



**Product:** [H12G1.5SY](#) 

MachFlex™ 610 SY, 11C + 1G 1.5 mm<sup>2</sup> Str BC, PVC Ins, PVC Inner Jkt, GSW Brd, PVC Outer Jkt

## Product Description

MachFlex™ 610 SY Control Cable 11 Conductor + 1 Ground 1.5 mm<sup>2</sup> Stranded Bare Copper, PVC Insulation, PVC Inner Jacket, Galvanized Steel Wire Braiding Armor, PVC Outer Jacket

## Technical Specifications

### Product Overview

|                        |                                                                                                                                                                                                                                                                                                                                                                                                       |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Suitable 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. Galvanized steel wire braid armor provides excellent mechanical protection. |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### Construction Details

#### Conductor

| Element      | No. of Elements | Size                | Stranding | Stranding Class | Material         |
|--------------|-----------------|---------------------|-----------|-----------------|------------------|
| Conductor(s) | 11              | 1.5 mm <sup>2</sup> | Stranded  | Class 5         | BC - Bare Copper |
| Ground       | 1               | 1.5 mm <sup>2</sup> | Stranded  | Class 5         | BC - Bare Copper |

#### Insulation

| Element      | Material                 | Color Code                                                                                                     |
|--------------|--------------------------|----------------------------------------------------------------------------------------------------------------|
| Conductor(s) | PVC - Polyvinyl Chloride | Black #1, Black #2, Black #3, Black #4, Black #5, Black #6, Black #7, Black #8, Black #9, Black #10, Black #11 |
| Ground       | PVC - Polyvinyl Chloride | Yellow/Green                                                                                                   |

#### Inner Jacket

| Material                 |
|--------------------------|
| PVC - Polyvinyl Chloride |

#### Armor

| Armor Type & Material        |
|------------------------------|
| SWB - Steel Wire Braid Armor |

#### Outer Jacket

| Material                 |
|--------------------------|
| PVC - Polyvinyl Chloride |

|                                   |                    |
|-----------------------------------|--------------------|
| Overall Cable Diameter (Nominal): | 19.5 mm (0.768 in) |
|-----------------------------------|--------------------|

### Electrical Characteristics

#### Voltage

| Voltage Rating                                                  |
|-----------------------------------------------------------------|
| 600 / 1000 V (Max. Operating Voltage), 4000 V (Testing Voltage) |

### Mechanical Characteristics

#### Temperature

| Operating                           | Installation                        |
|-------------------------------------|-------------------------------------|
| -5°C to +70°C (Occasional movement) | -40°C to +80°C (Fixed installation) |

Bend Radius

| Installation Min. | Flexing Min. |
|-------------------|--------------|
| 117 mm (4.61 in)  | 390 mm       |

|                    |                            |
|--------------------|----------------------------|
| Bulk Cable Weight: | 569 kg/km (382 lbs/1000ft) |
|--------------------|----------------------------|

Standards and Compliance

|                                  |                                                                                                  |
|----------------------------------|--------------------------------------------------------------------------------------------------|
| Environmental Suitability:       | UV Resistance, Oil Resistance                                                                    |
| Flammability / Reaction to Fire: | IEC 60332-1-2, DIN VDE 048233212, DIN EN 6033212                                                 |
| ISO/IEC Compliance:              | IEC 60228                                                                                        |
| CENELEC Compliance:              | EN 50290-2-22                                                                                    |
| European Directive Compliance:   | EU CE Mark, EU Directive 2015/863/EU (RoHS 2 amendment), REACH, EU Directive 2011/65/EU (RoHS 2) |
| Other Standard Compliance(s):    | VDE 0295, DIN VDE 0207-363-4-1, IEC 60227-5, EN 50525-2-51, BS 6360                              |

History

|                      |                                                 |
|----------------------|-------------------------------------------------|
| Update and Revision: | Revision Number: 0.20 Revision Date: 09-07-2025 |
|----------------------|-------------------------------------------------|

Part Numbers

Variants

| Item #            | Color          | Length |
|-------------------|----------------|--------|
| H12G1.5SY 010100M | Black          | 100 m  |
| H12G1.5SY 010200M | Black          | 200 m  |
| H12G1.5SY 010300M | Black          | 300 m  |
| H12G1.5SY G8U100M | Gray, RAL 7001 | 100 m  |
| H12G1.5SY G8U200M | Gray, RAL 7001 | 200 m  |
| H12G1.5SY G8U300M | Gray, RAL 7001 | 300 m  |
| H12G1.5SY 003100M | Orange         | 100 m  |
| H12G1.5SY 003200M | Orange         | 200 m  |
| H12G1.5SY 003300M | Orange         | 300 m  |

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