



## MachFlex™ Industrial Cables



**Be certain.  
Belden.**

**The Ideal Signal Transmission  
Cable Solutions for Machine  
Builders**

## About MachFlex Industrial Cables

# MachFlex

**Belden introduces the machine builder choice MachFlex cables based on the following international standards:**

**DIN EN 50525-2-51 (VDE 0285-525-2-51):2012-01 VDE-REG.-Nr.8770**



### Customer Challenge

Machines are becoming highly systemized, smaller and compact driven by special requirements of end users and customers. These challenge machine builders who need to stay competitive while ensuring a robust performance for their machine. Belden is introducing a new line of flexible machine cables to aid machine builders tackle this challenge by offering cables in smaller sizes that save installation space and are highly durable to meet the flexibility, physical and mechanical requirements needed.

### Applications

Machine builders are continuously looking to improve the performance of their machines used in industries such as food & beverage, health care, manufacturing, pharmaceuticals, automotive, semiconductors and many more. Some of the main applications where these cables can be used, but not restricted to, are:

- Precision control sensors
- Multi axis motion control
- Temperature controllers
- Control panels
- Machine cutting tools
- Auxiliary equipment
- Motor speed controls
- Production machinery
- Blade pitch control (WT)
- Control & instrumentation circuits

### Application Advantage

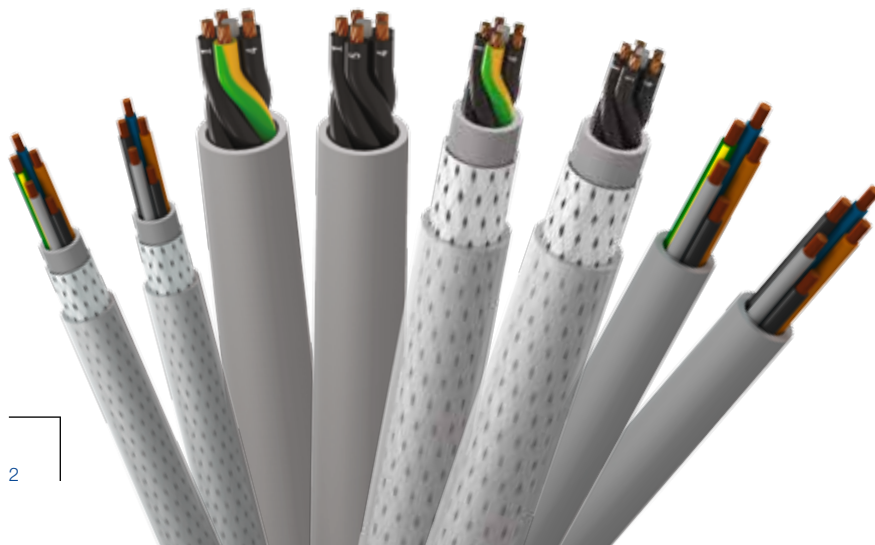
Belden's machine builder choice MachFlex cables have the following advantages which ensures greater performance level for the machine builders and a higher uptime for the end users:

- Flexible conductor, insulation & sheath material
- Oil resistant DIN EN 50290-2-22 (TM54)
- Wider fixed temperature range (-40°C To +80°C)
- Good shield effectiveness
- Good Sunlight (UV) & Chemical Resistant
- Environmental friendly cables (RoHS)

### Product Features

Major features of the new machine builder choice MachFlex cables include:

- Various conductor sizes from 0.14mm<sup>2</sup> to 35.00 mm<sup>2</sup>
- Bare or tinned copper conductors (DIN VDE 0295)
- PVC insulation & jacket / sheath
- Optional ground wire in green / yellow color
- Optional tinned copper braid (CY)
- Optional steel wire braid (SY)
- Voltage (Uo/U) = 300/500V
- Variety of insulation & jacket color options
- Drum packaging



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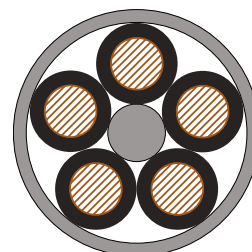
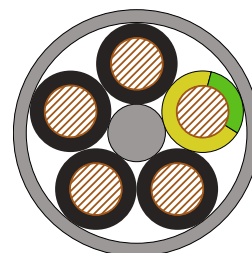
## MachFlex 350 YY Cables



## Unshielded PVC Control Cables

### 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, BS6360
- DIN EN 50290-2-22, DIN VDE 0207-363-4-1
- DIN VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2
- RoHS&REACH&CE Directives

### Construction and Performance

|    |                                        |                                                                                                                                                                                                                      |
|----|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. | <b>Conductor Material</b>              | Stranded bare copper (DIN VDE 0295 Class 5)                                                                                                                                                                          |
| 2. | <b>Insulation Material &amp; Color</b> | Insulation Material & Colour PVC (polyvinyl chloride).<br>A) All black color with number coding = without protective conductor. B) Black color with number coding plus 1 green & yellow = with protective conductor. |
| 3. | <b>Jacket / Sheath Material</b>        | PVC (polyvinyl chloride)                                                                                                                                                                                             |
| 4. | <b>Flame Retardancy</b>                | VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2                                                                                                                                                                    |
| 5. | <b>Voltage Rating (Uo/U)</b>           | 300 / 500 V                                                                                                                                                                                                          |
| 6. | <b>Oil Resistant</b>                   | DIN EN 50290-2-22 (TM54)                                                                                                                                                                                             |
| 7. | <b>Temperature Range</b>               | -30 °C TO +70 °C (Occasional movement)<br>-40 °C TO +80 °C (Fixed installation)                                                                                                                                      |
| 8. | <b>Bending Radius</b>                  | 10 x OD (Occasional movement)<br>4 x OD (Fixed installation)                                                                                                                                                         |
| 9. | <b>Other Properties</b>                | Good UV resistance, chemical resistance & flexibility                                                                                                                                                                |

# MachFlex 350 YY Unshielded PVC Control Cables

UNSHIELDED CABLE WITH (G) PROTECTIVE GROUND



1 = Conductor  
2 = Insulation  
3 = Inner Sheath

## Conductor 0.50 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 4.9                        | 3G0.5             | 3G0.5     |
| 4            | 5.3                        | 4G0.5             | 4G0.5     |
| 5            | 5.9                        | 5G0.5             | 5G0.5     |
| 7            | 6.4                        | 7G0.5             | 7G0.5     |
| 12           | 8.6                        | 12G0.5            | 12G0.5    |
| 20           | 10.8                       | 20G0.5            | 20G0.5    |

## Conductor 0.75 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 5.4                        | 3G0.75            | 3G0.75    |
| 4            | 5.9                        | 4G0.75            | 4G0.75    |
| 5            | 6.5                        | 5G0.75            | 5G0.75    |
| 7            | 7.2                        | 7G0.75            | 7G0.75    |
| 12           | 9.6                        | 12G0.75           | 12G0.75   |
| 20           | 12.1                       | 20G0.75           | 20G0.75   |

## Conductor 1.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 5.8                        | 3G1.0             | 3G1.0     |
| 4            | 6.4                        | 4G1.0             | 4G1.0     |
| 5            | 7.1                        | 5G1.0             | 5G1.0     |
| 7            | 7.8                        | 7G1.0             | 7G1.0     |
| 12           | 10.5                       | 12G1.0            | 12G1.0    |
| 20           | 13.2                       | 20G1.0            | 20G1.0    |

## Conductor 1.50 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 6.4                        | 3G1.5             | 3G1.5     |
| 4            | 7.0                        | 4G1.5             | 4G1.5     |
| 5            | 7.8                        | 5G1.5             | 5G1.5     |
| 7            | 8.5                        | 7G1.5             | 7G1.5     |
| 12           | 11.5                       | 12G1.5            | 12G1.5    |
| 20           | 14.5                       | 20G1.5            | 20G1.5    |

## Conductor 2.50 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 8.3                        | 3G2.5             | 3G2.5     |
| 4            | 9.2                        | 4G2.5             | 4G2.5     |
| 5            | 10.1                       | 5G2.5             | 5G2.5     |
| 7            | 11.2                       | 7G2.5             | 7G2.5     |
| 12           | 15.2                       | 12G2.5            | 12G2.5    |
| 20           | 19.2                       | 20G2.5            | 20G2.5    |

## Conductor 4.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 9.8                        | 3G4               | 3G4       |
| 4            | 10.9                       | 4G4               | 4G4       |
| 5            | 12.0                       | 5G4               | 5G4       |
| 7            | 13.3                       | 7G4               | 7G4       |
| 9            | 16.6                       | 9G4               | 9G4       |
| 12           | 18.1                       | 12G4              | 12G4      |

## Conductor 6.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 11.8                       | 3G6               | 3G6       |
| 4            | 13.1                       | 4G6               | 4G6       |
| 5            | 14.5                       | 5G6               | 5G6       |
| 7            | 16.0                       | 7G6               | 7G6       |
| 9            | 20.1                       | 9G6               | 9G6       |

## Conductor 10.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 14.8                       | 3G10              | 3G10      |
| 4            | 16.5                       | 4G10              | 4G10      |
| 5            | 18.3                       | 5G10              | 5G10      |
| 7            | 20.3                       | 7G10              | 7G10      |
| 9            | 25.5                       | 9G10              | 9G10      |

## Conductor 16.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 18.1                       | 3G16              | 3G16      |
| 4            | 20.2                       | 4G16              | 4G16      |
| 5            | 22.4                       | 5G16              | 5G16      |
| 7            | 24.8                       | 7G16              | 7G16      |

## Conductor 25.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 22.3                       | 3G25              | 3G25      |
| 4            | 24.9                       | 4G25              | 4G25      |
| 5            | 27.7                       | 5G25              | 5G25      |
| 7            | 30.6                       | 7G25              | 7G25      |

- \*Varies depending on the construction of the cable
- Putup length & tolerance of the cables will vary depending on the construction of the cable
- MOQ will vary depending on the construction of the cable & provided at the time of quotation
- Cable requested outside the above design criteria can be reviewed and quoted

## MachFlex 350 YY Unshielded PVC Control Cables

UNSHIELDED CABLE WITHOUT (G) PROTECTIVE GROUND



1 = Conductor  
2 = Insulation  
3 = Inner Sheath

### Conductor 0.50 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 4.9                        | 3X0.5             | 3X0.5     |
| 4            | 5.3                        | 4X0.5             | 4X0.5     |
| 5            | 5.9                        | 5X0.5             | 5X0.5     |
| 7            | 6.4                        | 7X0.5             | 7X0.5     |
| 12           | 8.6                        | 12X0.5            | 12X0.5    |
| 20           | 10.8                       | 20X0.5            | 20X0.5    |

### Conductor 0.75 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 5.4                        | 3X0.75            | 3X0.75    |
| 4            | 5.9                        | 4X0.75            | 4X0.75    |
| 5            | 6.5                        | 5X0.75            | 5X0.75    |
| 7            | 7.2                        | 7X0.75            | 7X0.75    |
| 12           | 9.6                        | 12X0.75           | 12X0.75   |
| 20           | 12.1                       | 20X0.75           | 20X0.75   |

### Conductor 1.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 5.8                        | 3X1.0             | 3X1.0     |
| 4            | 6.4                        | 4X1.0             | 4X1.0     |
| 5            | 7.1                        | 5X1.0             | 5X1.0     |
| 7            | 7.8                        | 7X1.0             | 7X1.0     |
| 12           | 10.5                       | 12X1.0            | 12X1.0    |
| 20           | 13.2                       | 20X1.0            | 20X1.0    |

### Conductor 1.50 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 6.4                        | 3X1.5             | 3X1.5     |
| 4            | 7.0                        | 4X1.5             | 4X1.5     |
| 5            | 7.8                        | 5X1.5             | 5X1.5     |
| 7            | 8.5                        | 7X1.5             | 7X1.5     |
| 12           | 11.5                       | 12X1.5            | 12X1.5    |
| 20           | 14.5                       | 20X1.5            | 20X1.5    |

### Conductor 2.50 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 8.3                        | 3X2.5             | 3X2.5     |
| 4            | 9.2                        | 4X2.5             | 4X2.5     |
| 5            | 10.1                       | 5X2.5             | 5X2.5     |
| 7            | 11.2                       | 7X2.5             | 7X2.5     |
| 12           | 15.2                       | 12X2.5            | 12X2.5    |
| 20           | 19.2                       | 20X2.5            | 20X2.5    |

### Conductor 4.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 9.8                        | 3X4               | 3X4       |
| 4            | 10.9                       | 4X4               | 4X4       |
| 5            | 12.0                       | 5X4               | 5X4       |
| 7            | 13.3                       | 7X4               | 7X4       |
| 9            | 16.6                       | 9X4               | 9X4       |
| 12           | 18.1                       | 12X4              | 12X4      |

### Conductor 6.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 11.8                       | 3X6               | 3X6       |
| 4            | 13.1                       | 4X6               | 4X6       |
| 5            | 14.5                       | 5X6               | 5X6       |
| 7            | 16.0                       | 7X6               | 7X6       |
| 9            | 20.1                       | 9X6               | 9X6       |

### Conductor 10.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 14.8                       | 3X10              | 3X10      |
| 4            | 16.5                       | 4X10              | 4X10      |
| 5            | 18.3                       | 5X10              | 5X10      |
| 7            | 20.3                       | 7X10              | 7X10      |
| 9            | 25.5                       | 9X10              | 9X10      |

### Conductor 16.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 18.1                       | 3X16              | 3X16      |
| 4            | 20.2                       | 4X16              | 4X16      |
| 5            | 22.4                       | 5X16              | 5X16      |
| 7            | 24.8                       | 7X16              | 7X16      |

### Conductor 25.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 22.3                       | 3X25              | 3X25      |
| 4            | 24.9                       | 4X25              | 4X25      |
| 5            | 27.7                       | 5X25              | 5X25      |
| 7            | 30.6                       | 7X25              | 7X25      |

- \*Varies depending on the construction of the cable
- Putup length & tolerance of the cables will vary depending on the construction of the cable
- MOQ will vary depending on the construction of the cable & provided at the time of quotation
- Cable requested outside the above design criteria can be reviewed and quoted

## MachFlex 350 CY Cables

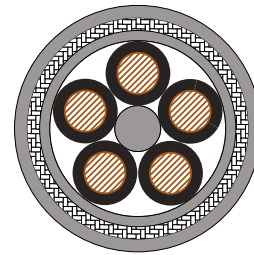
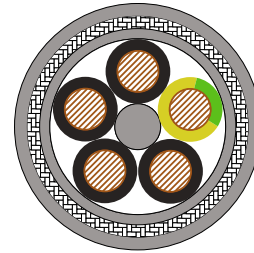
Tinned Copper Braid Shield (TCB) -  
Excellent Noise Immunity

## Shielded (CY) PVC Control Cables



### 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

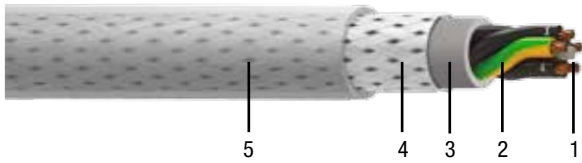
- DIN VDE 0295, IEC 60228, BS6360
- DIN EN 50290-2-22, DIN VDE 0207-363-4-1
- DIN VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2
- RoHS & REACH & CE Directives

### Construction and Performance

|     |                                        |                                                                                                                                                                                                                     |
|-----|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.  | <b>Conductor Material</b>              | Stranded bare copper (DIN VDE 0295 Class 5)                                                                                                                                                                         |
| 2.  | <b>Insulation Material &amp; Color</b> | Insulation Material & Color PVC (polyvinyl chloride).<br>A) All black color with number coding = without protective conductor. B) Black color with number coding plus 1 green & yellow = with protective conductor. |
| 3.  | <b>Braid Shield Material</b>           | Tinned Copper Braid Shield                                                                                                                                                                                          |
| 4.  | <b>Jacket / Sheath Material</b>        | PVC (polyvinyl chloride)                                                                                                                                                                                            |
| 5.  | <b>Flame Retardancy</b>                | VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2                                                                                                                                                                   |
| 6.  | <b>Voltage Rating (Uo/U)</b>           | 300 / 500 V                                                                                                                                                                                                         |
| 7.  | <b>Oil Resistant</b>                   | DIN EN 50290-2-22 (TM54)                                                                                                                                                                                            |
| 8.  | <b>Temperature Range</b>               | -30 °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                                                                                                                                                               |

## MachFlex 350 CY Shielded (CY) PVC Control Cables

TINNED COPPER BRAID SHIELDED CABLE WITH (G) PROTECTIVE GROUND



- 1 = Conductor
- 2 = Insulation
- 3 = Inner Sheath
- 4 = Tinned Copper Braid Shielded
- 5 = Outer Sheath

### Conductor 0.50 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 7.2                        | 3G0.5             | 3G0.5CY   |
| 4            | 7.7                        | 4G0.5             | 4G0.5CY   |
| 5            | 8.3                        | 5G0.5             | 5G0.5CY   |
| 7            | 9.1                        | 7G0.5             | 7G0.5CY   |
| 12           | 11.4                       | 12G0.5            | 12G0.5CY  |
| 20           | 13.7                       | 20G0.5            | 20G0.5CY  |

### Conductor 0.75 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 7.7                        | 3G0.75            | 3G0.75CY  |
| 4            | 8.3                        | 4G0.75            | 4G0.75CY  |
| 5            | 9.2                        | 5G0.75            | 5G0.75CY  |
| 7            | 9.9                        | 7G0.75            | 7G0.75CY  |
| 12           | 12.4                       | 12G0.75           | 12G0.75CY |
| 20           | 15.0                       | 20G0.75           | 20G0.75CY |

### Conductor 1.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 8.2                        | 3G1.0             | 3G1.0CY   |
| 4            | 9.1                        | 4G1.0             | 4G1.0CY   |
| 5            | 9.8                        | 5G1.0             | 5G1.0CY   |
| 7            | 10.5                       | 7G1.0             | 7G1.0CY   |
| 12           | 13.3                       | 12G1.0            | 12G1.0CY  |
| 20           | 16.1                       | 20G1.0            | 20G1.0CY  |

### Conductor 1.50 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 9.0                        | 3G1.5             | 3G1.5CY   |
| 4            | 9.7                        | 4G1.5             | 4G1.5CY   |
| 5            | 10.5                       | 5G1.5             | 5G1.5CY   |
| 7            | 11.3                       | 7G1.5             | 7G1.5CY   |
| 12           | 14.4                       | 12G1.5            | 12G1.5CY  |
| 20           | 17.5                       | 20G1.5            | 20G1.5CY  |

### Conductor 2.50 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 11.0                       | 3G2.5             | 3G2.5CY   |
| 4            | 11.9                       | 4G2.5             | 4G2.5CY   |
| 5            | 12.9                       | 5G2.5             | 5G2.5CY   |
| 7            | 14.0                       | 7G2.5             | 7G2.5CY   |
| 12           | 18.2                       | 12G2.5            | 12G2.5CY  |
| 20           | 22.7                       | 20G2.5            | 20G2.5CY  |

### Conductor 4.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 12.6                       | 3G4               | 3G4CY     |
| 4            | 13.7                       | 4G4               | 4G4CY     |
| 5            | 14.9                       | 5G4               | 5G4CY     |
| 7            | 16.2                       | 7G4               | 7G4CY     |
| 9            | 20.0                       | 9G4               | 9G4CY     |
| 12           | 21.5                       | 12G4              | 12G4CY    |

### Conductor 6.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 14.6                       | 3G6               | 3G6CY     |
| 4            | 16.0                       | 4G6               | 4G6CY     |
| 5            | 17.5                       | 5G6               | 5G6CY     |
| 7            | 19.1                       | 7G6               | 7G6CY     |
| 9            | 23.6                       | 9G6               | 9G6CY     |

### Conductor 10.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 17.8                       | 3G10              | 3G10CY    |
| 4            | 19.8                       | 4G10              | 4G10CY    |
| 5            | 21.7                       | 5G10              | 5G10CY    |
| 7            | 23.8                       | 7G10              | 7G10CY    |
| 9            | 29.2                       | 9G10              | 9G10CY    |

### Conductor 16.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 21.5                       | 3G16              | 3G16CY    |
| 4            | 23.6                       | 4G16              | 4G16CY    |
| 5            | 26.0                       | 5G16              | 5G16CY    |
| 7            | 28.5                       | 7G16              | 7G16CY    |

### Conductor 25.00 mm<sup>2</sup>

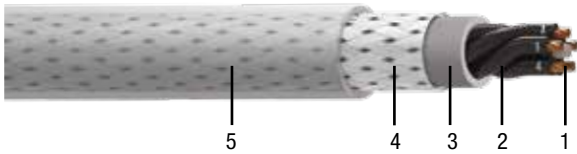
| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 25.9                       | 3G25              | 3G25CY    |
| 4            | 28.6                       | 4G25              | 4G25CY    |
| 5            | 31.5                       | 5G25              | 5G25CY    |
| 7            | 34.2                       | 7G25              | 7G25CY    |

- \*Varies depending on the construction of the cable
- Putup length & tolerance of the cables will vary depending on the construction of the cable
- MOQ will vary depending on the construction of the cable & provided at the time of quotation
- Cable requested outside the above design criteria can be reviewed and quoted



## MachFlex 350 CY Shielded (CY) PVC Control Cables

TINNED COPPER BRAID SHIELDED CABLE WITHOUT (G) PROTECTIVE GROUND



- 1 = Conductor
- 2 = Insulation
- 3 = Inner Sheath
- 4 = Tinned Copper Braid Shielded
- 5 = Outer Sheath

### Conductor 0.50 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 7.2                        | 3X0.5             | 3X0.5CY   |
| 4            | 7.7                        | 4X0.5             | 4X0.5CY   |
| 5            | 8.3                        | 5X0.5             | 5X0.5CY   |
| 7            | 9.1                        | 7X0.5             | 7X0.5CY   |
| 12           | 11.4                       | 12X0.5            | 12X0.5CY  |
| 20           | 13.7                       | 20X0.5            | 20X0.5CY  |

### Conductor 0.75 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 7.7                        | 3X0.75            | 3X0.75CY  |
| 4            | 8.3                        | 4X0.75            | 4X0.75CY  |
| 5            | 9.2                        | 5X0.75            | 5X0.75CY  |
| 7            | 9.9                        | 7X0.75            | 7X0.75CY  |
| 12           | 12.4                       | 12X0.75           | 12X0.75CY |
| 20           | 15.0                       | 20X0.75           | 20X0.75CY |

### Conductor 1.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 8.2                        | 3X1.0             | 3X1.0CY   |
| 4            | 9.1                        | 4X1.0             | 4X1.0CY   |
| 5            | 9.8                        | 5X1.0             | 5X1.0CY   |
| 7            | 10.5                       | 7X1.0             | 7X1.0CY   |
| 12           | 13.3                       | 12X1.0            | 12X1.0CY  |
| 20           | 16.1                       | 20X1.0            | 20X1.0CY  |

### Conductor 1.50 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 9.0                        | 3X1.5             | 3X1.5CY   |
| 4            | 9.7                        | 4X1.5             | 4X1.5CY   |
| 5            | 10.5                       | 5X1.5             | 5X1.5CY   |
| 7            | 11.3                       | 7X1.5             | 7X1.5CY   |
| 12           | 14.4                       | 12X1.5            | 12X1.5CY  |
| 20           | 17.5                       | 20X1.5            | 20X1.5CY  |

### Conductor 2.50 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 11.0                       | 3X2.5             | 3X2.5CY   |
| 4            | 11.9                       | 4X2.5             | 4X2.5CY   |
| 5            | 12.9                       | 5X2.5             | 5X2.5CY   |
| 7            | 14.0                       | 7X2.5             | 7X2.5CY   |
| 12           | 18.2                       | 12X2.5            | 12X2.5CY  |
| 20           | 22.7                       | 20X2.5            | 20X2.5CY  |

### Conductor 4.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 12.6                       | 3X4               | 3X4CY     |
| 4            | 13.7                       | 4X4               | 4X4CY     |
| 5            | 14.9                       | 5X4               | 5X4CY     |
| 7            | 16.2                       | 7X4               | 7X4CY     |
| 9            | 20.0                       | 9X4               | 9X4CY     |
| 12           | 21.5                       | 12X4              | 12X4CY    |

### Conductor 6.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 14.6                       | 3X6               | 3X6CY     |
| 4            | 16.0                       | 4X6               | 4X6CY     |
| 5            | 17.5                       | 5X6               | 5X6CY     |
| 7            | 19.1                       | 7X6               | 7X6CY     |
| 9            | 23.6                       | 9X6               | 9X6CY     |

### Conductor 10.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 17.8                       | 3X10              | 3X10CY    |
| 4            | 19.8                       | 4X10              | 4X10CY    |
| 5            | 21.7                       | 5X10              | 5X10CY    |
| 7            | 23.8                       | 7X10              | 7X10CY    |
| 9            | 29.2                       | 9X10              | 9X10CY    |

### Conductor 16.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 21.5                       | 3X16              | 3X16CY    |
| 4            | 23.6                       | 4X16              | 4X16CY    |
| 5            | 26.0                       | 5X16              | 5X16CY    |
| 7            | 28.5                       | 7X16              | 7X16CY    |

### Conductor 25.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 25.9                       | 3X25              | 3X25CY    |
| 4            | 28.6                       | 4X25              | 4X25CY    |
| 5            | 31.5                       | 5X25              | 5X25CY    |
| 7            | 34.2                       | 7X25              | 7X25CY    |

- \*Varies depending on the construction of the cable
- Putup length & tolerance of the cables will vary depending on the construction of the cable
- MOQ will vary depending on the construction of the cable & provided at the time of quotation
- Cable requested outside the above design criteria can be reviewed and quoted

## MachFlex 350 SY Cables

Galvanized Steel Wire Braid (GSWB) -  
Excellent Mechanical Protection

## Armored (SY) PVC Control Cables

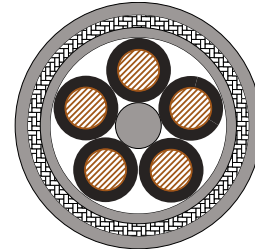
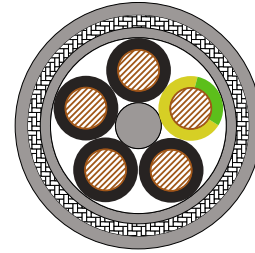


### Applications

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, BS6360
- DIN EN 50290-2-22, DIN VDE 0207-363-4-1
- DIN VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2
- RoHS & REACH & CE Directives

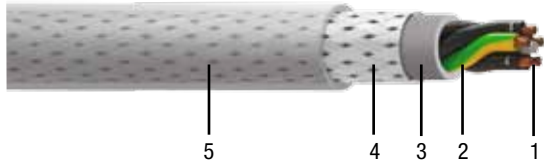


### Construction and Performance

|     |                                        |                                                                                                                                                                                                                      |
|-----|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.  | <b>Conductor Material</b>              | Stranded bare copper (DIN VDE 0295 Class 5)                                                                                                                                                                          |
| 2.  | <b>Insulation Material &amp; Color</b> | Insulation Material & Colour PVC (polyvinyl chloride).<br>A) All black color with number coding = without protective conductor. B) Black color with number coding plus 1 green & yellow = with protective conductor. |
| 3.  | <b>Braid Shield Material</b>           | GSWB (Galvanized Steel Wire Braid)                                                                                                                                                                                   |
| 4.  | <b>Jacket / Sheath Material</b>        | PVC (polyvinyl chloride)                                                                                                                                                                                             |
| 5.  | <b>Flame Retardancy</b>                | VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2                                                                                                                                                                    |
| 6.  | <b>Voltage Rating (Uo/U)</b>           | 300 / 500 V                                                                                                                                                                                                          |
| 7.  | <b>Oil Resistant</b>                   | DIN EN 50290-2-22 (TM54)                                                                                                                                                                                             |
| 8.  | <b>Temperature Range</b>               | -30 °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                                                                                                                                                                |

## MachFlex 350 SY Armored (SY) PVC Control Cables

GALVANIZED STEEL WIRE BRAID SHIELD (GSWB) CABLE WITH (G) PROTECTIVE GROUND



- 1 = Conductor
- 2 = Insulation
- 3 = Inner Sheath
- 4 = Galvanized Steel Wire Braid Shield
- 5 = Outer Sheath

### Conductor 0.50 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 7.5                        | 3G0.5             | 3G0.5SY   |
| 4            | 8.0                        | 4G0.5             | 4G0.5SY   |
| 5            | 8.5                        | 5G0.5             | 5G0.5SY   |
| 7            | 9.1                        | 7G0.5             | 7G0.5SY   |
| 12           | 11.4                       | 12G0.5            | 12G0.5SY  |
| 20           | 13.9                       | 20G0.5            | 20G0.5SY  |

### Conductor 0.75 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 8.0                        | 3G0.75            | 3G0.75SY  |
| 4            | 8.6                        | 4G0.75            | 4G0.75SY  |
| 5            | 9.2                        | 5G0.75            | 5G0.75SY  |
| 7            | 9.9                        | 7G0.75            | 7G0.75SY  |
| 12           | 12.4                       | 12G0.75           | 12G0.75SY |
| 20           | 15.2                       | 20G0.75           | 20G0.75SY |

### Conductor 1.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 8.4                        | 3G1.0             | 3G1.0SY   |
| 4            | 9.1                        | 4G1.0             | 4G1.0SY   |
| 5            | 9.8                        | 5G1.0             | 5G1.0SY   |
| 7            | 10.5                       | 7G1.0             | 7G1.0SY   |
| 12           | 13.3                       | 12G1.0            | 12G1.0SY  |
| 20           | 16.3                       | 20G1.0            | 20G1.0SY  |

### Conductor 1.50 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 9.0                        | 3G1.5             | 3G1.5SY   |
| 4            | 9.7                        | 4G1.5             | 4G1.5SY   |
| 5            | 10.5                       | 5G1.5             | 5G1.5SY   |
| 7            | 11.3                       | 7G1.5             | 7G1.5SY   |
| 12           | 14.6                       | 12G1.5            | 12G1.5SY  |
| 20           | 17.7                       | 20G1.5            | 20G1.5SY  |

### Conductor 2.50 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 11.0                       | 3G2.5             | 3G2.5SY   |
| 4            | 11.9                       | 4G2.5             | 4G2.5SY   |
| 5            | 12.9                       | 5G2.5             | 5G2.5SY   |
| 7            | 14.2                       | 7G2.5             | 7G2.5SY   |
| 12           | 18.4                       | 12G2.5            | 12G2.5SY  |
| 20           | 22.6                       | 20G2.5            | 20G2.5SY  |

### Conductor 4.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 12.6                       | 3G4               | 3G4SY     |
| 4            | 13.9                       | 4G4               | 4G4SY     |
| 5            | 15.1                       | 5G4               | 5G4SY     |
| 7            | 16.4                       | 7G4               | 7G4SY     |
| 9            | 19.9                       | 9G4               | 9G4SY     |
| 12           | 21.5                       | 12G4              | 12G4SY    |

### Conductor 6.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 14.9                       | 3G6               | 3G6SY     |
| 4            | 16.2                       | 4G6               | 4G6SY     |
| 5            | 17.7                       | 5G6               | 5G6SY     |
| 7            | 19.3                       | 7G6               | 7G6SY     |
| 9            | 23.5                       | 9G6               | 9G6SY     |

### Conductor 10.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 18.0                       | 3G10              | 3G10SY    |
| 4            | 19.8                       | 4G10              | 4G10SY    |
| 5            | 21.7                       | 5G10              | 5G10SY    |
| 7            | 23.7                       | 7G10              | 7G10SY    |
| 9            | 29.1                       | 9G10              | 9G10SY    |

### Conductor 16.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 21.4                       | 3G16              | 3G16SY    |
| 4            | 23.6                       | 4G16              | 4G16SY    |
| 5            | 26.1                       | 5G16              | 5G16SY    |
| 7            | 28.4                       | 7G16              | 7G16SY    |

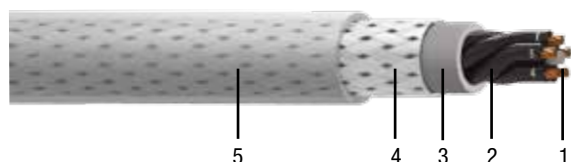
### Conductor 25.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 25.9                       | 3G25              | 3G25SY    |
| 4            | 28.6                       | 4G25              | 4G25SY    |
| 5            | 31.2                       | 5G25              | 5G25SY    |
| 7            | 33.9                       | 7G25              | 7G25SY    |

- \*Varies depending on the construction of the cable
- Putup length & tolerance of the cables will vary depending on the construction of the cable
- MOQ will vary depending on the construction of the cable & provided at the time of quotation
- Cable requested outside the above design criteria can be reviewed and quoted

## MachFlex 350 SY Armored (SY) PVC Control Cables

GALVANIZED STEEL WIRE BRAID SHIELD (GSWB) CABLE WITHOUT (G) PROTECTIVE GROUND



- 1 = Conductor
- 2 = Insulation
- 3 = Inner Sheath
- 4 = Galvanized Steel Wire Braid Shield
- 5 = Outer Sheath

### Conductor 0.50 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 7.5                        | 3X0.5             | 3X0.5SY   |
| 4            | 8.0                        | 4X0.5             | 4X0.5SY   |
| 5            | 8.5                        | 5X0.5             | 5X0.5SY   |
| 7            | 9.1                        | 7X0.5             | 7X0.5SY   |
| 12           | 11.4                       | 12X0.5            | 12X0.5SY  |
| 20           | 13.9                       | 20X0.5            | 20X0.5SY  |

### Conductor 0.75 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 8.0                        | 3X0.75            | 3X0.75SY  |
| 4            | 8.6                        | 4X0.75            | 4X0.75SY  |
| 5            | 9.2                        | 5X0.75            | 5X0.75SY  |
| 7            | 9.9                        | 7X0.75            | 7X0.75SY  |
| 12           | 12.4                       | 12X0.75           | 12X0.75SY |
| 20           | 15.2                       | 20X0.75           | 20X0.75SY |

### Conductor 1.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 8.4                        | 3X1.0             | 3X1.0SY   |
| 4            | 9.1                        | 4X1.0             | 4X1.0SY   |
| 5            | 9.8                        | 5X1.0             | 5X1.0SY   |
| 7            | 10.5                       | 7X1.0             | 7X1.0SY   |
| 12           | 13.3                       | 12X1.0            | 12X1.0SY  |
| 20           | 16.3                       | 20X1.0            | 20X1.0SY  |

### Conductor 1.50 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 9.0                        | 3X1.5             | 3X1.5SY   |
| 4            | 9.7                        | 4X1.5             | 4X1.5SY   |
| 5            | 10.5                       | 5X1.5             | 5X1.5SY   |
| 7            | 11.3                       | 7X1.5             | 7X1.5SY   |
| 12           | 14.6                       | 12X1.5            | 12X1.5SY  |
| 20           | 17.7                       | 20X1.5            | 20X1.5SY  |

### Conductor 2.50 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 11.0                       | 3X2.5             | 3X2.5SY   |
| 4            | 11.9                       | 4X2.5             | 4X2.5SY   |
| 5            | 12.9                       | 5X2.5             | 5X2.5SY   |
| 7            | 14.2                       | 7X2.5             | 7X2.5SY   |
| 12           | 18.4                       | 12X2.5            | 12X2.5SY  |
| 20           | 22.6                       | 20X2.5            | 20X2.5SY  |

### Conductor 4.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 12.6                       | 3X4               | 3X4SY     |
| 4            | 13.9                       | 4X4               | 4X4SY     |
| 5            | 15.1                       | 5X4               | 5X4SY     |
| 7            | 16.4                       | 7X4               | 7X4SY     |
| 9            | 19.9                       | 9X4               | 9X4SY     |
| 12           | 21.5                       | 12X4              | 12X4SY    |

### Conductor 6.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 14.9                       | 3X6               | 3X6SY     |
| 4            | 16.2                       | 4X6               | 4X6SY     |
| 5            | 17.7                       | 5X6               | 5X6SY     |
| 7            | 19.3                       | 7X6               | 7X6SY     |
| 9            | 23.5                       | 9X6               | 9X6SY     |

### Conductor 10.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 18.0                       | 3X10              | 3X10SY    |
| 4            | 19.8                       | 4X10              | 4X10SY    |
| 5            | 21.7                       | 5X10              | 5X10SY    |
| 7            | 23.7                       | 7X10              | 7X10SY    |
| 9            | 29.1                       | 9X10              | 9X10SY    |

### Conductor 16.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 21.4                       | 3X16              | 3X16SY    |
| 4            | 23.6                       | 4X16              | 4X16SY    |
| 5            | 26.1                       | 5X16              | 5X16SY    |
| 7            | 28.4                       | 7X16              | 7X16SY    |

### Conductor 25.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 25.9                       | 3X25              | 3X25SY    |
| 4            | 28.6                       | 4X25              | 4X25SY    |
| 5            | 31.2                       | 5X25              | 5X25SY    |
| 7            | 33.9                       | 7X25              | 7X25SY    |

- \*Varies depending on the construction of the cable
- Putup length & tolerance of the cables will vary depending on the construction of the cable
- MOQ will vary depending on the construction of the cable & provided at the time of quotation
- Cable requested outside the above design criteria can be reviewed and quoted

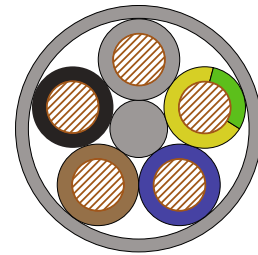
## MachFlex 375 YY Cables

## Unshielded PVC Control Cables



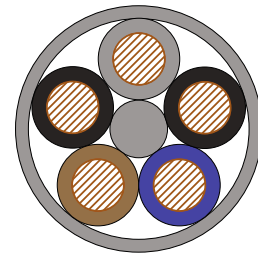
### Applications

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, BS6360
- DIN EN 50290-2-22, DIN VDE 0207-363-4-1
- IEC 60227-5, EN 50525-2-51
- DIN VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2
- RoHS & REACH & CE Directives

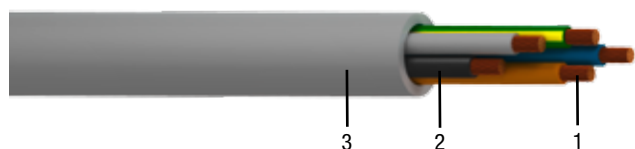


### Construction and Performance

|     |                                        |                                                                                                                                                                                 |
|-----|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.  | <b>Conductor Material</b>              | Stranded bare copper (DIN VDE 0295 Class 5)                                                                                                                                     |
| 2.  | <b>Insulation Material &amp; Color</b> | PVC (polyvinyl chloride). A) Up to 5 cores: color-coded.<br>From 6 cores: Belden MachFlex Color code. B) G = with GN-YE protective conductor; X = without protective conductor. |
| 3.  | <b>Braid Shield Material</b>           | Tinned Copper Braid Shield                                                                                                                                                      |
| 4.  | <b>Jacket / Sheath Material</b>        | PVC (polyvinyl chloride)                                                                                                                                                        |
| 5.  | <b>Flame Retardancy</b>                | VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2                                                                                                                               |
| 6.  | <b>Voltage Rating (Uo/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>                  | 10 x OD (Occasional movement)<br>4 x OD (Fixed installation)                                                                                                                    |
| 10. | <b>Other Properties</b>                | Good UV resistance, chemical resistance & flexibility                                                                                                                           |

## MachFlex 375 YY Unshielded PVC Control Cables

UNSHIELDED CABLE WITH (G) PROTECTIVE GROUND



1 = Conductor  
2 = Insulation  
3 = Sheath

### Conductor 0.50 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 5.1                        | 3G0.5             | C3G0.5    |
| 4            | 5.6                        | 4G0.5             | C4G0.5    |
| 5            | 6.2                        | 5G0.5             | C5G0.5    |
| 7            | 6.8                        | 7G0.5             | C7G0.5    |
| 12           | 9.1                        | 12G0.5            | C12G0.5   |
| 20           | 11.4                       | 20G0.5            | C20G0.5   |

### Conductor 0.75 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 5.6                        | 3G0.75            | C3G0.75   |
| 4            | 6.2                        | 4G0.75            | C4G0.75   |
| 5            | 6.8                        | 5G0.75            | C5G0.75   |
| 7            | 7.5                        | 7G0.75            | C7G0.75   |
| 12           | 10.1                       | 12G0.75           | C12G0.75  |
| 20           | 12.7                       | 20G0.75           | C20G0.75  |

### Conductor 1.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 6.1                        | 3G1.0             | C3G1.0    |
| 4            | 6.7                        | 4G1.0             | C4G1.0    |
| 5            | 7.4                        | 5G1.0             | C5G1.0    |
| 7            | 8.1                        | 7G1.0             | C7G1.0    |
| 12           | 10.9                       | 12G1.0            | C12G1.0   |
| 20           | 13.8                       | 20G1.0            | C20G1.0   |

### Conductor 1.50 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 6.6                        | 3G1.5             | C3G1.5    |
| 4            | 7.3                        | 4G1.5             | C4G1.5    |
| 5            | 8.1                        | 5G1.5             | C5G1.5    |
| 7            | 8.9                        | 7G1.5             | C7G1.5    |
| 12           | 12.0                       | 12G1.5            | C12G1.5   |
| 20           | 15.1                       | 20G1.5            | C20G1.5   |

### Conductor 2.50 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 9.8                        | 3G2.5             | C3G2.5    |
| 4            | 10.9                       | 4G2.5             | C4G2.5    |
| 5            | 12.0                       | 5G2.5             | C5G2.5    |
| 7            | 13.3                       | 7G2.5             | C7G2.5    |
| 9            | 16.6                       | 9G2.5             | C9G2.5    |
| 12           | 18.1                       | 12G2.5            | C12G2.5   |

### Conductor 4.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 11.3                       | 3G4               | C3G4      |
| 4            | 12.6                       | 4G4               | C4G4      |
| 5            | 13.9                       | 5G4               | C5G4      |
| 7            | 15.4                       | 7G4               | C7G4      |
| 9            | 19.3                       | 9G4               | C9G4      |
| 12           | 21.0                       | 12G4              | C12G4     |

### Conductor 6.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 12.8                       | 3G6               | C3G6      |
| 4            | 14.2                       | 4G6               | C4G6      |
| 5            | 15.8                       | 5G6               | C5G6      |
| 7            | 17.4                       | 7G6               | C7G6      |
| 9            | 21.9                       | 9G6               | C9G6      |

### Conductor 10.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 15.3                       | 3G10              | C3G10     |
| 4            | 17.1                       | 4G10              | C4G10     |
| 5            | 19.0                       | 5G10              | C5G10     |
| 7            | 21.0                       | 7G10              | C7G10     |
| 9            | 26.4                       | 9G10              | C9G10     |

### Conductor 16.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 19.6                       | 3G16              | C3G16     |
| 4            | 21.9                       | 4G16              | C4G16     |
| 5            | 24.3                       | 5G16              | C5G16     |

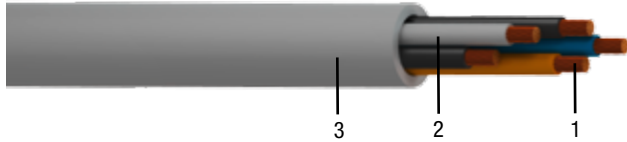
### Conductor 25.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 22.3                       | 3G25              | C3G25     |
| 4            | 24.9                       | 4G25              | C4G25     |
| 5            | 27.7                       | 5G25              | C5G25     |

- \*Varies depending on the construction of the cable
- Putup length & tolerance of the cables will vary depending on the construction of the cable
- MOQ will vary depending on the construction of the cable & provided at the time of quotation
- Cable requested outside the above design criteria can be reviewed and quoted

## MachFlex 375 YY Unshielded PVC Control Cables

UNSHIELDED CABLE WITHOUT (G) PROTECTIVE GROUND



1 = Conductor  
2 = Insulation  
3 = Sheath

### Conductor 0.50 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 5.1                        | 3X0.5             | C3X0.5    |
| 4            | 5.6                        | 4X0.5             | C4X0.5    |
| 5            | 6.2                        | 5X0.5             | C5X0.5    |
| 7            | 6.8                        | 7X0.5             | C7X0.5    |
| 12           | 9.1                        | 12X0.5            | C12X0.5   |
| 20           | 11.4                       | 20X0.5            | C20X0.5   |

### Conductor 1.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 6.1                        | 3X1.0             | C3X1.0    |
| 4            | 6.7                        | 4X1.0             | C4X1.0    |
| 5            | 7.4                        | 5X1.0             | C5X1.0    |
| 7            | 8.1                        | 7X1.0             | C7X1.0    |
| 12           | 10.9                       | 12X1.0            | C12X1.0   |
| 20           | 13.8                       | 20X1.0            | C20X1.0   |

### Conductor 2.50 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 9.8                        | 3X2.5             | C3X2.5    |
| 4            | 10.9                       | 4X2.5             | C4X2.5    |
| 5            | 12.0                       | 5X2.5             | C5X2.5    |
| 7            | 13.3                       | 7X2.5             | C7X2.5    |
| 9            | 16.6                       | 9X2.5             | C9X2.5    |
| 12           | 18.1                       | 12X2.5            | C12X2.5   |

### Conductor 6.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 12.8                       | 3X6               | C3X6      |
| 4            | 14.2                       | 4X6               | C4X6      |
| 5            | 15.8                       | 5X6               | C5X6      |
| 7            | 17.4                       | 7X6               | C7X6      |
| 9            | 21.9                       | 9X6               | C9X6      |

### Conductor 16.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 19.6                       | 3X16              | C3X16     |
| 4            | 21.9                       | 4X16              | C4X16     |
| 5            | 24.3                       | 5X16              | C5X16     |

### Conductor 0.75 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 5.6                        | 3X0.75            | C3X0.75   |
| 4            | 6.2                        | 4X0.75            | C4X0.75   |
| 5            | 6.8                        | 5X0.75            | C5X0.75   |
| 7            | 7.5                        | 7X0.75            | C7X0.75   |
| 12           | 10.1                       | 12X0.75           | C12X0.75  |
| 20           | 12.7                       | 20X0.75           | C20X0.75  |

### Conductor 1.50 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 6.6                        | 3X1.5             | C3X1.5    |
| 4            | 7.3                        | 4X1.5             | C4X1.5    |
| 5            | 8.1                        | 5X1.5             | C5X1.5    |
| 7            | 8.9                        | 7X1.5             | C7X1.5    |
| 12           | 12.0                       | 12X1.5            | C12X1.5   |
| 20           | 15.1                       | 20X1.5            | C20X1.5   |

### Conductor 4.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 11.3                       | 3X4               | C3X4      |
| 4            | 12.6                       | 4X4               | C4X4      |
| 5            | 13.9                       | 5X4               | C5X4      |
| 7            | 15.4                       | 7X4               | C7X4      |
| 9            | 19.3                       | 9X4               | C9X4      |
| 12           | 21.0                       | 12X4              | C12X4     |

### Conductor 10.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 15.3                       | 3X10              | C3X10     |
| 4            | 17.1                       | 4X10              | C4X10     |
| 5            | 19.0                       | 5X10              | C5X10     |
| 7            | 21.0                       | 7X10              | C7X10     |
| 9            | 26.4                       | 9X10              | C9X10     |

### Conductor 25.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 22.3                       | 3X25              | C3X25     |
| 4            | 24.9                       | 4X25              | C4X25     |
| 5            | 27.7                       | 5X25              | C5X25     |

- \*Varies depending on the construction of the cable
- Putup length & tolerance of the cables will vary depending on the construction of the cable
- MOQ will vary depending on the construction of the cable & provided at the time of quotation
- Cable requested outside the above design criteria can be reviewed and quoted

## MachFlex 375 CY Cables

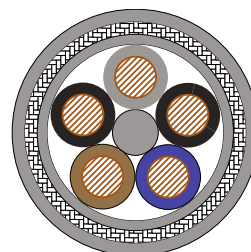
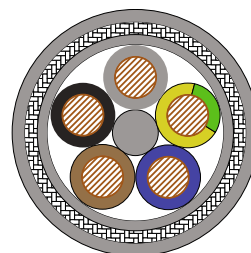
Tinned Copper Braid Shield (TCB) -  
Excellent Noise Immunity

## Shielded (CY) PVC Control Cables



### 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, BS6360
- DIN EN 50290-2-22, DIN VDE 0207-363-4-1
- IEC 60227-5, VDE 0281
- DIN VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2
- RoHS & REACH Directives

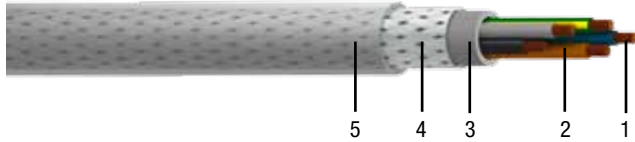
### Construction and Performance

|     |                                        |                                                                                                                                                                                     |
|-----|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.  | <b>Conductor Material</b>              | Stranded bare copper (DIN VDE 0295 Class 5)                                                                                                                                         |
| 2.  | <b>Insulation Material &amp; Color</b> | PVC (polyvinyl chloride). A) AA) Up to 5 cores: color-coded.<br>From 6 cores: Belden MachFlex Color code. B) G = with GN-YE protective conductor; X = without protective conductor. |
| 3.  | <b>Braid Shield Material</b>           | Tinned Copper Braid Shield                                                                                                                                                          |
| 4.  | <b>Jacket / Sheath Material</b>        | PVC (polyvinyl chloride)                                                                                                                                                            |
| 5.  | <b>Flame Retardancy</b>                | VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2                                                                                                                                   |
| 6.  | <b>Voltage Rating (Uo/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                                                                                                                               |



## MachFlex 375 CY Shielded (CY) PVC Control Cables

TINNED COPPER BRAID SHIELDED CABLE WITH (G) PROTECTIVE GROUND



- 1 = Conductor
- 2 = Insulation
- 3 = Inner Sheath
- 4 = Tinned Copper Braid Shielded
- 5 = Outer Sheath

### Conductor 0.50 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 7.2                        | 3G0.5             | C3G0.5CY  |
| 4            | 7.7                        | 4G0.5             | C4G0.5CY  |
| 5            | 8.3                        | 5G0.5             | C5G0.5CY  |
| 7            | 8.9                        | 7G0.5             | C7G0.5CY  |
| 12           | 11.3                       | 12G0.5            | C12G0.5CY |
| 20           | 13.9                       | 20G0.5            | C20G0.5CY |

### Conductor 0.75 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code  |
|--------------|----------------------------|-------------------|------------|
| 3            | 7.7                        | 3G0.75            | C3G0.75CY  |
| 4            | 8.3                        | 4G0.75            | C4G0.75CY  |
| 5            | 9.0                        | 5G0.75            | C5G0.75CY  |
| 7            | 9.7                        | 7G0.75            | C7G0.75CY  |
| 12           | 12.4                       | 12G0.75           | C12G0.75CY |
| 20           | 15.2                       | 20G0.75           | C20G0.75CY |

### Conductor 1.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 8.2                        | 3G1.0             | C3G1.0CY  |
| 4            | 8.8                        | 4G1.0             | C4G1.0CY  |
| 5            | 9.6                        | 5G1.0             | C5G1.0CY  |
| 7            | 10.3                       | 7G1.0             | C7G1.0CY  |
| 12           | 13.4                       | 12G1.0            | C12G1.0CY |
| 20           | 16.3                       | 20G1.0            | C20G1.0CY |

### Conductor 1.50 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 8.8                        | 3G1.5             | C3G1.5CY  |
| 4            | 9.5                        | 4G1.5             | C4G1.5CY  |
| 5            | 10.3                       | 5G1.5             | C5G1.5CY  |
| 7            | 11.1                       | 7G1.5             | C7G1.5CY  |
| 12           | 14.5                       | 12G1.5            | C12G1.5CY |
| 20           | 17.7                       | 20G1.5            | C20G1.5CY |

### Conductor 2.50 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 12.0                       | 3G2.5             | C3G2.5CY  |
| 4            | 13.3                       | 4G2.5             | C4G2.5CY  |
| 5            | 14.5                       | 5G2.5             | C5G2.5CY  |
| 7            | 15.8                       | 7G2.5             | C7G2.5CY  |
| 9            | 19.2                       | 9G2.5             | C9G2.5CY  |
| 12           | 20.8                       | 12G2.5            | C12G2.5CY |

### Conductor 4.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 13.7                       | 3G4               | C3G4CY    |
| 4            | 15.1                       | 4G4               | C4G4CY    |
| 5            | 16.5                       | 5G4               | C5G4CY    |
| 7            | 18.0                       | 7G4               | C7G4CY    |
| 9            | 22.0                       | C9G4              | C9G4CY    |
| 12           | 24.0                       | C12G4             | C12G4CY   |

### Conductor 6.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 15.3                       | 3G6               | C3G6CY    |
| 4            | 16.8                       | 4G6               | C4G6CY    |
| 5            | 18.4                       | 5G6               | C5G6CY    |
| 7            | 20.1                       | 7G6               | C7G6CY    |
| 9            | 24.9                       | 9G6               | C9G6CY    |

### Conductor 10.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 17.9                       | 3G10              | C3G10CY   |
| 4            | 19.8                       | 4G10              | C4G10CY   |
| 5            | 21.7                       | 5G10              | C5G10CY   |
| 7            | 24.0                       | 7G10              | C7G10CY   |
| 9            | 29.6                       | 9G10              | C9G10CY   |

### Conductor 16.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 22.5                       | 3G16              | C3G16CY   |
| 4            | 24.9                       | 4G16              | C4G16CY   |
| 5            | 27.4                       | 5G16              | C5G16CY   |

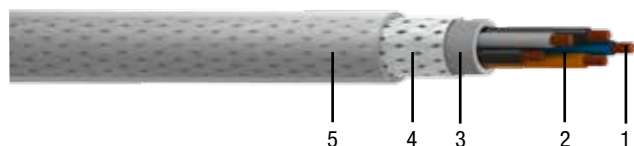
### Conductor 25.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 25.4                       | 3G25              | C3G25CY   |
| 4            | 28.1                       | 4G25              | C4G25CY   |
| 5            | 30.8                       | 5G25              | C5G25CY   |

- \*Varies depending on the construction of the cable
- Putup length & tolerance of the cables will vary depending on the construction of the cable
- MOQ will vary depending on the construction of the cable & provided at the time of quotation
- Cable requested outside the above design criteria can be reviewed and quoted

## MachFlex 375 CY Shielded (CY) PVC Control Cables

TINNED COPPER BRAID SHIELDED CABLE WITHOUT (G) PROTECTIVE GROUND



- 1 = Conductor
- 2 = Insulation
- 3 = Inner Sheath
- 4 = Tinned Copper Braid Shielded
- 5 = Outer Sheath

### Conductor 0.50 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 7.2                        | 3X0.5             | C3X0.5CY  |
| 4            | 7.7                        | 4X0.5             | C4X0.5CY  |
| 5            | 8.3                        | 5X0.5             | C5X0.5CY  |
| 7            | 8.9                        | 7X0.5             | C7X0.5CY  |
| 12           | 11.3                       | 12X0.5            | C12X0.5CY |
| 20           | 13.9                       | 20X0.5            | C20X0.5CY |

### Conductor 0.75 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code  |
|--------------|----------------------------|-------------------|------------|
| 3            | 7.7                        | 3X0.75            | C3X0.75CY  |
| 4            | 8.3                        | 4X0.75            | C4X0.75CY  |
| 5            | 9.0                        | 5X0.75            | C5X0.75CY  |
| 7            | 9.7                        | 7X0.75            | C7X0.75CY  |
| 12           | 12.4                       | 12X0.75           | C12X0.75CY |
| 20           | 15.2                       | 20X0.75           | C20X0.75CY |

### Conductor 1.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 8.2                        | 3X1.0             | C3X1.0CY  |
| 4            | 8.8                        | 4X1.0             | C4X1.0CY  |
| 5            | 9.6                        | 5X1.0             | C5X1.0CY  |
| 7            | 10.3                       | 7X1.0             | C7X1.0CY  |
| 12           | 13.4                       | 12X1.0            | C12X1.0CY |
| 20           | 16.3                       | 20X1.0            | C20X1.0CY |

### Conductor 1.50 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 8.8                        | 3X1.5             | C3X1.5CY  |
| 4            | 9.5                        | 4X1.5             | C4X1.5CY  |
| 5            | 10.3                       | 5X1.5             | C5X1.5CY  |
| 7            | 11.1                       | 7X1.5             | C7X1.5CY  |
| 12           | 14.5                       | 12X1.5            | C12X1.5CY |
| 20           | 17.7                       | 20X1.5            | C20X1.5CY |

### Conductor 2.50 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 12.0                       | 3X2.5             | C3X2.5CY  |
| 4            | 13.3                       | 4X2.5             | C4X2.5CY  |
| 5            | 14.5                       | 5X2.5             | C5X2.5CY  |
| 7            | 15.8                       | 7X2.5             | C7X2.5CY  |
| 9            | 19.2                       | 9X2.5             | C9X2.5CY  |
| 12           | 20.8                       | 12X2.5            | C12X2.5CY |

### Conductor 4.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 13.7                       | 3X4               | C3X4CY    |
| 4            | 15.1                       | 4X4               | C4X4CY    |
| 5            | 16.5                       | 5X4               | C5X4CY    |
| 7            | 18.0                       | 7X4               | C7X4CY    |
| 9            | 22.0                       | 9X4               | C9X4CY    |
| 12           | 24.0                       | 12X4              | C12X4CY   |

### Conductor 6.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 15.3                       | 3X6               | C3X6CY    |
| 4            | 16.8                       | 4X6               | C4X6CY    |
| 5            | 18.4                       | 5X6               | C5X6CY    |
| 7            | 20.1                       | 7X6               | C7X6CY    |
| 9            | 24.9                       | 9X6               | C9X6CY    |

### Conductor 10.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 17.9                       | 3X10              | C3X10CY   |
| 4            | 19.8                       | 4X10              | C4X10CY   |
| 5            | 21.7                       | 5X10              | C5X10CY   |
| 7            | 24.0                       | 7X10              | C7X10CY   |
| 9            | 29.6                       | 9X10              | C9X10CY   |

### Conductor 16.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 22.5                       | 3X16              | C3X16CY   |
| 4            | 24.9                       | 4X16              | C4X16CY   |
| 5            | 27.4                       | 5X16              | C5X16CY   |

### Conductor 25.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 25.4                       | 3X25              | C3X25CY   |
| 4            | 28.1                       | 4X25              | C4X25CY   |
| 5            | 30.8                       | 5X25              | C5X25CY   |

- \*Varies depending on the construction of the cable
- Putup length & tolerance of the cables will vary depending on the construction of the cable
- MOQ will vary depending on the construction of the cable & provided at the time of quotation
- Cable requested outside the above design criteria can be reviewed and quoted

## MachFlex 375 SY Cables

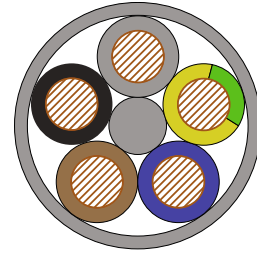
Galvanized Steel Wire Braid (GSWB) -  
Excellent Mechanical Protection

## Armored (SY) PVC Control Cables



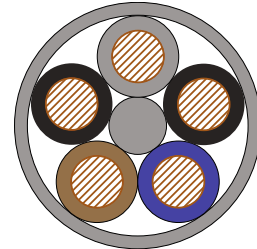
### Applications

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, BS6360
- DIN EN 50290-2-22, DIN VDE 0207-363-4-1
- IEC 60227-5, VDE 0281
- DIN VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2
- RoHS & REACH Directives

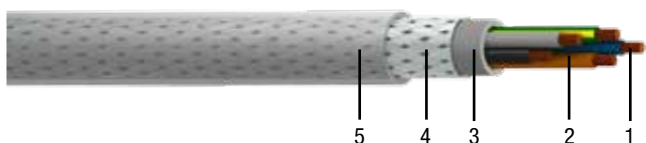


### Construction and Performance

|     |                                        |                                                                                                                                                                              |
|-----|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.  | <b>Conductor Material</b>              | Stranded bare copper (DIN VDE 0295 Class 5)                                                                                                                                  |
| 2.  | <b>Insulation Material &amp; Color</b> | PVC (polyvinyl chloride). A) Up to 5 cores: color-coded. From 6 cores: Belden MachFlex Color code. B) G = with GN-YE protective conductor; X = without protective conductor. |
| 3.  | <b>Braid Shield Material</b>           | GSWB (Galvanized Steel Wire Braid)                                                                                                                                           |
| 4.  | <b>Jacket / Sheath Material</b>        | PVC (polyvinyl chloride)                                                                                                                                                     |
| 5.  | <b>Flame Retardancy</b>                | VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2                                                                                                                            |
| 6.  | <b>Voltage Rating (Uo/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                                                                                                                        |

## MachFlex 375 SY Armored (SY) PVC Control Cables

GALVANIZED STEEL WIRE BRAID SHIELD (GSWB) CABLE WITH (G) PROTECTIVE GROUND



- 1 = Conductor
- 2 = Insulation
- 3 = Inner Sheath
- 4 = Galvanized Steel Wire Braid Shield
- 5 = Outer Sheath

### Conductor 0.50 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 7.7                        | 3G0.5             | C3G0.5SY  |
| 4            | 8.3                        | 4G0.5             | C4G0.5SY  |
| 5            | 8.8                        | 5G0.5             | C5G0.5SY  |
| 7            | 9.5                        | 7G0.5             | C7G0.5SY  |
| 12           | 11.9                       | 12G0.5            | C12G0.5SY |
| 20           | 14.5                       | 20G0.5            | C20G0.5SY |

### Conductor 0.75 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code  |
|--------------|----------------------------|-------------------|------------|
| 3            | 8.3                        | 3G0.75            | C3G0.75SY  |
| 4            | 8.9                        | 4G0.75            | C4G0.75SY  |
| 5            | 9.5                        | 5G0.75            | C5G0.75SY  |
| 7            | 10.2                       | 7G0.75            | C7G0.75SY  |
| 12           | 12.9                       | 12G0.75           | C12G0.75SY |
| 20           | 15.9                       | 20G0.75           | C20G0.75SY |

### Conductor 1.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 8.7                        | 3G1.0             | C3G1.0SY  |
| 4            | 9.4                        | 4G1.0             | C4G1.0SY  |
| 5            | 10.1                       | 5G1.0             | C5G1.0SY  |
| 7            | 10.8                       | 7G1.0             | C7G1.0SY  |
| 12           | 14.0                       | 12G1.0            | C12G1.0SY |
| 20           | 16.9                       | 20G1.0            | C20G1.0SY |

### Conductor 1.50 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 9.3                        | 3G1.5             | C3G1.5SY  |
| 4            | 10.0                       | 4G1.5             | C4G1.5SY  |
| 5            | 10.8                       | 5G1.5             | C5G1.5SY  |
| 7            | 11.6                       | 7G1.5             | C7G1.5SY  |
| 12           | 15.1                       | 12G1.5            | C12G1.5SY |
| 20           | 18.4                       | 20G1.5            | C20G1.5SY |

### Conductor 2.50 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 12.6                       | 3G2.5             | C3G2.5SY  |
| 4            | 13.9                       | 4G2.5             | C4G2.5SY  |
| 5            | 15.1                       | 5G2.5             | C5G2.5SY  |
| 7            | 16.4                       | 7G2.5             | C7G2.5SY  |
| 9            | 19.9                       | 9G2.5             | C9G2.5SY  |
| 12           | 21.4                       | 12G2.5            | C12G2.5SY |

### Conductor 4.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 14.4                       | 3G4               | C3G4SY    |
| 4            | 15.7                       | 4G4               | C4G4SY    |
| 5            | 17.1                       | 5G4               | C5G4SY    |
| 7            | 18.6                       | 7G4               | C7G4SY    |
| 9            | 22.7                       | C9G4              | C9G4SY    |
| 12           | 24.5                       | C12G4             | C12G4SY   |

### Conductor 6.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 15.9                       | 3G6               | C3G6SY    |
| 4            | 17.4                       | 4G6               | C4G6SY    |
| 5            | 19.0                       | 5G6               | C5G6SY    |
| 7            | 20.7                       | 7G6               | C7G6SY    |
| 9            | 25.4                       | 9G6               | C9G6SY    |

### Conductor 10.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 18.6                       | 3G10              | C3G10SY   |
| 4            | 20.4                       | 4G10              | C4G10SY   |
| 5            | 22.3                       | 5G10              | C5G10SY   |
| 7            | 24.4                       | 7G10              | C7G10SY   |
| 9            | 30.0                       | 9G10              | C9G10SY   |

### Conductor 16.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 23.0                       | 3G16              | C3G16SY   |
| 4            | 25.3                       | 4G16              | C4G16SY   |
| 5            | 27.9                       | 5G16              | C5G16SY   |

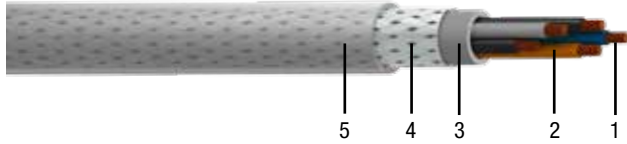
### Conductor 25.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 25.9                       | 3G25              | C3G25SY   |
| 4            | 28.6                       | 4G25              | C4G25SY   |
| 5            | 31.2                       | 5G25              | C5G25SY   |

- \*Varies depending on the construction of the cable
- Putup length & tolerance of the cables will vary depending on the construction of the cable
- MOQ will vary depending on the construction of the cable & provided at the time of quotation
- Cable requested outside the above design criteria can be reviewed and quoted

## MachFlex 375 SY Armored (SY) PVC Control Cables

GALVANIZED STEEL WIRE BRAID SHIELD (GSWB) CABLE WITHOUT(G) PROTECTIVE GROUND



- 1 = Conductor
- 2 = Insulation
- 3 = Inner Sheath
- 4 = Galvanized Steel Wire Braid Shield
- 5 = Outer Sheath

### Conductor 0.50 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 7.7                        | 3X0.5             | C3X0.5SY  |
| 4            | 8.3                        | 4X0.5             | C4X0.5SY  |
| 5            | 8.8                        | 5X0.5             | C5X0.5SY  |
| 7            | 9.5                        | 7X0.5             | C7X0.5SY  |
| 12           | 11.9                       | 12X0.5            | C12X0.5SY |
| 20           | 14.5                       | 20X0.5            | C20X0.5SY |

### Conductor 1.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 8.7                        | 3X1.0             | C3X1.0SY  |
| 4            | 9.4                        | 4X1.0             | C4X1.0SY  |
| 5            | 10.1                       | 5X1.0             | C5X1.0SY  |
| 7            | 10.8                       | 7X1.0             | C7X1.0SY  |
| 12           | 14.0                       | 12X1.0            | C12X1.0SY |
| 20           | 16.9                       | 20X1.0            | C20X1.0SY |

### Conductor 2.50 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 12.6                       | 3X2.5             | C3X2.5SY  |
| 4            | 13.9                       | 4X2.5             | C4X2.5SY  |
| 5            | 15.1                       | 5X2.5             | C5X2.5SY  |
| 7            | 16.4                       | 7X2.5             | C7X2.5SY  |
| 9            | 19.9                       | 9X2.5             | C9X2.5SY  |
| 12           | 21.4                       | 12X2.5            | C12X2.5SY |

### Conductor 6.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 15.9                       | 3X6               | C3X6SY    |
| 4            | 17.4                       | 4X6               | C4X6SY    |
| 5            | 19.0                       | 5X6               | C5X6SY    |
| 7            | 20.7                       | 7X6               | C7X6SY    |
| 9            | 25.4                       | 9X6               | C9X6SY    |

### Conductor 16.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 23.0                       | 3X16              | C3X16SY   |
| 4            | 25.3                       | 4X16              | C4X16SY   |
| 5            | 27.9                       | 5X16              | C5X16SY   |

### Conductor 0.75 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code  |
|--------------|----------------------------|-------------------|------------|
| 3            | 8.3                        | 3X0.75            | C3X0.75SY  |
| 4            | 8.9                        | 4X0.75            | C4X0.75SY  |
| 5            | 9.5                        | 5X0.75            | C5X0.75SY  |
| 7            | 10.2                       | 7X0.75            | C7X0.75SY  |
| 12           | 12.9                       | 12X0.75           | C12X0.75SY |
| 20           | 15.9                       | 20X0.75           | C20X0.75SY |

### Conductor 1.50 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 9.3                        | 3X1.5             | C3X1.5SY  |
| 4            | 10.0                       | 4X1.5             | C4X1.5SY  |
| 5            | 10.8                       | 5X1.5             | C5X1.5SY  |
| 7            | 11.6                       | 7X1.5             | C7X1.5SY  |
| 12           | 15.1                       | 12X1.5            | C12X1.5SY |
| 20           | 18.4                       | 20X1.5            | C20X1.5SY |

### Conductor 4.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 14.4                       | 3X4               | C3X4SY    |
| 4            | 15.7                       | 4X4               | C4X4SY    |
| 5            | 17.1                       | 5X4               | C5X4SY    |
| 7            | 18.6                       | 7X4               | C7X4SY    |
| 9            | 22.7                       | 9X4               | C9X4SY    |
| 12           | 24.5                       | 12X4              | C12X4SY   |

### Conductor 10.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 18.6                       | 3X10              | C3X10SY   |
| 4            | 20.4                       | 4X10              | C4X10SY   |
| 5            | 22.3                       | 5X10              | C5X10SY   |
| 7            | 24.4                       | 7X10              | C7X10SY   |
| 9            | 30.0                       | 9X10              | C9X10SY   |

### Conductor 25.00 mm<sup>2</sup>

| No. of Cores | Nom. Overall Diameter (mm) | Cable Description | Part Code |
|--------------|----------------------------|-------------------|-----------|
| 3            | 25.9                       | 3X25              | C3X25SY   |
| 4            | 28.6                       | 4X25              | C4X25SY   |
| 5            | 31.2                       | 5X25              | C5X25SY   |

- \*Varies depending on the construction of the cable
- Putup length & tolerance of the cables will vary depending on the construction of the cable
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