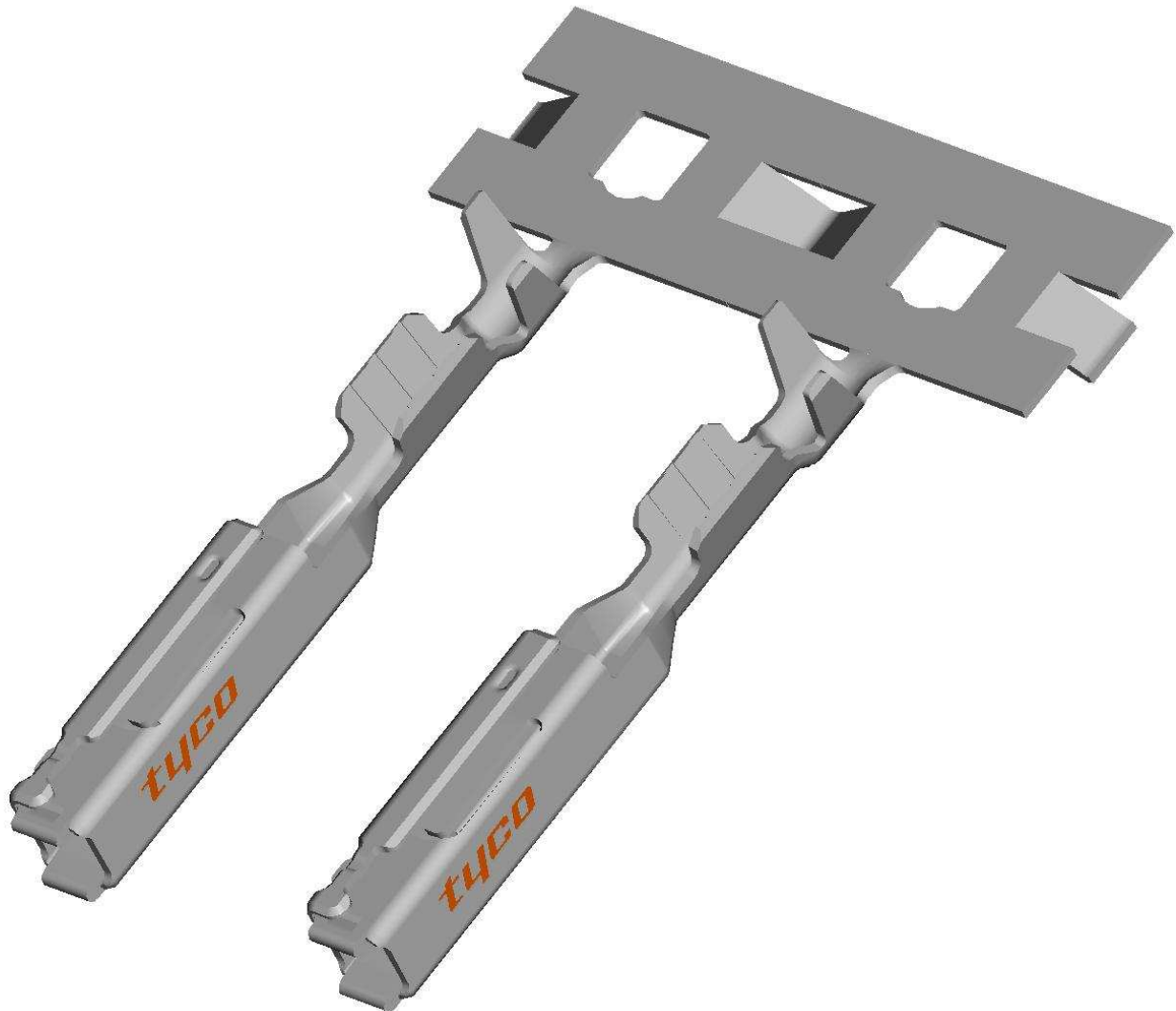


GET Second Generation Female Contact



NOTE

All numerical values mentioned in this specification are in metric units. Dimensions are in millimetres. Figures and illustrations are for identification only and are not drawn to scale. When corresponding with Tyco Electronics personnel, please use the terminology provided in this specification to help facilitate your inquiry for information.

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1. SCOPE

This specification covers the requirements for application of the GET Second Generation Female Contact. These contacts will accept a wire size of 0.13mm² to 0.75mm² and AWG 26 to 18. The instructions are intended for automatic or semi-automatic machine application of all versions.

2. REFERENCED DOCUMENTS

2.1 Customer Drawings

Customer drawing 1719957 (and 1719958/1564880 only for reference) shows the dimensions and materials for each part number.

In case of a conflict between this document and the customer drawing, the customer drawing takes precedence.

2.2 Product Specifications

Product specification 108-94032 describes the electrical and mechanical characteristics and performances.

2.3 Application Specifications

Application Specifications 114-18022 and 114-18018 also apply to the crimp quality.

2.4 Customer Information

409-5128 Contains information about crimping machines for Miniature-Quick-Change (MQC) crimping tools.

412-18103-1 Describes the Miniature-Quick-Change (MQC) crimping tool.

408-7424 Instruction sheet describing how to measure the crimp height.

408-3295 Preparing Reel of Contacts for Application Tooling

408-8598 GET Market Female Connector Mounting and Dismounting Instructions (Sealed)

408-8599 GET Market Female Connector Mounting and Dismounting Instructions (Unsealed)

2.5 International Standards

DIN 72 551 T5/02.93
Unscreened Low Tension Cables (FLR) / Requirements

DIN 72 551 T6/10.96
Unscreened Low Tension Cables (FLR) / Dimensions

DIN EN 60352-2: 1995-09
Solderless Connections, Crimped Connections

3. PART DESCRIPTION

3.1 Contact Description

The terms shown below are used in the specification.

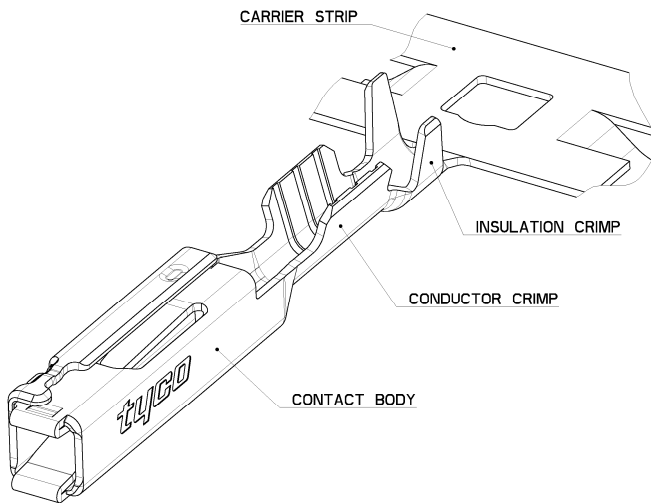


Fig. 1

PART NUMBER OVERVIEW

0-1719957-1 for wire size 0.22-0.35 /AWG 22

0-1719958-1 for wire size 0.5-0.75 /AWG 18,20

0-1564880-1 for wire size 0.13

3.2 Crimp Design

The terms shown below are used in the specification.

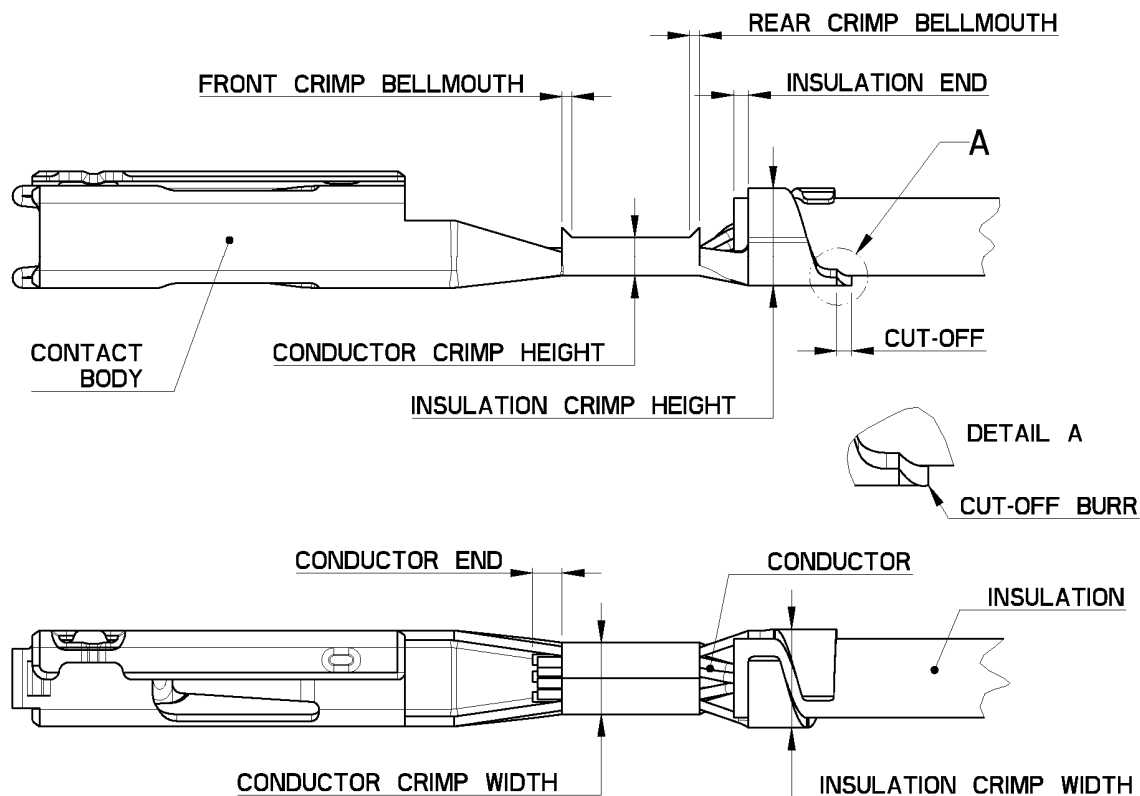


Fig. 2

4. REQUIREMENTS

4.1 Wire Requirements

4.1.1 Wire Selection

The terminals are primarily designed for stranded wires acc. DIN 72 551 Part 5 + Part 6 and SAE J-1128. Other wires require the approval of the Engineering Department. Single terminations are preferred. Double terminations within the wire range are possible with restrictions only.

4.1.2 Wire Preparation

The wire must be stripped to the length shown below (apply to both part numbers). Take care that the individual strands of the wire are not bent or cut off. For sealed applications in connectors with family seal, the insulation of the wire in the sealing area of the family seal may not be damaged, compressed or deformed. The insulation must be clean and free of contamination.

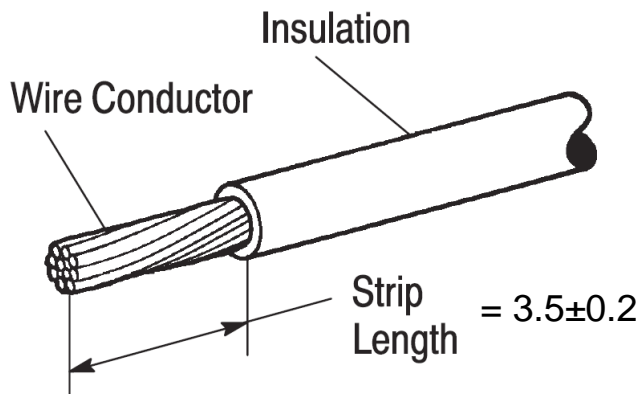


Fig. 3

4.1.3 Storage

Prolonged exposure to ultraviolet light may deteriorate the chemical composition used in the contact materials.

When using reeled contacts, store coil wound reels horizontally and traverse wound reels vertically. The contacts should remain in the shipping containers until ready for use to prevent deformation to the contacts. The contacts should be used on a first in, first out basis to avoid storage contamination that could adversely affect signal transmissions.

Do not store contacts near any chemicals listed below, as they may cause stress corrosion cracking in the Contacts : Alkalis, Ammonia Citrates, Phosphates, Citrates, Sulfure Compounds, Amines, Carbonates, Nitrites, Sulfure Nitrites, Tartrates

4.2 Cut-off and Cut-off Burr

The cut-off must be visible after crimping. The maximum length is 0.3mm. Any burrs at the cutting area may not exceed 0.01mm.

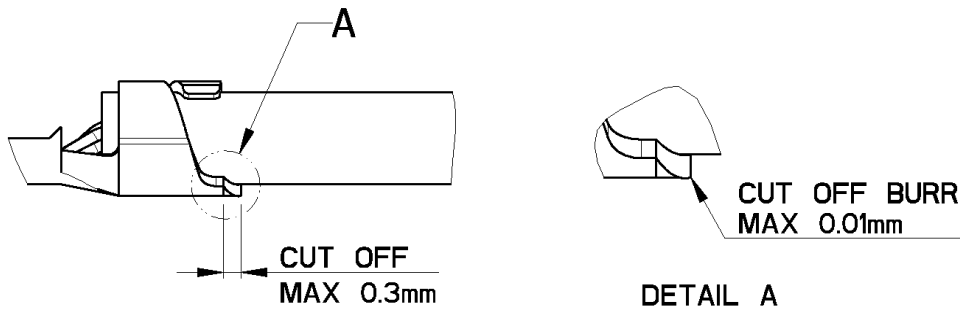


Fig. 4

4.3 Wire Crimp

4.3.1 Conductor Position/Conductor End

After crimping, the conductor end must extend max. 0.4mm beyond the front edge of the conductor crimp as shown in Fig. 5.

NOTE

For sealed (family seal) applications, the conductor end must not extend more than 0.1mm beyond the front edge of the conductor crimp.

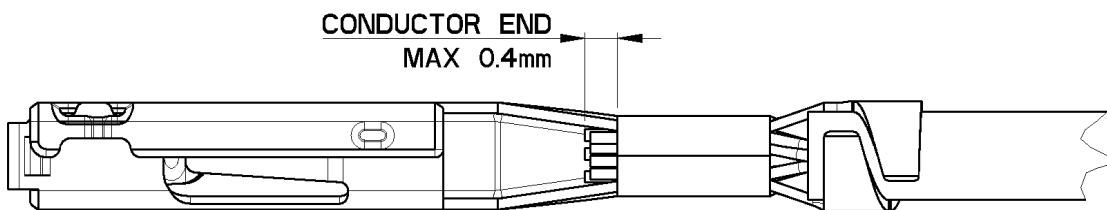


Fig. 5

4.3.2 Crimp Data

The shape, height and width of the crimps and the wire ranges are shown in chapter 5.

4.3.3 Tensile Strength of the Crimped Connection

The tensile strength of crimp connection must fulfil the requirements of DIN EN 60352-2. Measuring of the tensile strength is done without insulation crimp.

4.3.4 Crimp Bellmouth

The size of the rear and front bellmouth depends on the wire range. The permissible dimensions are shown in Fig. 6 and have to be according Application Specification 114-18022.

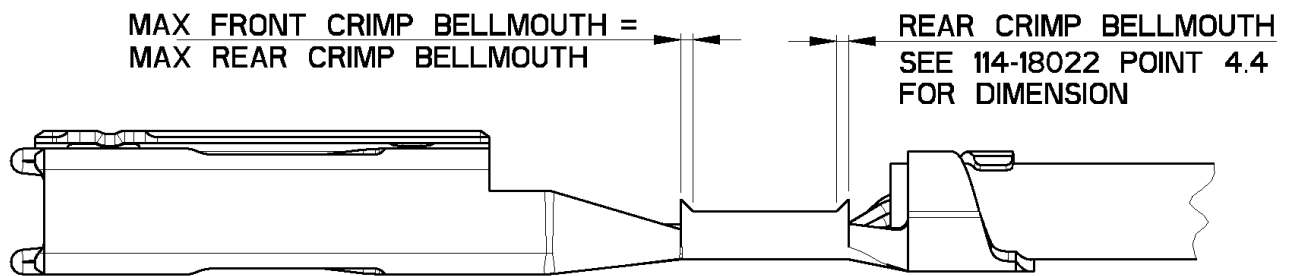


Fig. 6

4.4 Insulation Crimp

4.4.1 Insulation End position

The insulation end must be visible in the transition between the conductor crimp and the insulation crimp. On one end the insulation must not be crimped in the conductor crimp; on the other end the insulation must extend at least to the front edge of the insulation crimp (see Fig. 7).

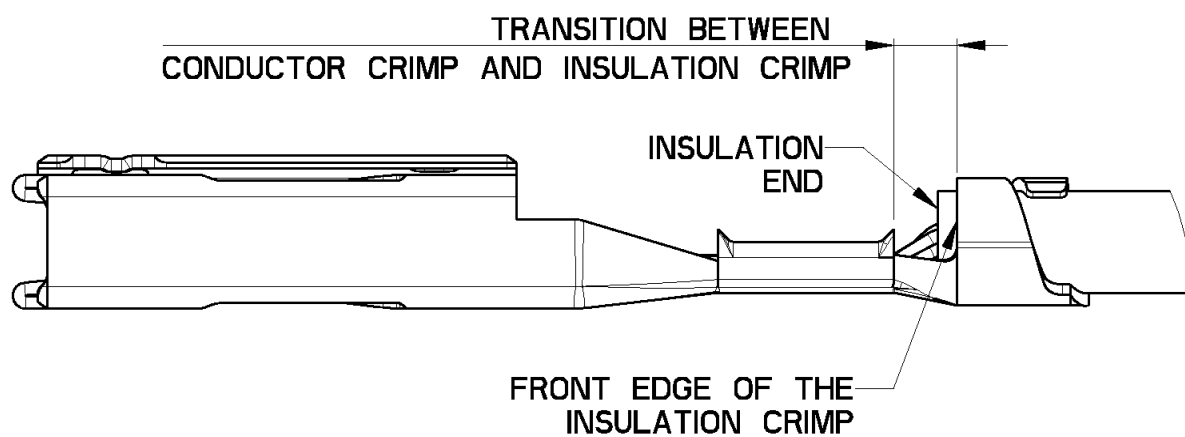


Fig. 7

4.4.2 Insulation Crimp Data

The shape, height and width of the crimps are shown in chapter 5. The tight fit of the support is to be verified by the winding test in accordance with 16h of DIN IEC 60512-8 (as specified in DIN EN 60352-2). Because of the simple handling the bend test in accordance with old standard DIN 41611-3 is recommended. For both methods, the conductor crimp is rendered inoperable.

4.5 Contact Body

After crimping, the contact body must not be bent or deformed.

4.6 Shape and Position Tolerances of the Crimped Contact

The bend of the terminal within the crimp area must not exceed 2.5° upwards or downwards. (see Fig. 8) .

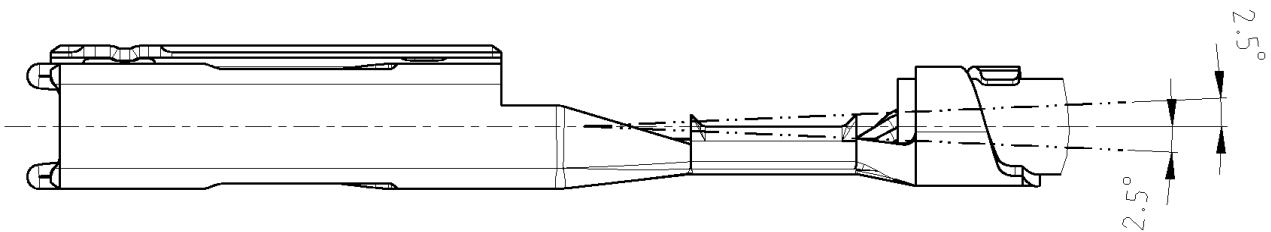


Fig. 8

The bend of the terminal within the crimp area must not exceed 1.6° to each side (see Fig. 9).

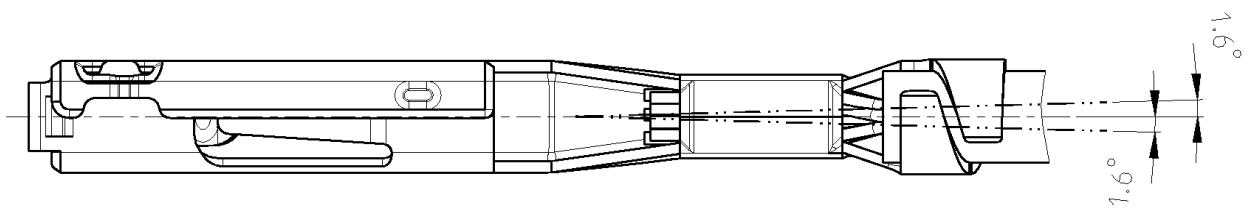


Fig. 9

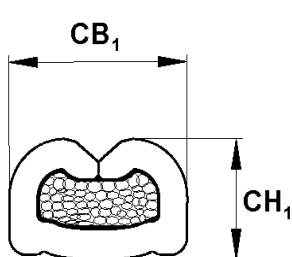
5. CRIMP DATA FOR MACHINE CRIMPING APPLICATION

Order Number	Applicator PN	Wire Sizes [mm ² /AWG]	Insulation outer Ø [mm]	Stripping length	Conductor Crimp			Insulation Crimp			
					Width [mm/(inch)]	Height [mm]	Shape	Width [mm/(inch)]	Height [mm]	Shape (see Fig. 12)	
See Fig. 10/11→					CB ₁	CH ₁	F	CB ₂	CH ₂		
1564880-1	1157164-6	0.13**	0.8-1.05	3.5±0.2	1.07** (.042)	0.62±0.03**		Ø1.57 (.062)		Wrap A	
1719957-1	1528698-6	2x0.13◀	0.85-1.05		1.27 (.050)	0.74±0.03		1.83 (.072) 1.93* Max.	1.9 Max.	Wrap A	
		0.22	1.2-0.1			0.74±0.03					
		0.35	1.4-0.1			0.82±0.03					
		AWG 22	Max. 1.65		0.80±0.03						
1719958-1	1528699-6	0.5	1.6-0.2	1.57 (.062)	0.89±0.03		1.83 (.072) 2.05* Max.	2.1 Max.	Wrap B		
		0.75	1.9-0.2		1.02±0.03						
		AWG 20	1.9 Max.		0.89±0.03						
		AWG 18	2.06 Max.		1.01±0.03						

◀Qualification completed with Delphi M5647 (CuMg02) wire.

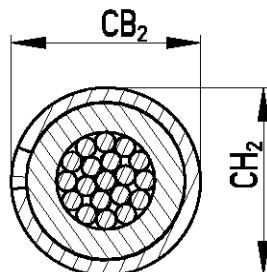
* Crimp width CB₂ may deviate from the nominal dimension up to the values given

** For 0,13 mm² – the shown values apply for “soft” copper wires and Delphi CuMg0,15 (M5647) wire; other wire types (e.g. reinforced wires, copper alloy’s etc.) were not validated and have to be investigated



Conductor Crimp Dimensions

Fig. 10



Insulation Crimp dimensions

Fig. 11

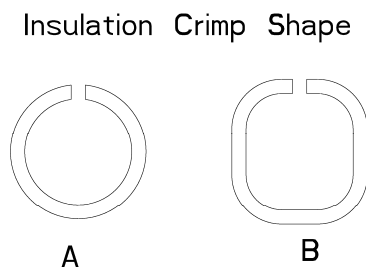
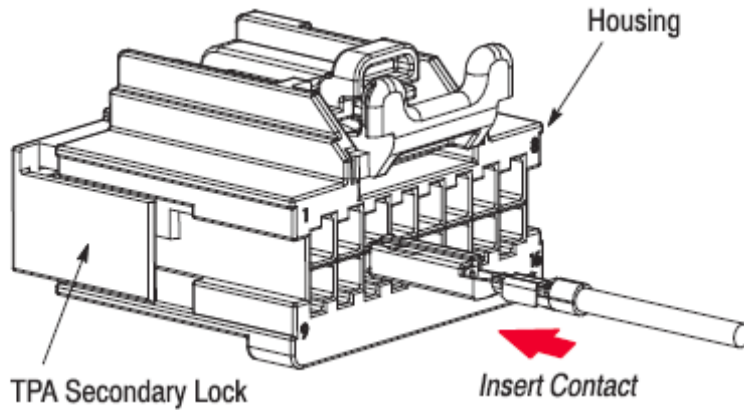


Fig. 12

6. AUXILIARY INFORMATION

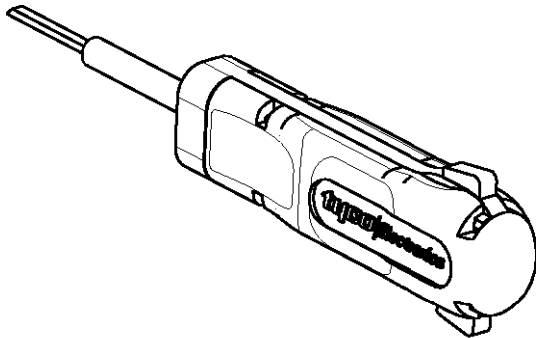
6.1 Contact assembly/disassembly instruction



See instruction sheet **408-8599**
(not sealed application)
See instruction sheet **408-8598**
(sealed application)

Fig. 13

6.2 Extraction Tool



To dismount the contacts use the tool shown in Fig. 14
(Tyco Electronics part number 3-1579007-6)

Fig.14

LTR	REVISION RECORD	DWN	APP	DATE
A	Initial	G. HOTEA	U. BLÜMMEL	16 MAY 2007
B	PN 1564880-1 crimp data added	G. HOTEA	G. MUMPER	30 JUNE 2009
C	Double crimp data added for 1719957-1 and CH adapted for AWG 18	G. STEINB	G. STEINB	02 AUG 2013