

### CAVI UNIPOLARI SINGLE CORE CABLES

#### SPECIFICA MILITARE ED AEROSPAZIALE / MILITARY AND AEROSPACE SPECIFICATION AS 22759

#### COSTRUZIONE

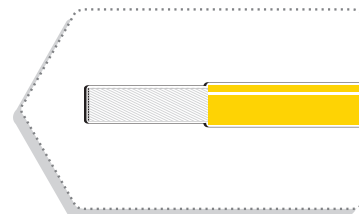
**Conduttore:** rame stagnato (AS22759/16 & 18), o lega di rame argentato ad alta resistenza /AS 22759/17 & 19).

**Isolamento:** ETFE, con spessore ridotto per i tipi "light weight" (AS 22759/18 & 19), con spessore standard per i tipi "medium weight" (AS 22759/16 & 17).

#### CONSTRUCTION

**Conductor:** tinned copper (AS 22759/16 & 18) or silver-coated high strenght copper alloy (AS 22759/17 & 19).

**Insulation:** ETFE, with reduced thickness for "light weight" type (AS 22759/18 & 19), with standard thickness for "medium weight" type (AS 22759/16 & 17).



Tensione di esercizio / Voltage rating

600 Vca

Campo di temperatura / Temperature range

-65°C ÷ +150°C

#### Requisiti principali Main requirements

#### AS 22759 / 16 & 17 "medium weight"

#### AS 22759 / 18 & 19 "light weight"

|                                                                                                             |                                                             |                                                               |
|-------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|---------------------------------------------------------------|
| Rigidità dielettrica (KV)<br><i>Dielectric test (KV)</i>                                                    | 2,2                                                         | 2                                                             |
| Rigidità dielettrica impulsiva (KV di picco)<br><i>Impulse dielectric test (KV, peak)</i>                   | 8                                                           | 8                                                             |
| Resistenza d'isolamento (megaohms x 1000 m, min.)<br><i>Insulation resistance (megaohms x 1000 m, min.)</i> | 1.524 (AWG 26 - 14)<br>914 (AWG 12 - 6)<br>609 (AWG 4 - 00) | 1.524 (AWG 26 - 20)<br>914 (AWG 18 - 14)<br>609 (AWG 12 - 10) |
| Carico di rottura (N / mm <sup>2</sup> )<br><i>Tensile strength (N / mm<sup>2</sup>)</i>                    | 35                                                          | 35                                                            |
| Allungamento a rottura (%)<br><i>Elongation (%)</i>                                                         | 150                                                         | 150                                                           |
| Piegatura a freddo (h / °C)<br><i>Cold bend (h / °C)</i>                                                    | 4 / -65                                                     | 4 / -65                                                       |
| Stabilità termica a breve, su mandrino (h / °C)<br><i>Short term thermal stability (h / °C)</i>             | 7 / +230                                                    | 7 / +230                                                      |
| Infiammabilità / <i>Flammability</i>                                                                        | verticale / <i>vertical</i>                                 | verticale / <i>vertical</i>                                   |
| tempo spegnimento / <i>after flame time (s)</i>                                                             | 2                                                           | 2                                                             |
| tratto bruciato / <i>burn lenght (mm)</i>                                                                   | 140                                                         | 140                                                           |

#### IDENTIFICAZIONE (Part Number) M 22759 / X - Y - N, ove:

#### IDENTIFICATION (Part Number) M 22759 / X - Y - N, where:

|                |                                                                                                                                                                                                                                  |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>M 22759</b> | Specifica di riferimento                                                                                                                                                                                                         |
| <b>X</b>       | Foglio di specifica                                                                                                                                                                                                              |
| <b>Y</b>       | Taglia del conduttore in AWG                                                                                                                                                                                                     |
| <b>N</b>       | Codice colori<br>0 nero 5 verde<br>1 marrone 6 blu<br>2 rosso 7 viola<br>3 arancio 8 grigio<br>4 giallo 9 bianco<br><br>Il primo numero indica il colore dell'isolante, eventuali successivi il colore di rigature supplementari |

|                |                                                                                                                                                                                              |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>M 22759</b> | Reference specification                                                                                                                                                                      |
| <b>X</b>       | Specification sheet                                                                                                                                                                          |
| <b>Y</b>       | Conductor size AWG                                                                                                                                                                           |
| <b>N</b>       | Color code<br>0 black 5 green<br>1 brown 6 blu<br>2 red 7 violet (purple)<br>3 orange 8 gray (slate)<br>4 yellow 9 white<br><br>First number for insulation color, other for stripes, if any |

SPECIFICA MILITARE ED AEROSPAZIALE /  
MILITARY AND AEROSPACE SPECIFICATION

## AS 22759

DETTAGLI COSTRUTTIVI - VALORI DIMENSIONALI  
CONSTRUCTIONS DETAILS - DIMENSIONS

AS 22759 / 16 "Medium weight", conduttore di rame stagnato  
AS 22759 / 16 "Medium weight", tinned copper conductor

| taglia<br>AWG | formazione<br>stranding<br>n° x Ø mm | sezione nominale<br>nom. cross section<br>mm² | diam. condutt. (mm)<br>conductor diam (mm) |       | resistenza max. a 20°C-ohms/km<br>max. resistance at 20°C-ohms/km | diametro cavo (mm)<br>wire diameter (mm) |        |
|---------------|--------------------------------------|-----------------------------------------------|--------------------------------------------|-------|-------------------------------------------------------------------|------------------------------------------|--------|
|               |                                      |                                               | nom.                                       | max.  |                                                                   | min.                                     | max.   |
| 24            | 19 x 0,127                           | 0,205                                         | 0,58                                       | 0,61  | 85,957                                                            | 1,092                                    | 1,194  |
| 22            | 19 x 0,160                           | 0,324                                         | 0,74                                       | 0,79  | 53,149                                                            | 1,270                                    | 1,372  |
| 20            | 19 x 0,203                           | 0,519                                         | 0,94                                       | 0,99  | 32,410                                                            | 1,473                                    | 1,575  |
| 18            | 19 x 0,254                           | 0,823                                         | 1,17                                       | 1,25  | 20,440                                                            | 1,753                                    | 1,854  |
| 16            | 19 x 0,287                           | 1,308                                         | 1,32                                       | 1,40  | 15,780                                                            | 1,956                                    | 2,057  |
| 14            | 19 x 0,360                           | 2,082                                         | 1,65                                       | 1,75  | 10,040                                                            | 2,311                                    | 2,413  |
| 12            | 37 x 0,320                           | 3,308                                         | 2,13                                       | 2,26  | 6,630                                                             | 2,819                                    | 2,972  |
| 10            | 37 x 0,404                           | 5,261                                         | 2,69                                       | 2,85  | 4,130                                                             | 3,454                                    | 3,607  |
| 8             | 133 x 0,287                          | 8,367                                         | 4,01                                       | 4,29  | 2,300                                                             | 4,978                                    | 5,131  |
| 6             | 133 x 0,361                          | 13,302                                        | 5,03                                       | 5,39  | 1,460                                                             | 6,274                                    | 6,426  |
| 4             | 133 x 0,455                          | 21,087                                        | 6,35                                       | 6,81  | 0,919                                                             | 7,823                                    | 8,026  |
| 2             | 665 x 0,254                          | 33,728                                        | 8,13                                       | 8,64  | 0,600                                                             | 9,754                                    | 9,957  |
| 1             | 817 x 0,254                          | 42,409                                        | 9,14                                       | 9,65  | 0,489                                                             | 10,820                                   | 11,074 |
| 0             | 1045 x 0,254                         | 53,488                                        | 10,03                                      | 10,80 | 0,381                                                             | 12,014                                   | 12,319 |
| 00            | 1330 x 0,254                         | 67,432                                        | 11,17                                      | 12,07 | 0,299                                                             | 13,691                                   | 14,046 |

AS 22759 / 18 "Light weight", conduttore di rame stagnato  
AS 22759 / 18 "Light weight", tinned copper conductor

| taglia<br>AWG | formazione<br>stranding<br>n° x Ø mm | sezione nominale<br>nom. cross section<br>mm² | diam. condutt. (mm)<br>conductor diam (mm) |      | resistenza max. a 20°C-ohms/km<br>max. resistance at 20°C-ohms/km | diametro cavo (mm)<br>wire diameter (mm) |       |
|---------------|--------------------------------------|-----------------------------------------------|--------------------------------------------|------|-------------------------------------------------------------------|------------------------------------------|-------|
|               |                                      |                                               | nom.                                       | max. |                                                                   | min.                                     | max.  |
| 26            | 19 x 0,102                           | 0,128                                         | 0,46                                       | 0,51 | 135,497                                                           | 0,762                                    | 0,864 |
| 24            | 19 x 0,127                           | 0,205                                         | 0,58                                       | 0,61 | 85,957                                                            | 0,864                                    | 0,965 |
| 22            | 19 x 0,160                           | 0,324                                         | 0,74                                       | 0,79 | 53,149                                                            | 1,041                                    | 1,143 |
| 20            | 19 x 0,203                           | 0,519                                         | 0,94                                       | 0,99 | 32,410                                                            | 1,245                                    | 1,346 |
| 18            | 19 x 0,254                           | 0,823                                         | 1,17                                       | 1,25 | 20,440                                                            | 1,499                                    | 1,600 |
| 16            | 19 x 0,287                           | 1,308                                         | 1,32                                       | 1,40 | 15,780                                                            | 1,727                                    | 1,829 |
| 14            | 19 x 0,360                           | 2,082                                         | 1,65                                       | 1,75 | 10,040                                                            | 2,108                                    | 2,210 |
| 12            | 37 x 0,320                           | 3,308                                         | 2,13                                       | 2,26 | 6,63,                                                             | 2,642                                    | 2,794 |
| 10            | 37 x 0,404                           | 5,261                                         | 2,69                                       | 2,85 | 4,130                                                             | 3,327                                    | 3,480 |

AS 22759 / 17 "Medium weight", conduttore di lega di rame, argentato, ad alta resistenza  
AS 22759 / 17 "Medium weight", silver coated high strength copper alloy

| taglia<br>AWG | formazione<br>stranding<br>n° x Ø mm | sezione nominale<br>nom. cross section<br>mm² | diam. condutt. (mm)<br>conductor diam (mm) |      | resistenza max. a 20°C-ohms/km<br>max. resistance at 20°C-ohms/km | diametro cavo (mm)<br>wire diameter (mm) |       |
|---------------|--------------------------------------|-----------------------------------------------|--------------------------------------------|------|-------------------------------------------------------------------|------------------------------------------|-------|
|               |                                      |                                               | nom.                                       | max. |                                                                   | min.                                     | max.  |
| 26            | 19 x 0,102                           | 0,128                                         | 0,46                                       | 0,51 | 146,98                                                            | 0,965                                    | 1,067 |
| 24            | 19 x 0,127                           | 0,205                                         | 0,58                                       | 0,61 | 93,175                                                            | 1,092                                    | 1,194 |
| 22            | 19 x 0,160                           | 0,324                                         | 0,74                                       | 0,79 | 57,41                                                             | 1,270                                    | 1,372 |
| 20            | 19 x 0,203                           | 0,519                                         | 0,94                                       | 0,99 | 35,1                                                              | 1,473                                    | 1,575 |

AS 22759 / 19 "Medium weight", conduttore di lega di rame, argentato, ad alta resistenza  
AS 22759 / 19 "Medium weight", silver coated high strength copper alloy

| taglia<br>AWG | formazione<br>stranding<br>n° x Ø mm | sezione nominale<br>nom. cross section<br>mm² | diam. condutt. (mm)<br>conductor diam (mm) |      | resistenza max. a 20°C-ohms/km<br>max. resistance at 20°C-ohms/km | diametro cavo (mm)<br>wire diameter (mm) |       |
|---------------|--------------------------------------|-----------------------------------------------|--------------------------------------------|------|-------------------------------------------------------------------|------------------------------------------|-------|
|               |                                      |                                               | nom.                                       | max. |                                                                   | min.                                     | max.  |
| 26            | 19 x 0,102                           | 0,128                                         | 0,46                                       | 0,51 | 146,98                                                            | 0,762                                    | 0,863 |
| 24            | 19 x 0,127                           | 0,205                                         | 0,58                                       | 0,61 | 93,175                                                            | 0,864                                    | 0,965 |
| 22            | 19 x 0,160                           | 0,324                                         | 0,74                                       | 0,79 | 57,41                                                             | 1,041                                    | 1,143 |
| 20            | 19 x 0,203                           | 0,519                                         | 0,94                                       | 0,99 | 35,1                                                              | 1,245                                    | 1,346 |