

1. GENERAL

1.1 SCOPE

This specification details the ratings, physical and electrical characteristics, test and inspection data for Contacts, Electrical, Crimp, for 3401/077 Microminiature Connectors based on type MDMA.

These contacts shall be packed separately from the connectors and may be procured either with the connectors or separately.

This specification shall be read in conjunction with:

- (a) ESCC Generic Specification No. 3401, Connectors, Electrical, Non-Filtered, Circular and Rectangular.
- (b) ESCC Detail Specification No. 3401/077, Connectors, Electrical, Rectangular, Microminiature, Removable Crimp Contacts, based on Type MDMA.

the requirements of which are supplemented herein.

1.2 TYPE VARIANTS

The contact type variants are scheduled in Table 1(a).

1.3 MAXIMUM RATINGS

The maximum ratings, which shall not be exceeded at any time during use or storage, applicable to the contacts specified herein, are scheduled in Table 1(b).

1.4 PARAMETER DERATING INFORMATION (FIGURE 1)

Not applicable.

1.5 PHYSICAL DIMENSIONS

The physical dimensions of the contacts specified herein are shown in Figure 2.

TABLE 1(a) - TYPE VARIANTS

Characteristics	Variant				Unit
	01	02	03	04	
Type	Male	Female	Male	Female	-
Mating End Size	24	24	24	24	AWG
Crimp Barrel Size	26	26	24	24	AWG
Accept Wire	25, 26, 28	25, 26, 28	24, 2x28	24, 2x28	AWG
Rated Current for AWG 26, insulated and AWG 25 uninsulated solid wire	2.5	2.5	N.A	N.A	A
Rated Current for AWG 28 insulated wire	1.5	1.5	2x 1.5	2x 1.5	A
Rated Current for AWG 24 insulated wire	N.A	N.A	3.5	3.5	A
Maximum Weight	0.03	0.06	0.03	0.06	g

Characteristics		Variant		Unit	
		01 / 03	02 / 04		
Engagement and Separation - Contact Engagement Force	Maximum Force		1.667	-	N
	Test Pin Diameter	Minimum	0.559	-	mm
		Maximum	0.564	-	mm
Engagement and Separation - Contact Separation Force	Maximum Force		0.137	-	N
	Test Pin Diameter	Minimum	0.582	-	mm
		Maximum	0.587	-	mm
Contact Capability - Pick-Up Weight	Weight		14	-	g
	Test Pin Diameter	Minimum	0.582	-	mm
		Maximum	0.587	-	mm
	Minimum Insertion Depth		1.5	-	mm
Contact Capability - Drop Weight	Weight		170	-	g
	Test Pin Diameter	Minimum	0.559	-	mm
		Maximum	0.564	-	mm
	Minimum Insertion Depth		1.5	-	mm
Contact Retention Force (in Insert)		Minimum	22.25	22.25	N
Contact Insertion and Withdrawal Forces		Maximum	10	10	N

TABLE 1(b) - MAXIMUM RATINGS

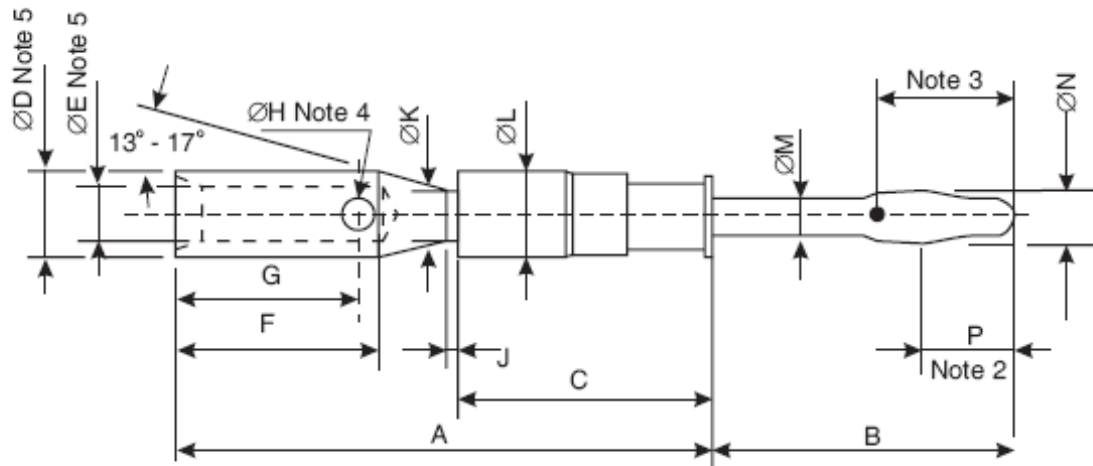
No.	Characteristics	Symbol	Maximum Ratings	Unit
1	Rated Current	I_R	See Table 1(a)	A
2	Operating Temperature Range	T_{op}	-55 to +125	°C
3	Storage Temperature Range	T_{stg}	-65 to +125	°C

FIGURE 1 - PARAMETER DERATING INFORMATION

Not applicable.

FIGURE 2 - PHYSICAL DIMENSIONS

Figure 2.1 - Male Contact

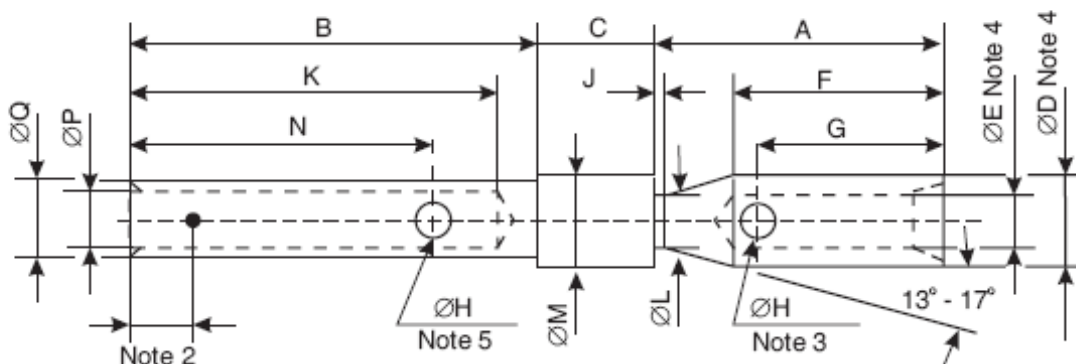


Variants		A	B	C	ØD	ØE	F	G	ØH	J	ØK	ØL	ØM	ØN	P
01	Min	5.7	3.17	2.7	0.92	0.56	2.1	1.8	-	0.05	0.52	0.92	0.42	0.65	0.9
	Max	5.9	3.4	2.8	0.96	0.6	2.4	2.1	0.45	0.15	0.58	0.96	0.45	0.8	1.4
03	Min	5.7	3.17	2.7	0.95	0.69	2.1	1.8	-	0.05	0.52	0.92	0.42	0.65	0.9
	Max	5.9	3.4	2.8	0.97	0.71	2.4	2.1	0.45	0.15	0.58	0.96	0.45	0.8	1.4

NOTES:

1. All dimensions are in millimetres.
2. Measurement point of ØN.
3. Measurement point for plating thickness: 1.5 ±0.5mm
4. Inspection hole may be H x H square and shall only penetrate one wall of the crimp barrel.
5. ØD and ØE to be concentric within 0.07mm

Figure 2.2 - Female Contact



Variants		A	B	C	ØD	ØE	F	G	ØH	J	K	ØL	ØM	N	ØP	ØQ
02	Min	2.9	4.17	1.1	0.92	0.56	2.1	1.8	-	0.05	3.5	0.52	0.92	3	0.56	0.81
	Max	3.1	4.29	1.3	0.96	0.6	2.4	2.1	0.45	0.15	-	0.58	0.98	3.3	0.6	0.85
04	Min	2.9	4.17	1.1	0.95	0.69	2.1	1.8	-	0.05	3.5	0.52	0.92	3	0.56	0.81
	Max	3.1	4.29	1.3	0.97	0.71	2.4	2.1	0.45	0.15	-	0.58	0.98	3.3	0.6	0.85

APPENDIX 'A' - AGREED DEVIATIONS FOR C & K COMPONENTS (F)

ITEMS AFFECTED	DESCRIPTION OF DEVIATIONS	
Deviations from Final Production Tests (Chart II)	Para. 9.4, Contact Capability: 100% Contact Capability Test may be omitted provided that a 100% visual inspection of the contacts is performed on each batch submitted to tests defined in the C&K PID requirements.	
Deviations from Qualification Tests (Chart IV) and Lot Acceptance Tests (Chart V)	Para. 9.15, Joint Strength: The contacts shall be crimped to insulated stranded wire AWG24 , AWG26 and AWG28, and to uninsulated solid wire AWG25. Minimum tensile strengths are as follows:	
	Wire Sizes (Male and Female Contacts)	Minimum Tensile Strength (N)
	AWG 24	30
	AWG 26	22
	AWG 28	13
	2x AWG 28	20
	AWG 25 (Solid, Uninsulated)	22
The value of failure shall be recorded together with the failure mode ("pull-out", "break in crimp" or "break in wire").		