AMP

Deutschland GmbH

APPLICATION SPECIFICATION

Micro Timer 1

Specification 114-18163-1

Stand	Kurzbezeichnung	Name	Datum
A	English Version created	M. Bleicher	07 / 96

APPLICATION SPECIFICATION

114-18163-1

Micro Timer 1 Contact

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LTR	REVISION RECORD	APP	DATE
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DIST

DR Bleicher
CHK Laudenbach
APP Krause

AMP DEUTSCHLAND GmbH
Langen b. FfM

LOC		NO	REV
AI	A4	114-18163-1	A

SHEET 1 OF 6

NAME Micro Timer 1

1. INTRODUCTION

This specification covers the special guidelines for the application of the MICRO TIMER 1 contact system.
The instructions are intended primarily for automatic or semi-automatic application of all versions, but may also be applied, if agreed, to hand tools.
The various contact types are listed in Tables 1 and 2, sorted by their wire ranges and crimping data.

2. ADDITIONAL DOCUMENTS

2.1 Customer Drawings

There is a customer drawing showing the dimensions and materials for each part number.
In the case of a conflict between this document and a customer drawing, the customer drawing takes precedence.

2.2 Product Specifications

The Product Specification 108-18024 describes the characteristics of these contacts, together with the electrical and mechanical requirements.

2.3 Application Specifications

The general guidelines laid down in Application Specifications 114-18022 and 114-18018 also apply to the crimp quality.

2.4 Customer Information's

CM 5128 ..... Contains information about crimping machines for MQC crimping tools.
AI 8025 ..... Describes the Miniature Quick Change crimping tool.
IS 6764 ..... Instruction Sheet for the AMP CERTI-LOK hand crimping tool.
IS 7424 .....Instruction Sheet, explains how to measure the crimp height.

2.5 National / International Standards

DIN 72 551 T5/05.92 ..... Unscreened low tension cables (FLR).
DIN 72 551 T6/01.92 ..... Unscreened low tension cables (FLR).
DIN ISO 6722 T1/04.85 ..... Unscreened low tension cables (FLK).
DIN ISO 6722 T2/04.84 ..... Unscreened low tension cables (FLK).
DIN ISO 6722 T3/08.87 ..... Unscreened low tension cables (FLK).
DIN IEC 352 T2/04.92 ..... Solderless crimped connections.

3. DESCRIPTION

The terms shown below are used in the specification.

3.1 Contacts with Insulation Crimp

Description 1

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4. REQUIREMENTS

4.1 Wires

A Selection
The contacts and single wire seals are designed for FLR conductors to DIN 72 551 Part 5 and Part 6 or FLK conductors to DIN ISO 6722 Parts 1-3 (formerly DIN 72551 Part 2).
Other wires require the approval of the Engineering Department. Single termination is preferred.
Double termination is possible within the wire range with FLR conductors; with FLK conductors, this is possible only with restrictions.

B Preparation
The wire must be stripped to the lengths shown in Tables 1 and 2. Take care that the individual strands of the wire are not be bent or cut off.
The insulation must be clean and free of contamination.

4.2 Cut-Off and Burr

The Cut-Off must be visible after crimping. The maximum length of the Cut-Off is 0.5 mm.
Any burrs at the shearing point may not exceed 0.08 mm.

4.3 Wire Crimp

A Wire position
After crimping, the end of the wire must extend 0.1 ... 0.5 mm beyond the front end of the wire crimp.

B Crimping data
The shape, height and width of the crimp, and the wire range, are shown in Tables 1 and 2.

C Extraction forces
The crimp extraction forces must fulfill the requirements of DIN IEC 352 Part 2.

D Crimp bellmouth
The size of the rear bellmouth depends on the wire range:

0,2 - 0,5mm^2 :	0,25±0,15mm
0,5 - 1,5mm^2 :	0,40±0,20mm

A front bellmouth is permissible.

4.4 Insulation Crimp

A Position of the end of the insulation
In the case of contacts for crimping on wire, the end of the insulation must be visible in the transition between the wire crimp and the insulation crimp.
In no case may the insulation be crimped in the wire crimp; conversely, the insulation must extend at least to the front edge of the insulation crimp.

B Crimping data for wires
The shape and width of the crimp, and the insulation diameter, are shown in Table 1 and 2.
The crimp height is adjusted either after the bending test to DIN 41611 Part 3 or after the wrapping test to DIN IEC 352 Part 2.

4.5 Contact Area

After crimping, neither the cantilever spring, the locking lances nor the contact body may be bent or deformed.

4.6 Shape and Position Tolerances

A Contacts with Insulation Crimp (see Descr. 2)

Parallelism
The bottom of the wire crimp or of the insulation crimp must be parallel with the contact body, with a tolerance of 0.3 mm.

Symmetry
The width of the insulation crimp must be symmetrical with the contact body, with a tolerance of 0.5 mm.

Description 2

Table1: Crimp-Data for Wire Crimps (Strip)

Strip	Crimping-Tool	Wire-sizes (mm^2)	Conductor Typ	Insulation diameter (mm)	stripped Length (mm)	Wire crimp				Insulation crimp	
						Width (mm)	mark on disk	Height (mm)	Shape	Width (mm)	Shape
928939	878376-2	0,35 0,50 0,75	FLR	max. 1,9	3,8	1,80	C B A	1,09 1,16 1,27	F	2,30	O
929950	878467-2	0,20 0,25 0,35 0,50	FLR	max. 1,6	3,5	1,60	D C B A	0,98 1,00 1,05 1,12	F	2,30	O
929952	878468-2	0,50 0,75 1,00	FLR	max. 2,0	3,8	2,05	C B A	1,18 1,27 1,36	F	2,55	O
929954	878469-2	1,00 1,25 1,50	FLR	max. 2,3	4,3	2,05	C B A	1,47 1,56 1,65	F	2,80	O

Table2: Crimp-Data for Wire Crimps (Loose Piece Parts)

Part-No.			Hand crimping tool	Wire crimp height (mm) ±0,05	stripped Length (mm) ±0,3	Insulation-diameter (mm)
Loose Piece	Wire Sizes	Strip				
929927	0,35 0,50 0,75	928939	734290-0	1,18	3,8	max. 1,9
929951	0,20 0,25 0,35 0,50	929950	734290-0	1,05	3,5	max. 1,6
929953	0,50 0,75 1,00	929952	734290-0	1,27	3,8	max. 2,0
929955	1,00 1,25 1,50	929954	734290-0	1,56	4,3	max. 2,3