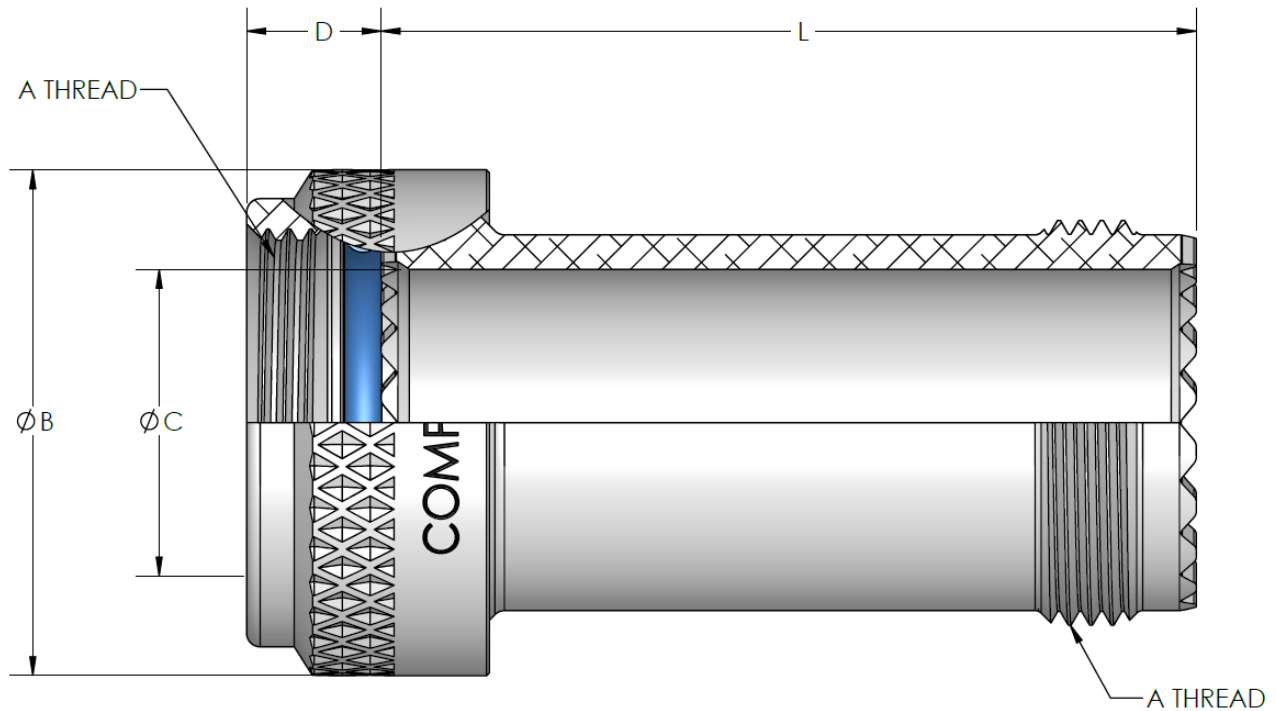


# SERIES 38

## Extender Backshell



**CP A 38 1 W S - 12 10**

**Compaero Identifier**

**Connector Interface**

See sections below for details

**Series Identifier**

**Angle**

**Material & Finish**

See sections below for details

**Length Option**

Omit for 1.50"

0.25" Increments (10 = 2.50")

**Shell Size**

See Interface table for details

**Coupling Ring Option**

Omit for standard rotatable

**E** - Seat-lock™ (Non-detent, self locking)

**S** - Self locking (Detent, ratchet style)

See sections below for details

# SERIES 38

## Extender Backshell

**COMPAERO**  
India Pvt. Ltd.

### INTERFACE TABLE

| INTERFACE CODES |    |    |        | SERIES 38 DIMENSIONS |       |       |             |             |
|-----------------|----|----|--------|----------------------|-------|-------|-------------|-------------|
| A               | DK | F  | H      | A THREAD             | B REF | C REF | D REF (INT) | D REF (INT) |
|                 | 08 | 08 |        | 7/16 - 28 UNEF       | 0.650 | 0.269 |             | .188 (F)    |
|                 |    |    | 09 (A) | M12 X 1 - 6H         | 0.770 | 0.270 | .248 (H)    |             |
| 08              |    |    |        | 1/2 - 20 UNF         | 0.650 | 0.270 | .305 (A)    |             |
| 03              | 10 | 10 |        | 9/16 - 24 UNEF       | 0.770 | 0.520 | .305 (A)    | .188 (F)    |
|                 |    |    | 11 (B) | M15 X 1 - 6H         | 0.820 | 0.410 | .248 (H)    |             |
| 10              |    |    |        | 5/8 - 24 UNEF        | 0.770 | 0.375 | .305 (A)    |             |
|                 | 12 | 12 |        | 11/16 - 24 UNEF      | 0.890 | 0.645 |             | .188 (F)    |
|                 |    |    | 13 (C) | M18 X 1 - 6H         | 0.940 | 0.520 | .248 (H)    |             |
| 12              |    |    |        | 3/4 - 20 UNEF        | 0.940 | 0.511 | .305 (A)    |             |
|                 | 14 | 14 |        | 13/16 - 20 UNEF      | 1.020 | 0.730 |             | .188 (F)    |
|                 |    |    | 15 (D) | M22 X 1 - 6H         | 1.070 | 0.650 | .248 (H)    |             |
| 14              |    |    |        | 7/8 - 20 UNEF        | 1.020 | 0.585 | .305 (A)    |             |
|                 | 16 | 16 |        | 15/16 - 20 UNEF      | 1.150 | 0.855 |             | .188 (F)    |
|                 |    |    | 17 (E) | M25 X 1 - 6H         | 1.210 | 0.780 | .248 (H)    |             |
| 16              |    |    |        | 1 - 20 UNEF          | 1.210 | 0.710 | .305 (A)    |             |
| 18              | 18 | 18 |        | 1 1/16 - 18 UNEF     | 1.230 | 0.789 | .305 (A)    | .188 (F)    |
|                 |    |    | 19 (F) | M28 X 1 - 6H         | 1.360 | 0.880 | .248 (H)    |             |
|                 |    |    |        | 1 1/8 - 18 UNEF      | 1.360 | 0.810 |             |             |
| 20              | 20 | 20 |        | 1 3/16 - 18 UNEF     | 1.360 | 0.914 | .305 (A)    | .188 (F)    |
|                 |    |    | 21 (G) | M31 X 1 - 6H         | 1.480 | 1.010 | .248 (H)    |             |
|                 |    |    |        | 1 1/4 - 18 UNEF      | 1.530 | 0.946 |             |             |
| 22              | 22 | 22 |        | 1 5/16 - 18 UNEF     | 1.480 | 1.039 | .305 (A)    | .188 (F)    |
|                 |    |    | 23 (H) | M34 X 1 - 6H         | 1.600 | 1.150 | .248 (H)    |             |
| 24              | 24 | 24 |        | 1 7/16 - 18 UNEF     | 1.730 | 1.154 | .305 (A)    | .188 (F)    |
|                 |    |    | 25 (J) | M37 X 1 - 6H         | 1.700 | 1.260 | .248 (H)    |             |
| 61              |    |    |        | 1 1/2 - 18 UNEF      | 1.670 | 1.194 | .305 (A)    |             |
|                 |    |    |        | 1 9/16 - UNEF        | 1.820 | 1.222 |             |             |
| 28              |    |    |        | 1 3/4 - 18 UNS       | 1.970 | 1.389 | .467 (A)    |             |
|                 |    |    |        | 1 7/8 - 16 UN        | 2.190 | 1.422 |             |             |
| 32              |    |    |        | 2 - 18 UNS           | 2.220 | 1.635 | .467 (A)    |             |
|                 |    |    |        | 2 1/16 - 16 UNS      | 2.440 | 1.672 |             |             |
| 36              |    |    |        | 2 1/4 - 16 UN        | 2.470 | 1.850 | .467 (A)    |             |
| 40              |    |    |        | 2 1/2 - 16 UN        | 2.720 | 2.065 | .467 (A)    |             |
| 44              |    |    |        | 2 3/4 - 16 UN        |       | 2.320 | .467 (A)    |             |
| 48              |    |    |        | 3 - 16 UN            |       | 2.570 | .467 (A)    |             |

All dimensions in inches

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# CONNECTOR INTERFACE CODES

For standard circular interfaces



Compaero offer termination solutions for virtually all known connector interfaces, the variants highlighted below are our standard lines, available on all product lines.

To discuss connector interface options not shown, please contact your local sales representative, or visit [www.compaeroindia.com](http://www.compaeroindia.com)

| CONNECTOR INTERFACE                                                                                                          | INTERFACE CODE |
|------------------------------------------------------------------------------------------------------------------------------|----------------|
| EN2997, ESC10, ESC11                                                                                                         | A              |
| EN3645                                                                                                                       | H              |
| MIL-DTL-26482 SERIES I SOLDER<br>MS3110, MS3116 WITHOUT ACCESSORY TEETH                                                      | DK             |
| MIL-DTL-26482 SERIES II<br>MS3470, MS3471, MS3472, MS3474, MS3475, MS3476                                                    | A              |
| MIL-DTL-38999 SERIES I & II<br>MS27466 - 68, MS27472 - 74, MS27479 - 81, MS27484, MS27497, MS27652, MS27653, M27656          | F              |
| MIL-DTL-38999 SERIES III & IV<br>D38999/20, /24, /26, /40, /46, /47                                                          | H              |
| MIL-DTL-5015 SOLDER<br>M3100, MS3101, MS3106, Amphenol - Class A (Blue Insert)                                               | BA*            |
| MIL-DTL-5015 SOLDER<br>M3100, MS3101, MS3106, Bendix - Class A, E & R                                                        | BB*            |
| MIL-DTL-5015 SOLDER<br>M3100, MS3101, MS3106, Cannon - Class A, E & R                                                        | BC*            |
| MIL-DTL-5015 SOLDER<br>M3100, MS3101, MS3106, Amphenol - Class R (Resilient Insert)                                          | BR*            |
| MIL-DTL-5015 CRIMP<br>MS3400, MS3401, MS3404, MS3406, MS3450, MS3451, MS3454, MS3456                                         | A              |
| MIL-DTL-83723 SERIES I & III<br>M83723 /1 - /8, /13, /14, /36 - /43, /48, /49, /65 - /78, /82 - /87, /91, /92, /95, /97, /98 | A              |
| BS9522 F0017 PATT 105<br>AMPHENOL 62GB                                                                                       | VA             |
| VG95234 / BS9522 F0032 PATT 121B<br>ABCIR RANGE                                                                              | VB             |

# MATERIAL & PLATING OPTIONS



All Compaero backshells are available in a wide selection of material and plating combinations, from heavy duty marine applications to lightweight aerospace solutions, there is an option for almost any situation.

| CODE | MIL SPEC CODE | MATERIAL        | PLATING                  | PROCESS                                                                                                    | ROHS COMPLIANT |
|------|---------------|-----------------|--------------------------|------------------------------------------------------------------------------------------------------------|----------------|
| B    |               | Marine Bronze   | Shotblast, Nonreflective | 1000 Hour Salt Spray, Conductive -65 to +200°C                                                             | Yes            |
| C    | A             | Aluminum        | Anodize, Black           | AMS-A-8625 Type II Class 2, 336 Hour Salt Spray, Non-Conductive -65 to +175°C                              | Yes            |
| F    | N, F          | Aluminum        | Electroless Nickel       | AMS-C-26074 Class 4 Grade B; ASTM-B-733, SC 2, Type IV, 48 Hour Salt Spray, Conductive -65 to +200°C       | Yes            |
| G    |               | Aluminum        | Anodize, Hardcoat, Black | AMS-A-8625 Type III, Class 2, .001" thick, 336 Hour Salt Spray, Non-Conductive -65 to +200°C               | Yes            |
| KB   | B             | Stainless Steel | Cadmium, Black           | SAE-AMS-QQ-P-416 Type II Class 3<br>1000 Hour Salt Spray, Conductive -65 to +175°C                         | No             |
| K    | S             | Stainless Steel | Passivate                | SAE-AMS-SAE-AMS-QQ-P-35 Type VI<br>1000 Hour Salt Spray, Conductive -65 to +200°C                          | Yes            |
| KL   |               | Stainless Steel | Electrodeposited Nickel  | SAE-AMS-QQ-N-290 Class 1 Grade F<br>1000 Hour Salt Spray, Conductive -65 to +200°C                         | Yes            |
| TR   |               | Aluminum        | Zinc-Nickel, Black       | ASTM B841 Grade 5 over electroless nickel<br>500 Hour Salt Spray, Conductive -65 to +175°C                 | Yes            |
| T    |               | Aluminum        | Zinc-Nickel, Black       | ASTM B841 Grade 5 over electroless nickel<br>1000 Hour Salt Spray, Conductive -65 to +175°C                | No             |
| W    | W             | Aluminum        | Cadmium, Olive Drab      | SAE-AMS-QQ-P-416 Type II Class 2 over electroless nickel<br>1000 Hour Salt Spray, Conductive -65 to +175°C | No             |
| X    |               | Aluminum        | Unplated                 |                                                                                                            | Yes            |
| Y    |               | Aluminum        | Zinc-Cobalt, Olive Drab  | ASTM B 840 Grade 6 Type D over electroless nickel,<br>350 Hour Salt Spray, Conductive -65 to +175°C        | Yes            |
| ZN   |               | Aluminum        | Zinc-Nickel, Olive Drab  | ASTM B841 Grade 5 over electroless nickel<br>1000 Hour Salt Spray, Conductive -65 to +175°C                | No             |
| Z    |               | Aluminum        | Zinc-Cobalt, Black       | ASTM B 840 Grade 6 Type D over electroless nickel<br>350 Hour Salt Spray, Conductive -65 to +175°C         | Yes            |

For the full list of available options, please consult [www.compaeroindia.com](http://www.compaeroindia.com)  
Please note that the colours shown above are for illustrative purposes only - actual finish colour may vary.

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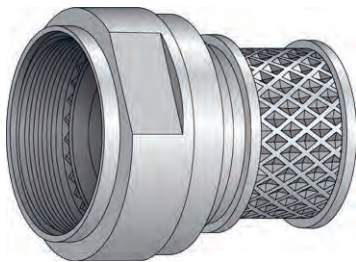
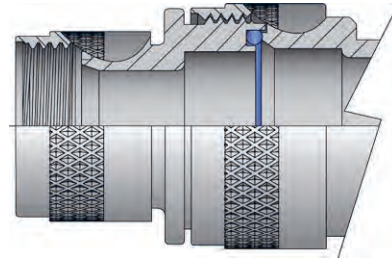
## Type 2 Coupling Rings

When the selected cable entry exceeds the **MAX ENTRY** stated in the INTERFACE TABLE, you may choose to have a type 2 assembly. The two-piece assembly allows a large cable diameter to be maintained as close to the connector body as possible, allowing maximum continuation of screens and wire protection, whilst also providing an access point close to the connector.

To specify a type 2 assembly, place modification code -079 at the end of the part number when ordering.

**Modification Code Example:** CPA461W-1410-VG0-079

To receive a standard one-piece adapter, no modification code is needed.

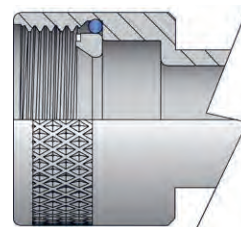


## Wrench Flat Coupling Rings OPTION W

Wrench flats are an available option on most Compaero adapters and backshells, allowing for an easier way of tightening the coupling ring when working with reduced accessibility.

## Direct Coupling Rings OPTION D

Available on straight adapters only.



## Seat-Lock Coupling Rings, Non-Detent Self-Locking OPTION E

Using a spring loaded retaining ring, Compaero Seat-Lock coupling rings are a non detent way to achieve self locking. This option ensures that the accessory teeth of the connector mate properly with the teeth on the adapter or backshell by applying constant force between the two. The Compaero Seat-Lock option is an excellent choice if an easy, economical self locking solution is required.

## Safety Wire Holes OPTION T

Safety wire holes can be specified on standard rotatable coupling rings for use with safety wire after installation. Safety wire ensures the coupling ring will not un-couple during shock and/or vibration. These are common on AS85049 accessories. When this option is specified the coupling ring will have 3 equally spaced wire holes (120 degrees apart), sufficient to accommodate 0.020 inch wire.

## Self-Locking Coupling Rings, Detent OPTION S

Detent style self locking features a ratcheting coupling ring using non corrosive clips located within the coupling ring. Many AS85049 specifications specify this detent style self locking coupling ring making this one of the most popular ways of achieving a self locking adapter or backshell.

The above coupling ring options are available on most Compaero backshells and adapters. Please contact the sales team for more information.

# RECOMMENDED TORQUE VALUES



The below figures are provided to support operators already trained in the installation of heat shrinkable products and harnessing components. They identify the recommended torque values to be used when installing adapters onto circular electrical connectors, to consistently tighten adapters in a controlled manner.

For any questions or further instructions please contact us and we will be happy to assist you.

## Connector Accessories onto Connector Threads

| SHELL SIZE | MIL-DTL-26500<br>MIL-DTL-81511<br>MIL-DTL-26482 S1<br>MIL-DTL-38999 S1/S2<br>MIL-DTL 5015 Solder |             | MIL-DTL-26482 S2<br>MIL-DTL-28840<br>MIL-DTL-83723<br>MIL-DTL-22992<br>MIL-DTL-5015 Crimp<br>MIL-DTL-38999 S3/S4 |             |
|------------|--------------------------------------------------------------------------------------------------|-------------|------------------------------------------------------------------------------------------------------------------|-------------|
|            | in - lb                                                                                          | Nm          | in - lb                                                                                                          | Nm          |
| 08/09      | 30 - 40                                                                                          | 3.4 - 4.5   | 51 - 61                                                                                                          | 5.8 - 6.9   |
| 10/11      | 30 - 40                                                                                          | 3.4 - 4.5   | 71 - 81                                                                                                          | 8.0 - 9.2   |
| 12/13      | 35 - 45                                                                                          | 4.0 - 5.1   | 103 - 113                                                                                                        | 11.6 - 12.8 |
| 14/15      | 35 - 45                                                                                          | 4.0 - 5.1   | 111 - 121                                                                                                        | 12.5 - 13.7 |
| 16/17      | 35 - 45                                                                                          | 4.0 - 5.1   | 111 - 121                                                                                                        | 12.5 - 13.7 |
| 18/19      | 35 - 45                                                                                          | 4.0 - 5.1   | 111 - 121                                                                                                        | 12.5 - 13.7 |
| 20/21      | 75 - 85                                                                                          | 8.5 - 9.6   | 131 - 141                                                                                                        | 14.8 - 15.9 |
| 22/23      | 75 - 85                                                                                          | 8.5 - 9.6   | 131 - 141                                                                                                        | 14.8 - 15.9 |
| 24/25      | 75 - 85                                                                                          | 8.5 - 9.6   | 131 - 141                                                                                                        | 14.8 - 15.9 |
| 28         | 115 - 125                                                                                        | 13.0 - 14.1 | 143 - 153                                                                                                        | 16.2 - 17.3 |
| 32         | 115 - 125                                                                                        | 13.0 - 14.1 | 143 - 153                                                                                                        | 16.2 - 17.3 |
| 36         | 115 - 125                                                                                        | 13.0 - 14.1 | 143 - 153                                                                                                        | 16.2 - 17.3 |
| 40         | 155 - 165                                                                                        | 17.5 - 18.6 | 159 - 169                                                                                                        | 18.0 - 19.1 |
| 44         | 155 - 165                                                                                        | 17.5 - 18.6 | 159 - 169                                                                                                        | 18.0 - 19.1 |
| 48         | 155 - 165                                                                                        | 17.5 - 18.6 | 159 - 169                                                                                                        | 18.0 - 19.1 |

## Cable Clamps onto Backshells

| CLAMP-SIZE | TORQUE VALUES |            |
|------------|---------------|------------|
|            | in - lb       | Nm         |
| 01         | 35 - 40       | 4.0 - 4.5  |
| 02         | 35 - 40       | 4.0 - 4.5  |
| 03         | 35 - 55       | 4.0 - 6.2  |
| 04         | 35 - 55       | 4.0 - 6.2  |
| 05         | 35 - 55       | 4.0 - 6.2  |
| 06         | 40 - 60       | 4.5 - 6.8  |
| 07         | 40 - 60       | 4.5 - 6.8  |
| 08         | 40 - 60       | 4.5 - 6.8  |
| 09         | 80 - 100      | 9.0 - 11.3 |
| 10         | 80 - 100      | 9.0 - 11.3 |
| 11         | 80 - 100      | 9.0 - 11.3 |
| 12         | 80 - 100      | 9.0 - 11.3 |

## Cable Clamp Hardware

| THREAD-SIZE | TORQUE VALUES |           |
|-------------|---------------|-----------|
|             | in - lb       | Nm        |
| 2-56        | 1.5 - 2.5     | 0.2 - 0.3 |
| 4-40        | 3.5 - 4.5     | 0.4 - 0.5 |
| 6-32        | 5.0 - 7.0     | 0.6 - 0.8 |
| 8-32        | 7.0 - 9.0     | 0.8 - 1.0 |
| 10-32       | 9.0 - 11.0    | 1.0 - 1.2 |
| 1/4-20      | 11.0 - 13.0   | 1.2 - 1.5 |