

# AS85049/11 and MS3437B Straight Environmental Backshell



AS85049

B

## CONNECTOR DESIGNATOR:

**A**

AS50151 Series AS34001  
MIL-DTL-26482 Series II  
AS81703 Series III  
MIL-DTL-83723 Series I & III  
40M39569, DEF 5326-3, EN 2997  
EN 3646, ESC 10, ESC 11, LN 29504  
NFC93422 Series HE302  
PAN 6432-1, PAN 6432-2, PATT 602

**Basic  
Part Number**

**Dash Number  
(Table II)**

**M85049/11 - 21 N**

**Superseded  
Part Number**

**MS3437B 21 N**

**Basic  
Part No.**

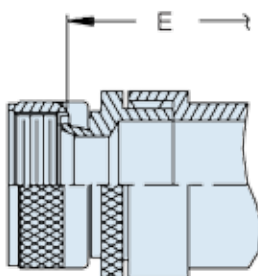
**Dash  
No.**

## Finish (Material is Aluminum Only)

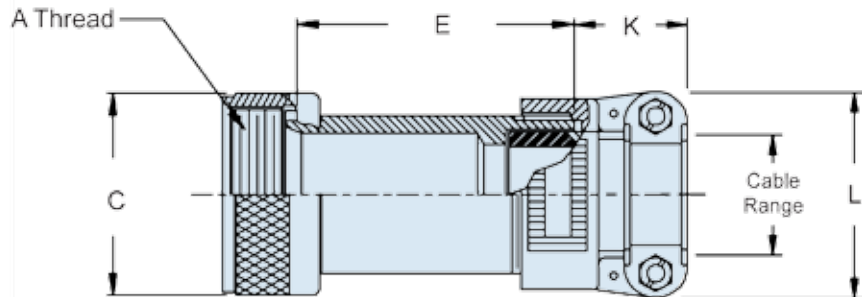
**A** = Cadmium Olive Drab over Nickel  
**C** = Cadmium Olive Drab  
**N** = Electroless Nickel

## Finish / Material

**B** = Black Cadmium / Stainless Steel  
**N** = Electroless Nickel / Aluminum  
**S** = Passivated / Stainless Steel  
**W** = 1,000 Hr. Cadmium Olive Drab over Electroless Nickel / Aluminum  
**X** = Nickel Fluorocarbon Polymer / Aluminum  
**Y** = Pure Dense Electrodeposited Aluminum / Aluminum  
**Z** = Zinc Nickel, Black / Aluminum  
**XS** = Nickel Fluorocarbon Polymer / Stainless Steel  
**YS** = Pure Dense Electrodeposited Aluminum / Stainless Steel  
**ZS** = Zinc Nickel, Black / Stainless Steel



**STYLE 2**



**STYLE 1**

**TABLE I: Shell Size and Dimensions**

| Shell Size | A Thread Class 2B-LH | C Dia Max    |
|------------|----------------------|--------------|
| 3          | .562 - 24 UNEF       | .669 (17.0)  |
| 8          | .500 - 20 UNF        | .617 (15.7)  |
| 10         | .625 - 24 UNEF       | .734 (18.6)  |
| 12         | .750 - 20 UNEF       | .858 (21.8)  |
| 14         | .875 - 20 UNEF       | .984 (25.0)  |
| 16         | 1.000 - 20 UNEF      | 1.112 (28.2) |
| 18         | 1.062 - 18 UNEF      | 1.218 (30.9) |
| 20         | 1.188 - 18 UNEF      | 1.345 (34.2) |
| 22         | 1.313 - 18 UNEF      | 1.468 (37.3) |
| 24         | 1.438 - 18 UNEF      | 1.593 (40.5) |
| 28         | 1.750 - 18 UNS       | 1.969 (50.0) |
| 32         | 2.000 - 18 UNS       | 2.219 (56.4) |
| 36         | 2.250 - 16 UN        | 2.469 (62.7) |
| 40         | 2.500 - 16 UN        | 2.719 (69.1) |
| 44         | 2.750 - 16 UN        | 2.969 (75.4) |
| 48         | 3.000 - 16 UN        | 3.219 (81.8) |
| 61         | 1.500 - 18 UNEF      | 1.653 (42.0) |

## APPLICATION NOTES

- For complete dimensions see the applicable Military Specification.
- Metric dimensions (mm) are in parentheses.
- When maximum cable entry is exceeded, Style 2 will be supplied.
- Cable Range is defined as the accommodation range for the wire bundle or cable. Dimensions shown are not intended for inspection criteria.

Dimensions in inches (millimeters) and are subject to change without notice.



# AS85049/11 and MS3437B Straight Environmental Backshell

TABLE II: Dash Number and Cable Range (Continued on Page B-33)

| Dash No. | Shell Size | Style | E Max         | K Ref.       | L Max        | Cable Range Min | Cable Range Max | M85049/42 Ref. |
|----------|------------|-------|---------------|--------------|--------------|-----------------|-----------------|----------------|
| 01       | 3          | 1     | 2.125 (54.0)  | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)      | .250 (6.4)      | 4              |
| 02       | 3          | 1     | 3.125 (79.4)  | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)      | .250 (6.4)      | 4              |
| 03       | 3          | 2     | 2.875 (73.0)  | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)      | .437 (11.1)     | 6              |
| 04       | 3          | 2     | 3.875 (98.4)  | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)      | .437 (11.1)     | 6              |
| 05       | 8          | 1     | 2.125 (54.0)  | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)      | .250 (6.4)      | 4              |
| 06       | 8          | 1     | 3.125 (79.4)  | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)      | .250 (6.4)      | 4              |
| 07       | 8          | 2     | 2.875 (73.0)  | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)      | .437 (11.1)     | 6              |
| 08       | 8          | 2     | 3.875 (98.4)  | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)      | .437 (11.1)     | 6              |
| 09       | 10         | 1     | 2.125 (54.0)  | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)      | .312 (7.9)      | 4              |
| 10       | 10         | 1     | 3.125 (79.4)  | 1.027 (26.1) | .957 (24.3)  | .125 (3.2)      | .312 (7.9)      | 4              |
| 11       | 10         | 2     | 2.875 (73.0)  | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)      | .437 (11.1)     | 6              |
| 12       | 10         | 2     | 3.875 (98.4)  | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)      | .437 (11.1)     | 6              |
| 13       | 12         | 1     | 2.125 (54.0)  | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)      | .437 (11.1)     | 6              |
| 14       | 12         | 1     | 3.125 (79.4)  | 1.027 (26.1) | 1.145 (29.1) | .250 (6.4)      | .437 (11.1)     | 6              |
| 15       | 12         | 2     | 2.875 (73.0)  | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)      | .625 (15.9)     | 10             |
| 16       | 12         | 2     | 3.875 (98.4)  | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)      | .625 (15.9)     | 10             |
| 17       | 14         | 1     | 2.125 (54.0)  | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)      | .575 (14.6)     | 10             |
| 18       | 14         | 1     | 3.125 (79.4)  | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)      | .575 (14.6)     | 10             |
| 19       | 14         | 2     | 2.875 (73.0)  | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)     | .750 (19.1)     | 12             |
| 20       | 14         | 2     | 3.875 (98.4)  | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)     | .750 (19.1)     | 12             |
| 21       | 16         | 1     | 2.125 (54.0)  | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)     | .700 (17.8)     | 12             |
| 22       | 16         | 1     | 3.125 (79.4)  | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)     | .700 (17.8)     | 12             |
| 23       | 16         | 2     | 2.875 (73.0)  | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)     | .937 (23.8)     | 16             |
| 24       | 16         | 2     | 3.875 (98.4)  | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)     | .937 (23.8)     | 16             |
| 25       | 18         | 1     | 2.125 (54.0)  | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)      | .625 (15.9)     | 10             |
| 26       | 18         | 1     | 3.125 (79.4)  | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)      | .625 (15.9)     | 10             |
| 27       | 18         | 1     | 2.125 (54.0)  | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)     | .750 (19.1)     | 12             |
| 28       | 18         | 1     | 3.125 (79.4)  | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)     | .750 (19.1)     | 12             |
| 29       | 18         | 2     | 2.875 (73.0)  | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)     | .937 (23.8)     | 16             |
| 30       | 18         | 2     | 3.875 (98.4)  | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)     | .937 (23.8)     | 16             |
| 31       | 20         | 1     | 3.125 (79.4)  | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)      | .625 (15.9)     | 10             |
| 32       | 20         | 1     | 4.125 (104.8) | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)      | .625 (15.9)     | 10             |
| 33       | 20         | 1     | 3.125 (79.4)  | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)     | .750 (19.1)     | 12             |
| 34       | 20         | 1     | 4.125 (104.8) | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)     | .750 (19.1)     | 12             |
| 35       | 20         | 2     | 3.875 (98.4)  | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)     | .937 (23.8)     | 16             |
| 36       | 20         | 2     | 4.875 (123.8) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)     | .937 (23.8)     | 16             |
| 37       | 20         | 2     | 3.875 (98.4)  | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)     | 1.250 (31.8)    | 20             |
| 38       | 20         | 2     | 4.875 (123.8) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)     | 1.250 (31.8)    | 20             |
| 39       | 22         | 1     | 3.125 (79.4)  | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)      | .625 (15.9)     | 10             |
| 40       | 22         | 1     | 4.125 (104.8) | 1.027 (26.1) | 1.332 (33.8) | .350 (8.9)      | .625 (15.9)     | 10             |
| 41       | 22         | 1     | 3.125 (79.4)  | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)     | .750 (19.1)     | 12             |
| 42       | 22         | 1     | 4.125 (104.8) | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)     | .750 (19.1)     | 12             |
| 43       | 22         | 1     | 3.125 (79.4)  | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)     | .937 (23.8)     | 16             |
| 44       | 22         | 1     | 4.125 (104.8) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)     | .937 (23.8)     | 16             |
| 45       | 22         | 2     | 3.875 (98.4)  | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)     | 1.250 (31.8)    | 20             |
| 46       | 22         | 2     | 4.875 (123.8) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)     | 1.250 (31.8)    | 20             |
| 47       | 24         | 1     | 3.125 (79.4)  | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)     | .750 (19.1)     | 12             |
| 48       | 24         | 1     | 4.125 (104.8) | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)     | .750 (19.1)     | 12             |
| 49       | 24         | 1     | 3.125 (79.4)  | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)     | .812 (20.6)     | 16             |
| 50       | 24         | 1     | 4.125 (104.8) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)     | .812 (20.6)     | 16             |
| 51       | 24         | 1     | 3.125 (79.4)  | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)     | .937 (23.8)     | 16             |
| 52       | 24         | 1     | 4.125 (104.8) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)     | .937 (23.8)     | 16             |

Continued on Page B-33

Dimensions in inches (millimeters) and are subject to change without notice.

# AS85049/11 and MS3437B Straight Environmental Backshell



AS85049

B

TABLE II: Dash Number and Cable Range (Continued From Page B-32)

| Dash No. | Shell Size | Style | E Max         | K Ref.       | L Max        | Cable Range Min | Cable Range Max | M85049/42 Ref. |
|----------|------------|-------|---------------|--------------|--------------|-----------------|-----------------|----------------|
| 53       | 24         | 2     | 3.875 (98.4)  | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)     | 1.250 (31.8)    | 20             |
| 54       | 24         | 2     | 4.875 (123.8) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)     | 1.250 (31.8)    | 20             |
| 55       | 28         | 1     | 3.125 (79.4)  | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)     | .750 (19.1)     | 12             |
| 56       | 28         | 1     | 4.125 (104.8) | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)     | .750 (19.1)     | 12             |
| 57       | 28         | 1     | 3.125 (79.4)  | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)     | .937 (23.8)     | 16             |
| 58       | 28         | 1     | 4.125 (104.8) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)     | .937 (23.8)     | 16             |
| 59       | 28         | 1     | 3.125 (79.4)  | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)     | 1.250 (31.8)    | 20             |
| 60       | 28         | 1     | 4.125 (104.8) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)     | 1.250 (31.8)    | 20             |
| 61       | 28         | 1     | 3.125 (79.4)  | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4)    | 1.375 (34.9)    | 24             |
| 62       | 28         | 1     | 4.125 (104.8) | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4)    | 1.375 (34.9)    | 24             |
| 63       | 32         | 1     | 3.125 (79.4)  | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)     | .937 (23.8)     | 16             |
| 64       | 32         | 1     | 4.125 (104.8) | 1.156 (29.4) | 1.770 (45.0) | .625 (15.9)     | .937 (23.8)     | 16             |
| 65       | 32         | 1     | 3.125 (79.4)  | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)     | 1.250 (31.8)    | 20             |
| 66       | 32         | 1     | 4.125 (104.8) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)     | 1.250 (31.8)    | 20             |
| 67       | 32         | 1     | 3.125 (79.4)  | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4)    | 1.375 (34.9)    | 24             |
| 68       | 32         | 1     | 4.125 (104.8) | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4)    | 1.375 (34.9)    | 24             |
| 69       | 32         | 1     | 3.125 (79.4)  | 1.781 (45.2) | 2.770 (70.4) | 1.250 (31.8)    | 1.625 (41.3)    | 28             |
| 70       | 32         | 1     | 4.125 (104.8) | 1.781 (45.2) | 2.770 (70.4) | 1.250 (31.8)    | 1.625 (41.3)    | 28             |
| 71       | 36         | 1     | 4.125 (104.8) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)     | 1.250 (31.8)    | 20             |
| 72       | 36         | 1     | 5.125 (130.2) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)     | 1.250 (31.8)    | 20             |
| 73       | 36         | 1     | 4.125 (104.8) | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4)    | 1.375 (34.9)    | 24             |
| 74       | 36         | 1     | 5.125 (130.2) | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4)    | 1.375 (34.9)    | 24             |
| 75       | 36         | 1     | 4.125 (104.8) | 1.781 (45.2) | 2.770 (70.4) | 1.250 (31.8)    | 1.625 (41.3)    | 28             |
| 76       | 36         | 1     | 5.125 (130.2) | 1.781 (45.2) | 2.770 (70.4) | 1.250 (31.8)    | 1.625 (41.3)    | 28             |
| 77       | 36         | 2     | 5.000 (127.0) | 1.830 (46.5) | 3.020 (76.7) | 1.437 (36.5)    | 1.875 (47.6)    | 32             |
| 78       | 36         | 2     | 6.000 (152.4) | 1.830 (46.5) | 3.020 (76.7) | 1.437 (36.5)    | 1.875 (47.6)    | 32             |
| 79       | 40         | 1     | 4.125 (104.8) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)     | 1.250 (31.8)    | 20             |
| 80       | 40         | 1     | 5.125 (130.2) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)     | 1.250 (31.8)    | 20             |
| 81       | 40         | 1     | 4.125 (104.8) | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4)    | 1.375 (34.9)    | 24             |
| 82       | 40         | 1     | 5.125 (130.2) | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4)    | 1.375 (34.9)    | 24             |
| 83       | 40         | 1     | 4.125 (104.8) | 1.781 (45.2) | 2.770 (70.4) | 1.250 (31.8)    | 1.625 (41.3)    | 28             |
| 84       | 40         | 1     | 5.125 (130.2) | 1.781 (45.2) | 2.770 (70.4) | 1.250 (31.8)    | 1.625 (41.3)    | 28             |
| 85       | 40         | 1     | 4.125 (104.8) | 1.830 (46.5) | 3.020 (76.7) | 1.437 (36.5)    | 1.875 (47.6)    | 32             |
| 86       | 40         | 1     | 5.125 (130.2) | 1.830 (46.5) | 3.020 (76.7) | 1.437 (36.5)    | 1.875 (47.6)    | 32             |
| 87       | 44         | 1     | 4.125 (104.8) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)     | 1.250 (31.8)    | 20             |
| 88       | 44         | 1     | 5.125 (130.2) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)     | 1.250 (31.8)    | 20             |
| 89       | 44         | 1     | 4.125 (104.8) | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4)    | 1.375 (34.9)    | 24             |
| 90       | 44         | 1     | 5.125 (130.2) | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4)    | 1.375 (34.9)    | 24             |
| 91       | 44         | 1     | 4.125 (104.8) | 1.781 (45.2) | 2.770 (70.4) | 1.250 (31.8)    | 1.625 (41.3)    | 28             |
| 92       | 44         | 1     | 5.125 (130.2) | 1.781 (45.2) | 2.770 (70.4) | 1.250 (31.8)    | 1.625 (41.3)    | 28             |
| 93       | 44         | 1     | 4.125 (104.8) | 1.830 (46.5) | 3.020 (76.7) | 1.437 (36.5)    | 1.875 (47.6)    | 32             |
| 94       | 44         | 1     | 5.125 (130.2) | 1.830 (46.5) | 3.020 (76.7) | 1.437 (36.5)    | 1.875 (47.6)    | 32             |
| 95       | 48         | 1     | 4.125 (104.8) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)     | 1.250 (31.8)    | 20             |
| 96       | 48         | 1     | 5.125 (130.2) | 1.375 (34.9) | 2.113 (53.7) | .875 (22.2)     | 1.250 (31.8)    | 20             |
| 97       | 48         | 1     | 4.125 (104.8) | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4)    | 1.375 (34.9)    | 24             |
| 98       | 48         | 1     | 5.125 (130.2) | 1.500 (38.1) | 2.363 (60.0) | 1.000 (25.4)    | 1.375 (34.9)    | 24             |
| 99       | 48         | 1     | 4.125 (104.8) | 1.781 (45.2) | 2.770 (70.4) | 1.250 (31.8)    | 1.625 (41.3)    | 28             |
| 100      | 48         | 1     | 5.125 (130.2) | 1.781 (45.2) | 2.770 (70.4) | 1.250 (31.8)    | 1.625 (41.3)    | 28             |
| 101      | 48         | 1     | 4.125 (104.8) | 1.830 (46.5) | 3.020 (76.7) | 1.437 (36.5)    | 1.875 (47.6)    | 32             |
| 102      | 48         | 1     | 5.125 (130.2) | 1.830 (46.5) | 3.020 (76.7) | 1.437 (36.5)    | 1.875 (47.6)    | 32             |
| 103      | 61         | 1     | 3.125 (79.4)  | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)     | .750 (19.1)     | 12             |
| 104      | 61         | 1     | 4.125 (104.8) | 1.059 (26.9) | 1.551 (39.4) | .500 (12.7)     | .750 (19.1)     | 12             |

Continued on Page B-34

Dimensions in inches (millimeters) and are subject to change without notice.

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