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| **M27500 Cable (NEMA WC27500)** |

This specification covers the requirements for electronic control cables used in aircraft and missile applications. These cables may be constructed from a variety of insulating materials having different characteristics. These cables can be obtained in configurations up to 15 conductors with just a shield, or just a jacket, or both single and double shields and jackets. Conductor colors are specified and the cable must be identified by methods described in the body of M27500.

**Cable Designation**

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| --- | --- | --- | --- | --- | --- | --- |
| **Specification Number** | **ID method of cable wire & shield coverage** | **Conductor Size** | **Basic wire specification** | **Numbers of wires in cable** | **Shield style & materials** | **Jacket Material** |
| **M27500** | **-** | **22** | **SD** | **3** | **T** | **23** |

**Identification Method**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Color Code for Shield Coverage** | | | **M27500 Terminology** | **Component Wire Identification Method** |
| **85%** | | **90%** |
| - | C | | Preferred method, Table A | White wires with colored stripes –stripe color per Table A |
| F | G | | Preferred method, Table B | White wires with colored stripes –stripe color per Table B |
| A | D | | Optional method A, Table A | Solid colored wire – colors per Table A |
| G | J | | Optional method A, Table B | Solid colored wire – colors per Table B |
| B | E | | Optional method B, Table C | Wires are the same color, based on AWG size (per Table C). Bands of contrasting color denotes wire number (per Table D) |
| K | M | | Optional method C, Table C | Wires are the same color, based on AWG size (per Table C). Numbers of contrasting color printed to denote wire number |
| L | N | | Optional method B, Table D | White wires with numbers of contrasting color printed on each wire to denote wire number |

**Table A: Color Coding**

* For **“preferred method”** color coding, colors are stripes on white insulation (wire #1 has no stripe). Wires 11 -15 have double stripes as indicated.
* For **“optional method”** color coding, colors are solid insulation color. Wires 11 -15 have a stripe in lighter shade of base color.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Wire Number** | **Color** | **Wire Number** | **Color** | **Wire Number** | **Color** |
| 1 | White | 6 | Black | 11 | Blue/Blue |
| 2 | Blue | 7 | Yellow | 12 | Orange/Orange |
| 3 | Orange | 8 | Violet | 13 | Green/Green |
| 4 | Green | 9 | Gray | 14 | Red/Red |
| 5 | Red | 10 | Brown | 15 | Black/Black |