# **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.

### **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.

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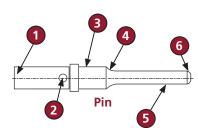
### Design Materials and Selection

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.

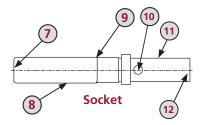
To provide exceptional durability, performance, corrosion, and oxidation resistance, contacts are made from copper alloys, finished with nickel, tin, or gold plating. To guarantee resistance to crimp relaxation and displacement of metal, the contacts are designed with the conductor wings formed in the 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. 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

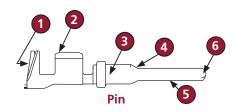


- 1 Wire lead-in chamfer to aid wire insertion
- 2 Inspection hole
- 3 Maximum diameter to prevent bending
- 4 Radius for added strength
- 5 Smooth finish to minimize mating forces
- 6 Radius for smooth engagement and prevent misalignment

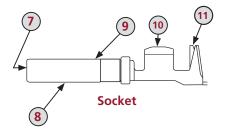


- Closed entry to prevent probe damage and prevent misalignment, chamfered lead-in to prevent misalignment
- (8) Durable tines for superior electrical performance
- 9 Stainless steel sleeve for maximum socket tine protection (except sleeveless sockets)
- (10) Inspection hole
- (11) Crimp barrel
- (12)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

### Stamped & Formed Contact Features



- 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



- 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	

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

### 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

### **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

### 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



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



### Wire Sealing Ranges

Dimensions are for reference only.

Contact	Normal Seal	Thin Seal	T-Seal	Extra Thin Seal	E-Seal
Size	N-Seal	T-Seal	Modified*	E-Seal	Modified*
4 4 AWG (21.0mm²)	.311420 (7.90-10.67)	N/A	N/A	N/A	N/A
4 6 AWG (13.0mm²)	.280292 (7.11-7.42)	.261292 (6.63-7.42)	N/A	.261292 (6.63-7.42)	N/A
8 8-10 AWG (8.0-5.0mm <sup>2</sup> )	.190240 (4.83-6.10)	.170240 (4.32-6.10)	N/A	.135220 (3.43-5.59)	N/A
12	.134170	.113170	N/A	.097158	.097158
10-14 AWG (5.0-2.0mm²)	(3.40-4.32)	(2.87-4.32)		(2.46-4.01)	(2.46-4.01)
16	.100134	.088134	.088106	.053120	.053103
14-20 AWG (2.0-0.5mm²)	(2.54-3.40)	(2.23-3.40)	(2.24-2.69)	(1.35-3.05)	(1.35-2.62)
20	.040095	.040095	N/A	.040095	.040083
16-20 AWG (1.0-0.5mm²)	(1.02-2.41)	(1.02-2.41)		(1.02-2.41)	(1.01-2.10)

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

\*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	.134170	.097158
10-14 AWG (5.0-2.0mm <sup>2</sup> )	(3.40-4.32)	(2.46-4.01)
16	.088145	.053120
14-20 AWG (2.0-0.5mm²)	(2.23-3.68)	(1.35-3.05)
20 16-20 AWG (1.0-0.5mm <sup>2</sup> )	.053120 (1.35-3.05)	N/A

### AEC Series Rear Grommet Sealing Ranges

Contact Size	Standard Seal	Extra Thin Seal E-Seal
16	.100134	.053120
14-20 AWG (2.0-0.5mm²)	(2.54-3.40)	(1.35-3.05)

# Quick Connect Series Rear Grommet Sealing Ranges

Contact Size	Standard Seal
16	.065109
16-20 AWG	(1.65-2.77)
20	.040083
20-24 AWG	(1.02-2.11)
22	030054
22-26 AWG	(.76-1.37)

### WT Series Rear Grommet Sealing Ranges

Contact Size	Standard Seal
4	.261292
6 AWG (13.0mm <sup>2</sup> )	(6.63-7.42)
16	.065109
14-20 AWG (2.0-0.5mm <sup>2</sup> )	(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**

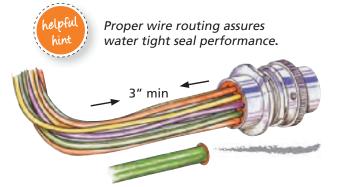
Contact	Extra Thin Seal
Size	E-Seal
4	.261292
6 AWG (13.0mm <sup>2</sup> )	(6.63-7.42)
8	.135220
8-10 AWG (8.0-5.0mm²)	(3.43-5.59)
12	.097158
10-14 AWG (5.0-2.0mm²)	(2.46-4.01)
16	.053120
14-20 AWG (2.0-0.5mm²)	(1.35-3.05)
20	.040095
16-20 AWG (1.0-0.5mm²)	(1.02-2.41)

### HD10 Series Rear Grommet Sealing Ranges

Contact Size	Standard Seal	Extra Thin Seal E-Seal
4 6 AWG (13.0mm <sup>2</sup> )	.280292 (7.11-7.42)	N/A
12 10-14 AWG (5.0-2.0mm <sup>2</sup> )	.134170 (3.40-4.32)	N/A
16 14-20 AWG (2.0-0.5mm <sup>2</sup> )	.100150 (2.54-3.81)	.053120 (1.35-3.05)

### **Typical Wire Insulation Ranges**

Typical wire insulation Rang	Jes	(measured in diameter inches)		
Wire Gauge	TXL	GXL	SXL	
6	N/A	N/A	.287294	
8	.178185	.209221	.222236	
10	.146157	.170185	.190196	
12	.120128	.137146	.159168	
14	.098105	.114122	.138145	
16	.082091	.097107	.116123	
18	.073084	.089098	.103110	
20	.065072	.080087	.092099	



### **STRIKE Series Sealing Ranges**

Contact	Standard
Size	Seal
Ø12mm	.413787
3/0-1 AWG (95-40mm²)	(10.50-20.00)
Ø8mm	.283472
2-6 AWG (35-16mm²)	(7.20-12.00)
12	.077158
12-14 AWG (3.0-2.0mm <sup>2</sup> )	(1.96-4.01)
16	.061120
14-20 AWG (2.0-0.5mm²)	(1.55-3.05)
20	.061095
16-20 AWG (1.0-0.5mm²)	(1.55-2.41)

(measured in diameter inches)

### Solid Contacts

Size	Solid Contact Part Numbers		Wire Size AWG	Recommended Strip Length	Min. Contact	Ref Crimp Tensile	Max Rated Amps at 125°
	Pin	Socket	(mm²)	Inches (mm)	Retention	Lbs. (N)	Continuous
20	0460-202-20**	0462-201-20**	20 (0.50)	.156218 (3.96-5.54)	20 (89)	20 (89)	7.5
20	0460-010-20**	0462-005-20**	16-18 (1.0-0.75)	.156218 (3.96-5.54)	20 (89)	20 (89)	7.5
16	0460-202-16**	0462-201-16**	16-20 (1.5-0.50)	.250312 (6.35-7.92)	25 (111)	35-20 (156-89)	13
16	0460-215-16**	0462-209-16**	14 (2.0)	.250312 (6.35-7.92)	25 (111)	70 (311)	13
12	0460-204-12**	0462-203-12**	12-14 (3.0-2.0)	.222284 (5.64-7.21)	30 (134)	75-70 (334-311)	25
8	0460-204-08**	0462-203-08**	8-10 (8.0-5.0)	.430492 (10.92-12.50)	35 (156)	125-90 (556-400)	60
4	0460-204-04**	0462-203-04**	6 (13.0)	.430492 (10.92-12.50)	35 (156)	300 (1334)	100

### Solid Contacts - Common Contact System

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

### Solid Contacts - C038 Modification

Size	Solid Contact Size Part Numbers		AWG	Recommended Strip Length	Min. Contact		Max Rated Amps at 125°
	Pin	Socket	(mm²)	Inches (mm)	Retention	Lbs. (N)	Continuous
4	5960-203-04141	5962-203-04141	4 (21.0)	.430492 (10.92-12.50)	35 (156)	300 (1334)	100



### 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	Recommended Strip Length	Min. Contact	Ref Crimp Tensile	Max Rated Amps at 125°
	Pin	Socket	(mm²)	Inches (mm)	Retention	Lbs. (N)	Continuous
Ø8mm	SRK-PC-080-16-601	SRK-SC-080-16-601	6 (16)	.530580 (13.47-14.74)	56 (250)	367 (632)	
Ø8mm	SRK-PC-080-20-601	SRK-SC-080-20-601	5	.530580 (13.47-14.74)	56 (250)	416 (1850)	
Ø8mm	SRK-PC-080-25-601	SRK-SC-080-25-601	4 (25)	.530580 (13.47-14.74)	56 (250)	489 (2175)	
Ø8mm	SRK-PC-080-32-601	SRK-SC-080-32-601	2	.530580 (13.47-14.74)	56 (250)	562 (2500)	
Ø8mm	SRK-PC-080-35-601	SRK-SC-080-35-601	(35)	.530580 (13.47-14.74)	56 (250)	598 (2660)	150
Ø12mm	SRK-PC-120-40-601	SRK-SC-120-40-601	1 (40)	.837887 (21.27-22.54)	56 (250)	639 (2840)	
Ø12mm	SRK-PC-120-50-601	SRK-SC-120-50-601	1/0 (50)	.837887 (21.27-22.54)	56 (250)	720 (3200)	
Ø12mm	SRK-PC-120-70-601	SRK-SC-120-70-601	2/0 (70)	.837887 (21.27-22.54)	56 (250)	819 (3640)	
Ø12mm	SRK-PC-120-95-601	SRK-SC-120-95-601	3/0 (95)	.837887 (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.



Solid Contact Plating Codes				
Part Number Suffix	Material			
601	Silver			

### Solid Contacts - IMC/QC Series

Solid Contact Size Part Numbers		AWG	Recommended Strip Length	Min. Contact	Ref Crimp Tensile	Max Rated Amps at 125°	
	Pin	Socket	(mm²)	Inches (mm)	Retention	Lbs. (N)	Continuous
22	6860-201-22278	6862-201-22278	22-26	.160190 (4.06-4.83)	10 (44)		5
20	6860-201-20278	6862-201-20278	20-24	.230260 (5.84-6.60)	15 (67)		7.5
16	6860-201-16278	6862-201-16278	16-20	.230260 (5.84-6.60)	25 (111)		13

### Stamped & Formed Contacts

Size	Stamped Contact Pa	& Formed rt Numbers	Carrier Strip Identifica-	Wire Size AWG	Wire Insulation	Recommended Strip Length	Min. Contact	Max Rated Amps at 125°
	Pin	Socket	tion	(mm²)	O.D. Range	Inches (mm)	Retention	Continuous
20	1060-20-01**	1062-20-01**	20-01	16-22 (1.5-0.50)	.075125 (1.91-3.18)	.150200 (3.81-5.08)	20 (89)	7.5
20	1060-20-02**	1062-20-02**	20-02	16-22 (1.5-0.50)	.051085 (1.30-2.16)	.150200 (3.81-5.08)	20 (89)	7.5
20	N/A	1062-20-03** sleeveless	20-03	16-22 (1.5-0.50)	.075125 (1.91-3.18)	.150200 (3.81-5.08)	20 (89)	7.5
20	1060-20-06**	1062-20-06**	20-06	14-16 (2.5-1.0)	.075125 (1.91-3.18)	.150200 (3.81-5.08)	20 (89)	7.5
16	1060-14-01**	1062-14-01**	14-16	14-18 (2.075)	.095150 (2.41-3.81)	.150200 (3.81-5.08)	25 (111)	13
16	1060-14-10**	1062-14-10**	14-16	14-18 (2.075)	.095150 (2.41-3.81)	.150200 (3.81-5.08)	25 (111)	13
16	1060-16-01**	1062-16-01**	16-18	14-18 (2.075)	.075140 (1.90-3.55)	.150200 (3.81-5.08)	25 (111)	13
16	1060-16-06**	1062-16-06**	0.5-1.0	16-20 (1.050)	.055100 (1.40-2.54)	.150200 (3.81-5.08)	25 (111)	13
16	1060-16-09**	1062-16-09**	16-18	14-18 (2.075)	.075140 (1.90-3.55)	.150200 (3.81-5.08)	25 (111)	13
16	1060-16-12**	1062-16-12**	1.0-2.5	12-16 (2.5-1.0)	.075140 (1.90-3.55)	.175225 (4.45-5.72)	25 (111)	13
16	N/A	1062-16-14** sleeveless	14-16	12-16 (2.5-1.0)	.075140 (1.90-3.55)	.175225 (4.45-5.72)	25 (111)	13
12	1060-12-01**	1062-12-01**	12-14	12-14 (4.0-2.0)	.113176 (2.87-4.47)	.225275 (5.72-6.99)	30 (134)	25
12	1060-12-02**	1062-12-02**	10-12	10 <sup>+</sup> (6.0-4.0)	.140204 (3.56-5.18)	.225275 (5.72-6.99)	30 (134)	25

\*\* = Plating Codes. Consult factory for custom finish needs.  $^{\dagger}$  = 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

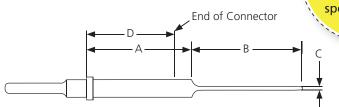
Copper alloy

### Plating

31: Gold 90: Tin 141: Nickel

### **PCB Mounting**

Consult factory for PCB mounting details and pin positions.



Part Number	А	В	С
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)



HD30 Series







### **HDP20 Series**

EP AHEAD



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

# 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 indent 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.





### 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.



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





# 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.

	1	
	8	
0		
-		

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



### 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



### 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
0	25JH0024	16	silicone



### Sealing Plugs

Open cavities provide pathways for contaminates 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
P	114018	Size 8	8-10 AWG	thermoplastic, used with Common Contact System
P	114017	Size 12, 16	12-20 AWG	thermoplastic, used with Common Contact System
/	0413-217-1605 (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
1	0413-204-2005	Size 20	20 AWG	thermoplastic, used with Common Contact System
1	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.

### A STEP AHEAD

### 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.