



**ACCESSORIES FOR CIRCULAR CONNECTORS**  
**3401/008**

**ESCC Detail Specification No. 3401/064**

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DCR No.	CHANGE DESCRIPTION
750	Specification updated to incorporate editorial changes per DCR.

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## **1 GENERAL**

### **1.1 SCOPE**

This specification details the ratings, physical and electrical characteristics, test and inspection data for Accessories for Circular Connectors 3401/008. It shall be read in conjunction with ESCC Generic Specification No. 3401, the requirements of which are supplemented herein, and ESCC Detail Specification No. 3401/008.

### **1.2 COMPONENT TYPE VARIANTS**

The type variants of accessories covered by this specification are given 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 accessories specified herein, are given in Table 1(b).

### **1.4 PARAMETER DERATING INFORMATION (FIGURE 1)**

Not applicable.

### **1.5 PHYSICAL DIMENSIONS**

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

## **2 APPLICABLE DOCUMENTS**

The following documents form part of this specification and shall be read in conjunction with it:

- (a) ESCC Generic Specification No. 3401, Connectors, Electrical, Non-Filtered, Circular and Rectangular.
- (b) ESCC Detail Specification No. 3401/008, Connectors, Miniature, Electrical, Circular, Push-Pull Coupling, Crimp-type Removable Contacts, Based on Type DBAS.

## **3 TERMS, DEFINITIONS, ABBREVIATIONS, SYMBOLS AND UNITS**

For the purpose of this specification, the terms, definitions, abbreviations, symbols and units specified in ESCC Basic Specification No. 21300 shall apply.

**TABLE 1(a) – TYPE VARIANTS**

Variant	Backshell Description	Part Number	Shell Size	Tightening Torque (m.daN Max.)	Weight (g) Max.
01	Rear Nut	006-0909-03-A499	03	0.4	5
02	Rear Nut	006-0909-12-A499	07	0.5	6
03	Rear Nut	006-0909-14-A499	12	0.6	8
04	Rear Nut	006-0909-16-A499	19	0.65	9
05	Rear Nut	006-0909-18-A499	27	0.7	10
06	Rear Nut	006-0909-20-A499	37	0.75	12
07	Rear Nut	006-0909-61-A499	61	0.95	15
08	Cable Clamp, Straight	006-0910-03-A499	03	0.4	8
09	Cable Clamp, Straight	006-0910-12-A499	07	0.5	10
10	Cable Clamp, Straight	006-0910-14-A499	12	0.6	11
11	Cable Clamp, Straight	006-0910-16-A499	19	0.65	14
12	Cable Clamp, Straight	006-0910-18-A499	27	0.7	15
13	Cable Clamp, Straight	006-0910-20-A499	37	0.75	17
14	Cable Clamp, Straight	006-0910-61-A499	61	0.95	22
15	Cable Clamp, Right Angle	006-0908-03-A499	03	0.4	12
16	Cable Clamp, Right Angle	006-0908-12-A499	07	0.5	13
17	Cable Clamp, Right Angle	006-0908-14-A499	12	0.6	17
18	Cable Clamp, Right Angle	006-0908-16-A499	19	0.65	19
19	Cable Clamp, Right Angle	006-0908-18-A499	27	0.7	22
20	Cable Clamp, Right Angle	006-0908-20-A499	37	0.75	27
21	Cable Clamp, Right Angle	006-0908-61-A499	61	0.95	36
22	Potting Shell	006-0701-03-A499	03	0.4	5
23	Potting Shell	006-0701-12-A499	07	0.5	7
24	Potting Shell	006-0701-14-A499	12	0.6	10
25	Potting Shell	006-0701-16-A499	19	0.65	12
26	Potting Shell	006-0701-18-A499	27	0.7	15
27	Potting Shell	006-0701-20-A499	37	0.75	18
28	Potting Shell	006-0701-61-A499	61	0.95	20
29	Cable Clamp Sleeve	006-0005-08	03	-	1
30	Cable Clamp Sleeve	006-0005-12	07	-	1.5
31	Cable Clamp Sleeve	006-0005-14	12	-	1.5
32	Cable Clamp Sleeve	006-0005-16	19	-	3
33	Cable Clamp Sleeve	006-0005-18	27	-	4
34	Cable Clamp Sleeve	006-0005-20	37	-	5
35	Cable Clamp Sleeve	006-0005-61	61	-	6
36	Cable Clamp Intermediate Sleeve	006-0006-12	7 to 27	-	3
37	Cable Clamp Intermediate Sleeve	006-0006-14	12 to 37	-	4
38	Cable Clamp Intermediate Sleeve	006-0006-18	27, 37	-	5
39	Cable Clamp Intermediate Sleeve	006-0006-20	37, 61	-	4
40	Cable Clamp Intermediate Sleeve	006-0006-22	61	-	6
41	Cable Clamp Intermediate Sleeve	006-0006-24	61	-	9

**TABLE 1(b) – MAXIMUM RATINGS**

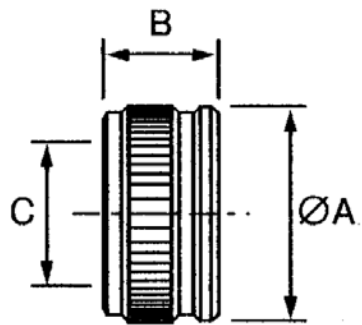
No.	Characteristics	Symbol	Maximum Rating	Unit
1	Operating Temperature Range	T <sub>op</sub>	-55 to +200	°C
2	Storage Temperature Range	T <sub>stg</sub>	-55 to +200	°C
3	Tightening Torque	T <sub>q</sub>	See Table 1(a)	m.daN

**FIGURE 1 – PARAMETER DERATING INFORMATION**

Not applicable

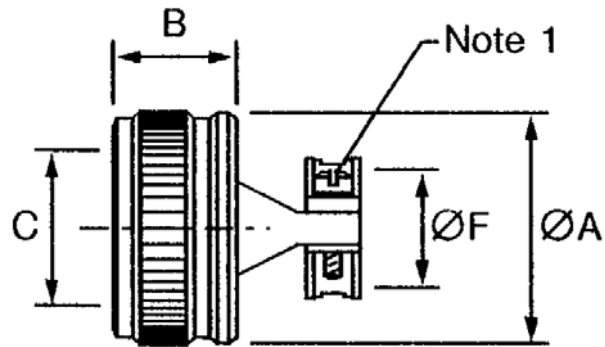
**FIGURE 2 – PHYSICAL DIMENSIONS**

FIGURE 2(a) – REAR NUT



Variant	Used With Shell Size	Dimensions (mm)		
		ØA (Max.)	B (± 0.1)	C (Thread)
01	03	17	12.6	9/16-24 UNEF 28
02	07	21.8	12.6	3/4-20 UNEF 28
03	12	25	12.6	7/8-20 UNEF 28
04	19	28.25	12.6	1-20 UNEF 28
05	27	30.95	12.6	1-1/16-18 UNEF 28
06	37	34.15	12.6	1-3/16-18 UNEF 28
07	61	42	12.6	1-1/2-18 UNEF 28

FIGURE 2(b) – CABLE CLAMP, STRAIGHT



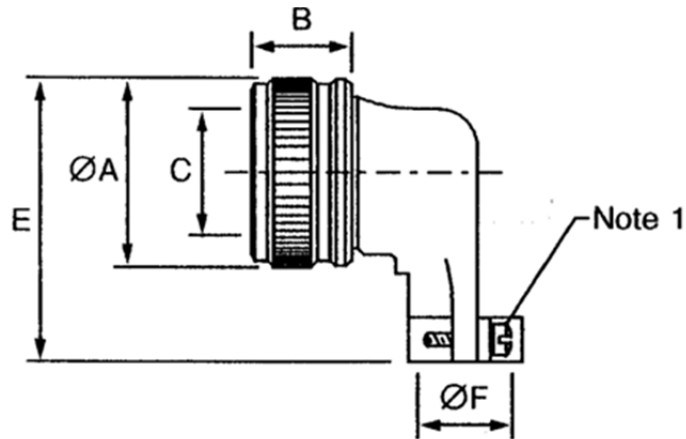
Variant	Used With Shell Size	Dimensions (mm)			
		ØA (Max.)	B (± 0.1)	C (Thread)	ØF (Max.)
08	03	17	12.6	9/16-24 UNEF 28	5.15
09	07	21.8	12.6	3/4-20 UNEF 28	10.55
10	12	25	12.6	7/8-20 UNEF 28	12.05
11	19	28.25	12.6	1-20 UNEF 28	15.85
12	27	30.95	12.6	1-1/16-18 UNEF 28	17.9
13	37	34.15	12.6	1-3/16-18 UNEF 28	21.05
14	61	42	12.6	1-1/2-18 UNEF 28	27.4

**NOTES:**

1. Maximum torque: 0.1m.daN.
2. ØF Max. = clamps tightened.



FIGURE 2(c) – CABLE CLAMP, RIGHT ANGLE

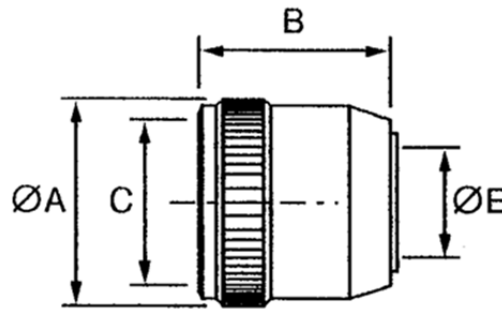


Variant	Used With Shell Size	Dimensions (mm)				
		ØA (Max.)	B (± 0.1)	C (Thread)	E (Max.)	ØF (Max.)
15	03	17	12.6	9/16-24 UNEF 28	29.9	5.15
16	07	21.8	12.6	3/4-20 UNEF 28	34.7	10.55
17	12	25	12.6	7/8-20 UNEF 28	37.8	12.05
18	19	28.25	12.6	1-20 UNEF 28	40.95	15.85
19	27	30.95	12.6	1-1/16-18 UNEF 28	43.8	17.9
20	37	34.15	12.6	1-3/16-18 UNEF 28	47	21.05
21	61	42	12.6	1-1/2-18 UNEF 28	54.5	27.4

**NOTES:**

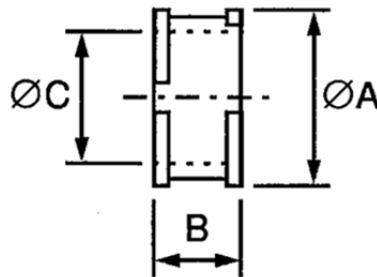
1. Maximum torque: 0.1m.daN.
2. ØF Max. = clamps tightened.

FIGURE 2(d) – POTTING SHELL



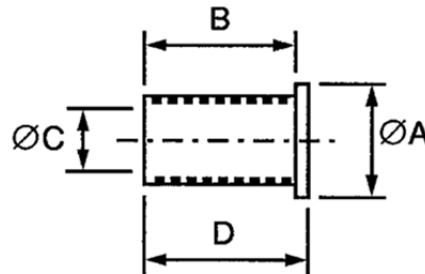
Variant	Used With Shell Size	Dimensions (mm)			
		ØA (Max.)	B (Max.)	C (Thread)	ØE (Min.)
22	03	17	21.95	9/16-24 UNEF 28	4.6
23	07	21.8	21.95	3/4-20 UNEF 28	10
24	12	25	27.45	7/8-20 UNEF 28	11.5
25	19	28.25	27.45	1-20 UNEF 28	15.3
26	27	30.95	27.45	1-1/16-18 UNEF 28	17.3
27	37	34.15	27.95	1-3/16-18 UNEF 28	20.5
28	61	42	27.95	1-1/2-18 UNEF 28	26.8

FIGURE 2(e) - CABLE CLAMP SLEEVE



Variant	Used With Shell Size	Dimensions (mm)		
		ØA (± 0.1)	B (± 0.1)	ØC (+0.2, -0)
29	03	6	10	3
30	07	13.2	10	7.9
31	12	15.7	10	11.1
32	19	18.5	10	11.1
33	27	20.5	10	14.3
34	37	23.7	10	15.9
35	61	30	10	23.8

**FIGURE 2(f) – CABLE CLAMP INTERMEDIATE SLEEVE**



Variant	Used With Shell Size	Dimensions (mm)			
		ØA (± 0.1)	B (± 0.1)	ØC (+0.2, -0)	D (± 0.1)
36	07 to 27	10.2	47.5	5.6	49.1
37	12 to 37	12.7	44	7.9	45.6
38	27, 37	17.5	40.5	11.1	42.1
39	37, 61	20.7	37	14.3	38.6
40	61	23.9	33.5	15.9	35.1
41	61	27	30	19	31.6

#### 4 **REQUIREMENTS**

##### 4.1 **GENERAL**

The complete requirements for procurement of the accessories specified herein are stated in this specification and ESCC Generic Specification No. 3401. Deviations from the Generic Specification, applicable to this specification only, are listed in Para. 4.2.

Deviations from the applicable Generic Specification and this Detail Specification, formally agreed with specific Manufacturers on the basis that the alternative requirements are equivalent to the ESCC requirements and do not affect the components' reliability, are listed in the appendices attached to this specification.

##### 4.2 **DEVIATIONS FROM GENERIC SPECIFICATION**

###### 4.2.1 **Deviations from Special In-process Controls**

None.

###### 4.2.2 **Deviations from Final Production Tests (Chart II)**

(a) Para. 9.5, Magnetism Level: Not applicable.

###### 4.2.3 **Deviations from Burn-in and Electrical Measurements (Chart III)**

Chart III is not applicable.

###### 4.2.4 **Deviations from Qualification Tests (Chart IV)**

Qualification testing is not applicable.

###### 4.2.5 **Deviations from Lot Acceptance Tests (Chart V)**

Lot acceptance testing is not applicable.

#### 4.3 MECHANICAL REQUIREMENTS

##### 4.3.1 Dimension Check

The dimensions of the accessories specified herein shall be verified in accordance with the requirements set out in Para. 9.6 of ESCC Generic Specification No. 3401 and shall conform to those shown in Figure 2 of this specification.

##### 4.3.2 Weight

The maximum weight of the accessories specified herein shall be as shown in Table 1(a) of this specification.

##### 4.3.3 Torque Values

The torque value to be used for tightening of the threads of the accessories specified herein shall be as given in Table 1(a) of this specification.

The torque value to be used for tightening of the screws of the accessories specified herein shall be as given in Figures 2(b) and 2(c) of this specification.

#### 4.4 MATERIALS AND FINISHES

The materials and finishes shall be as specified herein. Where a definite material is not specified, a material which will enable the accessories specified herein to meet the performance requirements of this specification shall be used. Acceptance or approval of any constituent material does not guarantee acceptance of the finished product.

##### 4.4.1 Rear Nut, Cable Clamps and Potting Shell

The rear nuts, straight cable clamps and potting shells shall be made from aluminium alloy to NF AU4G and the right-angled cable clamps shall be made from aluminium alloy to NF AS1OU4. All of these accessories shall be nickel-plated with a thickness of 25 to 30 µm.

##### 4.4.2 Cable Clamp Sleeve and Intermediate Sleeve

The cable clamp sleeve and intermediate sleeve shall be made of silicone elastomer.

##### 4.4.3 Magnetism Level

Not applicable.

#### 4.5 MARKING

##### 4.5.1 General

The marking of all components delivered to this specification shall be in accordance with the requirements of ESCC Basic Specification No. 21700 and the following paragraphs. When the component is too small to accommodate all of the marking as specified, as much as space permits shall be marked and the marking information, in full, shall accompany the component in its primary package.

The information to be marked, and the order of precedence, shall be as follows:

- (a) The ESCC Component Number.
- (b) Traceability information.

##### 4.5.2 The ESCC Component Number

Each component shall bear the ESCC Component Number which shall be constituted and marked as follows:

Example: 340106401B

- Detail Specification Number: 3401064
- Type Variant (see Table 1(a)): 01
- Testing Level: B.

##### 4.5.3 Traceability Information

Traceability information shall be marked in accordance with the requirements of ESCC Basic Specification No. 21700.

#### 4.6 ELECTRICAL MEASUREMENTS (TABLES 2 AND 3)

Not applicable.

#### 4.7 BURN-IN AND ELECTRICAL MEASUREMENTS (TABLES 4 AND 5)

Not applicable.

#### 4.8 ENVIRONMENTAL AND ENDURANCE TESTS (TABLE 6)

Not applicable.