

# APPLICATION SPECIFICATION

## CRIMPING 250 SERIES LOW INSERTION FORCE FASTON RECEPTACLES

### 1. SCOPE

THIS SPECIFICATION COVERS THE CRIMP REQUIREMENTS OF 250 LOW INSERTION FORCE FASTON. PART NUMBERS: 346697 (SINGLE WIRE) AND 346646 (DOUBLE WIRE) THESE REQUIREMENTS ARE APPLICABLE TO AUTOMATIC MACHINE CRIMPING TOOLS, FOR BOTH STANDARD AND THIN WALL CABLE APPLICATIONS

### 2. NOMENCLATURE.

2.1 FIGURE 1. ILLUSTRATES THE VARIOUS FEATURES DEFINED IN THE FOLLOWING PARAGRAPHS.

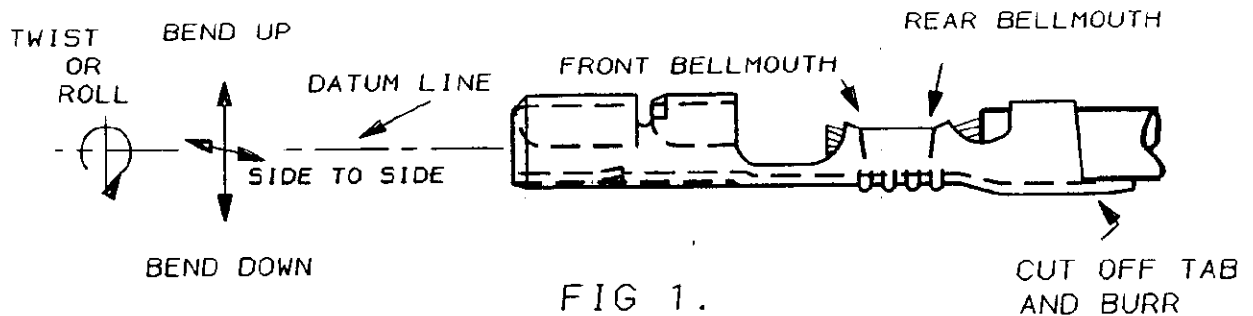


FIG 1.

### 3. CRIMP AND DIMENSIONAL REQUIREMENTS

#### 3.1 WIRE PREPARATION

##### 3.1.1 STRIP LENGTH

- A) INSULATION SHALL BE STRIPPED BACK  $4.85 \pm 0.25$  (SINGLE)
- B) INSULATION SHALL BE STRIPPED BACK  $6.50 \pm 0.25$  (DOUBLE)

##### 3.1.2 WORKMANSHIP

REASONABLE CARE SHALL BE TAKEN NOT TO NICK, SCRAPE OR CUT ANY STRANDS OR THE SOLID WIRE DURING THE STRIPPING OPERATION

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-		-	-	DRN. D.A.BARRATT	04.09.92	<b>AMP</b> TERMINAL HOUSE of Great Britain Ltd. STANMORE MIDOX.			
-		-	-	CH. P.GAULTON	12.01.93				
-		-	-	APP. D.A.BARRATT	04.09.92	LOC E	SPEC.NO. 114-3163	REV 2	
2	FIRST ISSUE	-	-	-	12.01.93	SHEET 1 OF 4 TITLE CRIMPING 250 SERIES LOW INSERTION FORCE FASTON. (SINGLE AND DOUBLE WIRE)			
1	DRAFT ISSUE	-	-	-	04.09.92				
B	REV	-	-	-	-	-	-	-	-
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CONT

APPLICATION SPECIFICATION  
CRIMPING 250 LOW INSERTION FORCE FASTON

3.2 CARRIER CUT OFF TAB AND BURR

A CUT OFF TAB

CUT OFF TAB SHALL NOT EXCEED 0.40 mm

B BURR

BURR ON CUT OFF SHALL NOT EXCEED 0.15 mm

3.3 WIRE BARREL CRIMP

A CRIMP DIMENSIONS AND TYPE

CRIMP HEIGHT, WIDTH AND TYPE SHALL BE AS SHOWN IN FIG 3

B WIRE BARREL FLASH

WIRE BARREL FLASH SHALL NOT EXCEED 0.15 mm

C WIRE BARREL SEAM

WIRE BARREL SEAM SHALL BE COMPLETELY CLOSED AND THERE SHALL BE NO EVIDENCE OF LOOSE WIRE STRANDS OR WIRE STRANDS VISIBLE IN THE SEAM.

D BELLMOUTH

FRONT BELLMOUTH SHALL NOT EXCEED 0.40 mm

REAR BELLMOUTH LENGTH SHALL BE 0.40 TO 0.65 mm

E CONDUCTOR LOCATION

- 1) WIRE SHALL LAY FLAT AND MUST EXTEND THROUGH THE BARREL BY NO MORE THAN 1.00 mm MAXIMUM OVERHANG
- 2) BOTH INSULATION AND CONDUCTOR SHALL BE VISIBLE BETWEEN THE INSULATION BARREL AND WIRE BARREL. CARE SHALL BE TAKEN NOT TO ALLOW INSULATION TO BE CRIMPED IN THE WIRE BARREL

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2 OF 4

SPEC. NO.

114-3163

CRIMPING 250 SERIES  
LOW INSERTION FORCE FASTON

REV.

2

CONT

APPLICATION SPECIFICATION  
CRIMPING 250 LOW INSERTION FORCE FASTON

3.4 INSULATION BARREL CRIMP

A CRIMP DIMENSION AND TYPE

CRIMP WIDTH AND TYPE SHALL BE AS SHOWN IN FIG 4

B WORKMANSHIP

REASONABLE CARE SHALL BE TAKEN NOT TO CUT OR BREAK THE INSULATION DURING THE CRIMPING OPERATION

3.5 ALIGNMENT

A STRAIGHTNESS

- 1) THE CONTACT, INCLUDING THE CUT OFF TAB AND BURR SHALL NOT BE BENT BY MORE THAN THREE DEGREES ABOVE OR THREE DEGREES BELOW THE DATUM LINE. (SEE FIG 1.)
- 2) THE SIDE TO SIDE BENDING OF THE CONTACT SHALL NOT EXCEED THREE DEGREES EITHER SIDE OF THE CENTRAL DATUM LINE

B TWIST OR ROLL

THERE SHALL BE NO TWIST OR ROLL IN THE CRIMPED PORTION THAT WILL IMPARE USAGE OF THE CONTACT

4.0 TENSILES

THESE VALUES TO BE OBTAINED USING STATISTICAL PROCESS CONTROL. FOR DOUBLE WIRE APPLICATIONS THE TENSILES APPLY TO A SINGLE OR THE SMALLEST OF THE TWO WIRES

FIG 2  
TENSILES

PART NUMBERS	WIRE SIZE m/m <sup>2</sup>	TENSILE REQUIREMENTS
346697 (SINGLE WIRE) OR 346646 (DOUBLE WIRE)	0.5	60 NEWTONS MIN.
	0.75	80 NEWTONS MIN.
	1.0	100 NEWTONS MIN.
	1.25	115 NEWTONS MIN.
	1.5	135 NEWTONS MIN.

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LOW INSERTION FORCE FASTON

REV

2

# APPLICATION SPECIFICATION

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### 5.0 CRIMP DETAILS

FIG 3 WIRE CRIMP REQUIREMENTS

WIRE SIZE m/m <sup>2</sup>	346697 SINGLE WIRE CRIMP				WIRE SIZE m/m <sup>2</sup>	346646 DOUBLE WIRE CRIMP				
	HEIGHT ± 0.05	WIDTH (REF.)	CRIMPER	ANVIL		HEIGHT ± 0.05	WIDTH (REF.)	CRIMPER	ANVIL	
0.5	1.30	2.54 (.100)	'F'	CURVED	0.5	0.5	1.52	3.56 (.140)	'F'	CURVED
0.75	1.39				0.75	0.75	1.63			
1.0	1.47				1.0	1.0	1.75			
1.25	1.55				0.5	1.5	1.81			
1.5	1.63				0.75	1.50	1.87			
					1.25	1.25	1.87			
					1.5	1.5	1.98			


FIG 4 INSULATION CRIMP REQUIREMENTS

#### 4.1 SINGLE WIRE INSULATION CRIMPS

PART NUMBER	WIRE SIZE m/m <sup>2</sup>	INSULATION BARREL CRIMP							
		THIN WALL INSULATING CABLE				STANDARD INSULATING CABLE			
		DIA.	WIDTH	CRIMPER	ANVIL	DIA.	DIA.	CRIMPER	ANVIL
346697	0.5	1.7	3.81 (.150)	SCROLL	CURVED	2.2	3.81 (.150)	'F'	CURVED
	0.75	1.9				2.45			
	1.0	2.1				2.7			
	1.25	2.25				2.8			
	1.5	2.4				2.9			

#### 4.2 DOUBLE WIRE INSULATION CRIMPS

PART NUMBER	WIRE SIZE m/m <sup>2</sup>	INSULATION BARREL CRIMP							
		THIN WALL INSULATING CABLE				STANDARD INSULATING CABLE			
		DIA.	WIDTH	CRIMPER	ANVIL	DIA.	WIDTH	CRIMPER	ANVIL
346646	2X 0.5	1.7	6.35 (.250)	'F'	CURVED	2.2	6.35 (.250)	'F'	CURVED
	2X 0.75	1.9				2.45			
	2X 1.0	2.1				2.7			
	2X 1.25	2.25				2.8			
	2X 1.5	2.4				2.9			

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CRIMPING 250 SERIES LOW INSERTION FORCE FASTON					