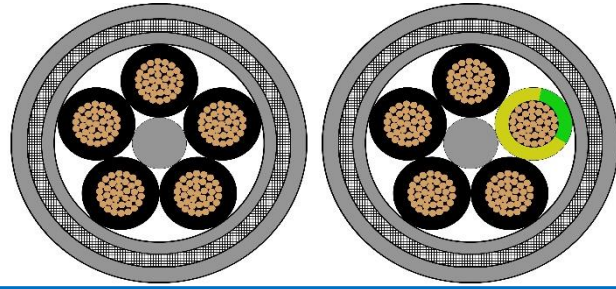


## MachFlex 350SY

### VDE Registered

### Galvanized Steel Wire Braid (GSWB)



### Application

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. Galvanized steel wire braid armor provides excellent mechanical protection.

### 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 & Color        | PVC ( Polyvinyl Chloride ), DIN VDE 0293-1 ( colour )<br>A) All black colour with number coding = without protective earth conductor. <b>OR</b><br>B) Black colour with number coding and 1 GN/YE colour conductor = with protective earth conductor. |
| 3  | Braid Armor Material               | GSWB ( Galvanized Steel Wire Braid )  |
| 4  | Inner / Outer Jacket Material      | PVC ( Polyvinyl Chloride ) acc. to DIN EN 50363-4-1 (VDE 0207-363-4-1):2006-10  |
| 5  | Flame Retardancy                   | VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2   |
| 6  | Oil Resistant                      | DIN EN 50290-2-22 ( TM54 )  |
| 7  | Voltage Rating (U <sub>0</sub> /U) | 300 / 500 V   |
| 8  | Temperature Range                  | -15°C to +70°C ( Occasional movement )<br>-40°C to +80°C ( Fixed installation )   |
| 9  | Bending Radius                     | 20 x OD ( Occasional movement )<br>6 x OD ( Fixed installation )  |
| 10 | Test Voltage                       | 4000 V  |
| 11 | Other Properties                   | 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) |
|-----------|-------------------|--------------|--|--------------------------|---------------------------|
| 2X0.5SY   | 2 X0.5            | 2            | 0.5                                    | 7.4                      | 73                        |
| 3X0.5SY   | 3 X0.5            | 3            | 0.5                                    | 7.7                      | 84                        |
| 3G0.5SY   | 3 G0.5            | 3            | 0.5                                    | 7.7                      | 84                        |
| 4X0.5SY   | 4 X0.5            | 4            | 0.5                                    | 8.2                      | 92                        |
| 4G0.5SY   | 4 G0.5            | 4            | 0.5                                    | 8.2                      | 92                        |
| 5X0.5SY   | 5 X0.5            | 5            | 0.5                                    | 8.8                      | 108                       |
| 5G0.5SY   | 5 G0.5            | 5            | 0.5                                    | 8.8                      | 108                       |
| 7X0.5SY   | 7 X0.5            | 7            | 0.5                                    | 9.4                      | 128                       |
| 7G0.5SY   | 7 G0.5            | 7            | 0.5                                    | 9.4                      | 128                       |
| 9X0.5SY   | 9 X0.5            | 9            | 0.5                                    | 11.3                     | 167                       |
| 9G0.5SY   | 9 G0.5            | 9            | 0.5                                    | 11.3                     | 167                       |
| 10X0.5SY  | 10 X0.5           | 10           | 0.5                                    | 11.7                     | 183                       |
| 10G0.5SY  | 10 G0.5           | 10           | 0.5                                    | 11.7                     | 183                       |
| 12X0.5SY  | 12 X0.5           | 12           | 0.5                                    | 12.0                     | 200                       |
| 12G0.5SY  | 12 G0.5           | 12           | 0.5                                    | 12.0                     | 200                       |
| 14X0.5SY  | 14 X0.5           | 14           | 0.5                                    | 12.7                     | 221                       |
| 14G0.5SY  | 14 G0.5           | 14           | 0.5                                    | 12.7                     | 221                       |
| 16X0.5SY  | 16 X0.5           | 16           | 0.5                                    | 13.1                     | 244                       |
| 16G0.5SY  | 16 G0.5           | 16           | 0.5                                    | 13.1                     | 244                       |
| 18X0.5SY  | 18 X0.5           | 18           | 0.5                                    | 13.9                     | 278                       |
| 18G0.5SY  | 18 G0.5           | 18           | 0.5                                    | 13.9                     | 278                       |
| 20X0.5SY  | 20 X0.5           | 20           | 0.5                                    | 14.6                     | 302                       |
| 20G0.5SY  | 20 G0.5           | 20           | 0.5                                    | 14.6                     | 302                       |
| 2X0.75SY  | 2 X0.75           | 2            | 0.75                                   | 7.8                      | 85                        |
| 3X0.75SY  | 3 X0.75           | 3            | 0.75                                   | 8.2                      | 97                        |
| 3G0.75SY  | 3 G0.75           | 3            | 0.75                                   | 8.2                      | 97                        |
| 4X0.75SY  | 4 X0.75           | 4            | 0.75                                   | 8.8                      | 113                       |
| 4G0.75SY  | 4 G0.75           | 4            | 0.75                                   | 8.8                      | 113                       |
| 5X0.75SY  | 5 X0.75           | 5            | 0.75                                   | 9.5                      | 132                       |
| 5G0.75SY  | 5 G0.75           | 5            | 0.75                                   | 9.5                      | 132                       |
| 7X0.75SY  | 7 X0.75           | 7            | 0.75                                   | 10.2                     | 158                       |
| 7G0.75SY  | 7 G0.75           | 7            | 0.75                                   | 10.2                     | 158                       |
| 9X0.75SY  | 9 X0.75           | 9            | 0.75                                   | 12.2                     | 207                       |
| 9G0.75SY  | 9 G0.75           | 9            | 0.75                                   | 12.2                     | 207                       |
| 10X0.75SY | 10 X0.75          | 10           | 0.75                                   | 12.6                     | 227                       |
| 10G0.75SY | 10 G0.75          | 10           | 0.75                                   | 12.6                     | 227                       |
| 12X0.75SY | 12 X0.75          | 12           | 0.75                                   | 13.0                     | 250                       |
| 12G0.75SY | 12 G0.75          | 12           | 0.75                                   | 13.0                     | 250                       |
| 14X0.75SY | 14 X0.75          | 14           | 0.75                                   | 13.8                     | 279                       |
| 14G0.75SY | 14 G0.75          | 14           | 0.75                                   | 13.8                     | 279                       |
| 16X0.75SY | 16 X0.75          | 16           | 0.75                                   | 14.5                     | 320                       |
| 16G0.75SY | 16 G0.75          | 16           | 0.75                                   | 14.5                     | 320                       |
| 18X0.75SY | 18 X0.75          | 18           | 0.75                                   | 15.2                     | 354                       |
| 18G0.75SY | 18 G0.75          | 18           | 0.75                                   | 15.2                     | 354                       |
| 20X0.75SY | 20 X0.75          | 20           | 0.75                                   | 15.9                     | 375                       |
| 20G0.75SY | 20 G0.75          | 20           | 0.75                                   | 15.9                     | 375                       |

| Part Code | Cable Description | No. of Cores | Nom. Conductor Size (mm <sup>2</sup> ) | Nom. Cable Diameter (mm) | Nom. Cable Weight (kg/km) |
|-----------|-------------------|--------------|--|--------------------------|---------------------------|
| 2X1.0SY   | 2 X1.0            | 2            | 1.0                                    | 8.4                      | 98                        |
| 3X1.0SY   | 3 X1.0            | 3            | 1.0                                    | 8.6                      | 109                       |
| 3G1.0SY   | 3 G1.0            | 3            | 1.0                                    | 8.6                      | 109                       |
| 4X1.0SY   | 4 X1.0            | 4            | 1.0                                    | 9.3                      | 128                       |
| 4G1.0SY   | 4 G1.0            | 4            | 1.0                                    | 9.3                      | 128                       |
| 5X1.0SY   | 5 X1.0            | 5            | 1.0                                    | 10.0                     | 151                       |
| 5G1.0SY   | 5 G1.0            | 5            | 1.0                                    | 10.0                     | 151                       |
| 7X1.0SY   | 7 X1.0            | 7            | 1.0                                    | 10.7                     | 182                       |
| 7G1.0SY   | 7 G1.0            | 7            | 1.0                                    | 10.7                     | 182                       |
| 9X1.0SY   | 9 X1.0            | 9            | 1.0                                    | 12.9                     | 237                       |
| 9G1.0SY   | 9 G1.0            | 9            | 1.0                                    | 12.9                     | 237                       |
| 10X1.0SY  | 10 X1.0           | 10           | 1.0                                    | 13.4                     | 271                       |
| 10G1.0SY  | 10 G1.0           | 10           | 1.0                                    | 13.4                     | 271                       |
| 12X1.0SY  | 12 X1.0           | 12           | 1.0                                    | 14.0                     | 295                       |
| 12G1.0SY  | 12 G1.0           | 12           | 1.0                                    | 14.0                     | 295                       |
| 14X1.0SY  | 14 X1.0           | 14           | 1.0                                    | 14.6                     | 348                       |
| 14G1.0SY  | 14 G1.0           | 14           | 1.0                                    | 14.6                     | 348                       |
| 16X1.0SY  | 16 X1.0           | 16           | 1.0                                    | 15.3                     | 387                       |
| 16G1.0SY  | 16 G1.0           | 16           | 1.0                                    | 15.3                     | 387                       |
| 18X1.0SY  | 18 X1.0           | 18           | 1.0                                    | 16.1                     | 428                       |
| 18G1.0SY  | 18 G1.0           | 18           | 1.0                                    | 16.1                     | 428                       |
| 20X1.0SY  | 20 X1.0           | 20           | 1.0                                    | 16.9                     | 464                       |
| 20G1.0SY  | 20 G1.0           | 20           | 1.0                                    | 16.9                     | 464                       |
| 2X1.5SY   | 2 X1.5            | 2            | 1.5                                    | 8.8                      | 113                       |
| 3X1.5SY   | 3 X1.5            | 3            | 1.5                                    | 9.3                      | 133                       |
| 3G1.5SY   | 3 G1.5            | 3            | 1.5                                    | 9.3                      | 133                       |
| 4X1.5SY   | 4 X1.5            | 4            | 1.5                                    | 10.0                     | 158                       |
| 4G1.5SY   | 4 G1.5            | 4            | 1.5                                    | 10.0                     | 158                       |
| 5X1.5SY   | 5 X1.5            | 5            | 1.5                                    | 10.8                     | 188                       |
| 5G1.5SY   | 5 G1.5            | 5            | 1.5                                    | 10.8                     | 188                       |
| 7X1.5SY   | 7 X1.5            | 7            | 1.5                                    | 11.6                     | 229                       |
| 7G1.5SY   | 7 G1.5            | 7            | 1.5                                    | 11.6                     | 229                       |
| 9X1.5SY   | 9 X1.5            | 9            | 1.5                                    | 14.3                     | 309                       |
| 9G1.5SY   | 9 G1.5            | 9            | 1.5                                    | 14.3                     | 309                       |
| 10X1.5SY  | 10 X1.5           | 10           | 1.5                                    | 14.8                     | 337                       |
| 10G1.5SY  | 10 G1.5           | 10           | 1.5                                    | 14.8                     | 337                       |
| 12X1.5SY  | 12 X1.5           | 12           | 1.5                                    | 15.3                     | 375                       |
| 12G1.5SY  | 12 G1.5           | 12           | 1.5                                    | 15.3                     | 375                       |
| 14X1.5SY  | 14 X1.5           | 14           | 1.5                                    | 16.0                     | 423                       |
| 14G1.5SY  | 14 G1.5           | 14           | 1.5                                    | 16.0                     | 423                       |
| 16X1.5SY  | 16 X1.5           | 16           | 1.5                                    | 16.7                     | 473                       |
| 16G1.5SY  | 16 G1.5           | 16           | 1.5                                    | 16.7                     | 473                       |
| 18X1.5SY  | 18 X1.5           | 18           | 1.5                                    | 17.6                     | 524                       |
| 18G1.5SY  | 18 G1.5           | 18           | 1.5                                    | 17.6                     | 524                       |
| 20X1.5SY  | 20 X1.5           | 20           | 1.5                                    | 18.5                     | 570                       |
| 20G1.5SY  | 20 G1.5           | 20           | 1.5                                    | 18.5                     | 570                       |
| 2X2.5SY   | 2 X2.5            | 2            | 2.5                                    | 10.4                     | 167                       |

| Part Code | Cable Description | No. of Cores | Nom. Conductor Size (mm <sup>2</sup> ) | Nom. Cable Diameter (mm) | Nom. Cable Weight (kg/km) |
|-----------|-------------------|--------------|--|--------------------------|---------------------------|
| 3X2.5SY   | 3 X2.5            | 3            | 2.5                                    | 11.0                     | 194                       |
| 3G2.5SY   | 3 G2.5            | 3            | 2.5                                    | 11.0                     | 194                       |
| 4X2.5SY   | 4 X2.5            | 4            | 2.5                                    | 11.9                     | 234                       |
| 4G2.5SY   | 4 G2.5            | 4            | 2.5                                    | 11.9                     | 234                       |
| 5X2.5SY   | 5 X2.5            | 5            | 2.5                                    | 12.9                     | 279                       |
| 5G2.5SY   | 5 G2.5            | 5            | 2.5                                    | 12.9                     | 279                       |
| 7X2.5SY   | 7 X2.5            | 7            | 2.5                                    | 14.2                     | 354                       |
| 7G2.5SY   | 7 G2.5            | 7            | 2.5                                    | 14.2                     | 354                       |
| 9X2.5SY   | 9 X2.5            | 9            | 2.5                                    | 17.1                     | 482                       |
| 9G2.5SY   | 9 G2.5            | 9            | 2.5                                    | 17.1                     | 482                       |
| 10X2.5SY  | 10 X2.5           | 10           | 2.5                                    | 17.8                     | 530                       |
| 10G2.5SY  | 10 G2.5           | 10           | 2.5                                    | 17.8                     | 530                       |
| 12X2.5SY  | 12 X2.5           | 12           | 2.5                                    | 18.6                     | 576                       |
| 12G2.5SY  | 12 G2.5           | 12           | 2.5                                    | 18.6                     | 576                       |
| 14X2.5SY  | 14 X2.5           | 14           | 2.5                                    | 19.3                     | 673                       |
| 14G2.5SY  | 14 G2.5           | 14           | 2.5                                    | 19.3                     | 673                       |
| 16X2.5SY  | 16 X2.5           | 16           | 2.5                                    | 20.3                     | 755                       |
| 16G2.5SY  | 16 G2.5           | 16           | 2.5                                    | 20.3                     | 755                       |
| 18X2.5SY  | 18 X2.5           | 18           | 2.5                                    | 21.4                     | 841                       |
| 18G2.5SY  | 18 G2.5           | 18           | 2.5                                    | 21.4                     | 841                       |
| 20X2.5SY  | 20 X2.5           | 20           | 2.5                                    | 22.6                     | 917                       |
| 20G2.5SY  | 20 G2.5           | 20           | 2.5                                    | 22.6                     | 917                       |
| 2X4SY     | 2 X4              | 2            | 4                                      | 11.9                     | 229                       |
| 3X4SY     | 3 X4              | 3            | 4                                      | 12.6                     | 281                       |
| 3G4SY     | 3 G4              | 3            | 4                                      | 12.6                     | 281                       |
| 4X4SY     | 4 X4              | 4            | 4                                      | 13.9                     | 358                       |
| 4G4SY     | 4 G4              | 4            | 4                                      | 13.9                     | 358                       |
| 5X4SY     | 5 X4              | 5            | 4                                      | 15.1                     | 431                       |
| 5G4SY     | 5 G4              | 5            | 4                                      | 15.1                     | 431                       |
| 7X4SY     | 7 X4              | 7            | 4                                      | 16.4                     | 540                       |
| 7G4SY     | 7 G4              | 7            | 4                                      | 16.4                     | 540                       |
| 9X4SY     | 9 X4              | 9            | 4                                      | 19.9                     | 705                       |
| 9G4SY     | 9 G4              | 9            | 4                                      | 19.9                     | 705                       |
| 10X4SY    | 10 X4             | 10           | 4                                      | 20.8                     | 777                       |
| 10G4SY    | 10 G4             | 10           | 4                                      | 20.8                     | 777                       |
| 12X4SY    | 12 X4             | 12           | 4                                      | 21.5                     | 881                       |
| 12G4SY    | 12 G4             | 12           | 4                                      | 21.5                     | 881                       |
| 2X6SY     | 2 X6              | 2            | 6                                      | 14.0                     | 323                       |
| 3X6SY     | 3 X6              | 3            | 6                                      | 14.9                     | 403                       |
| 3G6SY     | 3 G6              | 3            | 6                                      | 14.9                     | 403                       |
| 4X6SY     | 4 X6              | 4            | 6                                      | 16.2                     | 501                       |
| 4G6SY     | 4 G6              | 4            | 6                                      | 16.2                     | 501                       |
| 5X6SY     | 5 X6              | 5            | 6                                      | 17.7                     | 607                       |
| 5G6SY     | 5 G6              | 5            | 6                                      | 17.7                     | 607                       |
| 7X6SY     | 7 X6              | 7            | 6                                      | 19.3                     | 768                       |
| 7G6SY     | 7 G6              | 7            | 6                                      | 19.3                     | 768                       |
| 9X6SY     | 9 X6              | 9            | 6                                      | 23.5                     | 1006                      |

| Part Code | Cable Description | No. of Cores | Nom. Conductor Size (mm <sup>2</sup> ) | Nom. Cable Diameter (mm) | Nom. Cable Weight (kg/km) |
|-----------|-------------------|--------------|--|--------------------------|---------------------------|
| 9G6SY     | 9 G6              | 9            | 6                                      | 23.5                     | 1006                      |
| 2X10SY    | 2 X10             | 2            | 10                                     | 17.0                     | 479                       |
| 3X10SY    | 3 X10             | 3            | 10                                     | 18.0                     | 603                       |
| 3G10SY    | 3 G10             | 3            | 10                                     | 18.0                     | 603                       |
| 4X10SY    | 4 X10             | 4            | 10                                     | 19.8                     | 757                       |
| 4G10SY    | 4 G10             | 4            | 10                                     | 19.8                     | 757                       |
| 5X10SY    | 5 X10             | 5            | 10                                     | 21.7                     | 922                       |
| 5G10SY    | 5 G10             | 5            | 10                                     | 21.7                     | 922                       |
| 7X10SY    | 7 X10             | 7            | 10                                     | 23.7                     | 1175                      |
| 7G10SY    | 7 G10             | 7            | 10                                     | 23.7                     | 1175                      |
| 9X10SY    | 9 X10             | 9            | 10                                     | 29.1                     | 1547                      |
| 9G10SY    | 9 G10             | 9            | 10                                     | 29.1                     | 1547                      |
| 2X16SY    | 2 X16             | 2            | 16                                     | 20.1                     | 699                       |
| 3X16SY    | 3 X16             | 3            | 16                                     | 21.4                     | 894                       |
| 3G16SY    | 3 G16             | 3            | 16                                     | 21.4                     | 894                       |
| 4X16SY    | 4 X16             | 4            | 16                                     | 23.6                     | 1131                      |
| 4G16SY    | 4 G16             | 4            | 16                                     | 23.6                     | 1131                      |
| 5X16SY    | 5 X16             | 5            | 16                                     | 25.9                     | 1387                      |
| 5G16SY    | 5 G16             | 5            | 16                                     | 25.9                     | 1387                      |
| 7X16SY    | 7 X16             | 7            | 16                                     | 28.4                     | 1785                      |
| 7G16SY    | 7 G16             | 7            | 16                                     | 28.4                     | 1785                      |
| 2X25SY    | 2 X25             | 2            | 25                                     | 24.2                     | 1034                      |
| 3X25SY    | 3 X25             | 3            | 25                                     | 25.9                     | 1337                      |
| 3G25SY    | 3 G25             | 3            | 25                                     | 25.9                     | 1337                      |
| 4X25SY    | 4 X25             | 4            | 25                                     | 27.6                     | 1665                      |
| 4G25SY    | 4 G25             | 4            | 25                                     | 27.6                     | 1665                      |
| 5X25SY    | 5 X25             | 5            | 25                                     | 31.2                     | 2035                      |
| 5G25SY    | 5 G25             | 5            | 25                                     | 31.2                     | 2035                      |
| 7X25SY    | 7 X25             | 7            | 25                                     | 33.9                     | 2555                      |
| 7G25SY    | 7 G25             | 7            | 25                                     | 33.9                     | 2555                      |
| 2X35SY    | 2 X35             | 2            | 35                                     | 26.6                     | 1325                      |
| 3X35SY    | 3 X35             | 3            | 35                                     | 28.5                     | 1673                      |
| 3G35SY    | 3 G35             | 3            | 35                                     | 28.5                     | 1673                      |
| 4X35SY    | 4 X35             | 4            | 35                                     | 31.2                     | 2083                      |
| 4G35SY    | 4 G35             | 4            | 35                                     | 31.2                     | 2083                      |

\*For any other cross-section or number of cores, please check with Belden for more information.

## Sheath / Jacket Color

| Color                | Color Code |
|----------------------|------------|
| 1) Grey ( RAL 7001 ) | G8U        |
| 2) Black             | 010        |
| 3) Transparent*      | 368        |

\* Transparent jacket colour by default will have a Grey (RAL 7001) inner jacket. 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

