



**Product:** [7110W](#)

MachFlex™, 2+1G C #18 Str BC, PVC-NYL Ins, TPE Jkt, 1000V WTTC, 600V TC-ER

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### Product Description

MachFlex™ for High Flex, 2+1G Conductor 18AWG (105x38) Bare Copper, PVC-NYL Insulation, TPE Outer Jacket, 1000V WTTC, 600V TC-ER

### Technical Specifications

#### Product Overview

Suitable Applications:	Robotics, Robot, Continuous Flex
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#### Construction Details

##### Conductor

Element	No. of Elements	Size	Stranding	Material
Conductor(s)	2	18 AWG	105x38	BC - Bare Copper
Ground Wire	1	18 AWG	105x38	BC - Bare Copper

##### Insulation

Element	Material	Nom. Thickness	Nom. Insulation Diameter	Color Code
Conductor(s)	PVC/Nylon - Polyvinyl Chloride + Nylon	0.021 in (0.53 mm)	0.089 in (2.3 mm)	Black and Numbered
Ground Wire	PVC/Nylon - Polyvinyl Chloride + Nylon	0.021 in (0.53 mm)	0.089 in (2.3 mm)	Green/Yellow

##### Outer Shield

<b>Material</b>
No Shield

##### Outer Jacket

Separator	Material	Nom. Thickness	Nom. Diameter
non-Woven Tape	TPE - Thermoplastic Elastomer	0.047 in (1.2 mm)	0.289 in

Overall Cable Diameter (Nominal): 0.289 in

#### Electrical Characteristics

##### Electricals

Element	Nom. Conductor DCR	Max. Current
Conductor(s)	6.66 Ohm/1000ft	15 Amps per Conductor at 30°C
Ground Wire	7.06 Ohm/1000ft (23.2 Ohm/km)	24 Amps per Conductor at 30°C

##### Voltage

<b>UL Voltage Rating</b>
1000 V (WTTC), 600 V (TC-ER)

#### Mechanical Characteristics

##### Temperature

UL Temperature	Operating
UL : 90°C Dry, 75°C Wet; AWM 20328 : 105°C	-40°C To 105°C

##### Bend Radius

Stationary Min.	Installation Min.
1.15 in (29.2 mm)	1.44 in

Max. Pull Tension:	72.4 lbs (32.8 kg)
Bulk Cable Weight:	46 lbs/1000ft

## Standards and Compliance

Environmental Suitability:	Outdoor, Sunlight Resistance, UV Resistance, Oil Resistance
Flammability / Reaction to Fire:	UL1685 UL Loading, IEEE 1202 FT4
NEC / UL Compliance:	Article 336
AWM Compliance:	AWM 20328, AWM I/II A/B
CEC / C(UL) Compliance:	CIC, TC
European Directive Compliance:	EU Directive 2015/863/EU (RoHS 2 amendment), EU Directive 2011/65/EU (RoHS 2), EU Directive 2012/19/EU (WEEE)
APAC Compliance:	China RoHS II (GB/T 26572-2011)

## History

Update and Revision:	Revision Number: 0.388 Revision Date: 01-10-2024
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## Part Numbers

### Variants

Item #	Color	Putup Type	Length	UPC	Footnote
7110W 003250	Orange	Reel	250 ft	612825182139	C
7110W 0031000	Orange	Reel	1,000 ft	612825182122	C
7110W 0035000	Orange	Reel	5,000 ft	612825182146	

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