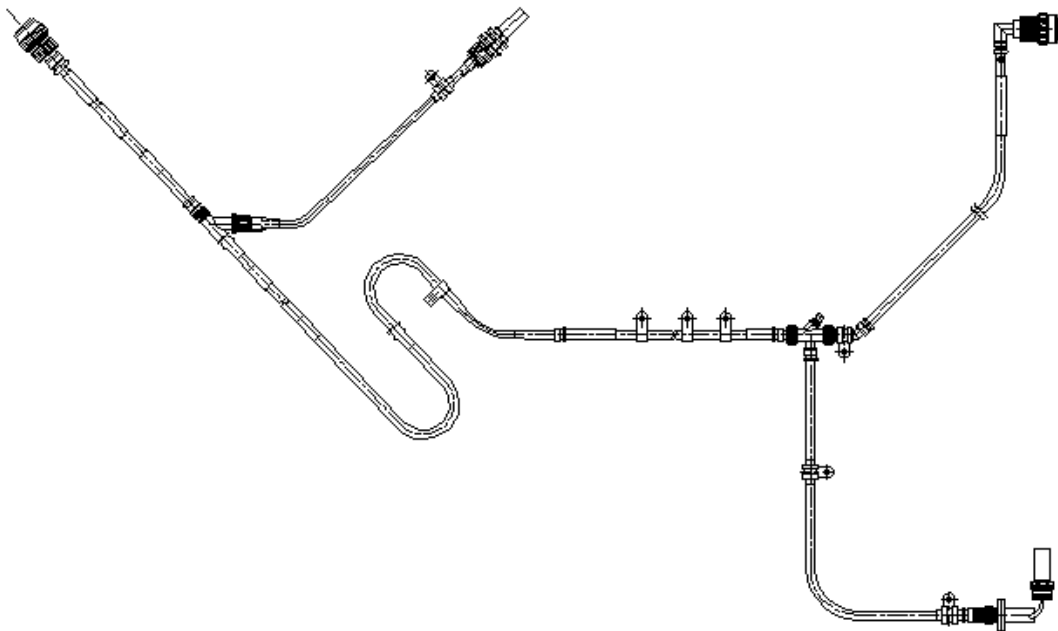


# Advanced Conduit Locking System - ACL Series



*High performance conduit system with  
“Ultralock” Positive locking mechanism*

## 1.1

# How to use this guide

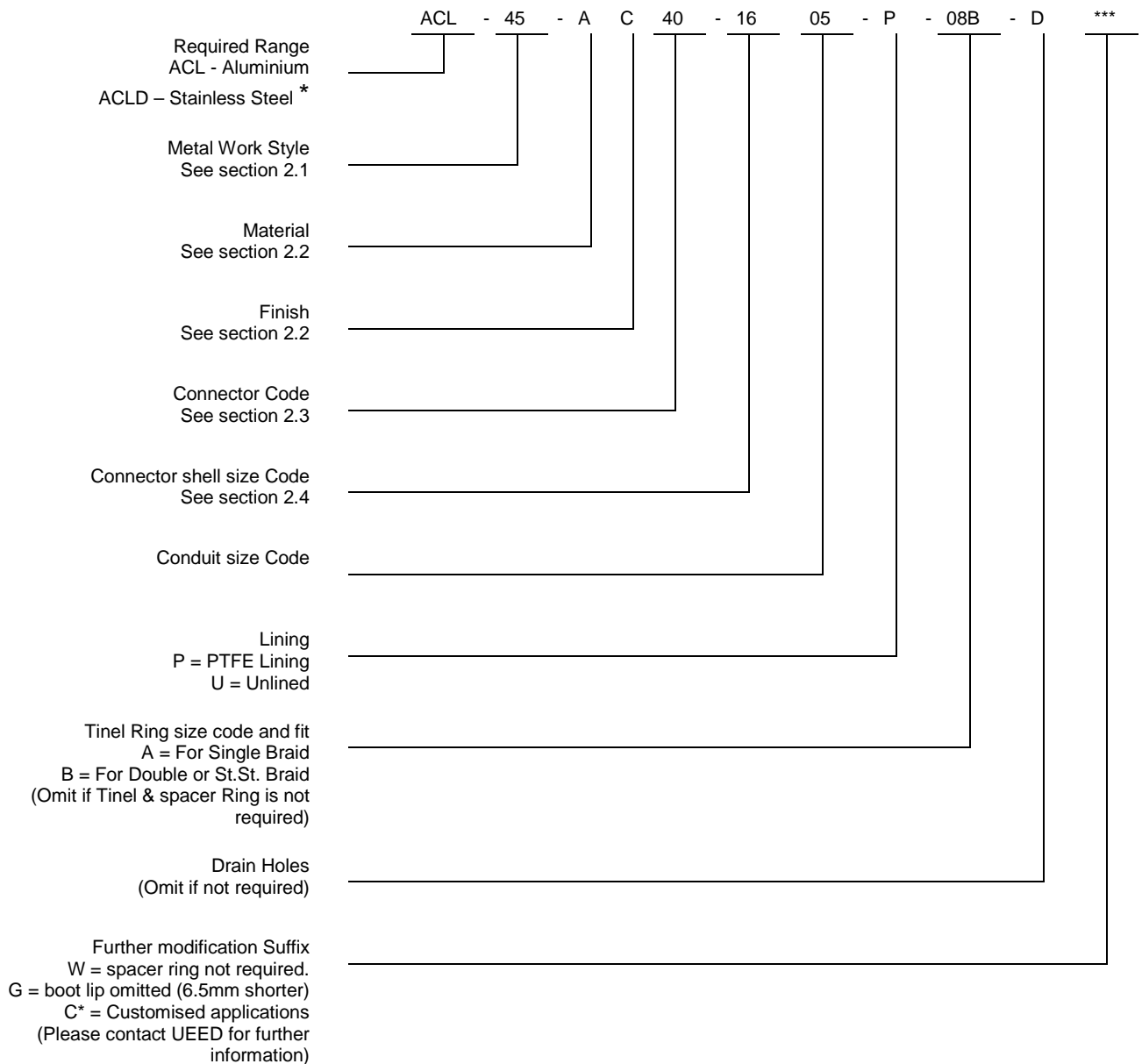
Ultra Electronics Electrics Division component part numbers for ACL harness

<b>1</b>	Define all diameters and lengths Of wire bundles in the harness  Note: Formula quoted is for guidance only and is not applicable in all configurations	Approximate diameter = $1.2\sqrt{N_1D_1^2 + N_2D_2^2 + N_3D_3^2 + \dots}$  N = Number of Wires      D = Diameter of wires Select conduit diameter to give a maximum fill of 80% of the inner diameter
<b>2</b>	Identify fully all the mating connectors and the ACL connector codes	(Refer to section 2.3 for code 40, 41 and 54 connectors.) If connector type is not specified or it is outside this range contact Ultra Electronics Electrics Division
<b>3</b>	Define part numbers (see below) Select any major transition in the harness. Identify part number by using the sequence right referring to wire bundles sizes. Repeat for all adjacent transitions and adaptors, moving around each branch until all metalwork is specified.	<ul style="list-style-type: none"><li>• Identify metalwork style      Section 2.1</li><li>• Choose material and finish      Section 2.2</li><li>• Identify connector code for adaptors only      Section 2.3</li><li>• Identify connector shell size code      Section 2.4</li><li>• Identify conduit size code      Section 3.1 and 4</li><li>• Is PTFE lining required?      Section 1.2</li><li>• Define Tinel ring size and fit      Section 2.5</li></ul>
<b>4</b>	Identify and define conduit and covering	<ul style="list-style-type: none"><li>• Conduit size code      Section 3.1 and 4</li><li>• Braid type and size      Section 4</li></ul>

This guide is to be read in conjunction with the  
**Advanced Conduit System ACS2000 catalogue**

# 1.2

# ACL Part Number Description



\* ACLD range is essentially stainless steel.  
 The profiles may differ to those shown in this catalogue because the wall thickness is reduced and historically they have not included the boot groove (i.e. the adaptor rear end is reduced by 6.5mm).  
 If a boot groove is required for ACLD adaptors a modification suffix G should be added to the part number description.  
 Please contact UEED for further information.

## 2

## Selection of adaptors and transitions

---

### 2.1

### Metalwork Style

---

Refer to the ACL part number description in Section 1.2.

Metalwork components fall into two families, connector adaptors, or Interconnect components.

Each can be selected from the following list.

#### Adaptors for connectors

Code	Style	
ACL - 00	Straight Adaptors for Connectors	Section 3.2
ACL - 45	45° Adaptors for Connectors	Section 3.3
ACL - 90	90° Adaptors for Connectors	Section 3.4

---

For these Adaptors the connector code is as defined in section 2.3.

---

#### Interconnect components

Code	Style	
ACS - 15	Finishing Adaptor	Section 3.5
ACS - 20	Bulkhead Adaptor	Section 3.6
ACL - 35	Adaptors for Transitions (only)	Section 3.7
ACL - 70	Y Transitions	Section 3.8
ACL - 75	Double T Transitions	Section 3.9
ACL - 80	T Transitions	Section 3.10
ACL - 85	Trident Transitions	Section 3.11

---

For all interconnecting components the connector code is 00.

---

For alternative designs contact Ultra Electronics Electrics Division

### 2.2

### Material and Finish

---

	Material
Code A =	Aluminium Alloy BS4300/5 2011TF or equivalent
Code S =	Stainless Steel BS970 303S31 or equivalent. (This is usually only available with the ACLD option, please contact Ultra Electronics Electrics Division.)

	Finish
Code B =	Cadmium per QQ-P-416 Type II, Class 3 over Electroless Nickel Plate to MIL-C-26074, Class 3 or 4, Grade B
Code C =	Electroless Nickel Plate to MIL-C-26074, Class 3 or 4 Grade B

For other options please contact Ultra Electronics Electrics Division

## 2.3 Connector Code

Identification of Ultra Electronics Electrics Division connector code by Military part number.

Applies only to adaptors designed to interface with connectors, otherwise use connector code -00 (i.e. at a transition).

For alternative connector codes contact Ultra Electronics Electrics Division.

### Connector Code 40

<b>Military Part Number</b>	<b>Connector Specification</b>	<b>Series/Class</b>
D38999/20	MIL-C-38999	Series III: Class C, F, K, W
D38999/24	MIL-C-38999	Series III: Class C, F, K, W
D38999/26	MIL-C-38999	Series III: Class C, F, K, W
D38999/40	MIL-C-38999	Series IV: Class C, F, W
D38999/42	MIL-C-38999	Series IV: Class C, F, W
D38999/44	MIL-C-38999	Series IV: Class C, F, W
D38999/46	MIL-C-38999	Series IV: Class F, W
D38999/47	MIL-C-38999	Series IV: Class C, W

### Connector Code 41

<b>Military Part Number</b>	<b>Connector Specification</b>	<b>Series/Class</b>
MS27466	MIL-C-38999	Series I: Class E, P, T
MS27467	MIL-C-38999	Series I: Class E, P, T
MS27468	MIL-C-38999	Series II: Class E, P, T
MS27472	MIL-C-38999	Series II: Class T
MS27473	MIL-C-38999	Series II: Class E, P, T
MS27474	MIL-C-38999	Series II: Class T
MS27479	MIL-C-38999	Series II: Class T
MS27480	MIL-C-38999	Series II: Class E, T
MS27481	MIL-C-38999	Series II: Class T
MS27484	MIL-C-38999	Series II: Class E, T
MS27497	MIL-C-38999	Series II: Class T
MS27652	MIL-C-38999	Series II: Class E, T
MS27653	MIL-C-38999	Series I: Class E, T
MS27656	MIL-C-38999	Series I: Class E, T
MS27661	MIL-C-38999	Series I: Class E, T
MS27665	MIL-C-38999	Series I

## Connector Code 54

Military Part Number	Connector Specification	Series/Class
M83723/01	MIL-C-83723	Series I : Class A, G, R
M83723/02	MIL-C-83723	Series I : Class A, G, R
M83723/03	MIL-C-83723	Series I : Class A, G, R
M83723/04	MIL-C-83723	Series I : Class A, G, R
M83723/05	MIL-C-83723	Series I : Class A, G, R
M83723/06	MIL-C-83723	Series I : Class A, G, R
M83723/07	MIL-C-83723	Series I : Class A, G, R
M83723/08	MIL-C-83723	Series I : Class A, G, R
M83723/13	MIL-C-83723	Series I : Class A, G, R
M83723/14	MIL-C-83723	Series I : Class A, G, R
M83723/36	MIL-C-83723	Series I : Class A, G, R
M83723/37	MIL-C-83723	Series I : Class A, G, R
M83723/38	MIL-C-83723	Series I : Class A, G, R
M83723/39	MIL-C-83723	Series I : Class A, G, R
M83723/40	MIL-C-83723	Series I : Class A, G, R
M83723/41	MIL-C-83723	Series I : Class A, G, R
M83723/42	MIL-C-83723	Series I : Class G,R
M83723/43	MIL-C-83723	Series I : Class G,R
M83723/48	MIL-C-83723	Series I : Class G,R
M83723/49	MIL-C-83723	Series I : Class G,R
M83723/65	MIL-C-83723	Series III : Class H
M83723/66	MIL-C-83723	Series III : Class A,G,R
M83723/67	MIL-C-83723	Series III : Class A,G,R
M83723/68	MIL-C-83723	Series III : Class A,G,R
M83723/69	MIL-C-83723	Series III : Class A,G,R
M83723/71	MIL-C-83723	Series III : Class A,G,R
M83723/72	MIL-C-83723	Series III : Class A,G,R
M83723/73	MIL-C-83723	Series III : Class A,G,R
M83723/74	MIL-C-83723	Series III : Class A,G,R
M83723/75	MIL-C-83723	Series III : Class A,G,R
M83723/76	MIL-C-83723	Series III : Class A,G,R
M83723/77	MIL-C-83723	Series III : Class G,R
M83723/78	MIL-C-83723	Series III : Class G,R
M83723/82	MIL-C-83723	Series III : Class A,G,K,R,S
M83723/83	MIL-C-83723	Series III : Class A,G,K,R,S
M83723/84	MIL-C-83723	Series III : Class A,G,K,R,S
M83723/85	MIL-C-83723	Series III : Class A,G,K,R,S
M83723/86	MIL-C-83723	Series III : Class A,G,K,R
M83723/87	MIL-C-83723	Series III : Class A,G,K,R
M83723/91	MIL-C-83723	Series III : Class G,R,W
M83723/92	MIL-C-83723	Series III : Class G,R,W
M83723/95	MIL-C-83723	Series III : Class A,G,K,R
M83723/96	MIL-C-83723	Series III : Class A,G,K,R
M83723/97	MIL-C-83723	Series III : Class S
M83723/98	MIL-C-83723	Series III : Class S
MS3400	MIL-C-5015	Class D, L, W crimp contact
MS3401	MIL-C-5015	Class D, L, W crimp contact
MS3404	MIL-C-5015	Class D, L, W crimp contact
MS3406	MIL-C-5015	Class D, L, W crimp contact
MS3408	MIL-C-5015	Class D, L, W crimp contact
MS3409	MIL-C-5015	Crimp contact
MS3412	MIL-C-5015	Class D, L, U, W crimp contact less endbell
MS3424	MIL-C-81703	Series 3 : Class E, L
MS3446	MIL-C-81703	Series 3 : Class E, L
MS3450	MIL-C-5015	Class D, L, W crimp contact
MS3451	MIL-C-5015	Class D, L, W crimp contact
MS3454	MIL-C-5015	Class D, L, W crimp contact
MS3456	MIL-C-5015	Class D, L, W crimp contact
MS3459	MIL-C-5015	Class L, W crimp contact
MS3464	MIL-C-81703	Series 3 : Class E, L
MS3467	MIL-C-81703	Series 3 : Class E, L
MS3468	MIL-C-81703	Series 3 : Class E, L
MS3470	MIL-C-26482	Series 2 : Class A, L
MS3471	MIL-C-26482	Series 2 : Class A, L
MS3472	MIL-C-26482	Series 2 : Class A, L
MS3474	MIL-C-26482	Series 2 : Class A, L
MS3475	MIL-C-26482	Series 2 : Class A, L
MS3476	MIL-C-26482	Series 2 : Class A, L

## 2.4

## Connector shell size code

Relates to connector Shell Size (consult connector specifications)

### Connector Code **40**

Connector Shell Size (code)	ACL Shell size code
9 (a)	08
11 (b)	10
13 (c)	12
15 (d)	14
17 (e)	16
19 (f)	18
21 (g)	20
23 (h)	22
25 (i)	24

### Connector Code **41**

Connector Shell Size		
Series I	Series II	ACL Shell size code
9	8	08
11	10	10
13	12	12
15	14	14
17	16	16
19	18	18
21	20	20
23	22	22
25	24	24

### Connector Code **54**

Connector Shell Size	ACL Shell size code
8 & 8S	08
10, 10S & 10SL	10
12 & 12S	12
14 & 14S	14
16 & 16S	16
18	18
20	20
22	22
24	24

## 2.5

## Tinel Ring size and fit codes

The tinel ring size code relates to the conduit size required - refer to section 3.1.  
The "fit" reference is as follows:-

#### A Ring

Single layer braid, typical strand diameter between 0.10mm & 0.16mm.

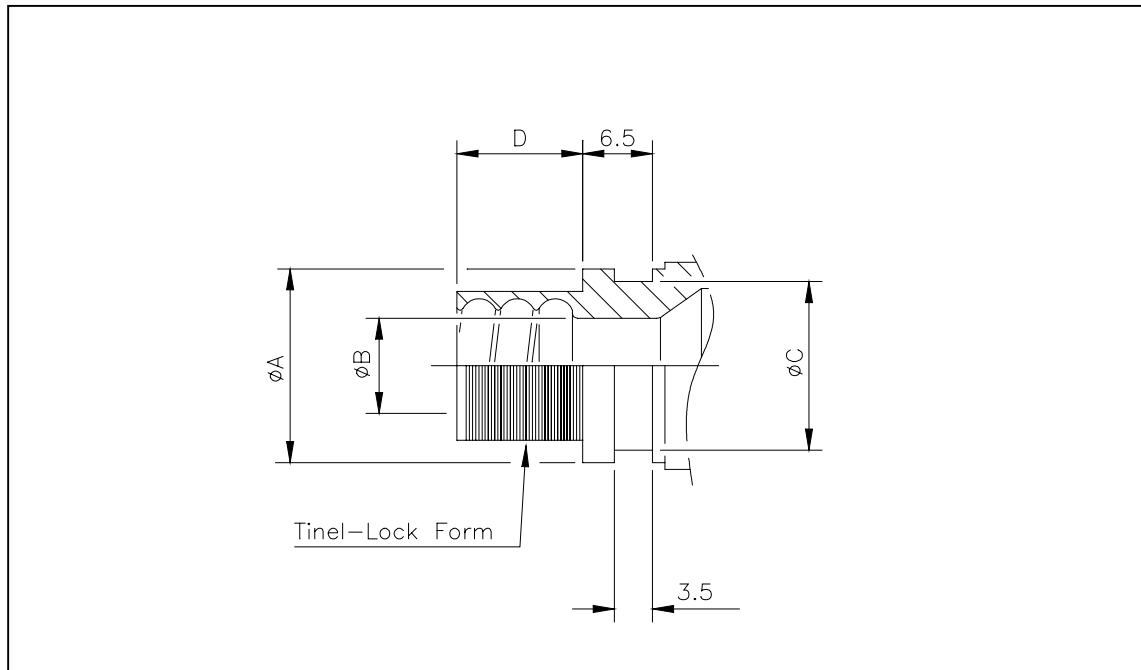
#### B Ring

For use with specialised braid constructions (i.e. stainless steel braid or when double layer copper braids are used).

This selection of Tinel rings is only compatible with the braids referenced in this guide.  
Please consult Ultra Electronics Electrics Division for other variations.

### 3 Metalwork Information sheets

#### 3.1 Rear end form



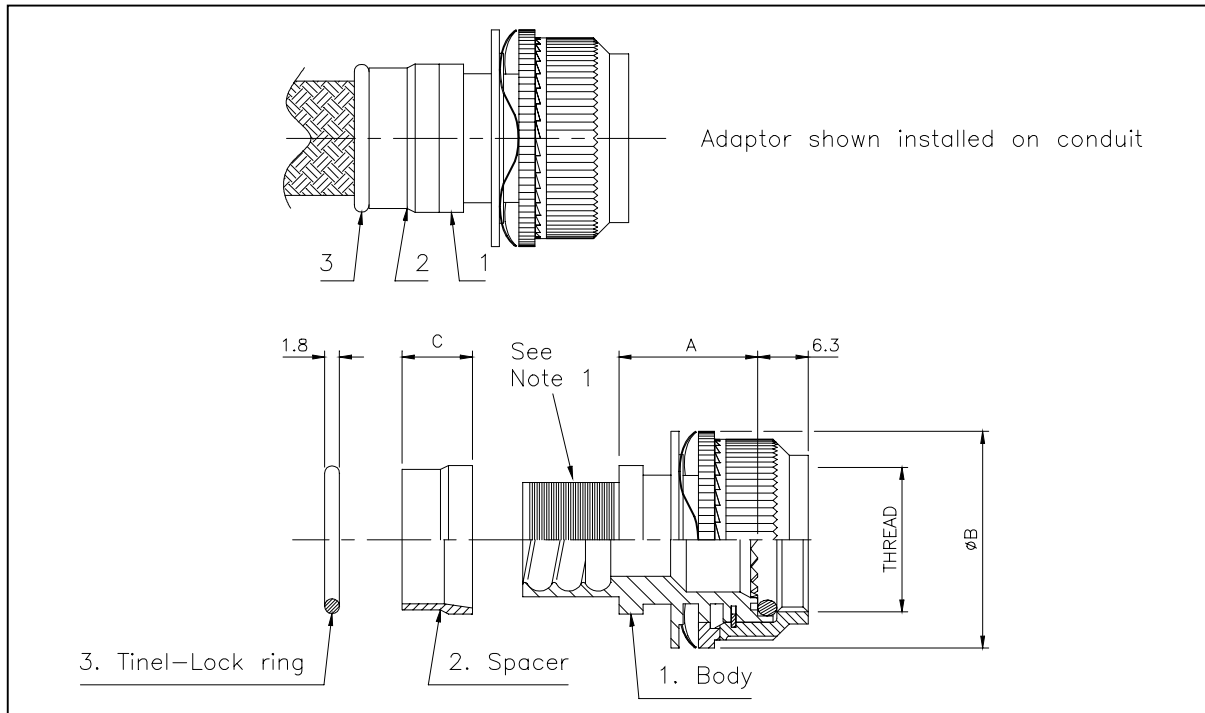
Typical adaptor rear end form (for Information only) used on :-  
Connector adaptors ACL-00, ACL-45, ACL-90 and transition adaptors ACL-35

Conduit Code	Conduit Size Ref	Tinel Ring Size code	ØA	ØB	ØC	D
01	0187	04	14.0	4.5	11.6	12.0
02	0281	06	17.0	6.9	14.6	12.0
03	0312	06	17.0	7.5	14.6	12.0
04	0375	07	18.5	9.1	16.1	12.0
05	0437	08	20.5	10.7	18.1	12.0
06	0500	10	23.5	12.2	21.1	14.0
07	0625	12	26.5	15.5	22.8	14.0
08	0750	14	30.0	18.9	26.3	16.0
09	0875	18	36.0	22.2	32.3	19.0
10	1000	20	39.5	24.4	35.8	19.0

Dimensions – mm nominal (unless otherwise stated)

### 3.2

### Straight adaptors for code 40 connectors



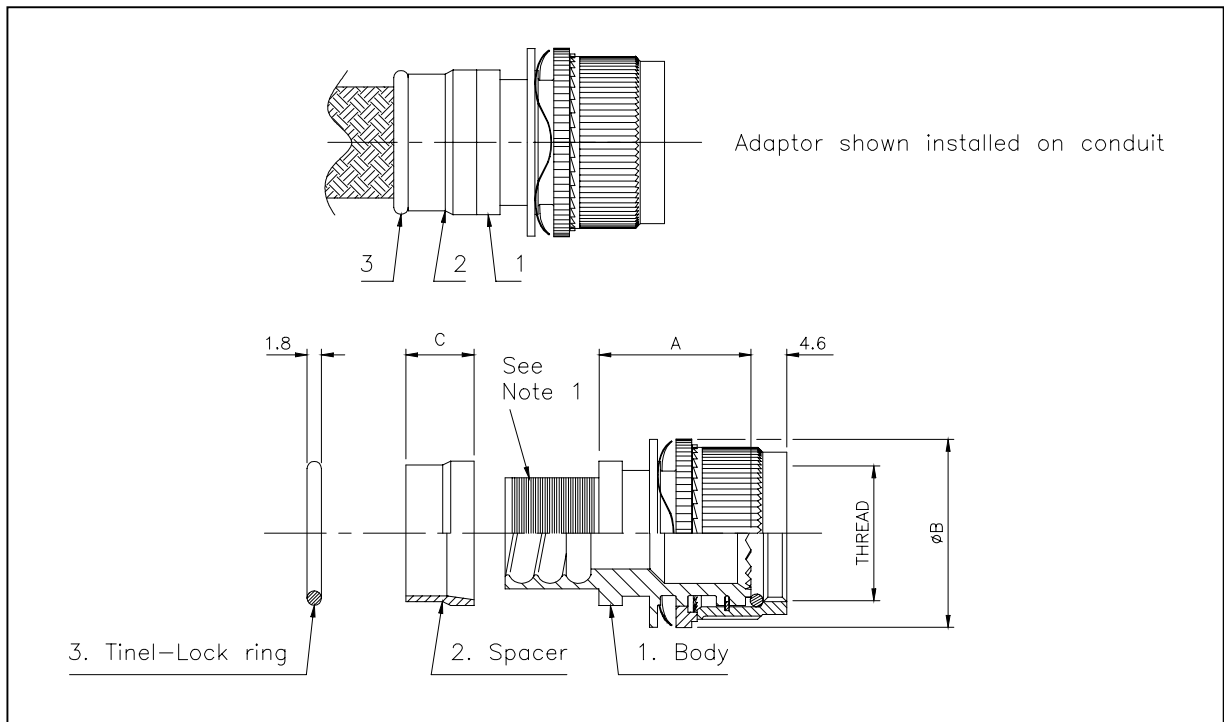
Part Number	A	ØB	Thread R.H. Class 6H	C
ACL-00-40-0801-04*	17.3	19.0	M12 x 1.0	7.0
ACL-00-40-0802-06*	17.3	19.0	M12 x 1.0	7.0
ACL-00-40-1001-04*	17.3	23.5	M15 x 1.0	7.0
ACL-00-40-1002-06*	17.3	23.5	M15 x 1.0	7.0
ACL-00-40-1003-06*	17.3	23.5	M15 x 1.0	7.0
ACL-00-40-1004-07*	17.3	23.5	M15 x 1.0	7.0
ACL-00-40-1201-04*	17.3	27.0	M18 x 1.0	7.0
ACL-00-40-1202-06*	17.3	27.0	M18 x 1.0	7.0
ACL-00-40-1203-06*	17.3	27.0	M18 x 1.0	7.0
ACL-00-40-1204-07*	17.3	27.0	M18 x 1.0	7.0
ACL-00-40-1205-08*	17.3	27.0	M18 x 1.0	7.0
ACL-00-40-1206-10*	17.3	27.0	M18 x 1.0	9.0
ACL-00-40-1401-04*	17.3	32.5	M22 x 1.0	7.0
ACL-00-40-1402-06*	17.3	32.5	M22 x 1.0	7.0
ACL-00-40-1403-06*	17.3	32.5	M22 x 1.0	7.0
ACL-00-40-1404-07*	17.3	32.5	M22 x 1.0	7.0
ACL-00-40-1405-08*	17.3	32.5	M22 x 1.0	7.0
ACL-00-40-1406-10*	17.3	32.5	M22 x 1.0	9.0
ACL-00-40-1407-12*	17.3	32.5	M22 x 1.0	9.0
ACL-00-40-1601-04*	17.8	35.0	M25 x 1.0	7.0
ACL-00-40-1602-06*	17.8	35.0	M25 x 1.0	7.0
ACL-00-40-1603-06*	17.8	35.0	M25 x 1.0	7.0
ACL-00-40-1604-07*	17.8	35.0	M25 x 1.0	7.0
ACL-00-40-1605-08*	17.8	35.0	M25 x 1.0	7.0
ACL-00-40-1606-10*	17.8	35.0	M25 x 1.0	9.0
ACL-00-40-1607-12*	17.8	35.0	M25 x 1.0	9.0
ACL-00-40-1608-14*	17.8	35.0	M25 x 1.0	11.0

Part Number	A	ØB	Thread R.H. Class 6H	C
ACL-00-40-1801-04*	17.8	38.5	M28 x 1.0	7.0
ACL-00-40-1802-06*	17.8	38.5	M28 x 1.0	7.0
ACL-00-40-1803-06*	17.8	38.5	M28 x 1.0	7.0
ACL-00-40-1804-07*	17.8	38.5	M28 x 1.0	7.0
ACL-00-40-1805-08*	17.8	38.5	M28 x 1.0	7.0
ACL-00-40-1806-10*	17.8	38.5	M28 x 1.0	9.0
ACL-00-40-1807-12*	17.8	38.5	M28 x 1.0	9.0
ACL-00-40-1808-14*	17.8	38.5	M28 x 1.0	11.0
ACL-00-40-1809-18*	17.8	38.5	M28 x 1.0	14.0
ACL-00-40-2004-07*	17.8	38.5	M31 x 1.0	7.0
ACL-00-40-2005-08*	17.8	38.5	M31 x 1.0	7.0
ACL-00-40-2006-10*	17.8	38.5	M31 x 1.0	9.0
ACL-00-40-2007-12*	17.8	38.5	M31 x 1.0	9.0
ACL-00-40-2008-14*	17.8	38.5	M31 x 1.0	11.0
ACL-00-40-2009-18*	17.8	38.5	M31 x 1.0	14.0
ACL-00-40-2010-20*	17.8	38.5	M31 x 1.0	14.0
ACL-00-40-2206-10*	17.8	41.5	M34 x 1.0	9.0
ACL-00-40-2207-12*	17.8	41.5	M34 x 1.0	9.0
ACL-00-40-2208-14*	17.8	41.5	M34 x 1.0	11.0
ACL-00-40-2209-18*	17.8	41.5	M34 x 1.0	14.0
ACL-00-40-2210-20*	17.8	41.5	M34 x 1.0	14.0
ACL-00-40-2406-10*	17.8	45.0	M37 x 1.0	9.0
ACL-00-40-2407-12*	17.8	45.0	M37 x 1.0	9.0
ACL-00-40-2408-14*	17.8	45.0	M37 x 1.0	11.0
ACL-00-40-2409-18*	17.8	45.0	M37 x 1.0	14.0
ACL-00-40-2410-20*	17.8	45.0	M37 x 1.0	14.0

1. For Rear-end form see section 3.1.
2. Dimensions – mm nominal (unless otherwise stated).
3. Part Number description – refer to section 1.2.

### 3.2.1

### Straight adaptors for code 41 connectors



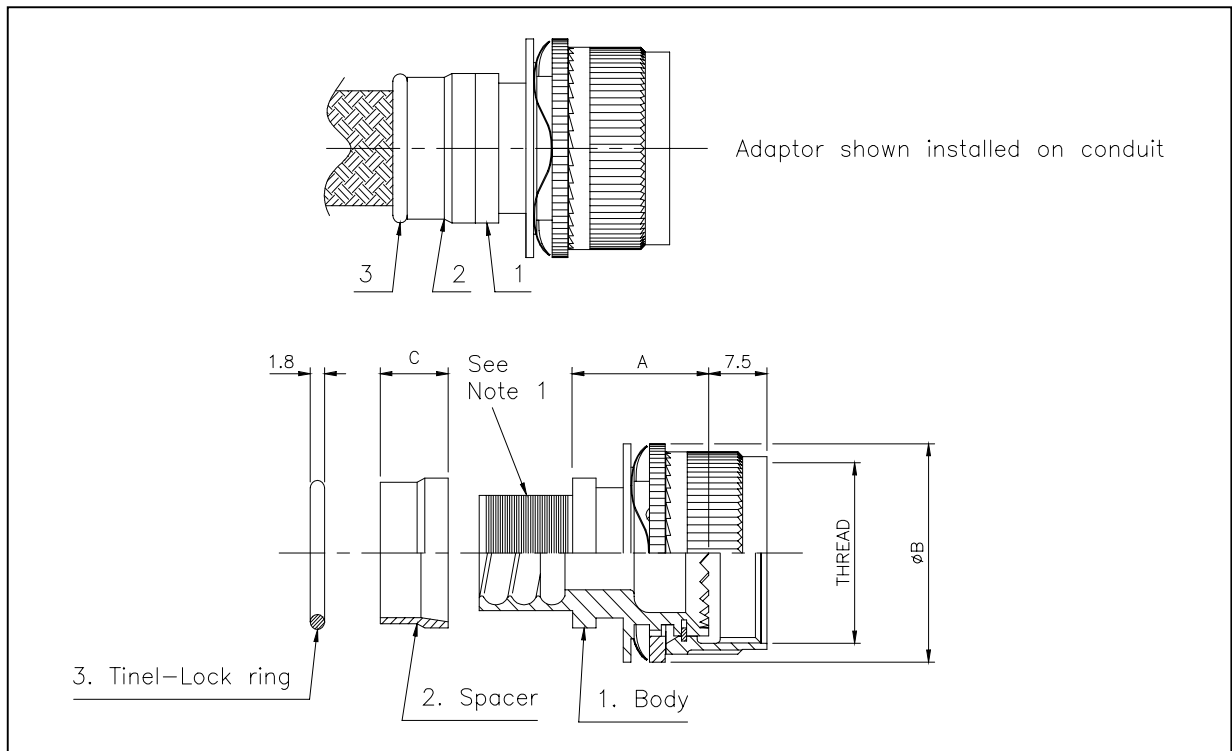
Part Number	A	ØB	Thread R.H. Class 2B	C
ACL-00-41-0801-04	19.5	17.5	0.4375"-28UNEF	7.0
ACL-00-41-0801-06	19.5	17.5	0.4375"-28UNEF	7.0
ACL-00-41-1001-04	19.5	20.5	0.5625"-24UNEF	7.0
ACL-00-41-1002-06	19.5	20.5	0.5625"-24UNEF	7.0
ACL-00-41-1003-06	19.5	20.5	0.5625"-24UNEF	7.0
ACL-00-41-1004-07	19.5	20.5	0.5625"-24UNEF	7.0
ACL-00-41-1005-08	19.5	20.5	0.5625"-24UNEF	7.0
ACL-00-41-1201-04	19.5	24.1	0.6875"-24UNEF	7.0
ACL-00-41-1202-06	19.5	24.1	0.6875"-24UNEF	7.0
ACL-00-41-1203-06	19.5	24.1	0.6875"-24UNEF	7.0
ACL-00-41-1204-07	19.5	24.1	0.6875"-24UNEF	7.0
ACL-00-41-1205-08	19.5	24.1	0.6875"-24UNEF	7.0
ACL-00-41-1206-10	19.5	24.1	0.6875"-24UNEF	9.0
ACL-00-41-1401-04	19.5	28.5	0.8125"-20UNEF	7.0
ACL-00-41-1402-06	19.5	28.5	0.8125"-20UNEF	7.0
ACL-00-41-1403-06	19.5	28.5	0.8125"-20UNEF	7.0
ACL-00-41-1404-07	19.5	28.5	0.8125"-20UNEF	7.0
ACL-00-41-1405-08	19.5	28.5	0.8125"-20UNEF	7.0
ACL-00-41-1406-10	19.5	28.5	0.8125"-20UNEF	9.0
ACL-00-41-1407-12	19.5	28.5	0.8125"-20UNEF	9.0
ACL-00-41-1601-04	19.5	32.5	0.9375"-20UNEF	7.0
ACL-00-41-1603-06	19.5	32.5	0.9375"-20UNEF	7.0
ACL-00-41-1602-06	19.5	32.5	0.9375"-20UNEF	7.0
ACL-00-41-1604-07	19.5	32.5	0.9375"-20UNEF	7.0
ACL-00-41-1605-08	19.5	32.5	0.9375"-20UNEF	7.0
ACL-00-41-1606-10	19.5	32.5	0.9375"-20UNEF	9.0
ACL-00-41-1607-12	19.5	32.5	0.9375"-20UNEF	9.0
ACL-00-41-1608-14	19.5	32.5	0.9375"-20UNEF	11.0

Part Number	A	ØB	Thread R.H. Class 2B	C
ACL-00-41-1801-04	20.0	35.0	1.0625"-18UNEF	7.0
ACL-00-41-1802-06	20.0	35.0	1.0625"-18UNEF	7.0
ACL-00-41-1803-06	20.0	35.0	1.0625"-18UNEF	7.0
ACL-00-41-1804-07	20.0	35.0	1.0625"-18UNEF	7.0
ACL-00-41-1805-08	20.0	35.0	1.0625"-18UNEF	7.0
ACL-00-41-1806-10	20.0	35.0	1.0625"-18UNEF	9.0
ACL-00-41-1807-12	20.0	35.0	1.0625"-18UNEF	9.0
ACL-00-41-1808-14	20.0	35.0	1.0625"-18UNEF	11.0
ACL-00-41-1809-18	20.0	35.0	1.0625"-18UNEF	14.0
ACL-00-41-2004-06	20.0	38.5	1.1875"-18UNEF	7.0
ACL-00-41-2005-08	20.0	38.5	1.1875"-18UNEF	7.0
ACL-00-41-2006-10	20.0	38.5	1.1875"-18UNEF	9.0
ACL-00-41-2007-12	20.0	38.5	1.1875"-18UNEF	9.0
ACL-00-41-2008-14	20.0	38.5	1.1875"-18UNEF	11.0
ACL-00-41-2009-18	20.0	38.5	1.1875"-18UNEF	14.0
ACL-00-41-2010-20	20.0	38.5	1.1875"-18UNEF	14.0
ACL-00-41-2206-10	20.0	41.5	1.3125"-18UNEF	9.0
ACL-00-41-2207-12	20.0	41.5	1.3125"-18UNEF	9.0
ACL-00-41-2208-14	20.0	41.5	1.3125"-18UNEF	11.0
ACL-00-41-2209-18	20.0	41.5	1.3125"-18UNEF	14.0
ACL-00-41-2210-20	20.0	41.5	1.3125"-18UNEF	14.0
ACL-00-41-2406-10	20.0	45.0	1.4375"-18UNEF	9.0
ACL-00-41-2407-12	20.0	45.0	1.4375"-18UNEF	9.0
ACL-00-41-2408-14	20.0	45.0	1.4375"-18UNEF	11.0
ACL-00-41-2409-18	20.0	45.0	1.4375"-18UNEF	14.0
ACL-00-41-2410-20	20.0	45.0	1.4375"-18UNEF	14.0

1. For Rear-end form see section 3.1.
2. Dimensions – mm nominal (unless otherwise stated).
3. Part Number description – refer to section 1.2.

### 3.2.2

### Straight adaptors for code 54 connectors



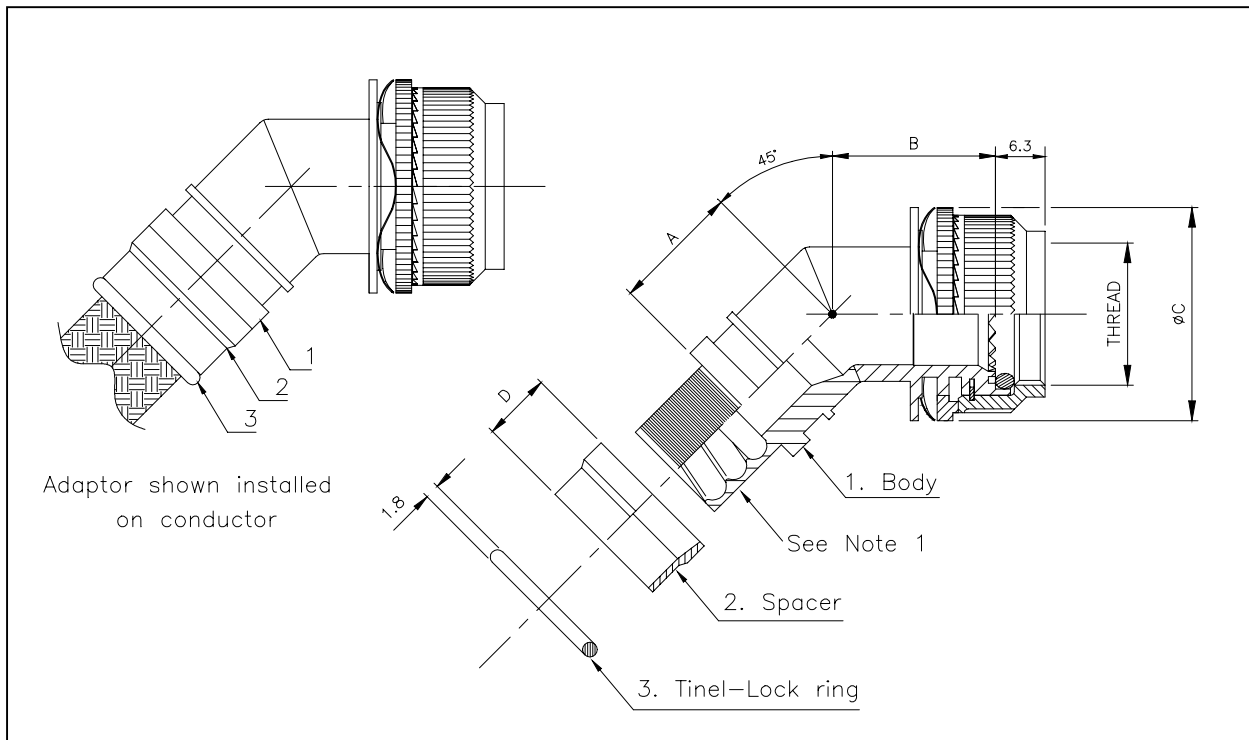
Part Number	A	ØB	Thread R.H. Class 2B	C
ACL-00-54-0801-04	17.5	17.5	0.5000"-20UNF	7.0
ACL-00-54-0802-06	17.5	17.5	0.5000"-20UNF	7.0
ACL-00-54-1001-04	17.5	20.5	0.6250"-24UNEF	7.0
ACL-00-54-1002-06	17.5	20.5	0.6250"-24UNEF	7.0
ACL-00-54-1003-06	17.5	20.5	0.6250"-24UNEF	7.0
ACL-00-54-1004-07	17.5	20.5	0.6250"-24UNEF	7.0
ACL-00-54-1201-04	17.5	24.1	0.7500"-20UNEF	7.0
ACL-00-54-1202-06	17.5	24.1	0.7500"-20UNEF	7.0
ACL-00-54-1203-06	17.5	24.1	0.7500"-20UNEF	7.0
ACL-00-54-1204-07	17.5	24.1	0.7500"-20UNEF	7.0
ACL-00-54-1205-08	17.5	24.1	0.7500"-20UNEF	7.0
ACL-00-54-1206-10	17.5	24.1	0.7500"-20UNEF	9.0
ACL-00-54-1401-04	17.5	27.0	0.8750"-20UNEF	7.0
ACL-00-54-1402-06	17.5	27.0	0.8750"-20UNEF	7.0
ACL-00-54-1403-06	17.5	27.0	0.8750"-20UNEF	7.0
ACL-00-54-1404-07	17.5	27.0	0.8750"-20UNEF	7.0
ACL-00-54-1405-08	17.5	27.0	0.8750"-20UNEF	7.0
ACL-00-54-1406-10	17.5	27.0	0.8750"-20UNEF	9.0
ACL-00-54-1601-04	17.5	30.0	1.0000"-20UNEF	7.0
ACL-00-54-1602-06	17.5	30.0	1.0000"-20UNEF	7.0
ACL-00-54-1602-06	17.5	30.0	1.0000"-20UNEF	7.0
ACL-00-54-1604-07	17.5	30.0	1.0000"-20UNEF	7.0
ACL-00-54-1605-08	17.5	30.0	1.0000"-20UNEF	7.0
ACL-00-54-1606-10	17.5	30.0	1.0000"-20UNEF	9.0
ACL-00-54-1607-12	17.5	30.0	1.0000"-20UNEF	9.0

Part Number	A	ØB	Thread R.H. Class 2B	C
ACL-00-54-1801-04	17.5	32.5	1.0625"-18UNEF	7.0
ACL-00-54-1802-06	17.5	32.5	1.0625"-18UNEF	7.0
ACL-00-54-1803-06	17.5	32.5	1.0625"-18UNEF	7.0
ACL-00-54-1804-07	17.5	32.5	1.0625"-18UNEF	7.0
ACL-00-54-1805-08	17.5	32.5	1.0625"-18UNEF	7.0
ACL-00-54-1806-10	17.5	32.5	1.0625"-18UNEF	9.0
ACL-00-54-1807-12	17.5	32.5	1.0625"-18UNEF	9.0
ACL-00-54-1808-14	17.5	32.5	1.0625"-18UNEF	11.0
ACL-00-54-2004-06	17.5	35.0	1.1875"-18UNEF	7.0
ACL-00-54-2005-08	17.5	35.0	1.1875"-18UNEF	7.0
ACL-00-54-2006-10	17.5	35.0	1.1875"-18UNEF	9.0
ACL-00-54-2007-12	17.5	35.0	1.1875"-18UNEF	9.0
ACL-00-54-2008-14	17.5	35.0	1.1875"-18UNEF	11.0
ACL-00-54-2009-18	17.5	35.0	1.1875"-18UNEF	14.0
ACL-00-54-2206-10	17.5	38.5	1.3125"-18UNEF	9.0
ACL-00-54-2207-12	17.5	38.5	1.3125"-18UNEF	9.0
ACL-00-54-2208-14	17.5	38.5	1.3125"-18UNEF	11.0
ACL-00-54-2209-18	17.5	38.5	1.3125"-18UNEF	14.0
ACL-00-54-2210-20	17.5	38.5	1.3125"-18UNEF	14.0
ACL-00-54-2406-10	17.5	41.5	1.4375"-18UNEF	9.0
ACL-00-54-2407-12	17.5	41.5	1.4375"-18UNEF	9.0
ACL-00-54-2408-14	17.5	41.5	1.4375"-18UNEF	11.0
ACL-00-54-2409-18	17.5	41.5	1.4375"-18UNEF	14.0
ACL-00-54-2410-20	17.5	41.5	1.4375"-18UNEF	14.0

1. For Rear-end form see section 3.1.
2. Dimensions – mm nominal (unless otherwise stated).
3. Part Number description – refer to section 1.2.

### 3.3

### 45° Adaptors for code 40 connectors



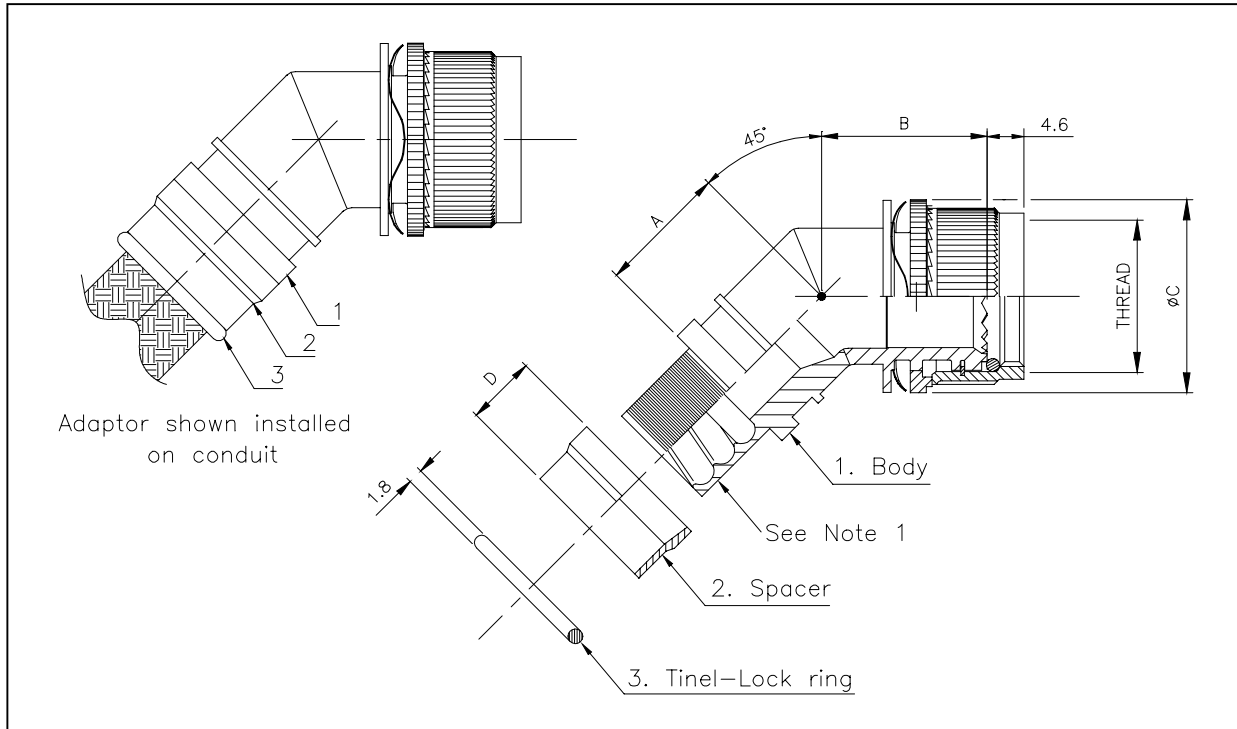
Part Number	A	B	ØC	Thread R.H. Class 6H	D
ACL-45-40-0801-04*	16.0	19.0	19.0	M12 x 1.0	7.0
ACL-45-40-0802-06*	16.0	19.0	19.0	M12 x 1.0	7.0
ACL-45-40-1001-04*	16.0	20.0	23.5	M15 x 1.0	7.0
ACL-45-40-1002-06*	16.0	20.0	23.5	M15 x 1.0	7.0
ACL-45-40-1003-06*	16.0	20.0	23.5	M15 x 1.0	7.0
ACL-45-40-1004-07*	16.0	20.0	23.5	M15 x 1.0	7.0
ACL-45-40-1201-04*	16.0	21.0	27.0	M18 x 1.0	7.0
ACL-45-40-1202-06*	16.0	21.0	27.0	M18 x 1.0	7.0
ACL-45-40-1203-06*	16.0	21.0	27.0	M18 x 1.0	7.0
ACL-45-40-1204-07*	16.0	21.0	27.0	M18 x 1.0	7.0
ACL-45-40-1205-08*	16.0	21.0	27.0	M18 x 1.0	7.0
ACL-45-40-1206-10*	16.0	21.0	27.0	M18 x 1.0	9.0
ACL-45-40-1401-04*	18.0	21.0	32.5	M22 x 1.0	7.0
ACL-45-40-1402-06*	18.0	21.0	32.5	M22 x 1.0	7.0
ACL-45-40-1403-06*	18.0	21.0	32.5	M22 x 1.0	7.0
ACL-45-40-1404-07*	18.0	21.0	32.5	M22 x 1.0	7.0
ACL-45-40-1405-08*	18.0	21.0	32.5	M22 x 1.0	7.0
ACL-45-40-1406-10*	18.0	21.0	32.5	M22 x 1.0	9.0
ACL-45-40-1407-12*	18.0	21.0	32.5	M22 x 1.0	9.0
ACL-45-40-1601-04*	18.0	22.0	35.0	M25 x 1.0	7.0
ACL-45-40-1602-06*	18.0	22.0	35.0	M25 x 1.0	7.0
ACL-45-40-1603-06*	18.0	22.0	35.0	M25 x 1.0	7.0
ACL-45-40-1604-07*	18.0	22.0	35.0	M25 x 1.0	7.0
ACL-45-40-1605-08*	18.0	22.0	35.0	M25 x 1.0	7.0
ACL-45-40-1606-10*	18.0	22.0	35.0	M25 x 1.0	9.0
ACL-45-40-1607-12*	18.0	22.0	35.0	M25 x 1.0	9.0
ACL-45-40-1608-14*	18.0	22.0	35.0	M25 x 1.0	9.0

Part Number	A	B	ØC	Thread R.H. Class 6H	D
ACL-45-40-1801-04*	20.0	23.0	38.5	M28 x 1.0	7.0
ACL-45-40-1802-06*	20.0	23.0	38.5	M28 x 1.0	7.0
ACL-45-40-1803-06*	20.0	23.0	38.5	M28 x 1.0	7.0
ACL-45-40-1804-07*	20.0	23.0	38.5	M28 x 1.0	7.0
ACL-45-40-1805-08*	20.0	23.0	38.5	M28 x 1.0	7.0
ACL-45-40-1806-10*	20.0	23.0	38.5	M28 x 1.0	9.0
ACL-45-40-1807-12*	20.0	23.0	38.5	M28 x 1.0	9.0
ACL-45-40-1808-14*	20.0	23.0	38.5	M28 x 1.0	11.0
ACL-45-40-1809-18*	20.0	23.0	38.5	M28 x 1.0	14.0
ACL-45-40-2004-07*	20.0	23.0	38.5	M31 x 1.0	7.0
ACL-45-40-2005-08*	20.0	23.0	38.5	M31 x 1.0	7.0
ACL-45-40-2006-10*	20.0	23.0	38.5	M31 x 1.0	9.0
ACL-45-40-2007-12*	20.0	23.0	38.5	M31 x 1.0	9.0
ACL-45-40-2008-14*	20.0	23.0	38.5	M31 x 1.0	11.0
ACL-45-40-2009-18*	20.0	23.0	38.5	M31 x 1.0	14.0
ACL-45-40-2010-20*	20.0	23.0	38.5	M31 x 1.0	14.0
ACL-45-40-2206-10*	20.0	24.0	41.5	M34 x 1.0	9.0
ACL-45-40-2207-12*	20.0	24.0	41.5	M34 x 1.0	9.0
ACL-45-40-2208-14*	20.0	24.0	41.5	M34 x 1.0	11.0
ACL-45-40-2209-18*	20.0	24.0	41.5	M34 x 1.0	14.0
ACL-45-40-2210-20*	20.0	24.0	41.5	M34 x 1.0	14.0
ACL-45-40-2406-10*	20.0	25.0	45.1	M37 x 1.0	9.0
ACL-45-40-2407-12*	20.0	25.0	45.1	M37 x 1.0	9.0
ACL-45-40-2408-14*	20.0	25.0	45.1	M37 x 1.0	11.0
ACL-45-40-2409-18*	20.0	25.0	45.1	M37 x 1.0	14.0
ACL-45-40-2410-20*	20.0	25.0	45.1	M37 x 1.0	14.0

1. For Rear-end form see section 3.1.
2. Dimensions – mm nominal (unless otherwise stated).
3. Part Number description – refer to section 1.2.

### 3.3.1

### 45° Adaptors for code 41 connectors



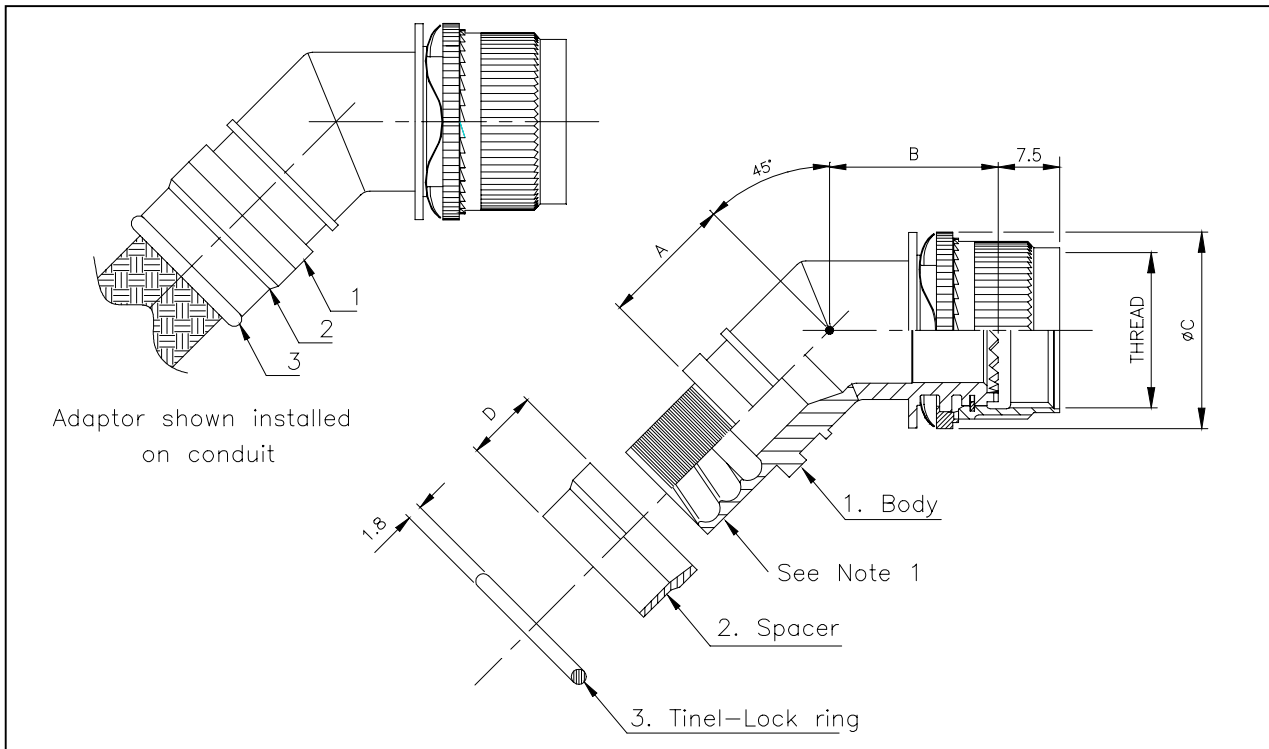
Part Number	A	B	ØC	Thread R.H. Class 2B	D
ACL-45-41-0801-04	16.0	19.0	17.5	0.4375"-28UNEF	7.0
ACL-45-41-0802-06	16.0	19.0	17.5	0.4375"-28UNEF	7.0
ACL-45-41-1001-04	16.0	20.0	20.5	0.5625"-24UNEF	7.0
ACL-45-41-1002-06	16.0	20.0	20.5	0.5625"-24UNEF	7.0
ACL-45-41-1003-06	16.0	20.0	20.5	0.5625"-24UNEF	7.0
ACL-45-41-1004-07	16.0	20.0	20.5	0.5625"-24UNEF	7.0
ACL-45-41-1005-08	16.0	20.0	20.5	0.5625"-24UNEF	7.0
ACL-45-41-1201-04	16.0	21.0	24.1	0.6875"-24UNEF	7.0
ACL-45-41-1202-06	16.0	21.0	24.1	0.6875"-24UNEF	7.0
ACL-45-41-1203-06	16.0	21.0	24.1	0.6875"-24UNEF	7.0
ACL-45-41-1204-07	16.0	21.0	24.1	0.6875"-24UNEF	7.0
ACL-45-41-1205-08	16.0	21.0	24.1	0.6875"-24UNEF	7.0
ACL-45-41-1206-10	16.0	21.0	24.1	0.6875"-24UNEF	9.0
ACL-45-41-1401-04	18.0	22.0	28.5	0.8125"-20UNEF	7.0
ACL-45-41-1402-06	18.0	22.0	28.5	0.8125"-20UNEF	7.0
ACL-45-41-1403-06	18.0	22.0	28.5	0.8125"-20UNEF	7.0
ACL-45-41-1404-07	18.0	22.0	28.5	0.8125"-20UNEF	7.0
ACL-45-41-1405-08	18.0	22.0	28.5	0.8125"-20UNEF	7.0
ACL-45-41-1406-10	18.0	22.0	28.5	0.8125"-20UNEF	9.0
ACL-45-41-1407-12	18.0	22.0	28.5	0.8125"-20UNEF	9.0
ACL-45-41-1601-04	18.0	22.5	32.5	0.9375"-20UNEF	7.0
ACL-45-41-1602-06	18.0	22.5	32.5	0.9375"-20UNEF	7.0
ACL-45-41-1603-06	18.0	22.5	32.5	0.9375"-20UNEF	7.0
ACL-45-41-1604-07	18.0	22.5	32.5	0.9375"-20UNEF	7.0
ACL-45-41-1605-08	18.0	22.5	32.5	0.9375"-20UNEF	7.0
ACL-45-41-1606-10	18.0	22.5	32.5	0.9375"-20UNEF	9.0
ACL-45-41-1607-12	18.0	22.5	32.5	0.9375"-20UNEF	9.0
ACL-45-41-1608-14	18.0	22.5	32.5	0.9375"-20UNEF	11.0

Part Number	A	B	ØC	Thread R.H. Class 2B	D
ACL-45-41-1801-04	20.0	23.0	35.0	1.0625"-18UNEF	7.0
ACL-45-41-1802-06	20.0	23.0	35.0	1.0625"-18UNEF	7.0
ACL-45-41-1803-06	20.0	23.0	35.0	1.0625"-18UNEF	7.0
ACL-45-41-1804-07	20.0	23.0	35.0	1.0625"-18UNEF	7.0
ACL-45-41-1805-08	20.0	23.0	35.0	1.0625"-18UNEF	7.0
ACL-45-41-1806-10	20.0	23.0	35.0	1.0625"-18UNEF	9.0
ACL-45-41-1807-12	20.0	23.0	35.0	1.0625"-18UNEF	9.0
ACL-45-41-1808-14	20.0	23.0	35.0	1.0625"-18UNEF	11.0
ACL-45-41-1809-18	20.0	23.0	35.0	1.0625"-18UNEF	14.0
ACL-45-41-2004-07	20.0	23.5	38.5	1.1875"-18UNEF	7.0
ACL-45-41-2005-08	20.0	23.5	38.5	1.1875"-18UNEF	7.0
ACL-45-41-2006-10	20.0	23.5	38.5	1.1875"-18UNEF	9.0
ACL-45-41-2007-12	20.0	23.5	38.5	1.1875"-18UNEF	9.0
ACL-45-41-2008-14	20.0	23.5	38.5	1.1875"-18UNEF	11.0
ACL-45-41-2009-18	20.0	23.5	38.5	1.1875"-18UNEF	14.0
ACL-45-41-2010-20	20.0	23.5	38.5	1.1875"-18UNEF	14.0
ACL-45-41-2206-10	20.0	24.5	41.5	1.3125"-18UNEF	9.0
ACL-45-41-2207-12	20.0	24.5	41.5	1.3125"-18UNEF	9.0
ACL-45-41-2208-14	20.0	24.5	41.5	1.3125"-18UNEF	11.0
ACL-45-41-2209-18	20.0	24.5	41.5	1.3125"-18UNEF	14.0
ACL-45-41-2210-20	20.0	24.5	41.5	1.3125"-18UNEF	14.0
ACL-45-41-2406-10	20.0	25.5	45.0	1.4375"-18UNEF	9.0
ACL-45-41-2407-12	20.0	25.5	45.0	1.4375"-18UNEF	9.0
ACL-45-41-2408-14	20.0	25.5	45.0	1.4375"-18UNEF	11.0
ACL-45-41-2409-18	20.0	25.5	45.0	1.4375"-18UNEF	14.0
ACL-45-41-2410-20	20.0	25.5	45.0	1.4375"-18UNEF	14.0

1. For Rear-end form see section 3.1.
2. Dimensions – mm nominal (unless otherwise stated).
3. Part Number description – refer to section 1.2.

### 3.3.2

### 45° Adaptors for code 54 connectors



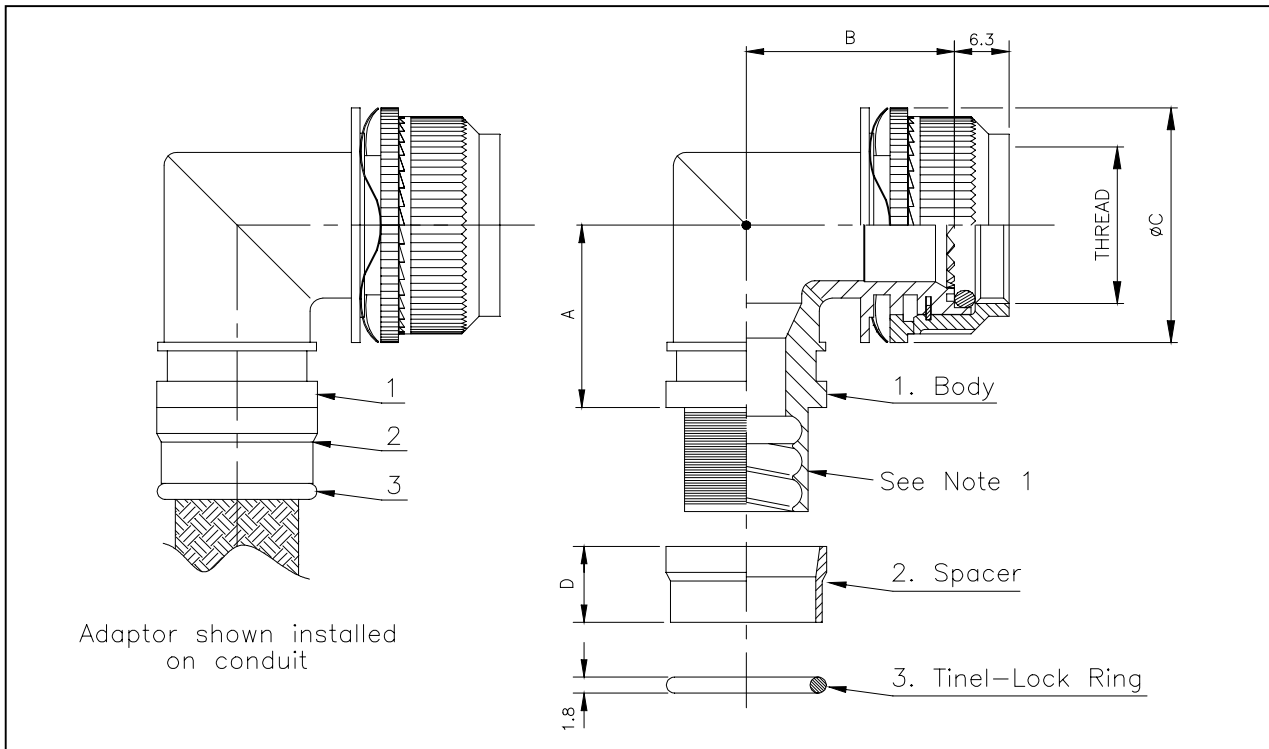
Part Number	A	B	ØC	Thread R.H. Class 2B	D
ACL-45-54-0801-04	16.0	18.0	17.5	0.5000"-20UNF	7.0
ACL-45-54-0801-06	16.0	18.0	17.5	0.5000"-20UNF	7.0
ACL-45-54-1001-04	16.0	18.5	20.5	0.6250"-24UNEF	7.0
ACL-45-54-1002-06	16.0	18.5	20.5	0.6250"-24UNEF	7.0
ACL-45-54-1003-06	16.0	18.5	20.5	0.6250"-24UNEF	7.0
ACL-45-54-1004-07	16.0	18.5	20.5	0.6250"-24UNEF	7.0
ACL-45-54-1201-04	16.0	19.5	24.1	0.7500"-20UNEF	7.0
ACL-45-54-1202-06	16.0	19.5	24.1	0.7500"-20UNEF	7.0
ACL-45-54-1203-06	16.0	19.5	24.1	0.7500"-20UNEF	7.0
ACL-45-54-1204-07	16.0	19.5	24.1	0.7500"-20UNEF	7.0
ACL-45-54-1205-08	16.0	19.5	24.1	0.7500"-20UNEF	7.0
ACL-45-54-1206-10	16.0	19.5	24.1	0.7500"-20UNEF	9.0
ACL-45-54-1401-04	18.0	20.0	27.0	0.8750"-20UNEF	7.0
ACL-45-54-1402-06	18.0	20.0	27.0	0.8750"-20UNEF	7.0
ACL-45-54-1403-06	18.0	20.0	27.0	0.8750"-20UNEF	7.0
ACL-45-54-1404-07	18.0	20.0	27.0	0.8750"-20UNEF	7.0
ACL-45-54-1405-08	18.0	20.0	27.0	0.8750"-20UNEF	7.0
ACL-45-54-1406-10	18.0	20.0	27.0	0.8750"-20UNEF	9.0
ACL-45-54-1601-04	18.0	20.5	30.0	1.0000"-20UNEF	7.0
ACL-45-54-1602-06	18.0	20.5	30.0	1.0000"-20UNEF	7.0
ACL-45-54-1602-06	18.0	20.5	30.0	1.0000"-20UNEF	7.0
ACL-45-54-1604-07	18.0	20.5	30.0	1.0000"-20UNEF	7.0
ACL-45-54-1605-08	18.0	20.5	30.0	1.0000"-20UNEF	7.0
ACL-45-54-1606-10	18.0	20.5	30.0	1.0000"-20UNEF	9.0
ACL-45-54-1607-12	18.0	20.5	30.0	1.0000"-20UNEF	9.0

Part Number	A	B	ØC	Thread R.H. Class 2B	D
ACL-45-54-1801-04	18.0	21.0	32.5	1.0625"-18UNEF	7.0
ACL-45-54-1802-06	18.0	21.0	32.5	1.0625"-18UNEF	7.0
ACL-45-54-1803-06	18.0	21.0	32.5	1.0625"-18UNEF	7.0
ACL-45-54-1804-07	18.0	21.0	32.5	1.0625"-18UNEF	7.0
ACL-45-54-1805-08	18.0	21.0	32.5	1.0625"-18UNEF	7.0
ACL-45-54-1806-10	18.0	21.0	32.5	1.0625"-18UNEF	9.0
ACL-45-54-1807-12	18.0	21.0	32.5	1.0625"-18UNEF	9.0
ACL-45-54-1808-14	18.0	21.0	32.5	1.0625"-18UNEF	11.0
ACL-45-54-2004-07	20.0	22.0	35.0	1.1875"-18UNEF	7.0
ACL-45-54-2005-08	20.0	22.0	35.0	1.1875"-18UNEF	7.0
ACL-45-54-2006-10	20.0	22.0	35.0	1.1875"-18UNEF	9.0
ACL-45-54-2007-12	20.0	22.0	35.0	1.1875"-18UNEF	9.0
ACL-45-54-2008-14	20.0	22.0	35.0	1.1875"-18UNEF	11.0
ACL-45-54-2009-18	20.0	22.0	35.0	1.1875"-18UNEF	14.0
ACL-45-54-2206-10	20.0	22.5	38.5	1.3125"-18UNEF	9.0
ACL-45-54-2207-12	20.0	22.5	38.5	1.3125"-18UNEF	9.0
ACL-45-54-2208-14	20.0	22.5	38.5	1.3125"-18UNEF	11.0
ACL-45-54-2209-18	20.0	22.5	38.5	1.3125"-18UNEF	14.0
ACL-45-54-2210-20	20.0	22.5	38.5	1.3125"-18UNEF	14.0
ACL-45-54-2406-10	20.0	23.5	41.6	1.4375"-18UNEF	9.0
ACL-45-54-2407-12	20.0	23.5	41.6	1.4375"-18UNEF	9.0
ACL-45-54-2408-14	20.0	23.5	41.6	1.4375"-18UNEF	11.0
ACL-45-54-2409-18	20.0	23.5	41.6	1.4375"-18UNEF	14.0
ACL-45-54-2410-20	20.0	23.5	41.6	1.4375"-18UNEF	14.0

1. For Rear-end form see section 3.1.
2. Dimensions – mm nominal (unless otherwise stated).
3. Part Number description – refer to section 1.2.

### 3.4

### 90° Adaptors for code 40 connectors



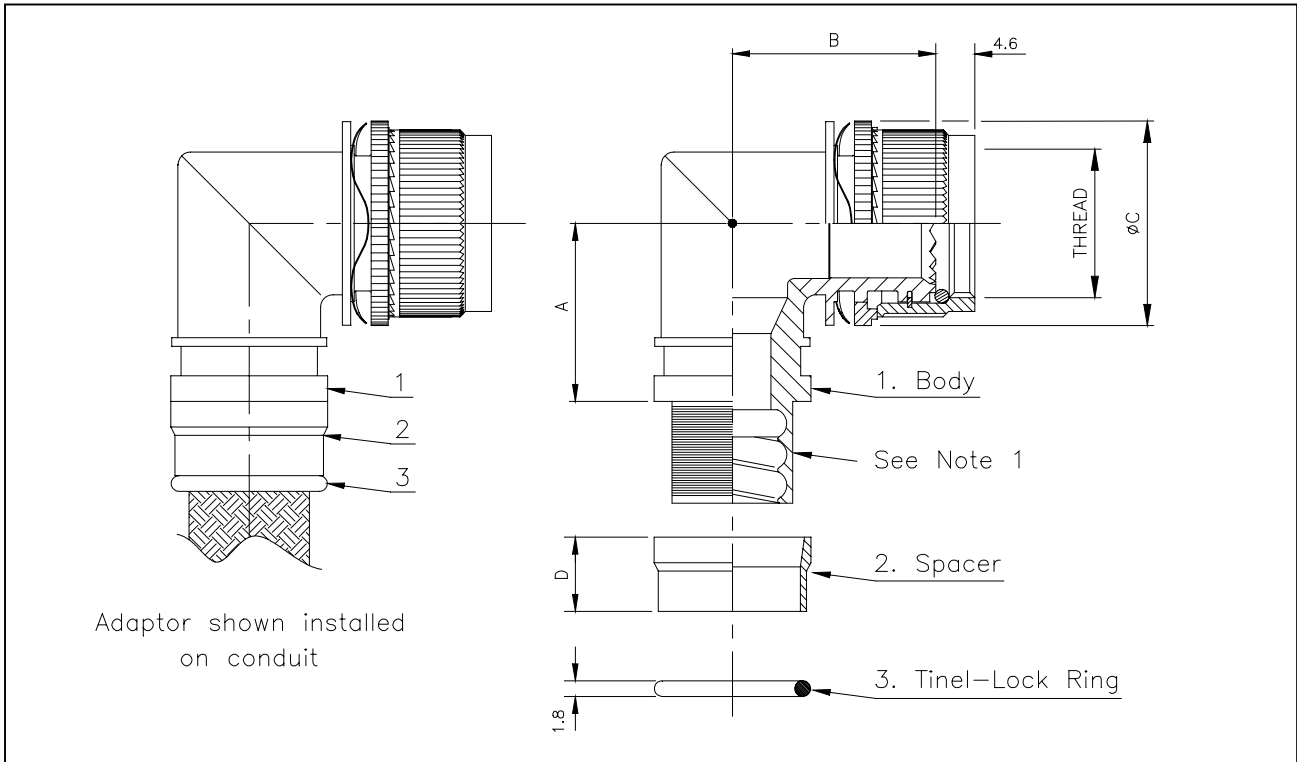
Part Number	A	B	ØC	Thread R.H. Class 6H	D
ACL-90-40-0801-04	21.0	25.5	19.0	M12 x 1.0	7.0
ACL-90-40-0802-06	21.0	25.5	19.0	M12 x 1.0	7.0
ACL-90-40-1001-04	21.0	28.0	23.5	M15 x 1.0	7.0
ACL-90-40-1002-06	21.0	28.0	23.5	M15 x 1.0	7.0
ACL-90-40-1003-06	21.0	28.0	23.5	M15 x 1.0	7.0
ACL-90-40-1004-07	21.0	28.0	23.5	M15 x 1.0	7.0
ACL-90-40-1201-04	24.5	29.5	27.0	M18 x 1.0	7.0
ACL-90-40-1202-06	24.5	29.5	27.0	M18 x 1.0	7.0
ACL-90-40-1203-06	24.5	29.5	27.0	M18 x 1.0	7.0
ACL-90-40-1204-07	24.5	29.5	27.0	M18 x 1.0	7.0
ACL-90-40-1205-08	24.5	29.5	27.0	M18 x 1.0	7.0
ACL-90-40-1206-10	24.5	29.5	27.0	M18 x 1.0	9.0
ACL-90-40-1401-04	24.5	31.0	32.5	M22 x 1.0	7.0
ACL-90-40-1402-06	24.5	31.0	32.5	M22 x 1.0	7.0
ACL-90-40-1403-06	24.5	31.0	32.5	M22 x 1.0	7.0
ACL-90-40-1404-07	24.5	31.0	32.5	M22 x 1.0	7.0
ACL-90-40-1405-08	24.5	31.0	32.5	M22 x 1.0	7.0
ACL-90-40-1406-10	24.5	31.0	32.5	M22 x 1.0	9.0
ACL-90-40-1407-12	24.5	31.0	32.5	M22 x 1.0	9.0
ACL-90-40-1601-04	26.0	34.0	35.0	M25 x 1.0	7.0
ACL-90-40-1602-06	26.0	34.0	35.0	M25 x 1.0	7.0
ACL-90-40-1603-06	26.0	34.0	35.0	M25 x 1.0	7.0
ACL-90-40-1604-07	26.0	34.0	35.0	M25 x 1.0	7.0
ACL-90-40-1605-08	26.0	34.0	35.0	M25 x 1.0	7.0
ACL-90-40-1606-10	26.0	34.0	35.0	M25 x 1.0	9.0
ACL-90-40-1607-12	26.0	34.0	35.0	M25 x 1.0	9.0
ACL-90-40-1608-14	26.0	34.0	35.0	M25 x 1.0	11.0

Part Number	A	B	ØC	Thread R.H. Class 6H	D
ACL-90-40-1801-04	29.0	35.0	38.5	M28 x 1.0	7.0
ACL-90-40-1802-06	29.0	35.0	38.5	M28 x 1.0	7.0
ACL-90-40-1803-06	29.0	35.0	38.5	M28 x 1.0	7.0
ACL-90-40-1804-07	29.0	35.0	38.5	M28 x 1.0	7.0
ACL-90-40-1805-08	29.0	35.0	38.5	M28 x 1.0	7.0
ACL-90-40-1806-10	29.0	35.0	38.5	M28 x 1.0	9.0
ACL-90-40-1807-12	29.0	35.0	38.5	M28 x 1.0	9.0
ACL-90-40-1808-14	29.0	35.0	38.5	M28 x 1.0	11.0
ACL-90-40-1809-18	29.0	35.0	38.5	M28 x 1.0	14.0
ACL-90-40-2004-07	31.0	35.0	38.5	M31 x 1.0	7.0
ACL-90-40-2005-08	31.0	35.0	38.5	M31 x 1.0	7.0
ACL-90-40-2006-10	31.0	35.0	38.5	M31 x 1.0	9.0
ACL-90-40-2007-12	31.0	35.0	38.5	M31 x 1.0	9.0
ACL-90-40-2008-14	31.0	35.0	38.5	M31 x 1.0	11.0
ACL-90-40-2009-18	31.0	35.0	38.5	M31 x 1.0	14.0
ACL-90-40-2010-20	31.0	35.0	38.5	M31 x 1.0	14.0
ACL-90-40-2206-10	31.0	37.5	41.5	M34 x 1.0	9.0
ACL-90-40-2207-12	31.0	37.5	41.5	M34 x 1.0	9.0
ACL-90-40-2208-14	31.0	37.5	41.5	M34 x 1.0	11.0
ACL-90-40-2209-18	31.0	37.5	41.5	M34 x 1.0	14.0
ACL-90-40-2210-20	31.0	37.5	41.5	M34 x 1.0	14.0
ACL-90-40-2406-10	31.0	39.0	45.0	M37 x 1.0	9.0
ACL-90-40-2407-12	31.0	39.0	45.0	M37 x 1.0	9.0
ACL-90-40-2408-14	31.0	39.0	45.0	M37 x 1.0	11.0
ACL-90-40-2409-18	31.0	39.0	45.0	M37 x 1.0	14.0
ACL-90-40-2410-20	31.0	39.0	45.0	M37 x 1.0	14.0

1. For Rear-end form see section 3.1.
2. Dimensions – mm nominal (unless otherwise stated).
3. Part Number description – refer to section 1.2.

### 3.4.1

### 90° Adaptors for code 41 connectors



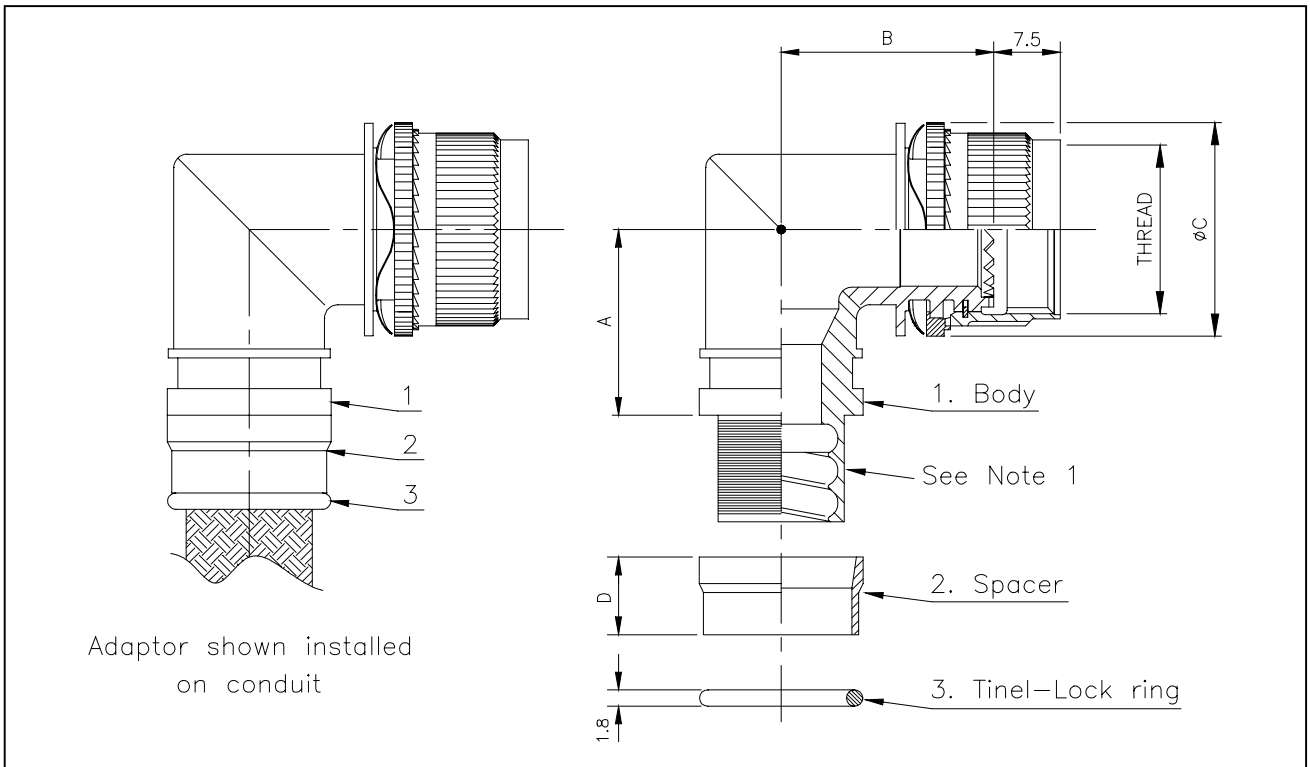
Part Number	A	B	ØC	Thread R.H. Class 2B	D
ACL-90-**41-0801*-*04*	21.0	25.0	17.5	0.4375"-28UNEF	7.0
ACL-90-**41-0802*-*06*	21.0	25.0	17.5	0.4375"-28UNEF	7.0
ACL-90-**41-1001*-*04*	21.0	26.5	20.5	0.5625"-24UNEF	7.0
ACL-90-**41-1002*-*06*	21.0	26.5	20.5	0.5625"-24UNEF	7.0
ACL-90-**41-1003*-*06*	21.0	26.5	20.5	0.5625"-24UNEF	7.0
ACL-90-**41-1004*-*07*	21.0	26.5	20.5	0.5625"-24UNEF	7.0
ACL-90-**41-1005*-*08*	21.0	26.5	20.5	0.5625"-24UNEF	7.0
ACL-90-**41-1201*-*04*	24.5	28.5	24.1	0.6875"-24UNEF	7.0
ACL-90-**41-1202*-*06*	24.5	28.5	24.1	0.6875"-24UNEF	7.0
ACL-90-**41-1203*-*06*	24.5	28.5	24.1	0.6875"-24UNEF	7.0
ACL-90-**41-1204*-*07*	24.5	28.5	24.1	0.6875"-24UNEF	7.0
ACL-90-**41-1205*-*08*	24.5	28.5	24.1	0.6875"-24UNEF	7.0
ACL-90-**41-1206*-*10*	24.5	28.5	24.1	0.6875"-24UNEF	9.0
ACL-90-**41-1401*-*04*	24.5	30.5	28.5	0.8125"-20UNEF	7.0
ACL-90-**41-1402*-*06*	24.5	30.5	28.5	0.8125"-20UNEF	7.0
ACL-90-**41-1403*-*06*	24.5	30.5	28.5	0.8125"-20UNEF	7.0
ACL-90-**41-1404*-*07*	24.5	30.5	28.5	0.8125"-20UNEF	7.0
ACL-90-**41-1405*-*08*	24.5	30.5	28.5	0.8125"-20UNEF	7.0
ACL-90-**41-1406*-*10*	24.5	30.5	28.5	0.8125"-20UNEF	9.0
ACL-90-**41-1407*-*12*	24.5	30.5	28.5	0.8125"-20UNEF	9.0
ACL-90-**41-1601*-*04*	26.0	32.5	32.5	0.9375"-20UNEF	7.0
ACL-90-**41-1602*-*06*	26.0	32.5	32.5	0.9375"-20UNEF	7.0
ACL-90-**41-1603*-*06*	26.0	32.5	32.5	0.9375"-20UNEF	7.0
ACL-90-**41-1604*-*07*	26.0	32.5	32.5	0.9375"-20UNEF	7.0
ACL-90-**41-1605*-*08*	26.0	32.5	32.5	0.9375"-20UNEF	7.0
ACL-90-**41-1606*-*10*	26.0	32.5	32.5	0.9375"-20UNEF	9.0
ACL-90-**41-1607*-*12*	26.0	32.5	32.5	0.9375"-20UNEF	9.0
ACL-90-**41-1608*-*14*	26.0	32.5	32.5	0.9375"-20UNEF	11.0

Part Number	A	B	ØC	Thread R.H. Class 2B	D
ACL-90-**41-1801*-*04*	29.0	34.0	35.0	1.0625"-18UNEF	7.0
ACL-90-**41-1802*-*06*	26.0	34.0	35.0	1.0625"-18UNEF	7.0
ACL-90-**41-1803*-*06*	26.0	34.0	35.0	1.0625"-18UNEF	7.0
ACL-90-**41-1804*-*07*	26.0	34.0	35.0	1.0625"-18UNEF	7.0
ACL-90-**41-1805*-*08*	26.0	34.0	35.0	1.0625"-18UNEF	7.0
ACL-90-**41-1806*-*10*	26.0	34.0	35.0	1.0625"-18UNEF	9.0
ACL-90-**41-1807*-*12*	26.0	34.0	35.0	1.0625"-18UNEF	9.0
ACL-90-**41-1808*-*14*	26.0	34.0	35.0	1.0625"-18UNEF	11.0
ACL-90-**41-1809*-*18*	26.0	34.0	35.0	1.0625"-18UNEF	11.0
ACL-90-**41-2004*-*07*	31.0	35.5	38.5	1.1875"-18UNEF	7.0
ACL-90-**41-2005*-*08*	31.0	35.5	38.5	1.1875"-18UNEF	7.0
ACL-90-**41-2006*-*10*	31.0	35.5	38.5	1.1875"-18UNEF	9.0
ACL-90-**41-2007*-*12*	31.0	35.5	38.5	1.1875"-18UNEF	9.0
ACL-90-**41-2008*-*14*	31.0	35.5	38.5	1.1875"-18UNEF	11.0
ACL-90-**41-2009*-*18*	31.0	35.5	38.5	1.1875"-18UNEF	14.0
ACL-90-**41-2010*-*20*	31.0	35.5	38.5	1.1875"-18UNEF	14.0
ACL-90-**41-2206*-*10*	31.0	38.0	41.5	1.3125"-18UNEF	9.0
ACL-90-**41-2207*-*12*	31.0	38.0	41.5	1.3125"-18UNEF	9.0
ACL-90-**41-2208*-*14*	31.0	38.0	41.5	1.3125"-18UNEF	11.0
ACL-90-**41-2209*-*18*	31.0	38.0	41.5	1.3125"-18UNEF	14.0
ACL-90-**41-2210*-*20*	31.0	38.0	41.5	1.3125"-18UNEF	14.0
ACL-90-**41-2406*-*10*	31.0	39.5	45.0	1.4375"-18UNEF	9.0
ACL-90-**41-2407*-*12*	31.0	39.5	45.0	1.4375"-18UNEF	9.0
ACL-90-**41-2408*-*14*	31.0	39.5	45.0	1.4375"-18UNEF	11.0
ACL-90-**41-2409*-*18*	31.0	39.5	45.0	1.4375"-18UNEF	14.0
ACL-90-**41-2410*-*20*	31.0	39.5	45.0	1.4375"-18UNEF	14.0

1. For Rear-end form see section 3.1.
2. Dimensions – mm nominal (unless otherwise stated).
3. Part Number description – refer to section 1.2.

### 3.4.2

### 90° Adaptors for code 54 connectors



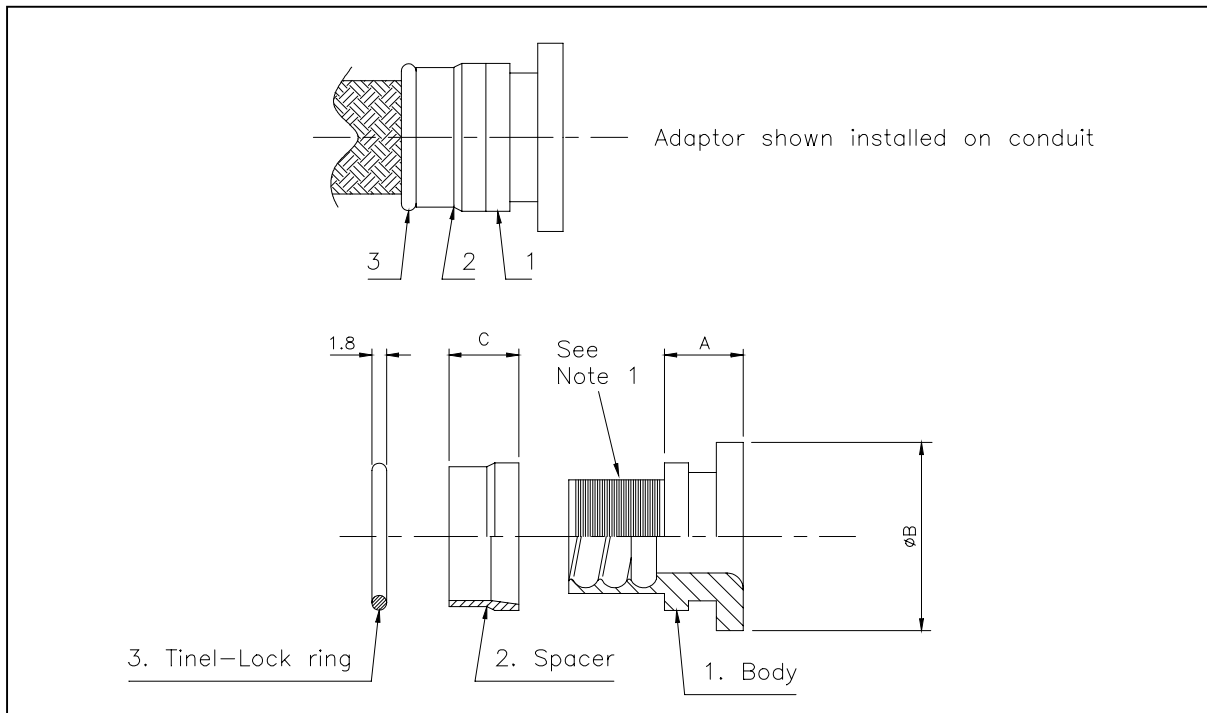
Part Number	A	B	ØC	Thread R.H. Class 2B	D
ACL-90-54-0801-04	21.0	24.0	17.5	0.5000"-20UNF	7.0
ACL-90-54-0802-06	21.0	24.0	17.5	0.5000"-20UNF	7.0
ACL-90-54-1001-04	21.0	25.5	20.5	0.6250"-24UNEF	7.0
ACL-90-54-1002-06	21.0	25.5	20.5	0.6250"-24UNEF	7.0
ACL-90-54-1003-06	21.0	25.5	20.5	0.6250"-24UNEF	7.0
ACL-90-54-1004-07	21.0	25.5	20.5	0.6250"-24UNEF	7.0
ACL-90-54-1201-04	24.5	27.5	24.1	0.7500"-20UNEF	7.0
ACL-90-54-1202-06	24.5	27.5	24.1	0.7500"-20UNEF	7.0
ACL-90-54-1203-06	24.5	27.5	24.1	0.7500"-20UNEF	7.0
ACL-90-54-1204-07	24.5	27.5	24.1	0.7500"-20UNEF	7.0
ACL-90-54-1205-08	24.5	27.5	24.1	0.7500"-20UNEF	7.0
ACL-90-54-1206-10	24.5	27.5	24.1	0.7500"-20UNEF	9.0
ACL-90-54-1401-04	24.5	29.0	27.0	0.8750"-20UNEF	7.0
ACL-90-54-1402-06	24.5	29.0	27.0	0.8750"-20UNEF	7.0
ACL-90-54-1403-06	24.5	29.0	27.0	0.8750"-20UNEF	7.0
ACL-90-54-1404-07	24.5	29.0	27.0	0.8750"-20UNEF	7.0
ACL-90-54-1405-08	24.5	29.0	27.0	0.8750"-20UNEF	7.0
ACL-90-54-1406-10	24.5	29.0	27.0	0.8750"-20UNEF	9.0
ACL-90-54-1601-04	24.5	30.5	30.0	1.0000"-20UNEF	7.0
ACL-90-54-1602-06	24.5	30.5	30.0	1.0000"-20UNEF	7.0
ACL-90-54-1602-06	24.5	30.5	30.0	1.0000"-20UNEF	7.0
ACL-90-54-1604-07	24.5	30.5	30.0	1.0000"-20UNEF	7.0
ACL-90-54-1605-08	24.5	30.5	30.0	1.0000"-20UNEF	7.0
ACL-90-54-1606-10	24.5	30.5	30.0	1.0000"-20UNEF	9.0
ACL-90-54-1607-12	24.5	30.5	30.0	1.0000"-20UNEF	9.0

Part Number	A	B	ØC	Thread R.H. Class 2B	D
ACL-90-54-1801-04	26.0	31.5	32.5	1.0625"-18UNEF	7.0
ACL-90-54-1802-06	26.0	31.5	32.5	1.0625"-18UNEF	7.0
ACL-90-54-1803-06	26.0	31.5	32.5	1.0625"-18UNEF	7.0
ACL-90-54-1804-07	26.0	31.5	32.5	1.0625"-18UNEF	7.0
ACL-90-54-1805-08	26.0	31.5	32.5	1.0625"-18UNEF	7.0
ACL-90-54-1806-10	26.0	31.5	32.5	1.0625"-18UNEF	9.0
ACL-90-54-1807-12	26.0	31.5	32.5	1.0625"-18UNEF	9.0
ACL-90-54-1808-14	26.0	31.5	32.5	1.0625"-18UNEF	11.0
ACL-90-54-2004-07	29.0	33.0	35.0	1.1875"-18UNEF	7.0
ACL-90-54-2005-08	29.0	33.0	35.0	1.1875"-18UNEF	7.0
ACL-90-54-2006-10	29.0	33.0	35.0	1.1875"-18UNEF	9.0
ACL-90-54-2007-12	29.0	33.0	35.0	1.1875"-18UNEF	9.0
ACL-90-54-2008-14	29.0	33.0	35.0	1.1875"-18UNEF	11.0
ACL-90-54-2009-18	29.0	33.0	35.0	1.1875"-18UNEF	14.0
ACL-90-54-2206-10	31.0	34.5	38.5	1.3125"-18UNEF	9.0
ACL-90-54-2207-12	31.0	34.5	38.5	1.3125"-18UNEF	9.0
ACL-90-54-2208-14	31.0	34.5	38.5	1.3125"-18UNEF	11.0
ACL-90-54-2209-18	31.0	34.5	38.5	1.3125"-18UNEF	14.0
ACL-90-54-2210-20	31.0	34.5	38.5	1.3125"-18UNEF	14.0
ACL-90-54-2406-10	31.0	36.5	41.5	1.4375"-18UNEF	9.0
ACL-90-54-2407-12	31.0	36.5	41.5	1.4375"-18UNEF	9.0
ACL-90-54-2408-14	31.0	36.5	41.5	1.4375"-18UNEF	11.0
ACL-90-54-2409-18	31.0	36.5	41.5	1.4375"-18UNEF	14.0
ACL-90-54-2410-20	31.0	36.5	41.5	1.4375"-18UNEF	14.0

1. For Rear-end form see section 3.1.
2. Dimensions – mm nominal (unless otherwise stated).
3. Part Number description – refer to section 1.2.

These adaptors neatly terminate metal braided conduit as referenced in Section 4.

They are standard items that are not restricted for use with “Ultralock” components covered by this ACL catalogue.

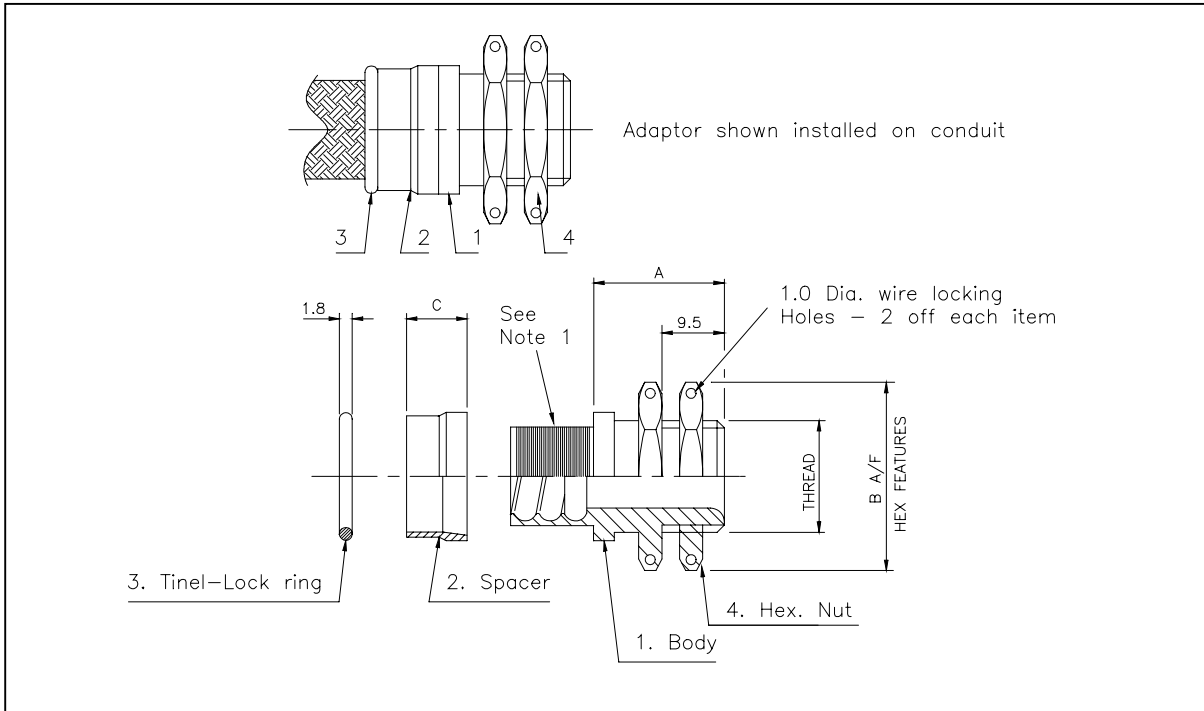


Part Number	A	ØB	C
ACS-15-**00-1001-*04*	10.0	16.0	7.0
ACS-15-**00-1102-*06*	10.0	19.0	7.0
ACS-15-**00-1203-*06*	10.0	19.0	7.0
ACS-15-**00-1304-*07*	10.0	20.5	7.0
ACS-15-**00-1405-*08*	10.0	22.5	7.0
ACS-15-**00-1606-*10*	10.0	25.5	9.0
ACS-15-**00-1807-*12*	10.0	28.5	9.0
ACS-15-**00-2008-*14*	10.0	32.0	11.0
ACS-15-**00-2209-*18*	10.0	38.0	14.0
ACS-15-**00-2610-*20*	10.0	41.5	14.0

1. For Rear-end form see section 3.1.
2. Dimensions – mm nominal (unless otherwise stated).
3. Part Number description – refer to section 1.2.

These adaptors terminate harness conduits to bulkheads.

They are standard items that are not restricted for use with “Ultralock” components covered by this ACL catalogue.

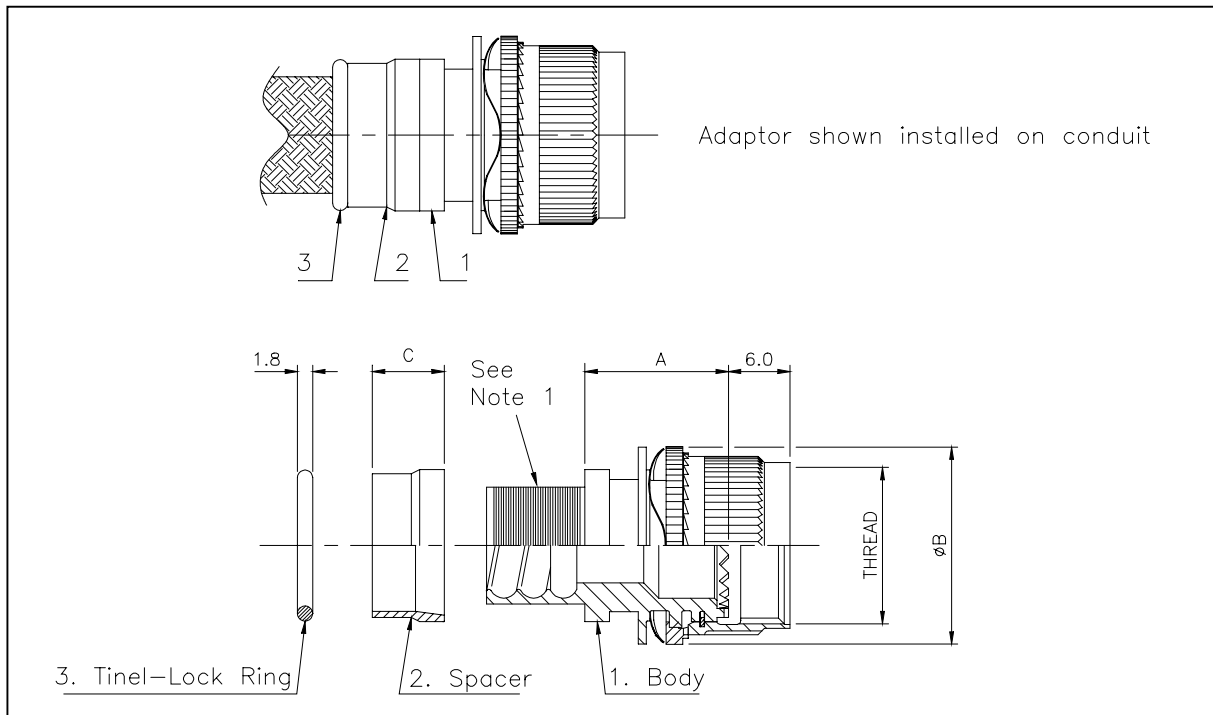


Part Number	A	B A/F. Max.	C	Thread R.H. Class 2A
ACS-20-00-0601-04*	19.5	14.4	7.0	0.3750-32UNEF
ACS-20-00-0702-06*	19.5	17.6	7.0	0.4375-32UNEF
ACS-20-00-0803-06*	19.5	17.6	7.0	0.5000-32UNF
ACS-20-00-0904-07*	19.5	19.2	7.0	0.5625-24UNEF
ACS-20-00-1005-08*	19.5	20.8	7.0	0.6250-24UNEF
ACS-20-00-1106-10*	19.5	23.9	9.0	0.6875-24UNEF
ACS-20-00-1307-12*	19.5	27.0	9.0	0.8125-20UNEF
ACS-20-00-1508-14*	19.5	30.5	11.0	0.9375-20UNEF
ACS-20-00-1709-18*	19.5	33.5	14.0	1.0625-18UNEF
ACS-20-00-1910-20*	19.5	36.5	14.0	1.1875-18UNEF

1. For Rear-end form see section 3.1.
2. Dimensions – mm nominal (unless otherwise stated).
3. Part Number description – refer to section 1.2.

### 3.7

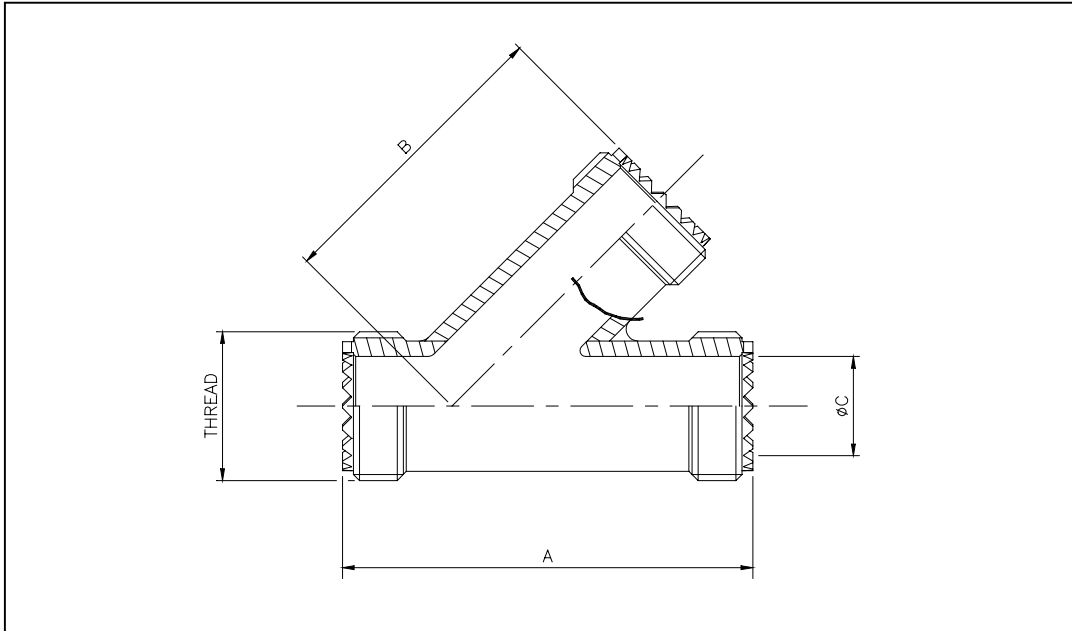
### Adaptors for transition (only) ACL 35



Part Number	A	ØB	Thread R.H. Class 2B	C
ACL-35-00-0901-04*	19.0	17.5	0.5625"-24UNEF	7.0
ACL-35-00-0902-06*	19.0	17.5	0.5625"-24UNEF	7.0
ACL-35-00-0903-06*	19.0	17.5	0.5625"-24UNEF	7.0
ACL-35-00-1201-04*	19.0	24.1	0.7500"-20UNEF	7.0
ACL-35-00-1202-06*	19.0	24.1	0.7500"-20UNEF	7.0
ACL-35-00-1203-06*	19.0	24.1	0.7500"-20UNEF	7.0
ACL-35-00-1204-07*	19.0	24.1	0.7500"-20UNEF	7.0
ACL-35-00-1205-08*	19.0	24.1	0.7500"-20UNEF	7.0
ACL-35-00-1206-10*	19.0	24.1	0.7500"-20UNEF	9.0
ACL-35-00-1701-04*	19.0	32.5	1.0625"-18UNEF	7.0
ACL-35-00-1702-06*	19.0	32.5	1.0625"-18UNEF	7.0
ACL-35-00-1703-06*	19.0	32.5	1.0625"-18UNEF	7.0
ACL-35-00-1704-07*	19.0	32.5	1.0625"-18UNEF	7.0
ACL-35-00-1705-08*	19.0	32.5	1.0625"-18UNEF	7.0
ACL-35-00-1706-10*	19.0	32.5	1.0625"-18UNEF	9.0
ACL-35-00-1707-12*	19.0	32.5	1.0625"-18UNEF	9.0
ACL-35-00-1708-14*	19.0	32.5	1.0625"-18UNEF	11.0

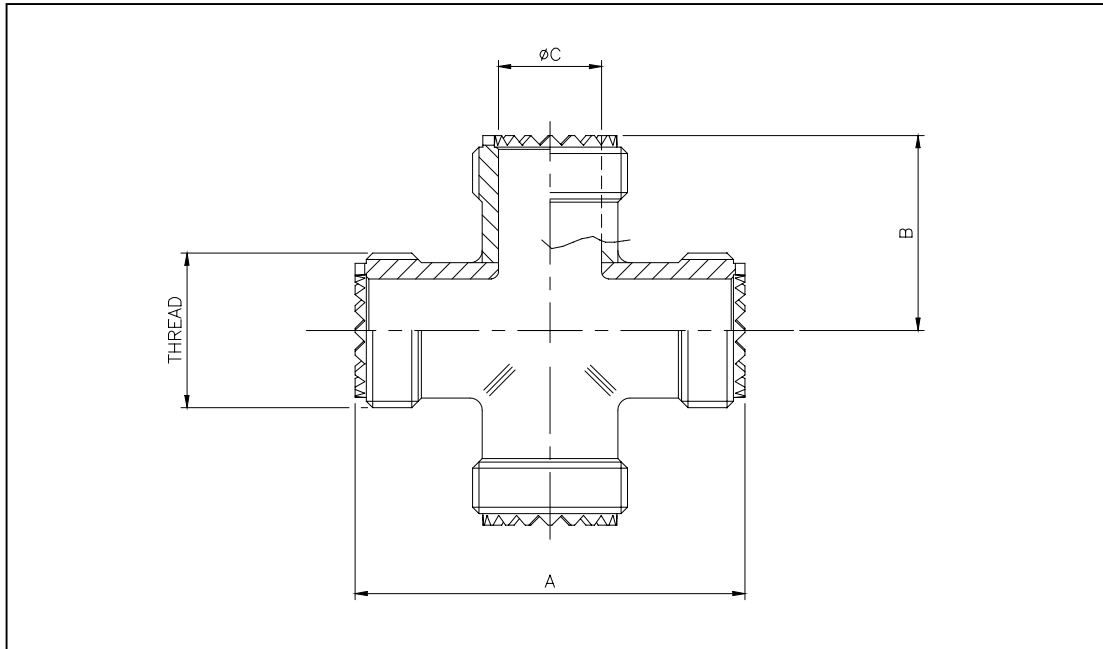
Part Number	A	ØB	Thread R.H. Class 2B	C
ACL-35-00-2103-06*	19.5	38.5	1.3125"-18UNEF	7.0
ACL-35-00-2104-07*	19.5	38.5	1.3125"-18UNEF	7.0
ACL-35-00-2105-08*	19.5	38.5	1.3125"-18UNEF	7.0
ACL-35-00-2106-10*	19.5	38.5	1.3125"-18UNEF	9.0
ACL-35-00-2107-12*	19.5	38.5	1.3125"-18UNEF	9.0
ACL-35-00-2108-14*	19.5	38.5	1.3125"-18UNEF	11.0
ACL-35-00-2109-18*	19.5	38.5	1.3125"-18UNEF	14.0
ACL-35-00-2110-20*	19.5	38.5	1.3125"-18UNEF	14.0
ACL-35-00-2603-06*	20.0	49.5	1.6250"-18UNEF	7.0
ACL-35-00-2604-07*	20.0	49.5	1.6250"-18UNEF	7.0
ACL-35-00-2605-08*	20.0	49.5	1.6250"-18UNEF	7.0
ACL-35-00-2606-10*	20.0	49.5	1.6250"-18UNEF	9.0
ACL-35-00-2607-12*	20.0	49.5	1.6250"-18UNEF	9.0
ACL-35-00-2608-14*	20.0	49.5	1.6250"-18UNEF	11.0
ACL-35-00-2609-18*	20.0	49.5	1.6250"-18UNEF	14.0
ACL-35-00-2610-20*	20.0	49.5	1.6250"-18UNEF	14.0

1. For Rear-end form see section 3.1.
2. Dimensions – mm nominal (unless otherwise stated).
3. Part Number description – refer to section 1.2.
4. These adaptors are compatible with the equivalent shell size transitions ACL70, 75, 80 and 85.
5. When adaptor and transition teeth are engaged a reduction of approximately 1mm should be made to the combined stated dimensions.



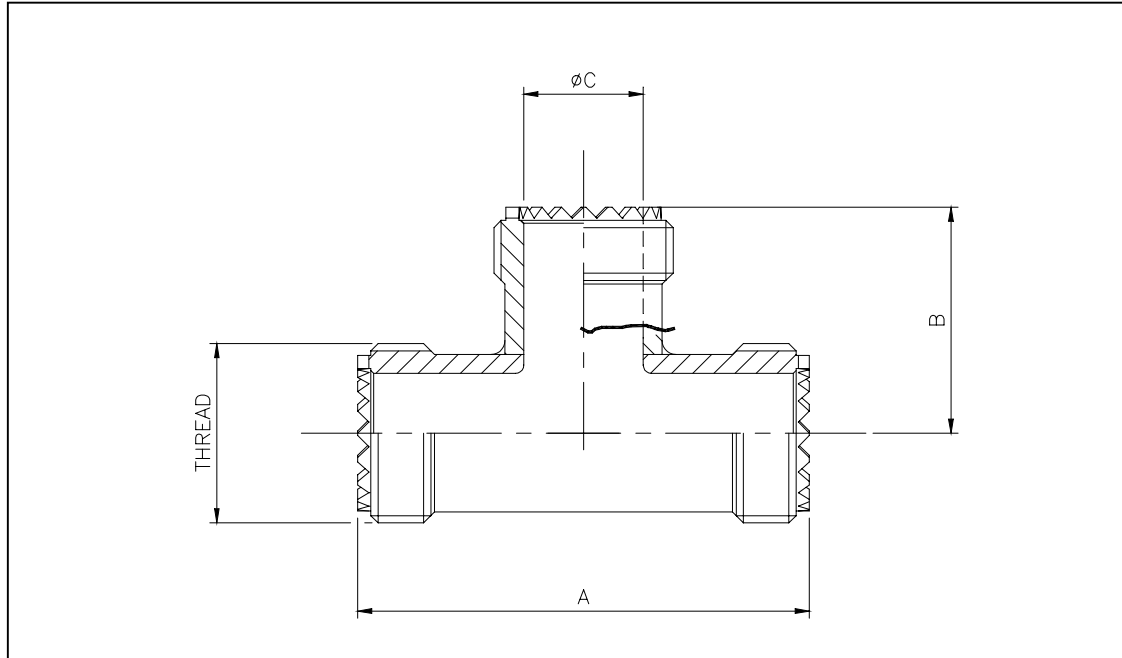
Part Number	A	B	ØC	Thread R.H. Class 2A
ACL-70-**00-0900-*	45.0	32.0	8.0	0.5625"-24UNEF
ACL-70-**00-1200-*	52.5	38.5	13.0	0.7500"-20UNEF
ACL-70-**00-1700-*	62.5	47.5	19.9	1.0625"-18UNEF
ACL-70-**00-2100-*	72.5	55.0	26.3	1.3125"-18UNEF
ACL-70-**00-2600-*	82.5	64.0	33.5	1.6250"-18UNEF

1. These Transitions are compatible with the equivalent shell size adaptors ACL35 see section 3.7.
2. Dimensions – mm nominal (unless otherwise stated).
3. Part Number description – refer to section 1.2.



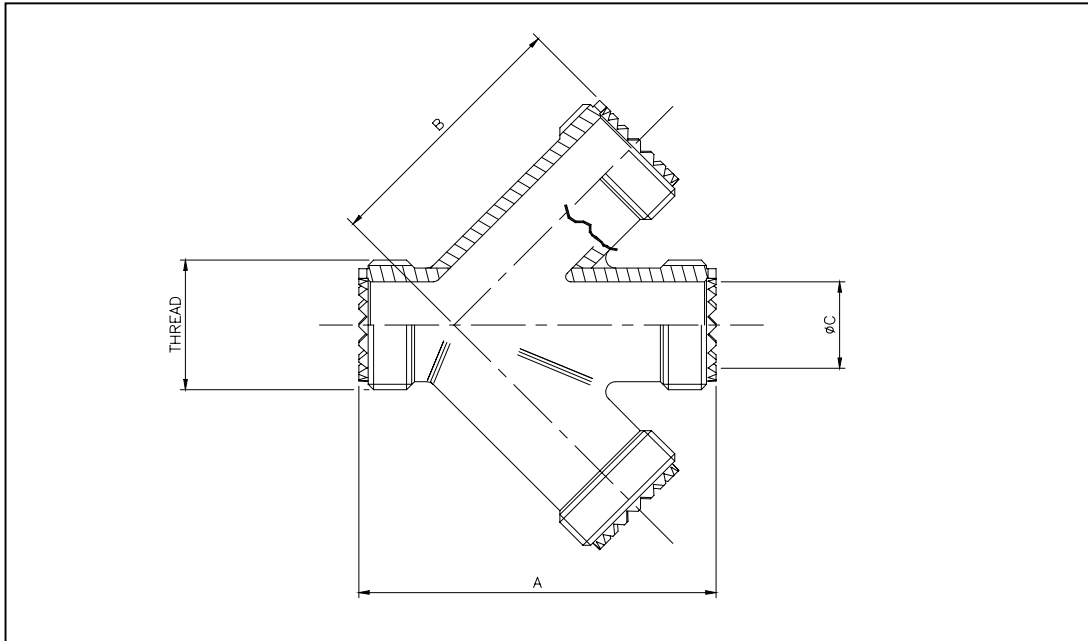
Part Number	A	B	ØC	Thread R.H. Class 2A
ACL-75-**00-0900-*	43.0	21.5	8.0	0.5625"-24 UNEF
ACL-75-**00-1200-*	48.0	24.0	13.0	0.7500"-20 UNEF
ACL-75-**00-1700-*	55.0	27.5	19.9	1.0625"-18 UNEF
ACL-75-**00-2100-*	62.0	31.0	26.3	1.3125"-18 UNEF
ACL-75-**00-2600-*	70.0	35.0	33.5	1.6250"-18 UNEF

1. These Transitions are compatible with the equivalent shell size adaptors ACL35 see section 3.7.
2. Dimensions – mm nominal (unless otherwise stated).
3. Part Number description – refer to section 1.2.



Part Number	A	B	ØC	Thread R.H. Class 2A
ACL-80-**00-0900-*	43.0	21.5	8.0	0.5625"-24 UNEF
ACL-80-**00-1200-*	48.0	24.0	13.0	0.7500"-20 UNEF
ACL-80-**00-1700-*	55.0	27.5	19.9	1.0625"-18 UNEF
ACL-80-**00-2100-*	62.0	31.0	26.3	1.3125"-18 UNEF
ACL-80-**00-2600-*	70.0	35.0	33.5	1.6250"-18 UNEF

1. These Transitions are compatible with the equivalent shell size adaptors ACL35 see section 3.7.
2. Dimensions – mm nominal (unless otherwise stated).
3. Part Number description – refer to section 1.2.



Part Number	A	B	ØC	Thread R.H. Class 2A
ACL-85-**00-0900-*	45.0	32.0	8.0	0.5625"-24 UNEF
ACL-85-**00-1200-*	52.5	38.5	13.0	0.7500"-20 UNEF
ACL-85-**00-1700-*	62.5	47.5	19.9	1.0625"-18 UNEF
ACL-85-**00-2100-*	72.5	55.0	26.3	1.3125"-18 UNEF
ACL-85-**00-2600-*	82.5	64.0	33.5	1.6250"-18 UNEF

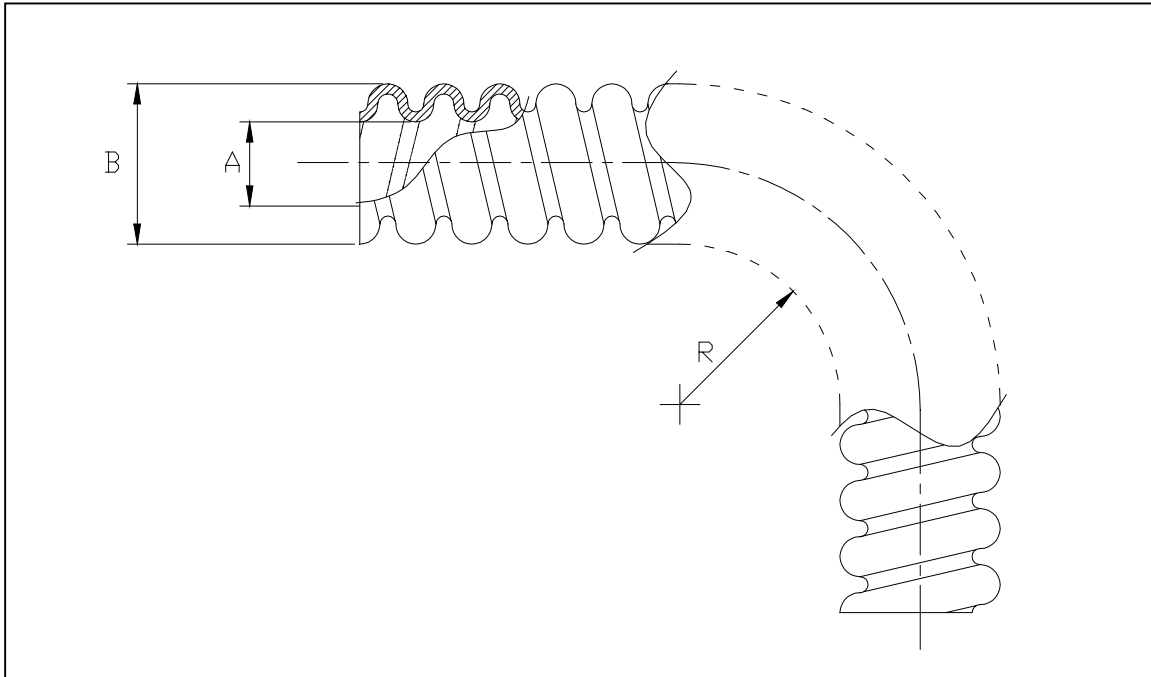
1. These Transitions are compatible with the equivalent shell size adaptors ACL35 see section 3.7.
2. Dimensions – mm nominal (unless otherwise stated).
3. Part Number description – refer to section 1.2.

## 4

## Conduit information sheets

### 4.1

### PTFE Conduit

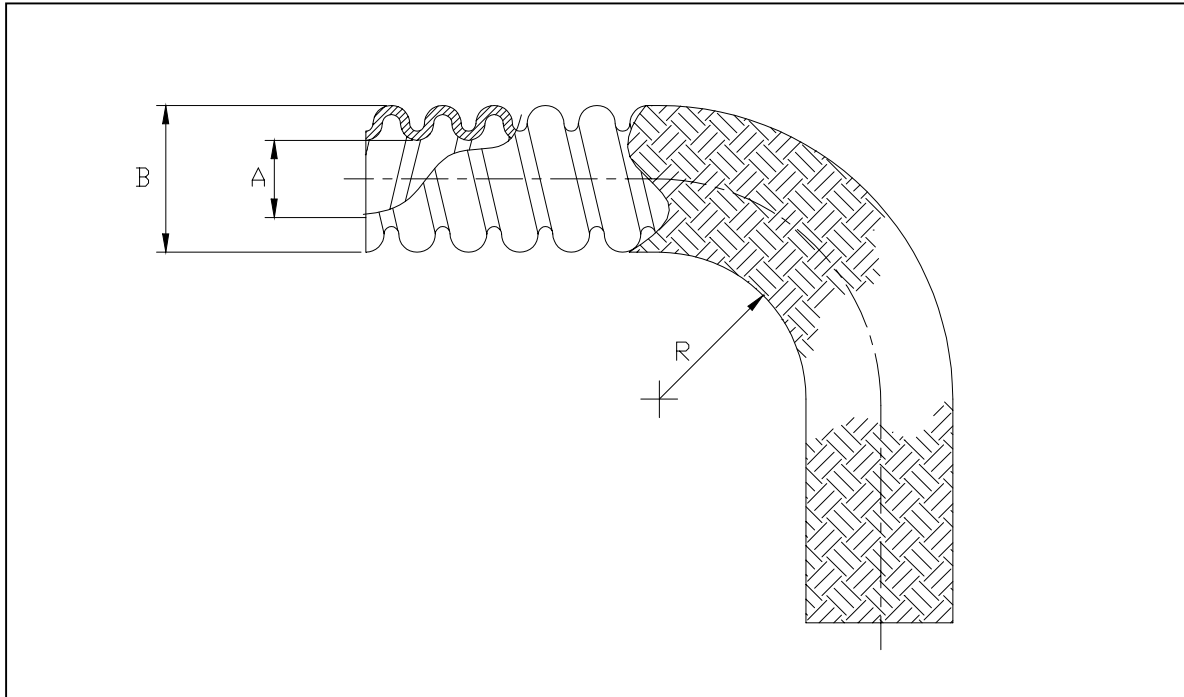


Conduit Size Code.	Order description Conduit Size	A Min	B Max	R Rad Min.	Weight g/m
01	PTFE-0187	4.6	8.5	19.0	30.0
02	PTFE-0281	7.0	11.0	32.0	41.0
03	PTFE-0312	7.6	11.8	35.0	45.0
04	PTFE-0375	9.2	13.4	38.0	54.0
05	PTFE-0437	10.8	15.0	45.0	62.0
06	PTFE-0500	12.3	16.7	51.0	75.0
07	PTFE-0625	15.6	20.0	64.0	93.0
08	PTFE-0750	19.0	24.0	76.0	130.0
09	PTFE-0875	21.8	28.0	83.0	172.0
10	PTFE-1000	24.5	31.7	89.0	194.0

1. Dimensions – mm nominal (unless otherwise stated).
2. A range of lightweight PTFE and ETFE conduits is also available.  
Please contact Ultra Electronics Electrics Division.

## 4.2

## Pre-braided - Single layer - Copper

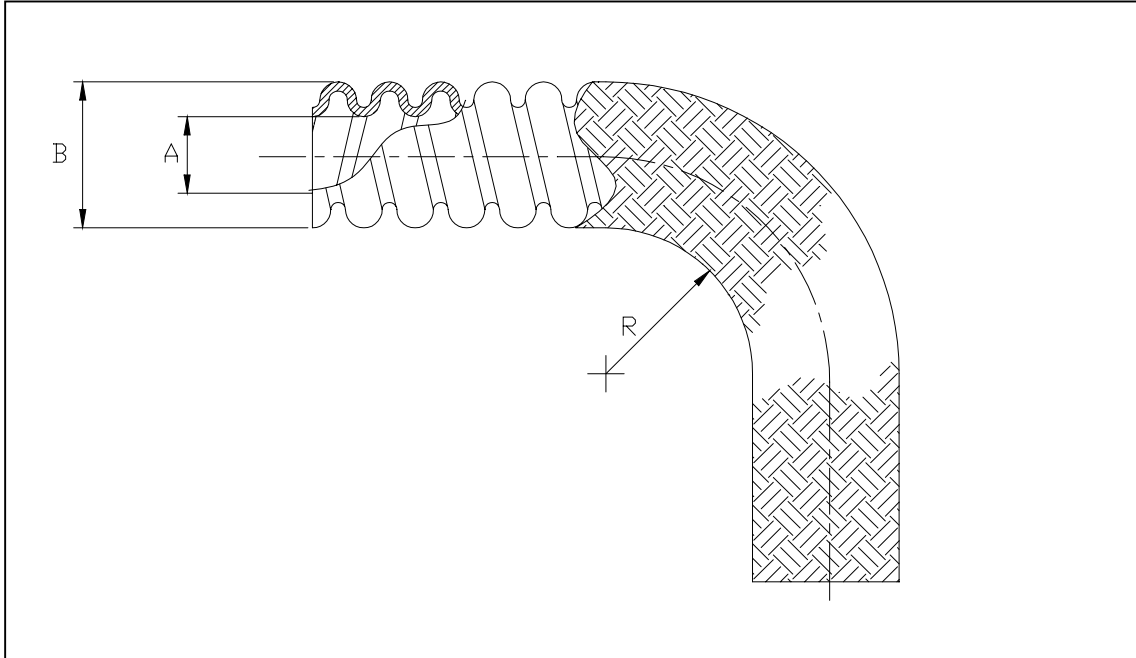


Conduit Size Code	A Min	B Max	R Rad Min.	Weight g/m
01	4.6	8.70	19.0	75
02	7.0	11.25	32.0	94
03	7.6	11.95	35.0	101
04	9.2	13.65	38.0	122
05	10.8	15.10	45.0	128
06	12.3	16.75	51.0	140
07	15.6	20.10	64.0	182
08	19.0	24.15	76.0	264
09	21.8	27.68	83.0	310
10	24.5	31.85	89.0	374

1. Dimensions – mm nominal (unless otherwise stated).
2. Copper braids are supplied with either nickel or tin plating as required.
3. Alternative constructions featuring double braids or alternative conduits can be supplied for specialist applications, please contact Ultra Electronics Electrics Division.

### 4.3

### Pre-braided - Single layer - Stainless steel



Conduit Size Code	Order Description	A Min	B Max	R Rad Min.	Weight g/m Max
01	PTFE-01-N	4.6	9.2	22.0	97
02	PTFE-02-N	7.0	11.8	35.0	153
03	PTFE-03-N	7.6	12.6	38.0	161
04	PTFE-04-N	9.2	14.0	41.0	179
05	PTFE-05-N	10.8	15.9	48.0	195
06	PTFE-06-N	12.3	17.4	54.0	213
07	PTFE-07-N	15.6	20.7	68.0	271
08	PTFE-08-N	19.0	24.8	80.0	343
09	PTFE-09-N	21.8	29.2	90.0	400
10	PTFE-10-N	24.5	32.5	100.0	476

1. Dimensions – mm nominal (unless otherwise stated).
2. Alternative constructions featuring double braids or alternative conduits can be supplied for specialist applications, please contact Ultra Electronics Electrics Division.

There are some applications where savings in cost, weight and space envelope can be achieved by using customised transitions and adaptors. Additionally some applications require unique solutions where standard range components are unsuitable. Ultra Electronics Electrics Division provides a design service to identify and develop complete solutions to overcome these problems and satisfy the demands of our customers.

Specialised fittings can be manufactured in a range of materials and finishes and are compatible with standard system components. For more information please contact Ultra Electronics Electrics Division.



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