

**∅ 4,0 mm Socket Contact**

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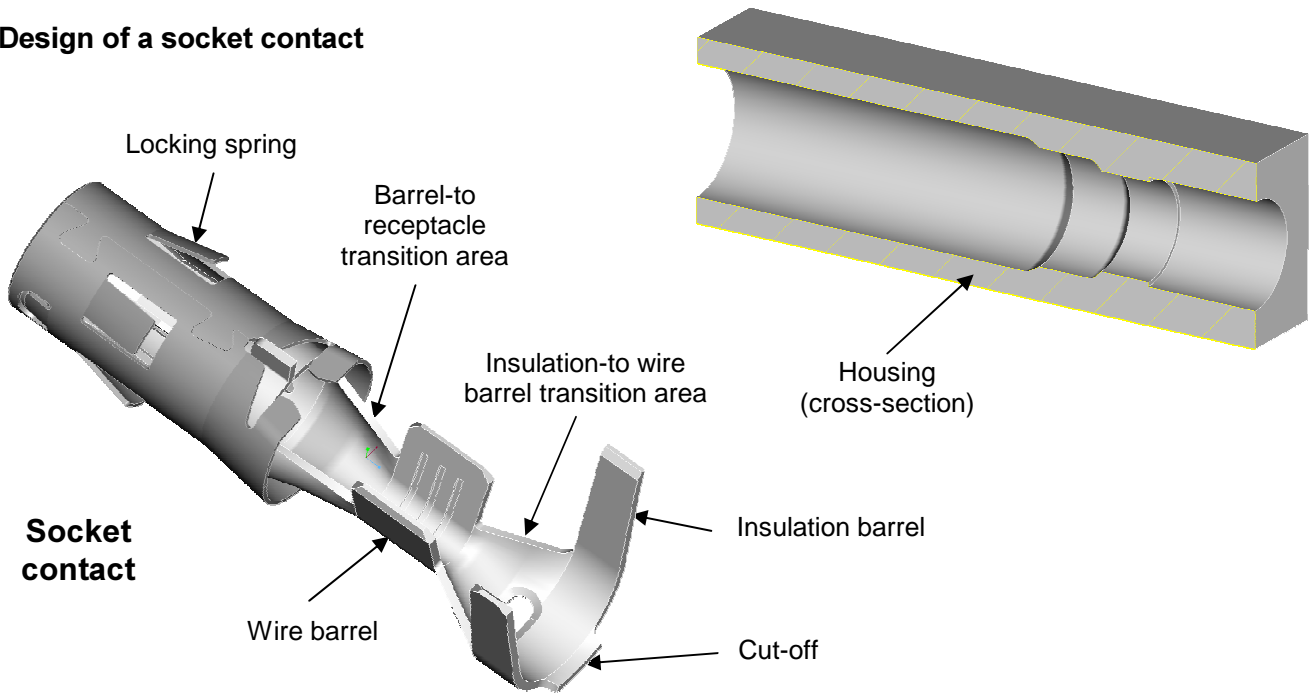
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**1. INTRODUCTION**

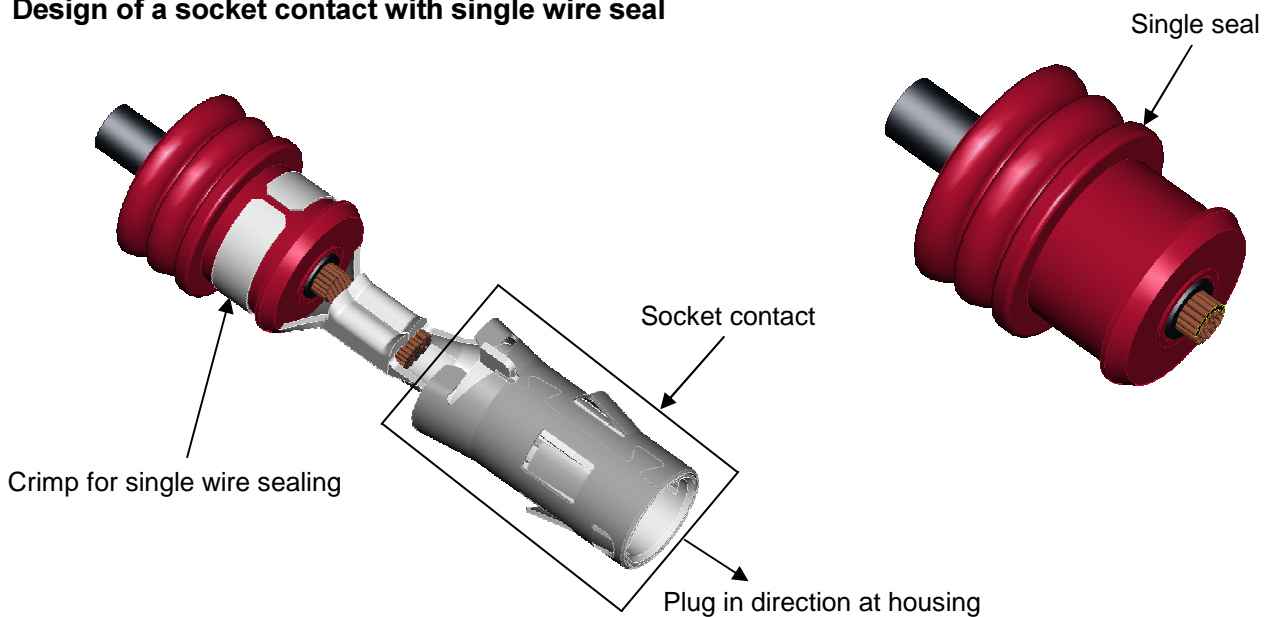
This specification covers the requirements for application of dia 4,0mm socket contacts. These instructions are primarily for automatic application, but it can also be used for handtools.

**Design of a socket contact**



**Picture 1 – Design of a socket contact**

**Design of a socket contact with single wire seal**



**Picture 2 – Design of a socket contact with single wire seal**

## 2. REFERENCED DOCUMENTS

### 2.1 Product numbers and product codes

Contact	Wiretype	Wire range [mm <sup>2</sup> ]	Insulation range Ø [mm <sup>2</sup> ]	Part Number		Existing types	Applicator No.	Handtool No.*	Single Wire Sealing	
				Strip	Loose Piece				Seal no.	Cavity Plug No.
Socket	FLR	>1,0-2,5	2,1-2,9	962958	968058	-1; -2	on request	1-1579016-0		
	FLR	>2,5-4,0	2,7-3,7	1703420	-	-2	2-1528770	1-1579016-1		
Socket for single wire sealing	FLR	0,5-1,0	1,2-2,1	962952	962953	-1; -2	2-878688	0-1579016-8	963243	100132-1
	FLR	>1,0-2,5	2,2-3,0	962954	962955	-1; -2; -5	2-878689	0-0539748-2	963244	100132-1
	FLR	>2,5-4,0	3,2-3,6	962956	962957	-1; -2	2-878690	0-1579016-9	963245	100132-1

**Chart 1 – Product numbers and product codes**

\* Die for ERGOCRIMP-Basis handtool PN 539635-1

Notes:

single wire sealing dash-no.: -1  
Application specification for single wire sealing 114-18018;  
extraction tool socket 2-1579007-0;  
Spare tube socket 1-1579007-9  
Contact dash-no.:  
-1 CuNiSi pre tinned; -2 CuNiSi silver plated; -5 CuNi12Zn24 plain  
Not each dash variant exists for every base number. Not existing could be checked.  
Minimum pitch: 7,7mm x 7,7mm (7,7mm x 6,7mm) for normal application and  
7,9mm x 7,9mm (7,9mm x 6,9mm) for single-wire-seal-system.  
() = for displaced rows

**2.2 Customer Drawing**

A Tyco Electronics customer drawing is available for each part number assigned to this product line (see chart 1). In the event of a variance between this specification and the customer drawing, the customer drawing will take precedence.  
Crimp information shall be taken from the customer drawings.

**2.3 Applicable documents**

The following documents will be a part of this specification if referenced in detail.  
In the event of a variance between this specification and the mentioned documents, this specification will take precedence.

**2.4 Instructional Material**

- IS 7424: AMP Instruction Sheet describes measurement of the crimp height.
- AI 8025: deals with the MQC – crimp tool.
- CM 5128: includes information for the crimping machine.

**2.5 Specifications**

- AMP Spec. 108-18472 -Design Objective containing the requirements and performance of these contacts.
- AMP Spec. 114-18022 -General instructions for the application of contacts with open barrel.
- AMP Spec. 114-18018 -Application Specification for single wire sealing.

**3. REQUIREMENTS**

**3.1 Wire**

**A. Wire Selection**

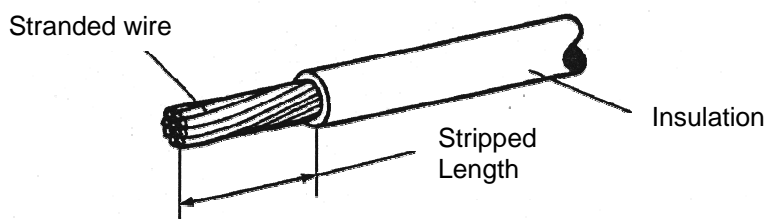
The crimping barrels of each contact are designed to receive stranded copper wire (Chart 1). Other wires need the approval of the engineering department. Consult Tyco Electronics for details. Only single termination is permissible.

**B. Wire Preparation**

The wire must be stripped to the dimension shown in chart 2 and picture 3. Care must be exercised to prevent cutting or nicking of the wire strands.  
Care must also be taken, when handling wire during crimping to prevent cracking or breaking of the wire strands or the insulation.

Part-No.	Insulation Length
962958	4,0±0,3
1703420	4,0±0,3
962952	4,5±0,3
962954	5,0±0,3
962956	5,5±0,3

**Chart 2 – Insulation Length**



**Picture 3 – Design of a stripped wire**

### 3.2 Crimped Contacts

#### A. Cut-off

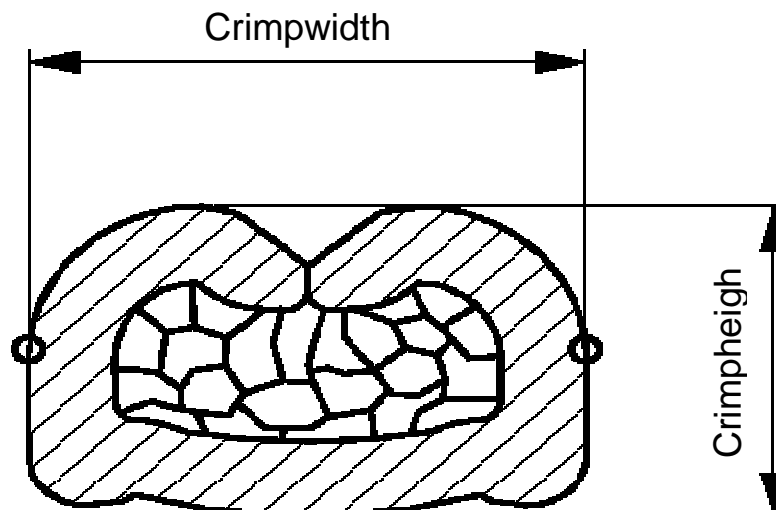
The cut-off must be visible after crimping.

The maximum length is 0,5mm. Burrs resulting from shearing of the cut-offs may not exceed 0,08mm.

Part Number	Applicator No.	Wirecrimp				Insulationcrimp
		Crimpwidth CB [mm]	Wire cross sectional [mm <sup>2</sup> ]	Crimpheight CH ±0,05 [mm]	DISC [Ltr.]	Crimpwidth [mm]
962958	on request					
1703420	1528517*	3,05 "F"	3,0	2,05	D	6,35 "F"
			4,0	2,30	B	
962952	2-878688	2,03 "F"	0,5	1,26	C	6,35 "O"
			0,75	1,34	B	
			1,0	1,43	A	
962954	2-878689	2,54 "F"	1,25	1,56	-	6,35 "O"
			1,5	1,64	C	
			2,0	1,79	B	
			2,5	1,94	A	
962956	2-878690	3,05 "F"	3,0	2,05	-	6,35 "O"
			4,0	2,30	A	

\* Fine Adjust Side Feed HDI Applicator

Chart 3 – Application data



Picture 4 – Crimpwidth und Crimpheight

### B. Wire barrel

The crimp form, crimp height and crimp width as well as the wire range can be taken from chart 3 and picture 4. The crimp extraction forces must meet the requirements of DIN IEC 352 part 2.

The rear bellmouth is, against the general guidelines,  $0,4 \pm 0,2 \text{ mm}$  for all. A front bellmouth is permissible.

The conductor ends must extend beyond the front of the wire barrel by  $0,1 \text{ mm}$  min. /  $1,0 \text{ mm}$  max.

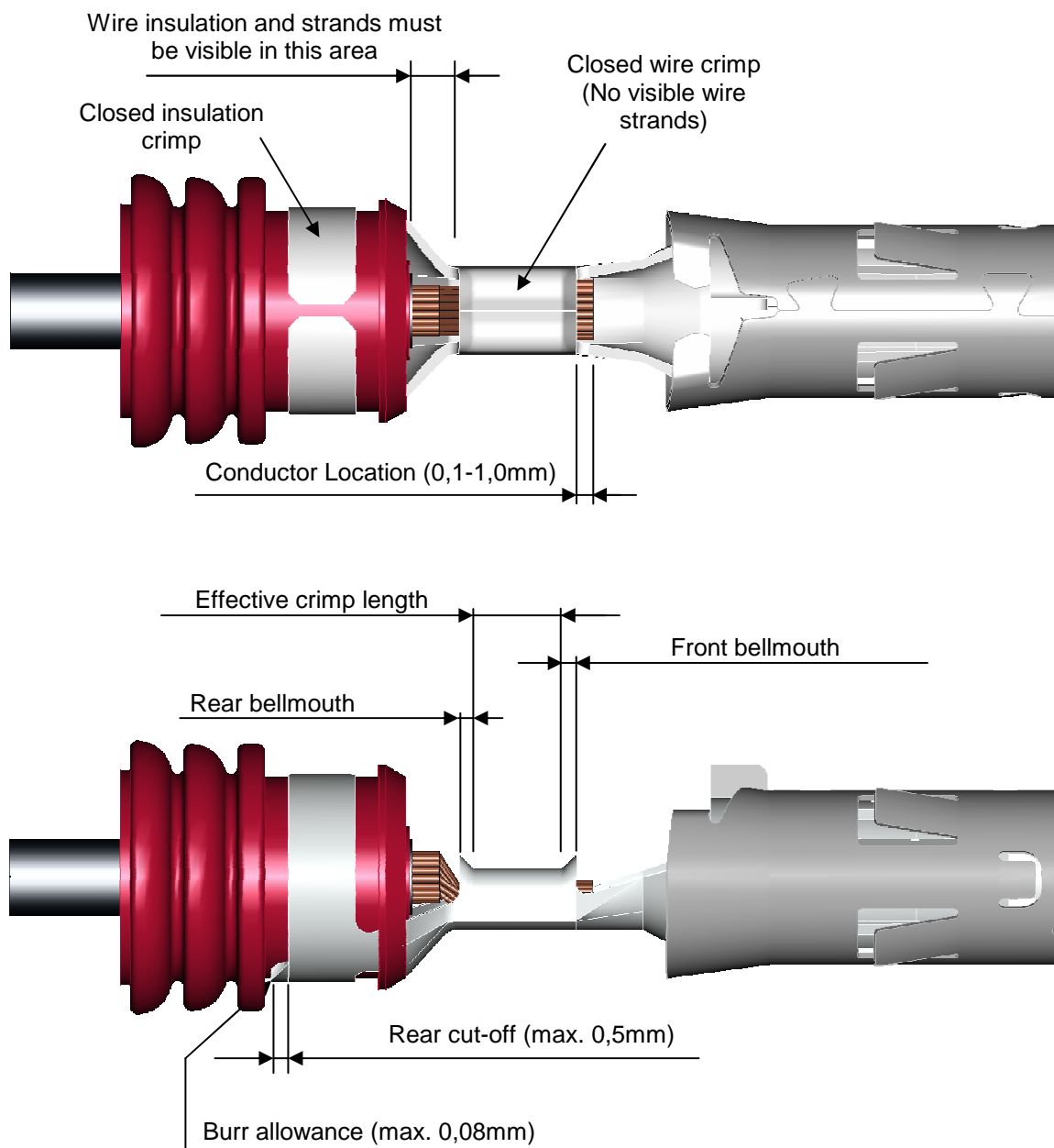
### C. Insulation barrel

The requirements for the insulation grip effectiveness are laid down in DIN IEC 352 part 2.

### D. Contact Area

Cantilever spring with locking spring and the contact body may not be twisted or damaged after crimping.

### Design of a crimped contact



Picture 5 – Design of a crimped contact