

# APPLICATION SPECIFICATION

## 1. Introduction

This specification covers the guidelines for the application of Single Wire Sealed Systems. It is intended to permit evaluation of the quality of such seals, even under extreme conditions, and also defines the terminology, requirements and inspection criteria.

## 2. Scope

This specification applies to all contact systems developed by AMP Germany which possess a crimp zone for single wire sealing.

The single wire seal crimp may be in the form of an "O"-crimp or a wrap crimp.

The dimensions of the contacts and single wire seals are collated with one another.

## 3. Referenced Documents

### 3.1 Contact Drawing

In the case of additional or differing specifications, the contact drawing is binding.

### 3.2 Applicator Parts List

Any crimp data not shown here can be found in the applicator parts list.

### 3.3 Application Guidelines

For special AMP contacts, there are special guidelines, over and above this specification, for the application of single wire sealing systems. These guidelines take priority over this specification and are available from the Technical Department of AMP.

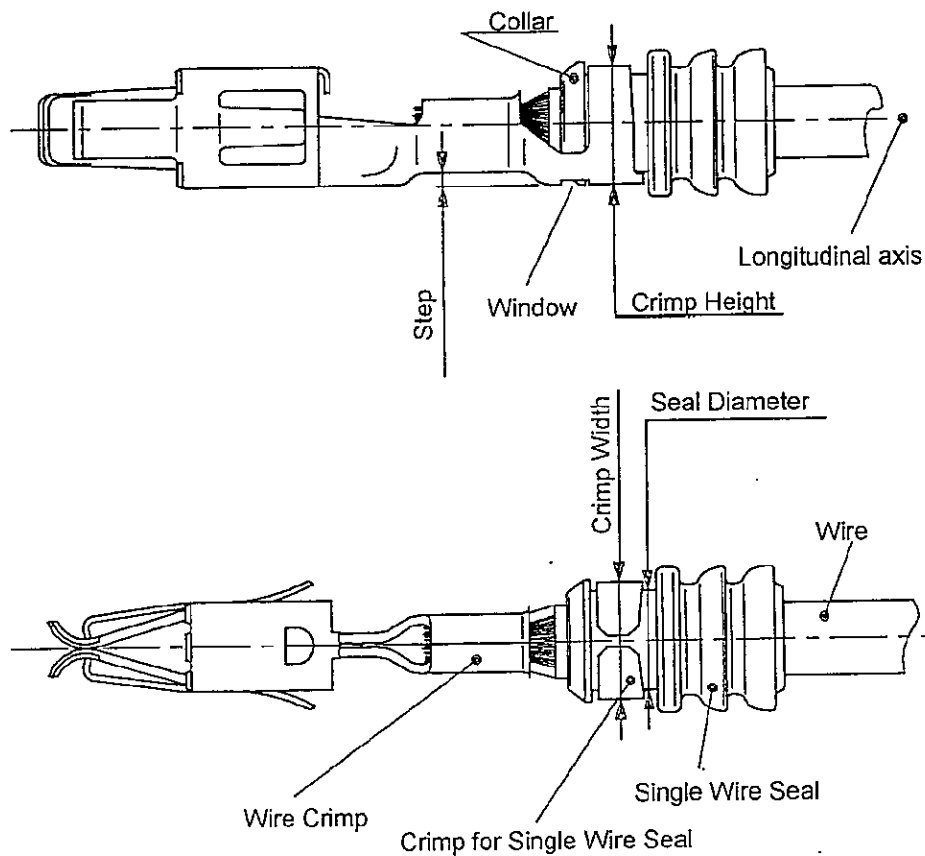
COPYRIGHT 1991  
BY AMP DEUTSCHLAND GmbH  
ALL INTERNATIONAL RIGHTS RESERVED

				DR <i>deuts</i> 12/95 H. Lutsch	<b>AMP</b>		AMP DEUTSCHLAND GmbH 63225 Langen	
				CHK <i>Krause</i> N. Krause 6.17.95			LOC AI	NO A4
				APP D. Künzel				
B rework				Trajkov	08/91	NAME Application Specification for Single Wire Sealed Contact Systems		
A rework				Mayer	01/90			
LTR				REVISION RECORD	APP			
				SHEET 1 OF 9				

#### 4. Description

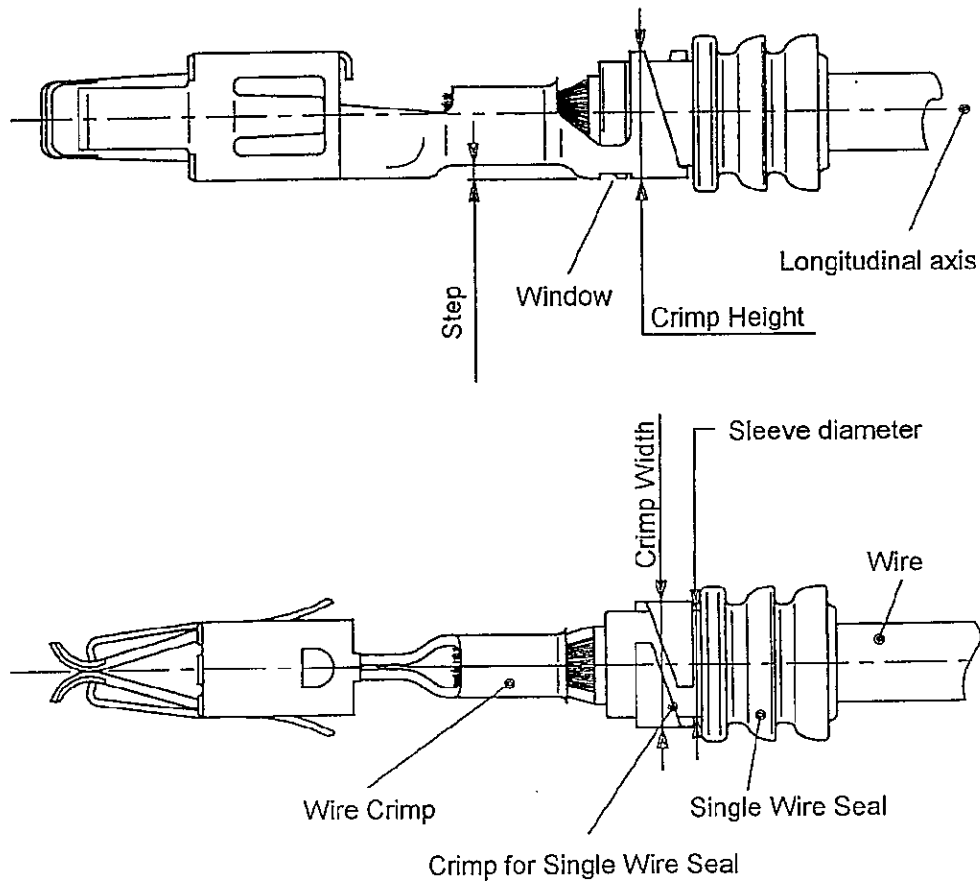
The contacts shown here are examples.

##### 4.1 Crimp for Single Wire Sealing ("O"-Crimp)



SHEET 2 OF 9	<b>AMP</b>		AMP DEUTSCHLAND GmbH 63225 Langen	
	LOC AI	A4	NO 114-18018	REV B
NAME Application Specification for Single Wire Sealed Contact Systems				

## 4.2 Crimp for Single Wire Sealing (Wrap Crimp)

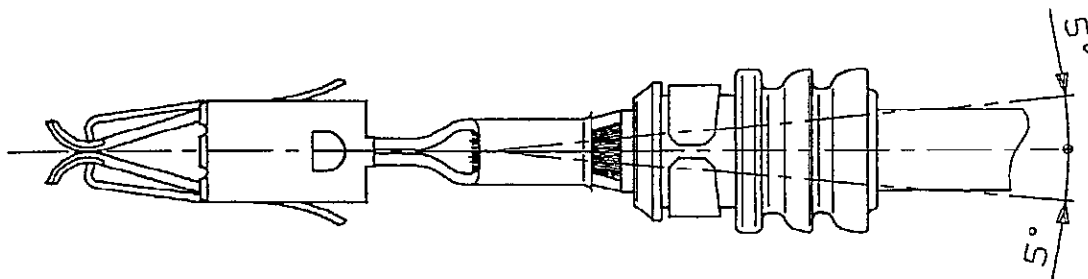


SHEET 3 OF 9	<b>AMP</b>		AMP DEUTSCHLAND GmbH 63225 Langen	
	LOC A1	A4	NO 114-18018	REV B
NAME Application Specification for Single Wire Sealed Contact Systems				

## 5. Application Information

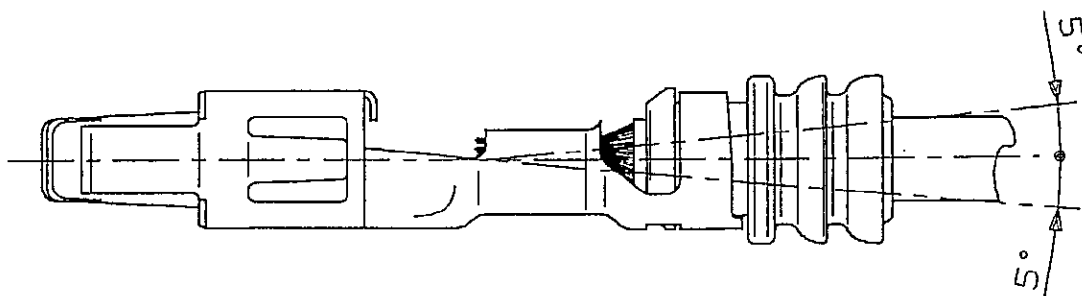
The tolerances specified in sections 5.1, 5.2 and 5.3 may be added together.

### 5.1 Horizontal Angular Displacement of the Longitudinal Axis



The horizontal angular displacement of the longitudinal axis in the crimping area may not exceed 5° in either direction.

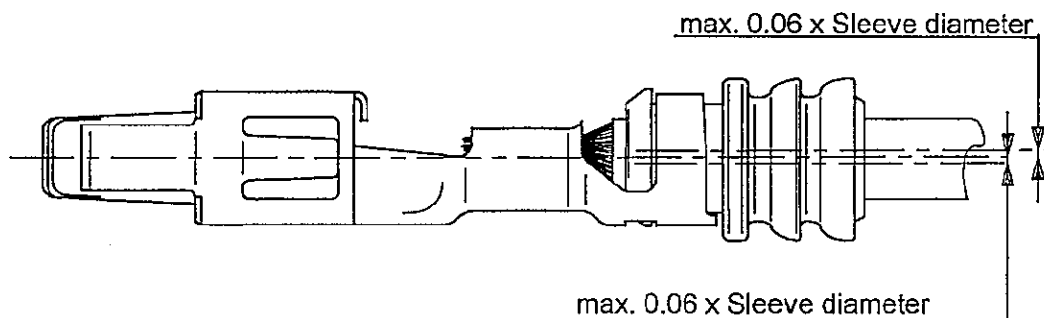
### 5.1 Vertical Angular Displacement of the Longitudinal Axis



The vertical angular displacement of the longitudinal axis in the crimp area may not exceed 5° in either direction.

SHEET 4 OF 9	<b>AMP</b>		AMP DEUTSCHLAND GmbH 63225 Langen	
	LOC A1	A4	NO 114-18018	REV B
NAME Application Specification for Single Wire Sealed Contact Systems				

### 5.3 Offset of the Longitudinal Axes of the Contact Body and Crimp Area

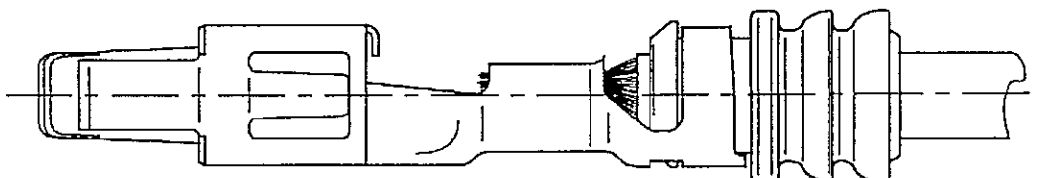


The vertical offset of the longitudinal axes may not exceed the specified values in either direction.

### 5.4 Position of the Single Wire Seal

#### 5.4.1 Contact with window in transition between the crimp barrels

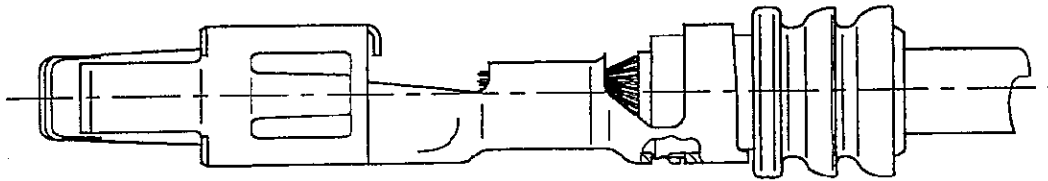
##### 5.4.1.1 Single Wire Seal with Collar



The collar must be visible in the window. At least, it must be flush with the edge of the crimp.

SHEET 5 OF 9	<b>AMP</b>		AMP DEUTSCHLAND GmbH 63225 Langen	
	LOC A1	A4	NO 114-18018	REV B
NAME Application Specification for Single Wire Sealed Contact Systems				

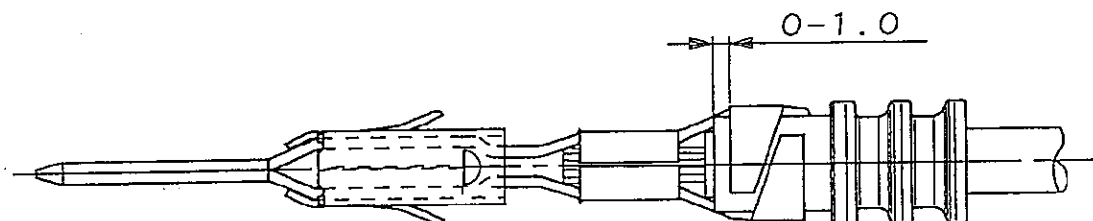
### 5.4.1.2 Single Wire Seal without Collar



The front edge of the single wire seal must be visible in the window. At least, it must be flush with the edge of the crimp.

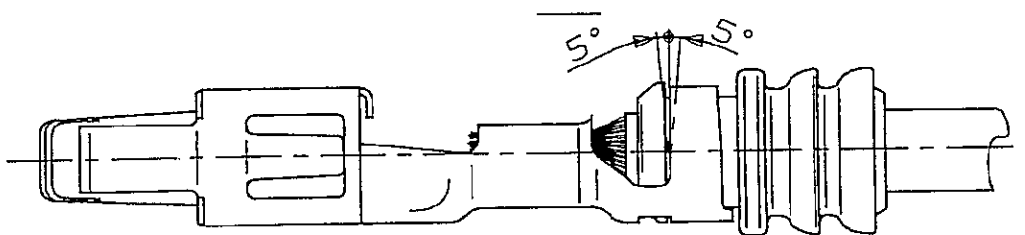
### 5.4.2 Contact without window in the transition between the crimp barrels or in the bottom of the single wire seal crimp

#### 5.4.2.1 Single Wire Seal without Collar



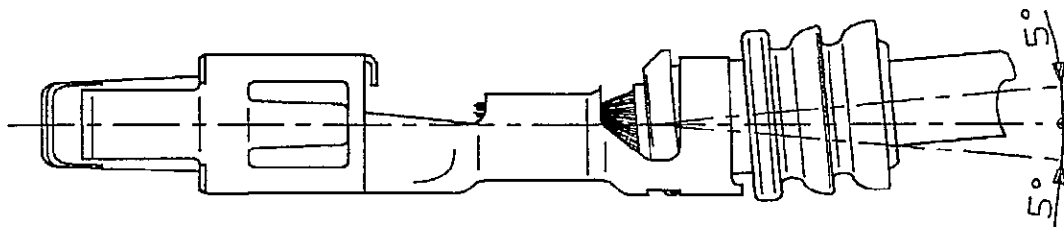
The front edge of the single-wire seal must at least be flush with the edge of the crimp. It may extend by up to 1 mm beyond this edge.

### 5.5 Vertical Alignment of the Insulation Crimp Edge



SHEET 6 OF 9	<b>AMP</b>		AMP DEUTSCHLAND GmbH 63225 Langen	
	LOC AI	A4	NO 114-18018	REV B
NAME Application Specification for Single Wire Sealed Contact Systems				

### 5.6 Alignment of the Single Wire Seal



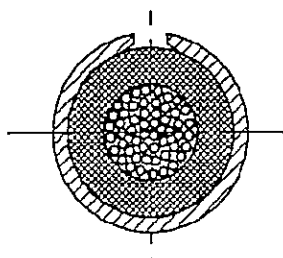
The single wire seal may be tilted up to 5° upwards in the crimp.

### 5.7 Crimp Height

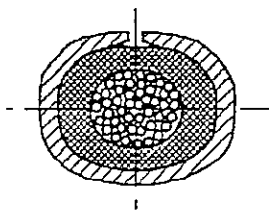
The crimp height is correctly adjusted if:

- the crimp encloses the seal in the shape of a circle.

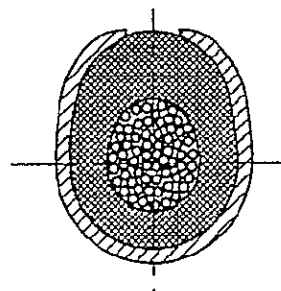
Oval enclosure as the result of differing insulation diameters is permissible.



good

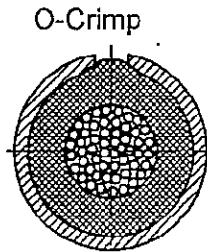


permissible

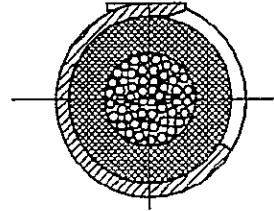


SHEET 7 OF 9	<b>AMP</b>		AMP DEUTSCHLAND GmbH 63225 Langen	
	LOC A1	A4	NO 114-18018	REV B
NAME Application Specification for Single Wire Sealed Contact Systems				

An "O"-crimp may have the shape of a teardrop, or the ends of an wrap crimp may be straight, providing the following requirements are fulfilled:

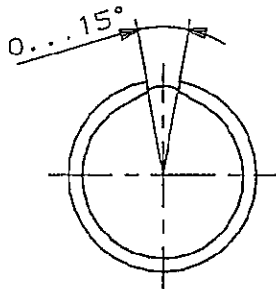


Wrap Crimp



permissible

- the single wire seal is not damaged in the crimp area. Compression of the seal is permissible, providing that this will not result in long-term tearing or splitting of the seal.
- the edges of an "O"-crimp are closed to form a full circle or are not open by more than 15°.

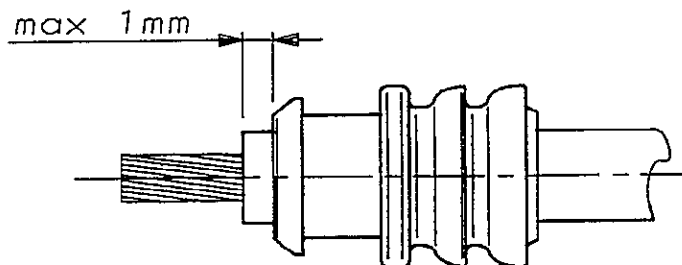


- correct seating of the single wire seal is ensured when the contact is inserted into the housing cavity.

SHEET 8 OF 9	<b>AMP</b>		AMP DEUTSCHLAND GmbH 63225 Langen	
	LOC A1	A4	NO 114-18018	REV B
NAME Application Specification for Single Wire Sealed Contact Systems				



### 5.8 Position of the Single Wire Seal on the Conductor



The end of the conductor insulation must at least be flush with the front edge of the single wire seal and may project up to 1 mm from the seal.

### 5.9 Surface of the Conductor Insulation

The insulation of the conductor in the sealing area may not be damaged, compressed or deformed by the stripping operation. It must be free of contaminants and deposits.

Caution: conventional stripping tools are not suitable for this.

### 6.0 Inspecting the Shape and Position Tolerances

The shape and position tolerances specified in sections 4.1, 4.2 and 4.3 are best inspected with the aid of a gauge. This gauge consists of two nests with maximum tolerances into which correctly crimped contacts can be inserted in two directions without contact between the single wire seal and the side of the nest.

Further details are available from the Technical Department of AMP Germany.

SHEET 9 OF 9	<b>AMP</b>		AMP DEUTSCHLAND GmbH 63225 Langen	
	LOC A1	A4	NO 114-18018	REV B
NAME Application Specification for Single Wire Sealed Contact Systems				