| 0460-208-12** | 1.305 (33.15) | .248 (6.30)  | .025 (.64)  |
| 0460-263-16** | 1.305 (33.15) | .248 (6.30)  | .093 (2.36) |

Dimensions are for reference only.

| Product    | D             |
|------------|---------------|
| HD30/HDP20 | .939 (23.85)  |
| HD10       | .925 (23.50)  |
| DT         | .777 (19.74)  |
| DT04-2P    | .677 (17.20)  |
| DT04-3P    | .677 (17.20)  |
| DRC        | 1.063 (27.00) |

### Notice

"D" is equal to the distance from the contact shoulder to the end of the connector.



HD10 Series



HDP20 Series



HD30 Series

## Crimping

Crimping is defined as the act of joining a conductor to a pin or socket contact using a mechanical tool to compress and displace metal. In a good crimp joint, there is a mutual flow of metal, causing a symmetrical distortion of wire strands and contact material. A proper crimp will establish mechanical strength and excellent electrical conductivity.

### ■ Crimping Configurations

Stamped & formed contacts use a folded type of crimp (Fig. 1) while solid contacts use a 1, 2, or 4 indenter crimp (Fig. 2). In both styles of crimps, the wire strands and the contact material are formed together in a solid mass creating a reduction of the wire strands area. The reduced wire strand area creates a minimum of voids allowing for excellent conductivity. Crimping may be accomplished with hand tools or power tools.

#### Stamped & Formed Style



Cross-Section Across Axis

**Figure 1**

#### Solid Style



Indenter Crimp  
Cross-Section Across Axis

**Figure 2**

### ■ Benefits of Crimped Contacts

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

1. With smaller wire, the crimp is as strong as the wire itself.
2. The joint can be visually inspected. Viewing the wire through an inspection hole in the contact makes inspection quick and easy, both by the operator and by the inspector.
3. Plating thickness is not restricted, as in solder joints, so better corrosion resistance and contact reliability are achieved.
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.



Solder should not be added to Deutsch terminals.



#### Notice

The use of dielectric grease is not recommended.



## ■ Crimp Inspection

Crimping tools provide lower total installation and maintenance costs. However, controls are required to ensure that the proper crimp tools designed for the type and size contact are used, the pin or socket is properly inserted into the tool, the wire insulation is stripped properly, and the wire fully inserts into the contact.

### Notice

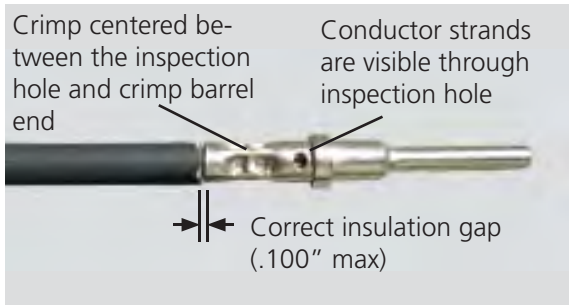
For more detailed crimp dimensions please request a factory drawing. For stamped & formed style see 0425-203-0000. For solid style see 0425-205-0000.

When a crimp is completed, correct termination can be visually inspected. The inspector should check for:

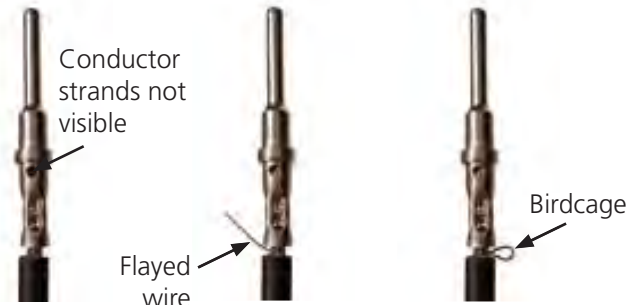
- The removed insulation should expose a conductor length that will pass beyond the inspection hole in the contact and still reveal .100" (2.54) max. of conductor between the contact and the insulation on the wire.
- Wire strands intact.
- All wire strands enter the contact barrel.
- Wire inserted to the proper depth in the contact.

When the correct crimp tool and process are used, a good termination is assured.

## ■ Solid Contact Crimp

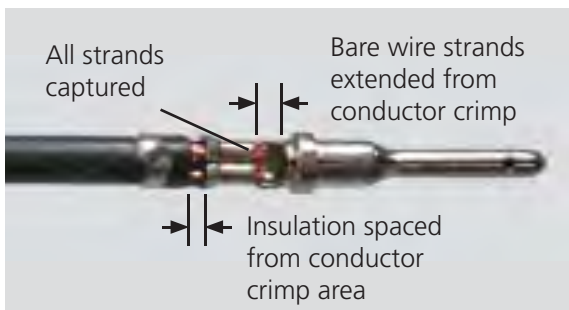


Acceptable Crimp

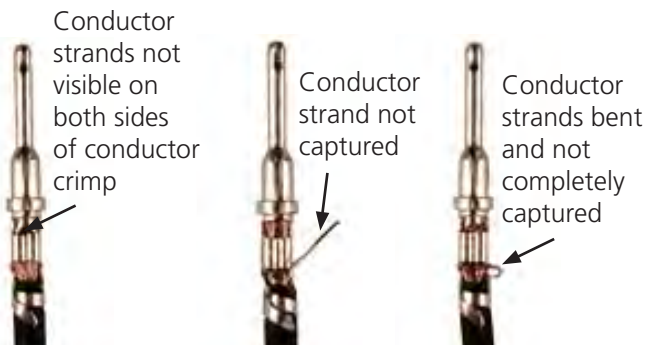


Unacceptable Crimps

## ■ Stamped & Formed Contact Crimp



Acceptable Crimp



Unacceptable Crimps

## Accessories

The Deutsch Common Contact System is designed to be a reliable easy-to-use combination of pins and sockets. Additional accessories are available to aid in the design flexibility and sealing requirements of applications. Accessory items such as keying pins and sealing plugs assist in maintaining an environmental seal and preventing mis-mating.

### ■ Keying Pins

Keying pins are solid plastic rods used to prevent mis-mating of like connectors in close proximity. Applicable Deutsch product lines include HD10, HD30, HDP20, DT, and DTM Series.

Keying pins are inserted into the retention fingers of an empty socket cavity. Once installed, the keying pin blocks a mating contact pin from being inserted. The contact pin will be blocked before the coupling device mates the connectors, preventing the mis-mating of like connectors. Proper usage requires that the corresponding mating pin be omitted and a sealing plug is inserted in the rear cavity of the mating connector. Individual applications will vary, and testing should be done to determine the best pattern arrangement to prevent improper connector mating.



| Part Number   | Contact Size | Color  |
|---------------|--------------|--------|
| 0413-216-2005 | 20           | Red    |
| 0413-215-1605 | 16           | White  |
| 0413-214-1205 | 12           | Yellow |

**Notice**  
Multiple keying pins may be required to prevent unintentional forced mating.

### ■ Contact Crimp Sleeve Reducer

Deutsch offers a crimp sleeve reducer to allow size 4 solid contacts to accept 8-10 AWG wire. When populating a connector using a contact with a reducer sleeve, be sure the insert seal penetrates the rear grommet. The use of the crimp sleeve reducer requires no extra crimp tools and provides an easy transition and increased flexibility.



Insert Seal  
0410-241-0406




Crimp Sleeve  
0421-203-04141

**Notice**  
TXL wire insulation with 10 AWG wire is not recommended because it may not provide an environmental seal against the insert seal.

### ■ Cavity Plug








Silicone cavity plugs are used to fill an unused cavity in a STRIKE Series connector without an integrated rear seal. Filling the unused cavity maintains the integrity of the environmental seal. The -04A cavity arrangement requires a cavity plug if the size 16 cavities are unused.

| Cavity Plug  | Part Number | Contact Size | Material |
|--|-------------|--------------|----------|
|  | 25JH0024    | 16           | silicone |



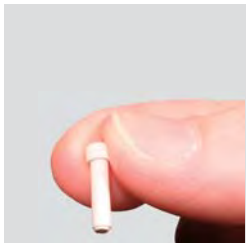
## ■ Sealing Plugs

Open cavities provide pathways for contaminants to enter the connectors. To ensure the integrity of the seal, any unused cavity must be filled with the appropriate size sealing plug.

| Sealing Plug  | Part Number                             | Contact Size | Wire Gauge Range | Description   |
|---|---|--------------|------------------|---|
|    | 114019                                  | Size 4       | 4-6 AWG          | silicone rubber, used with Common Contact System                            |
|    | 114018                                  | Size 8       | 8-10 AWG         | thermoplastic, used with Common Contact System                              |
|    | 114017                                  | Size 12, 16  | 12-20 AWG        | thermoplastic, used with Common Contact System                              |
|    | 0413-217-1605<br>(locking sealing plug) | Size 16      | 14-20 AWG        | thermoplastic, used with Common Contact System, retained by locking fingers |
|    | 0413-003-1605                           | Size 16      | 14-20 AWG        | thermoplastic, used with STRIKE Series                                      |
|   | 0413-204-2005                           | Size 20      | 20 AWG           | thermoplastic, used with Common Contact System                              |
|  | 600300-22                               | Size 22      | 22-26 AWG        | thermoplastic, used with Quick Connect Series                               |

## How To Instructions

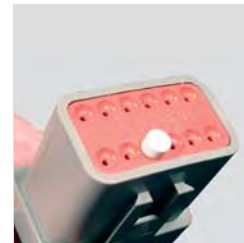
### ■ Sealing Plug Installation



**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.

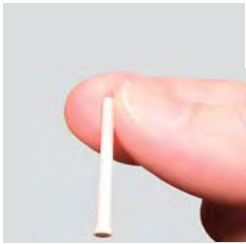


**Step 2:**  
With perpendicular motion, apply downward pressure to the large diameter end of the sealing plug.



**Step 3:**  
Apply pressure until sealing plug is forced to stop by contact with rear grommet. Visually inspect the sealing plug to ensure it is flush with cavity opening.

## ■ Locking Sealing Plug Installation



### Step 1:

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



### Step 2:

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

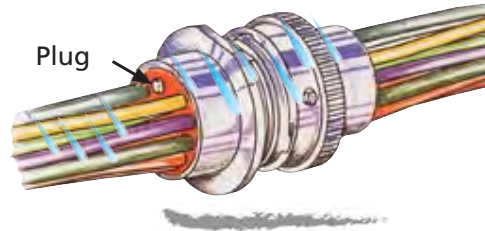


### Step 3:

Apply pressure until sealing plug locks into place. A slight tug on the sealing plug will ensure it is locked into place.



*Sealing plugs are used to seal the connector when all the cavities are not used by wires.*

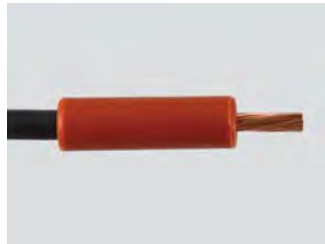


## ■ Contact Crimp Sleeve Reducer Assembly



### Step 1:

Place crimp sleeve reducer into contact barrel.



### Step 2:

Slide insert seal onto 8-10 AWG wire stopping just at the edge of the stripped insulation.



### Step 3:

Insert wire into barrel of contact and crimp using designated tooling.



### Step 4:

Ensure seal is not distorted.





# Tooling

## Contents

|                       |         |
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| Crimp Inspection      | 136     |
| Automated Tooling     | 137-138 |
| Hand Tools            | 139-140 |
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| Series Specific Tools | 142-143 |

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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.

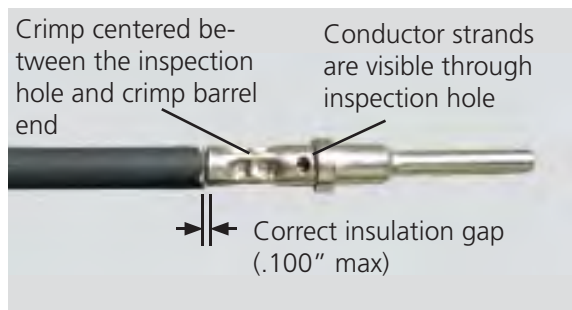
Deutsch offers several types of tools to assist with hand and production wire crimping, wire insertion and removal and wedgelock/terminal position assurance removal. The tools are specific to the solid contacts or the stamped & formed contacts. To ensure a proper crimp and achieve the highest performance 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

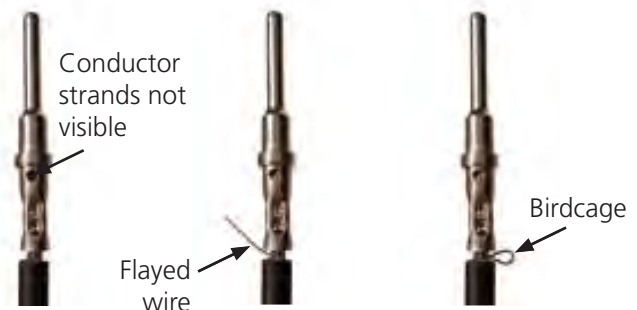
Mechanically crimping contacts is the dominant wire termination method, for some very good reasons:

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

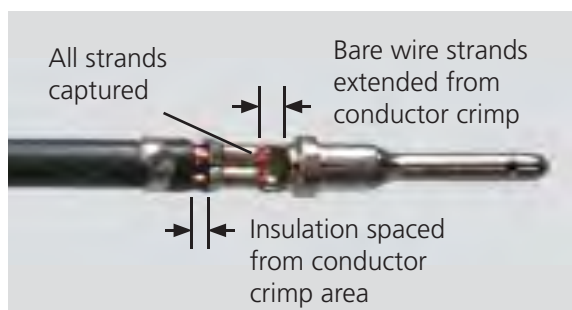


**Acceptable Crimp**

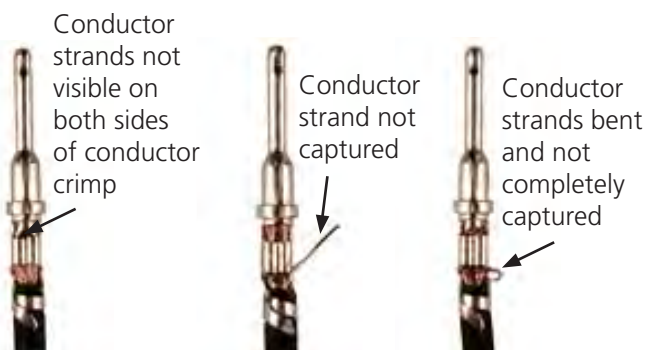


**Unacceptable Crimps**

### ■ 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**<br>1062-12-01** |
| DCT12-02-01                  |              | 1060-12-02**<br>1062-12-02** |
| DCT16-02-00                  | 16           | 1060-16-01**<br>1062-16-01** |
| DCT1620-02-00                |              | 1060-16-06**<br>1062-16-06** |
| DCT20-02-00<br>DCT1620-02-00 | 20           | 1060-20-01**<br>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<br>0462-203-04141                                  | HDT-04-08        | Two Indent Crimp  |
| 8            | 0460-204-08141<br>0462-203-08141                                 | HDT-04-08        | Two Indent Crimp  |
| 12           | 0460-204-12**<br>0462-203-12**                                   | HDT-48-00        | Four Indent Crimp |
|              |  | HDT-1561         | Two Indent Crimp  |
|              |  | HDT-50-00        | One Indent Crimp  |
| 16           | 0460-202-16**<br>0462-201-16**<br>0460-215-16**<br>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**<br>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 Gauge

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



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



## ■ 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**<br>1062-12-01** | DTT-12-00                |
|              | 1060-12-02**<br>1062-12-02** | DTT-12-01                |
| 16           | 1060-16-01**<br>1062-16-01** | DTT-16-00<br>(14-16 AWG) |
|              | 1060-16-06**<br>1062-16-06** | DTT-16-01<br>(18-20 AWG) |
| 20           | 1060-20-01**<br>1062-20-01** | DTT-20-00                |
|              | 1060-20-02**<br>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.



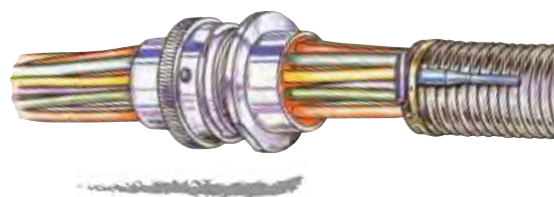
## ■ Removal Tools

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<br>for HD Box | 8-10 AWG                                 | Green<br>Extended |
|  | 114010        | Size 12              | 12 AWG                                   | Yellow            |
|  | 0411-337-1205 | Size 12              | 12-14 AWG<br>Extra Thin Wall<br>(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<br>Extra Thin Wall<br>(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,<br>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<br>Not for use with 18 cavity insert  |
|  | SRK-RT-02-G2 | Receptacle          | TPA removal tool for receptacles<br>For use with 18 cavity insert      |
|  | SRK-RT-06    | Plug                | TPA removal tool for plugs<br>Not for use with 18 cavity insert        |
|  | SRK-RT-06-G2 | Plug                | TPA removal tool for plugs<br>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.

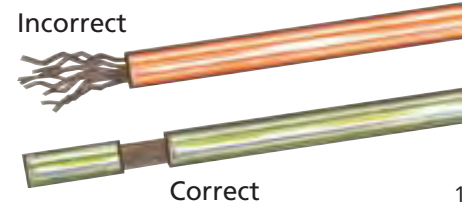


#### Step 3:

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)



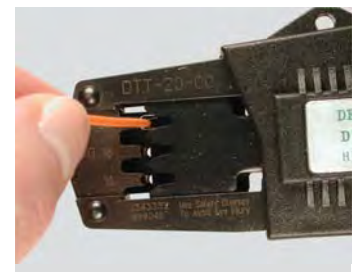
#### Step 1:

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



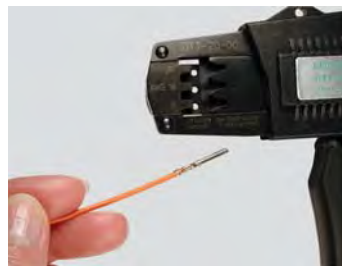
#### Step 2:

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



#### Step 3:

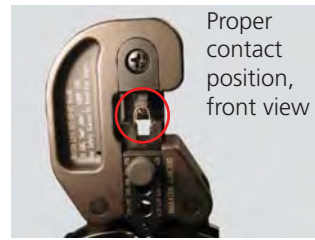
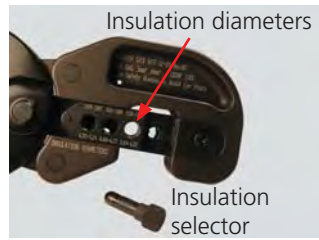
Insert the prestripped wire into the crimp area of the contact.



#### 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.