



**MachFlex375 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**

|           |   |  |
|-----------|---|--|
| <b>1.</b> | <b>Conductor Material</b>                 | Stranded bare copper (DIN VDE 0295 Class 5 / IEC 60228 class 5)  |
| <b>2.</b> | <b>Insulation Material &amp; Colour</b>   | 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 <b>A)</b><br>G = with GN-YE protective conductor <b>OR</b><br><b>B) X</b> = without protective earth conductor |
| <b>3.</b> | <b>Braid Shield Material</b>              | GSWB (Galvanized Steel Wire Braid)   |
| <b>4.</b> | <b>Jacket / Sheath Material</b>           | PVC (polyvinyl chloride)   |
| <b>5.</b> | <b>Flame Retardancy</b>                   | VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2  |
| <b>6.</b> | <b>Voltage Rating (U<sub>o</sub> / U)</b> | Up to 1.5 mm <sup>2</sup> : 300 / 500 V<br>From 2.5 mm <sup>2</sup> : 450 / 750 V  |

|     |                          |  |
|-----|--------------------------|--|
| 7.  | <b>Oil Resistant</b>     | DIN EN 50290-2-22 (TM54)   |
| 8.  | <b>Temperature Range</b> | -5°C TO +70°C (Occasional movement)<br>-40°C TO +80°C (Fixed installation) |
| 9.  | <b>Bending Radius</b>    | 20 x OD (Occasional movement)<br>6 x OD (Fixed installation)               |
| 10. | <b>Other Properties</b>  | Good UV resistance, chemical resistance & flexibility                      |

**TABLE A**

| Part Code | Cable Description | No. Of Cores | Nom. Conductor Size (mm <sup>2</sup> ) | 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                       |

|                   |          |    |      |      |     |
|-------------------|----------|----|------|------|-----|
| <b>C20X0.5SY</b>  | 20 X0.5  | 20 | 0.5  | 14.5 | 317 |
| <b>C20G0.5SY</b>  | 20 G0.5  | 20 | 0.5  | 14.5 | 317 |
| <b>C2X0.75SY</b>  | 2 X0.75  | 2  | 0.75 | 7.9  | 89  |
| <b>C3X0.75SY</b>  | 3 X0.75  | 3  | 0.75 | 8.3  | 102 |
| <b>C3G0.75SY</b>  | 3 G0.75  | 3  | 0.75 | 8.3  | 102 |
| <b>C4X0.75SY</b>  | 4 X0.75  | 4  | 0.75 | 8.9  | 120 |
| <b>C4G0.75SY</b>  | 4 G0.75  | 4  | 0.75 | 8.9  | 120 |
| <b>C5X0.75SY</b>  | 5 X0.75  | 5  | 0.75 | 9.5  | 140 |
| <b>C5G0.75SY</b>  | 5 G0.75  | 5  | 0.75 | 9.5  | 140 |
| <b>C7X0.75SY</b>  | 7 X0.75  | 7  | 0.75 | 10.2 | 168 |
| <b>C7G0.75SY</b>  | 7 G0.75  | 7  | 0.75 | 10.2 | 168 |
| <b>C9X0.75SY</b>  | 9 X0.75  | 9  | 0.75 | 12.1 | 215 |
| <b>C9G0.75SY</b>  | 9 G0.75  | 9  | 0.75 | 12.1 | 215 |
| <b>C10X0.75SY</b> | 10 X0.75 | 10 | 0.75 | 12.5 | 234 |
| <b>C10G0.75SY</b> | 10 G0.75 | 10 | 0.75 | 12.5 | 234 |
| <b>C12X0.75SY</b> | 12 X0.75 | 12 | 0.75 | 12.9 | 259 |
| <b>C12G0.75SY</b> | 12 G0.75 | 12 | 0.75 | 12.9 | 259 |
| <b>C14X0.75SY</b> | 14 X0.75 | 14 | 0.75 | 13.7 | 300 |
| <b>C14G0.75SY</b> | 14 G0.75 | 14 | 0.75 | 13.7 | 300 |
| <b>C16X0.75SY</b> | 16 X0.75 | 16 | 0.75 | 14.4 | 331 |
| <b>C16G0.75SY</b> | 16 G0.75 | 16 | 0.75 | 14.4 | 331 |
| <b>C18X0.75SY</b> | 18 X0.75 | 18 | 0.75 | 15.1 | 366 |
| <b>C18G0.75SY</b> | 18 G0.75 | 18 | 0.75 | 15.1 | 366 |
| <b>C20X0.75SY</b> | 20 X0.75 | 20 | 0.75 | 15.9 | 401 |
| <b>C20G0.75SY</b> | 20 G0.75 | 20 | 0.75 | 15.9 | 401 |

| <b>Part Code</b> | <b>Cable Description</b> | <b>No. Of Cores</b> | <b>Nom. Conductor Size (mm<sup>2</sup>)</b> | <b>Nom. Cable Diameter (mm)</b> | <b>Nom. Cable Weight (kg/km)</b> |
|------------------|--------------------------|---------------------|---|---------------------------------|----------------------------------|
| <b>C2X1.0SY</b>  | 2 X1.0                   | 2                   | 1.0   | 8.3                             | 100                              |
| <b>C3X1.0SY</b>  | 3 X1.0                   | 3                   | 1.0   | 8.7                             | 117                              |
| <b>C3G1.0SY</b>  | 3 G1.0                   | 3                   | 1.0   | 8.7                             | 117                              |
| <b>C4X1.0SY</b>  | 4 X1.0                   | 4                   | 1.0   | 9.4                             | 139                              |
| <b>C4G1.0SY</b>  | 4 G1.0                   | 4                   | 1.0   | 9.4                             | 139                              |
| <b>C5X1.0SY</b>  | 5 X1.0                   | 5                   | 1.0   | 10.1                            | 164                              |
| <b>C5G1.0SY</b>  | 5 G1.0                   | 5                   | 1.0   | 10.1                            | 164                              |
| <b>C7X1.0SY</b>  | 7 X1.0                   | 7                   | 1.0   | 10.8                            | 197                              |
| <b>C7G1.0SY</b>  | 7 G1.0                   | 7                   | 1.0   | 10.8                            | 197                              |
| <b>C9X1.0SY</b>  | 9 X1.0                   | 9                   | 1.0   | 12.9                            | 255                              |

|                  |         |    |     |      |     |
|------------------|---------|----|-----|------|-----|
| <b>C9G1.0SY</b>  | 9 G1.0  | 9  | 1.0 | 12.9 | 255 |
| <b>C10X1.0SY</b> | 10 X1.0 | 10 | 1.0 | 13.4 | 278 |
| <b>C10G1.0SY</b> | 10 G1.0 | 10 | 1.0 | 13.4 | 278 |
| <b>C12X1.0SY</b> | 12 X1.0 | 12 | 1.0 | 14.0 | 320 |
| <b>C12G1.0SY</b> | 12 G1.0 | 12 | 1.0 | 14.0 | 320 |
| <b>C14X1.0SY</b> | 14 X1.0 | 14 | 1.0 | 14.6 | 358 |
| <b>C14G1.0SY</b> | 14 G1.0 | 14 | 1.0 | 14.6 | 358 |
| <b>C16X1.0SY</b> | 16 X1.0 | 16 | 1.0 | 15.4 | 397 |
| <b>C16G1.0SY</b> | 16 G1.0 | 16 | 1.0 | 15.4 | 397 |
| <b>C18X1.0SY</b> | 18 X1.0 | 18 | 1.0 | 16.1 | 439 |
| <b>C18G1.0SY</b> | 18 G1.0 | 18 | 1.0 | 16.1 | 439 |
| <b>C20X1.0SY</b> | 20 X1.0 | 20 | 1.0 | 16.9 | 483 |
| <b>C20G1.0SY</b> | 20 G1.0 | 20 | 1.0 | 16.9 | 483 |
| <b>C2X1.5SY</b>  | 2 X1.5  | 2  | 1.5 | 8.8  | 116 |
| <b>C3X1.5SY</b>  | 3 X1.5  | 3  | 1.5 | 9.3  | 133 |
| <b>C3G1.5SY</b>  | 3 G1.5  | 3  | 1.5 | 9.3  | 133 |
| <b>C4X1.5SY</b>  | 4 X1.5  | 4  | 1.5 | 10.0 | 164 |
| <b>C4G1.5SY</b>  | 4 G1.5  | 4  | 1.5 | 10.0 | 164 |
| <b>C5X1.5SY</b>  | 5 X1.5  | 5  | 1.5 | 10.8 | 193 |
| <b>C5G1.5SY</b>  | 5 G1.5  | 5  | 1.5 | 10.8 | 193 |
| <b>C7X1.5SY</b>  | 7 X1.5  | 7  | 1.5 | 11.6 | 231 |
| <b>C7G1.5SY</b>  | 7 G1.5  | 7  | 1.5 | 11.6 | 231 |
| <b>C9X1.5SY</b>  | 9 X1.5  | 9  | 1.5 | 14.1 | 315 |
| <b>C9G1.5SY</b>  | 9 G1.5  | 9  | 1.5 | 14.1 | 315 |
| <b>C10X1.5SY</b> | 10 X1.5 | 10 | 1.5 | 14.6 | 344 |
| <b>C10G1.5SY</b> | 10 G1.5 | 10 | 1.5 | 14.6 | 344 |
| <b>C12X1.5SY</b> | 12 X1.5 | 12 | 1.5 | 15.1 | 376 |
| <b>C12G1.5SY</b> | 12 G1.5 | 12 | 1.5 | 15.1 | 376 |
| <b>C14X1.5SY</b> | 14 X1.5 | 14 | 1.5 | 15.8 | 432 |
| <b>C14G1.5SY</b> | 14 G1.5 | 14 | 1.5 | 15.8 | 432 |
| <b>C16X1.5SY</b> | 16 X1.5 | 16 | 1.5 | 16.6 | 481 |
| <b>C16G1.5SY</b> | 16 G1.5 | 16 | 1.5 | 16.6 | 481 |
| <b>C18X1.5SY</b> | 18 X1.5 | 18 | 1.5 | 17.4 | 533 |
| <b>C18G1.5SY</b> | 18 G1.5 | 18 | 1.5 | 17.4 | 533 |
| <b>C20X1.5SY</b> | 20 X1.5 | 20 | 1.5 | 18.4 | 587 |
| <b>C20G1.5SY</b> | 20 G1.5 | 20 | 1.5 | 18.4 | 587 |
| <b>C2X2.5SY</b>  | 2 X2.5  | 2  | 2.5 | 11.9 | 198 |

| Part Code | Cable Description | No. Of Cores | Nom. Conductor Size (mm <sup>2</sup> ) | 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                      |

| <b>C12G4SY</b>   | 12 G4                    | 12                  | 4   | 24.5                            | 1000                             |
|------------------|--------------------------|---------------------|---|---------------------------------|----------------------------------|
| <b>C2X6SY</b>    | 2 X6                     | 2                   | 6   | 15.0                            | 346                              |
| <b>C3X6SY</b>    | 3 X6                     | 3                   | 6   | 15.9                            | 428                              |
| <b>C3G6SY</b>    | 3 G6                     | 3                   | 6   | 15.9                            | 428                              |
| <b>C4X6SY</b>    | 4 X6                     | 4                   | 6   | 17.4                            | 532                              |
| <b>C4G6SY</b>    | 4 G6                     | 4                   | 6   | 17.4                            | 532                              |
| <b>C5X6SY</b>    | 5 X6                     | 5                   | 6   | 19.0                            | 643                              |
| <b>C5G6SY</b>    | 5 G6                     | 5                   | 6   | 19.0                            | 643                              |
| <b>C7X6SY</b>    | 7 X6                     | 7                   | 6   | 20.7                            | 811                              |
| <b>C7G6SY</b>    | 7 G6                     | 7                   | 6   | 20.7                            | 811                              |
| <b>C9X6SY</b>    | 9 X6                     | 9                   | 6   | 25.4                            | 1065                             |
| <b>Part Code</b> | <b>Cable Description</b> | <b>No. Of Cores</b> | <b>Nom. Conductor Size (mm<sup>2</sup>)</b> | <b>Nom. Cable Diameter (mm)</b> | <b>Nom. Cable Weight (kg/km)</b> |
| <b>C9G6SY</b>    | 9 G6                     | 9                   | 6   | 25.4                            | 1065                             |
| <b>C2X10SY</b>   | 2 X10                    | 2                   | 10  | 17.4                            | 483                              |
| <b>C3X10SY</b>   | 3 X10                    | 3                   | 10  | 18.6                            | 607                              |
| <b>C3G10SY</b>   | 3 G10                    | 3                   | 10  | 18.6                            | 607                              |
| <b>C4X10SY</b>   | 4 X10                    | 4                   | 10  | 20.4                            | 760                              |
| <b>C4G10SY</b>   | 4 G10                    | 4                   | 10  | 20.4                            | 760                              |
| <b>C5X10SY</b>   | 5 X10                    | 5                   | 10  | 22.3                            | 926                              |
| <b>C5G10SY</b>   | 5 G10                    | 5                   | 10  | 22.3                            | 926                              |
| <b>C7X10SY</b>   | 7 X10                    | 7                   | 10  | 24.4                            | 1177                             |
| <b>C7G10SY</b>   | 7 G10                    | 7                   | 10  | 24.4                            | 1177                             |
| <b>C9X10SY</b>   | 9 X10                    | 9                   | 10  | 30.0                            | 1549                             |
| <b>C9G10SY</b>   | 9 G10                    | 9                   | 10  | 30.0                            | 1549                             |
| <b>C2X16SY</b>   | 2 X16                    | 2                   | 16  | 21.5                            | 741                              |
| <b>C3X16SY</b>   | 3 X16                    | 3                   | 16  | 23.0                            | 940                              |
| <b>C3G16SY</b>   | 3 G16                    | 3                   | 16  | 23.0                            | 940                              |
| <b>C4X16SY</b>   | 4 X16                    | 4                   | 16  | 25.3                            | 1189                             |
| <b>C4G16SY</b>   | 4 G16                    | 4                   | 16  | 25.3                            | 1189                             |
| <b>C5X16SY</b>   | 5 X16                    | 5                   | 16  | 27.9                            | 1458                             |
| <b>C5G16SY</b>   | 5 G16                    | 5                   | 16  | 27.9                            | 1458                             |
| <b>C7X16SY</b>   | 7 X16                    | 7                   | 16  | 30.5                            | 1859                             |
| <b>C7G16SY</b>   | 7 G16                    | 7                   | 16  | 30.5                            | 1859                             |
| <b>C2X25SY</b>   | 2 X25                    | 2                   | 25  | 24.2                            | 1001                             |
| <b>C3X25SY</b>   | 3 X25                    | 3                   | 25  | 25.9                            | 1293                             |
| <b>C3G25SY</b>   | 3 G25                    | 3                   | 25  | 25.9                            | 1293                             |
| <b>C4X25SY</b>   | 4 X25                    | 4                   | 25  | 28.6                            | 1647                             |

|                |       |   |    |      |      |
|----------------|-------|---|----|------|------|
| <b>C4G25SY</b> | 4 G25 | 4 | 25 | 28.6 | 1647 |
| <b>C5X25SY</b> | 5 X25 | 5 | 25 | 31.2 | 2011 |
| <b>C5G25SY</b> | 5 G25 | 5 | 25 | 31.2 | 2011 |
| <b>C2X35SY</b> | 2 X35 | 2 | 35 | 27.6 | 1288 |
| <b>C3X35SY</b> | 3 X35 | 3 | 35 | 29.5 | 1670 |
| <b>C3G35SY</b> | 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   | Putup Length Code |
|----------------|-------------------|
| 1) 100 Meters  | 100M              |
| 2) 200 Meters* | 200M              |
| 3) 300 Meters* | 300M              |

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

**Stock Code Selection Procedure:**

|   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|
| C | 5 | G | 2 | . | 5 | S | Y |
|---|---|---|---|---|---|---|---|

Select the part code from Table A

|   |   |   |
|---|---|---|
| G | 8 | U |
|---|---|---|

Select the sheath / jacket color code

|   |   |   |   |
|---|---|---|---|
| 1 | 0 | 0 | M |
|---|---|---|---|

Select the putup length code

|   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|
| C | 5 | G | 2 | . | 5 | S | Y |
|---|---|---|---|---|---|---|---|

|   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|
| G | 8 | U | 1 | 0 | 0 | M |
|---|---|---|---|---|---|---|

Cable Stock Code = C5G2.5SY G8U100M

