

## 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

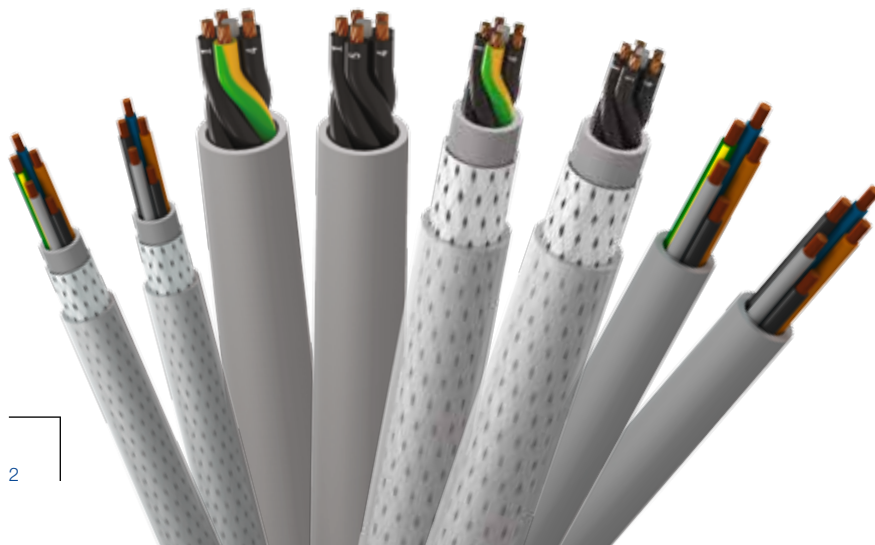
Belden's machine builder choice MachFlex cables have the following advantages which ensures greater performance level for the machine builders and a higher uptime for the end users:

- 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 (U<sub>o</sub>/U) = 300/500V
- Variety of insulation & jacket color options
- Drum packaging



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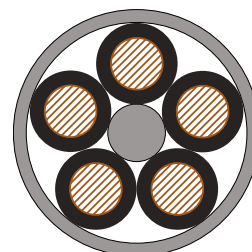
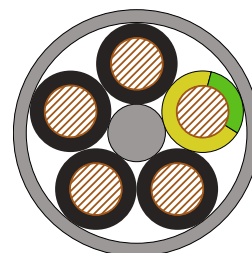
## MachFlex 350 YY Cables



## 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). 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) -40 °C TO +80 °C (Fixed installation)
8.	<b>Bending Radius</b>	10 x OD (Occasional movement) 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

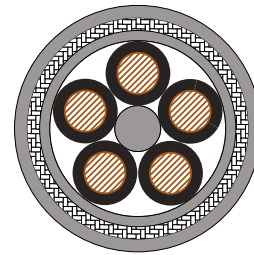
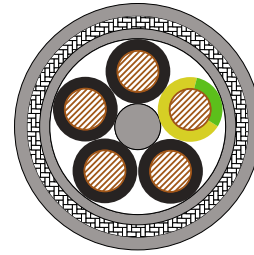
Tinned Copper Braid Shield (TCB) -  
Excellent Noise Immunity

## 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

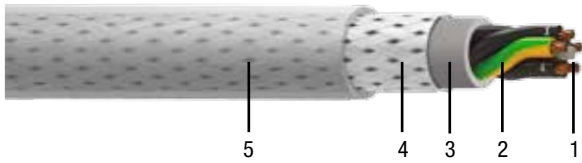
- DIN VDE 0295, IEC 60228, BS6360
- DIN EN 50290-2-22, DIN VDE 0207-363-4-1
- DIN VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2
- RoHS & REACH & CE Directives

### 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). 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) -40 °C TO +80 °C (Fixed installation)
9.	<b>Bending Radius</b>	20 x OD (Occasional movement) 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>

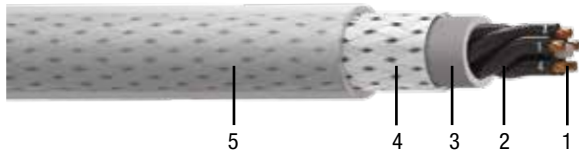
No. of Cores	Nom. Overall Diameter (mm)	Cable Description	Part Code
3	25.9	3G25	3G25CY
4	28.6	4G25	4G25CY
5	31.5	5G25	5G25CY
7	34.2	7G25	7G25CY

- \*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

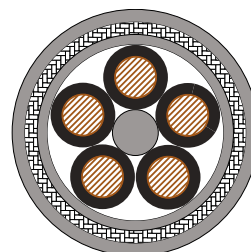
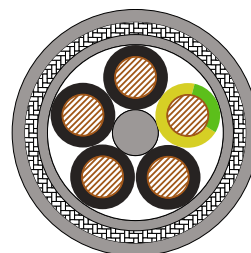
Galvanized Steel Wire Braid (GSWB) -  
Excellent Mechanical Protection

## 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

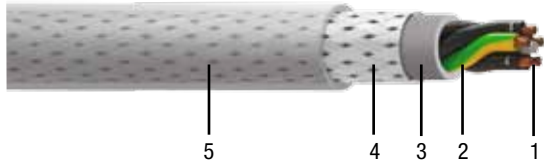
- DIN VDE 0295, IEC 60228, BS6360
- DIN EN 50290-2-22, DIN VDE 0207-363-4-1
- DIN VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2
- RoHS & REACH & CE Directives

### 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). 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) -40 °C TO +80 °C (Fixed installation)
9.	<b>Bending Radius</b>	20 x OD (Occasional movement) 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

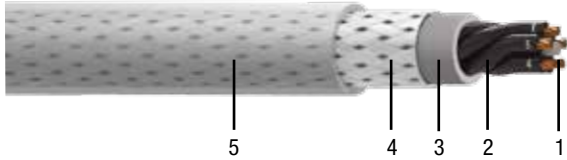
### Conductor 25.00 mm<sup>2</sup>

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

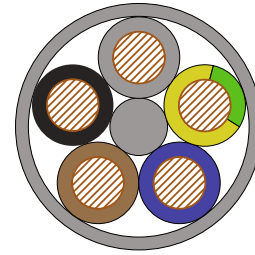
## MachFlex 375 YY Cables

## Unshielded PVC Control Cables



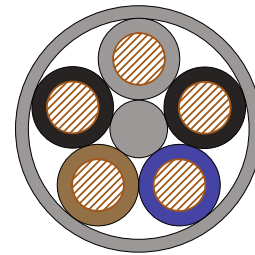
### Applications

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

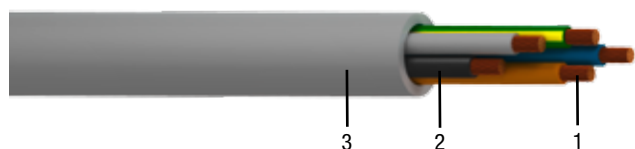


### Construction and Performance

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. 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 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) -40 °C TO +80 °C (Fixed installation)
9.	<b>Bending Radius</b>	10 x OD (Occasional movement) 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	C9G4	C9G4
12	21.0	C12G4	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

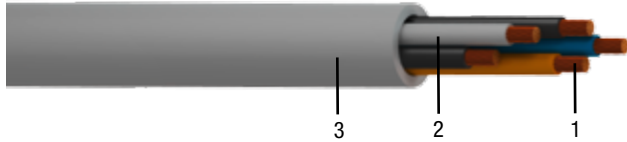
### Conductor 25.00 mm<sup>2</sup>

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

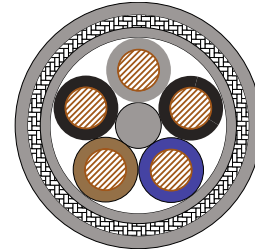
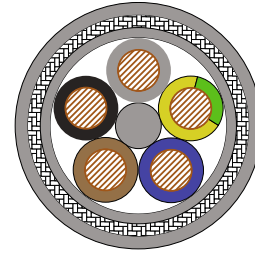
Tinned Copper Braid Shield (TCB) -  
Excellent Noise Immunity

## 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

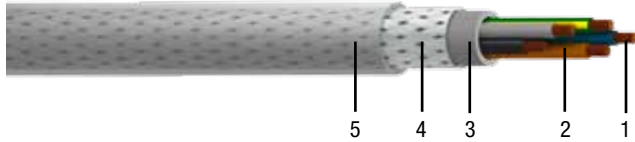
### Construction and Performance

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. 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 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) -40 °C TO +80 °C (Fixed installation)
9.	<b>Bending Radius</b>	20 x OD (Occasional movement) 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

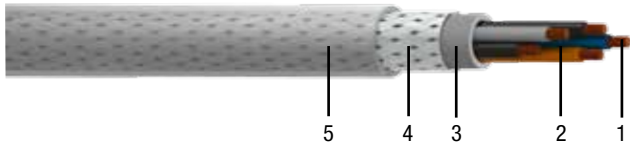
### Conductor 25.00 mm<sup>2</sup>

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

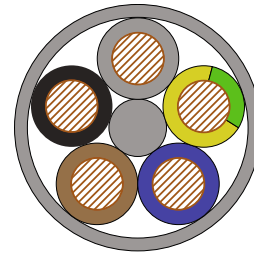
Galvanized Steel Wire Braid (GSWB) -  
Excellent Mechanical Protection

## Armored (SY) PVC Control Cables



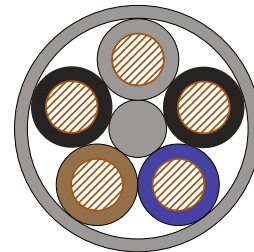
### Applications

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

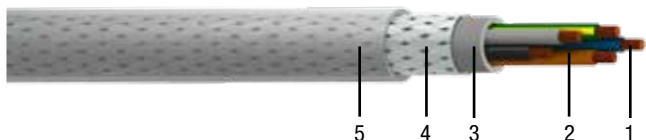


### Construction and Performance

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 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) -40 °C TO +80 °C (Fixed installation)
9.	<b>Bending Radius</b>	20 x OD (Occasional movement) 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

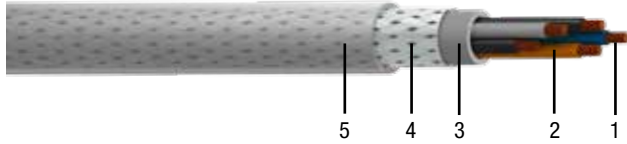
### Conductor 25.00 mm<sup>2</sup>

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 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 1.00 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 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 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 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 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 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 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 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
- 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





## GLOBAL LOCATIONS

For more information, please visit us at:  
[www.beldensolutions.com](http://www.beldensolutions.com)



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