



MachFlex 375 SY

Galvanized Steel Wire Braid (GSWB) --> Excellent Mechanical Protection

Applications

Designed for applications which are installed in occasional flexing and fixed locations. Cable applications include precision control sensors, multi axis control machines, temperature controllers, control panels, machine cutting tools, auxiliary equipment, motor speed control, production machinery and many more.

General Reference Standards

- DIN VDE 0295, IEC 60228, BS 6360
- DIN EN 50290-2-22, DIN VDE 0207-363-4-1
- IEC 60227-5, EN 50525-2-51, VDE 0281-13
- DIN VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2
- RoHS, REACH & CE Directives

Construction & Performance

| | | |
|------------|---|--|
| 1. | Conductor Material | Stranded bare copper (DIN VDE 0295 Class 5 / IEC 60228 class 5) |
| 2. | Insulation Material & Colour | PVC (polyvinyl chloride), VDE 0293-308 (colour) up to 5 cores: colour-coded according to VDE 0293-308, From 6 cores : Belden MachFlex colour code A) G = with GN-YE protective conductor <u>OR</u> B) X = without protective earth conductor |
| 3. | Braid Shield Material | GSWB (Galvanized Steel Wire Braid) |
| 4. | Jacket / Sheath Material | PVC (polyvinyl chloride) |
| 5. | Flame Retardancy | VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2 |
| 6. | Voltage Rating (Uo / U) | Up to 1.5 mm ² : 300 / 500 V From 2.5 mm ² : 450 / 750 V |
| 7. | Oil Resistant | DIN EN 50290-2-22 (TM54) |
| 8. | Temperature Range | -5°C TO +70°C (Occasional movement) -40°C TO +80°C (Fixed installation) |
| 9. | Bending Radius | 20 x OD (Occasional movement) 6 x OD (Fixed installation) |
| 10. | Other Properties | Good UV resistance, chemical resistance & flexibility |

TABLE A

| Part Code | Cable Description | No. Of Cores | Nom. Conductor Size (mm ²) | Nom. Cable Diameter (mm) | Nom. Cable Weight (kg/km) |
|------------|-------------------|--------------|--|--------------------------|---------------------------|
| C2X0.5SY | 2 X0.5 | 2 | 0.5 | 7.4 | 78 |
| C3X0.5SY | 3 X0.5 | 3 | 0.5 | 7.7 | 87 |
| C3G0.5SY | 3 G0.5 | 3 | 0.5 | 7.7 | 87 |
| C4X0.5SY | 4 X0.5 | 4 | 0.5 | 8.3 | 101 |
| C4G0.5SY | 4 G0.5 | 4 | 0.5 | 8.3 | 101 |
| C5X0.5SY | 5 X0.5 | 5 | 0.5 | 8.8 | 116 |
| C5G0.5SY | 5 G0.5 | 5 | 0.5 | 8.8 | 116 |
| C7X0.5SY | 7 X0.5 | 7 | 0.5 | 9.5 | 137 |
| C7G0.5SY | 7 G0.5 | 7 | 0.5 | 9.5 | 137 |
| C9X0.5SY | 9 X0.5 | 9 | 0.5 | 11.1 | 174 |
| C9G0.5SY | 9 G0.5 | 9 | 0.5 | 11.1 | 174 |
| C10X0.5SY | 10 X0.5 | 10 | 0.5 | 11.5 | 191 |
| C10G0.5SY | 10 G0.5 | 10 | 0.5 | 11.5 | 191 |
| C12X0.5SY | 12 X0.5 | 12 | 0.5 | 11.9 | 209 |
| C12G0.5SY | 12 G0.5 | 12 | 0.5 | 11.9 | 209 |
| C14X0.5SY | 14 X0.5 | 14 | 0.5 | 12.4 | 231 |
| C14G0.5SY | 14 G0.5 | 14 | 0.5 | 12.4 | 231 |
| C16X0.5SY | 16 X0.5 | 16 | 0.5 | 13.0 | 256 |
| C16G0.5SY | 16 G0.5 | 16 | 0.5 | 13.0 | 256 |
| C18X0.5SY | 18 X0.5 | 18 | 0.5 | 13.8 | 291 |
| C18G0.5SY | 18 G0.5 | 18 | 0.5 | 13.8 | 291 |
| C20X0.5SY | 20 X0.5 | 20 | 0.5 | 14.5 | 317 |
| C20G0.5SY | 20 G0.5 | 20 | 0.5 | 14.5 | 317 |
| C2X0.75SY | 2 X0.75 | 2 | 0.75 | 7.9 | 89 |
| C3X0.75SY | 3 X0.75 | 3 | 0.75 | 8.3 | 102 |
| C3G0.75SY | 3 G0.75 | 3 | 0.75 | 8.3 | 102 |
| C4X0.75SY | 4 X0.75 | 4 | 0.75 | 8.9 | 120 |
| C4G0.75SY | 4 G0.75 | 4 | 0.75 | 8.9 | 120 |
| C5X0.75SY | 5 X0.75 | 5 | 0.75 | 9.5 | 140 |
| C5G0.75SY | 5 G0.75 | 5 | 0.75 | 9.5 | 140 |
| C7X0.75SY | 7 X0.75 | 7 | 0.75 | 10.2 | 168 |
| C7G0.75SY | 7 G0.75 | 7 | 0.75 | 10.2 | 168 |
| C9X0.75SY | 9 X0.75 | 9 | 0.75 | 12.1 | 215 |
| C9G0.75SY | 9 G0.75 | 9 | 0.75 | 12.1 | 215 |
| C10X0.75SY | 10 X0.75 | 10 | 0.75 | 12.5 | 234 |
| C10G0.75SY | 10 G0.75 | 10 | 0.75 | 12.5 | 234 |
| C12X0.75SY | 12 X0.75 | 12 | 0.75 | 12.9 | 259 |
| C12G0.75SY | 12 G0.75 | 12 | 0.75 | 12.9 | 259 |
| C14X0.75SY | 14 X0.75 | 14 | 0.75 | 13.7 | 300 |
| C14G0.75SY | 14 G0.75 | 14 | 0.75 | 13.7 | 300 |
| C16X0.75SY | 16 X0.75 | 16 | 0.75 | 14.4 | 331 |
| C16G0.75SY | 16 G0.75 | 16 | 0.75 | 14.4 | 331 |
| C18X0.75SY | 18 X0.75 | 18 | 0.75 | 15.1 | 366 |
| C18G0.75SY | 18 G0.75 | 18 | 0.75 | 15.1 | 366 |
| C20X0.75SY | 20 X0.75 | 20 | 0.75 | 15.9 | 401 |
| C20G0.75SY | 20 G0.75 | 20 | 0.75 | 15.9 | 401 |

| Part Code | Cable Description | No. Of Cores | Nom. Conductor Size (mm ²) | Nom. Cable Diameter (mm) | Nom. Cable Weight (kg/km) |
|-----------|-------------------|--------------|--|--------------------------|---------------------------|
| C2X1.0SY | 2 X1.0 | 2 | 1.0 | 8.3 | 100 |
| C3X1.0SY | 3 X1.0 | 3 | 1.0 | 8.7 | 117 |
| C3G1.0SY | 3 G1.0 | 3 | 1.0 | 8.7 | 117 |
| C4X1.0SY | 4 X1.0 | 4 | 1.0 | 9.4 | 139 |
| C4G1.0SY | 4 G1.0 | 4 | 1.0 | 9.4 | 139 |
| C5X1.0SY | 5 X1.0 | 5 | 1.0 | 10.1 | 164 |
| C5G1.0SY | 5 G1.0 | 5 | 1.0 | 10.1 | 164 |
| C7X1.0SY | 7 X1.0 | 7 | 1.0 | 10.8 | 197 |
| C7G1.0SY | 7 G1.0 | 7 | 1.0 | 10.8 | 197 |
| C9X1.0SY | 9 X1.0 | 9 | 1.0 | 12.9 | 255 |
| C9G1.0SY | 9 G1.0 | 9 | 1.0 | 12.9 | 255 |
| C10X1.0SY | 10 X1.0 | 10 | 1.0 | 13.4 | 278 |
| C10G1.0SY | 10 G1.0 | 10 | 1.0 | 13.4 | 278 |
| C12X1.0SY | 12 X1.0 | 12 | 1.0 | 14.0 | 320 |
| C12G1.0SY | 12 G1.0 | 12 | 1.0 | 14.0 | 320 |
| C14X1.0SY | 14 X1.0 | 14 | 1.0 | 14.6 | 358 |
| C14G1.0SY | 14 G1.0 | 14 | 1.0 | 14.6 | 358 |
| C16X1.0SY | 16 X1.0 | 16 | 1.0 | 15.4 | 397 |
| C16G1.0SY | 16 G1.0 | 16 | 1.0 | 15.4 | 397 |
| C18X1.0SY | 18 X1.0 | 18 | 1.0 | 16.1 | 439 |
| C18G1.0SY | 18 G1.0 | 18 | 1.0 | 16.1 | 439 |
| C20X1.0SY | 20 X1.0 | 20 | 1.0 | 16.9 | 483 |
| C20G1.0SY | 20 G1.0 | 20 | 1.0 | 16.9 | 483 |
| C2X1.5SY | 2 X1.5 | 2 | 1.5 | 8.8 | 116 |
| C3X1.5SY | 3 X1.5 | 3 | 1.5 | 9.3 | 133 |
| C3G1.5SY | 3 G1.5 | 3 | 1.5 | 9.3 | 133 |
| C4X1.5SY | 4 X1.5 | 4 | 1.5 | 10.0 | 164 |
| C4G1.5SY | 4 G1.5 | 4 | 1.5 | 10.0 | 164 |
| C5X1.5SY | 5 X1.5 | 5 | 1.5 | 10.8 | 193 |
| C5G1.5SY | 5 G1.5 | 5 | 1.5 | 10.8 | 193 |
| C7X1.5SY | 7 X1.5 | 7 | 1.5 | 11.6 | 231 |
| C7G1.5SY | 7 G1.5 | 7 | 1.5 | 11.6 | 231 |
| C9X1.5SY | 9 X1.5 | 9 | 1.5 | 14.1 | 315 |
| C9G1.5SY | 9 G1.5 | 9 | 1.5 | 14.1 | 315 |
| C10X1.5SY | 10 X1.5 | 10 | 1.5 | 14.6 | 344 |
| C10G1.5SY | 10 G1.5 | 10 | 1.5 | 14.6 | 344 |
| C12X1.5SY | 12 X1.5 | 12 | 1.5 | 15.1 | 376 |
| C12G1.5SY | 12 G1.5 | 12 | 1.5 | 15.1 | 376 |
| C14X1.5SY | 14 X1.5 | 14 | 1.5 | 15.8 | 432 |
| C14G1.5SY | 14 G1.5 | 14 | 1.5 | 15.8 | 432 |
| C16X1.5SY | 16 X1.5 | 16 | 1.5 | 16.6 | 481 |
| C16G1.5SY | 16 G1.5 | 16 | 1.5 | 16.6 | 481 |
| C18X1.5SY | 18 X1.5 | 18 | 1.5 | 17.4 | 533 |
| C18G1.5SY | 18 G1.5 | 18 | 1.5 | 17.4 | 533 |
| C20X1.5SY | 20 X1.5 | 20 | 1.5 | 18.4 | 587 |
| C20G1.5SY | 20 G1.5 | 20 | 1.5 | 18.4 | 587 |
| C2X2.5SY | 2 X2.5 | 2 | 2.5 | 11.9 | 198 |

| Part Code | Cable Description | No. Of Cores | Nom. Conductor Size (mm ²) | Nom. Cable Diameter (mm) | Nom. Cable Weight (kg/km) |
|-----------|-------------------|--------------|--|--------------------------|---------------------------|
| C3X2.5SY | 3 X2.5 | 3 | 2.5 | 12.6 | 238 |
| C3G2.5SY | 3 G2.5 | 3 | 2.5 | 12.6 | 238 |
| C4X2.5SY | 4 X2.5 | 4 | 2.5 | 13.9 | 300 |
| C4G2.5SY | 4 G2.5 | 4 | 2.5 | 13.9 | 300 |
| C5X2.5SY | 5 X2.5 | 5 | 2.5 | 15.1 | 358 |
| C5G2.5SY | 5 G2.5 | 5 | 2.5 | 15.1 | 358 |
| C7X2.5SY | 7 X2.5 | 7 | 2.5 | 16.4 | 439 |
| C7G2.5SY | 7 G2.5 | 7 | 2.5 | 16.4 | 439 |
| C9X2.5SY | 9 X2.5 | 9 | 2.5 | 19.9 | 574 |
| C9G2.5SY | 9 G2.5 | 9 | 2.5 | 19.9 | 574 |
| C10X2.5SY | 10 X2.5 | 10 | 2.5 | 20.7 | 633 |
| C10G2.5SY | 10 G2.5 | 10 | 2.5 | 20.7 | 633 |
| C12X2.5SY | 12 X2.5 | 12 | 2.5 | 21.4 | 709 |
| C12G2.5SY | 12 G2.5 | 12 | 2.5 | 21.4 | 709 |
| C14X2.5SY | 14 X2.5 | 14 | 2.5 | 22.5 | 803 |
| C14G2.5SY | 14 G2.5 | 14 | 2.5 | 22.5 | 803 |
| C16X2.5SY | 16 X2.5 | 16 | 2.5 | 23.7 | 897 |
| C16G2.5SY | 16 G2.5 | 16 | 2.5 | 23.7 | 897 |
| C18X2.5SY | 18 X2.5 | 18 | 2.5 | 25.0 | 1000 |
| C18G2.5SY | 18 G2.5 | 18 | 2.5 | 25.0 | 1000 |
| C20X2.5SY | 20 X2.5 | 20 | 2.5 | 26.5 | 1105 |
| C20G2.5SY | 20 G2.5 | 20 | 2.5 | 26.5 | 1105 |
| C2X4SY | 2 X4 | 2 | 4 | 13.3 | 263 |
| C3X4SY | 3 X4 | 3 | 4 | 14.4 | 331 |
| C3G4SY | 3 G4 | 3 | 4 | 14.4 | 331 |
| C4X4SY | 4 X4 | 4 | 4 | 15.7 | 407 |
| C4G4SY | 4 G4 | 4 | 4 | 15.7 | 407 |
| C5X4SY | 5 X4 | 5 | 4 | 17.1 | 491 |
| C5G4SY | 5 G4 | 5 | 4 | 17.1 | 491 |
| C7X4SY | 7 X4 | 7 | 4 | 18.6 | 610 |
| C7G4SY | 7 G4 | 7 | 4 | 18.6 | 610 |
| C9X4SY | 9 X4 | 9 | 4 | 22.7 | 801 |
| C9G4SY | 9 G4 | 9 | 4 | 22.7 | 801 |
| C10X4SY | 10 X4 | 10 | 4 | 23.7 | 886 |
| C10G4SY | 10 G4 | 10 | 4 | 23.7 | 886 |
| C12X4SY | 12 X4 | 12 | 4 | 24.5 | 1000 |
| C12G4SY | 12 G4 | 12 | 4 | 24.5 | 1000 |
| C2X6SY | 2 X6 | 2 | 6 | 15.0 | 346 |
| C3X6SY | 3 X6 | 3 | 6 | 15.9 | 428 |
| C3G6SY | 3 G6 | 3 | 6 | 15.9 | 428 |
| C4X6SY | 4 X6 | 4 | 6 | 17.4 | 532 |
| C4G6SY | 4 G6 | 4 | 6 | 17.4 | 532 |
| C5X6SY | 5 X6 | 5 | 6 | 19.0 | 643 |
| C5G6SY | 5 G6 | 5 | 6 | 19.0 | 643 |
| C7X6SY | 7 X6 | 7 | 6 | 20.7 | 811 |
| C7G6SY | 7 G6 | 7 | 6 | 20.7 | 811 |
| C9X6SY | 9 X6 | 9 | 6 | 25.4 | 1065 |

| Part Code | Cable Description | No. Of Cores | Nom. Conductor Size (mm ²) | Nom. Cable Diameter (mm) | Nom. Cable Weight (kg/km) |
|-----------|-------------------|--------------|--|--------------------------|---------------------------|
| C9G6SY | 9 G6 | 9 | 6 | 25.4 | 1065 |
| C2X10SY | 2 X10 | 2 | 10 | 17.4 | 483 |
| C3X10SY | 3 X10 | 3 | 10 | 18.6 | 607 |
| C3G10SY | 3 G10 | 3 | 10 | 18.6 | 607 |
| C4X10SY | 4 X10 | 4 | 10 | 20.4 | 760 |
| C4G10SY | 4 G10 | 4 | 10 | 20.4 | 760 |
| C5X10SY | 5 X10 | 5 | 10 | 22.3 | 926 |
| C5G10SY | 5 G10 | 5 | 10 | 22.3 | 926 |
| C7X10SY | 7 X10 | 7 | 10 | 24.4 | 1177 |
| C7G10SY | 7 G10 | 7 | 10 | 24.4 | 1177 |
| C9X10SY | 9 X10 | 9 | 10 | 30.0 | 1549 |
| C9G10SY | 9 G10 | 9 | 10 | 30.0 | 1549 |
| C2X16SY | 2 X16 | 2 | 16 | 21.5 | 741 |
| C3X16SY | 3 X16 | 3 | 16 | 23.0 | 940 |
| C3G16SY | 3 G16 | 3 | 16 | 23.0 | 940 |
| C4X16SY | 4 X16 | 4 | 16 | 25.3 | 1189 |
| C4G16SY | 4 G16 | 4 | 16 | 25.3 | 1189 |
| C5X16SY | 5 X16 | 5 | 16 | 27.9 | 1458 |
| C5G16SY | 5 G16 | 5 | 16 | 27.9 | 1458 |
| C7X16SY | 7 X16 | 7 | 16 | 30.5 | 1859 |
| C7G16SY | 7 G16 | 7 | 16 | 30.5 | 1859 |
| C2X25SY | 2 X25 | 2 | 25 | 24.2 | 1001 |
| C3X25SY | 3 X25 | 3 | 25 | 25.9 | 1293 |
| C3G25SY | 3 G25 | 3 | 25 | 25.9 | 1293 |
| C4X25SY | 4 X25 | 4 | 25 | 28.6 | 1647 |
| C4G25SY | 4 G25 | 4 | 25 | 28.6 | 1647 |
| C5X25SY | 5 X25 | 5 | 25 | 31.2 | 2011 |
| C5G25SY | 5 G25 | 5 | 25 | 31.2 | 2011 |
| C2X35SY | 2 X35 | 2 | 35 | 27.6 | 1288 |
| C3X35SY | 3 X35 | 3 | 35 | 29.5 | 1670 |
| C3G35SY | 3 G35 | 3 | 35 | 29.5 | 1670 |

Sheath / Jacket Colour

| Colour | Colour Code |
|--------------------|-------------|
| 1) Grey (RAL 7001) | G8U |
| 2) Transparent* | 368 |
| 3) Black | 010 |
| 4) Blue | 006 |
| 5) Orange | 003 |
| 6) Violet | 007 |

* Transparent jacket colour by default will have a Grey (RAL 7001) inner jacket colour. For all other colours the inner and outer jacket colour will be the same. Special colours can also be provided upon request.

Packaging

*Belden can offer these cables with various packing options like coiled, plastic or wooden reels. This will be decided at the discretion of Belden based on the cable design and structure.

Put-up Length

Putup Length

- 1) 100 Meters
- 2) 200 Meters*
- 3) 300 Meters*

Putup Length Code

- 100M
- 200M
- 300M

*Applicable only for certain part codes, please check with Belden for more information.

Stock Code Selection Procedure:

