



Product: [7111WS](#) 

MachFlex™, 3+1G C #18 Str BC, PVC-NYL Ins, TPE Jkt, TPE Jkt, 1000V WTTC, 600V TC-ER

 [Request Sample](#)

Product Description

MachFlex™ for High Flex, 3+1G Conductor 18AWG (105x38) Bare Copper, PVC-NYL Insulation, TPE Inner Jacket, 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	Size	Stranding	Material
	18	105x38	BC - Bare Copper
Ground Wire	18	105x38	BC - Bare Copper

Insulation

Material	Nom. Insulation Diameter	Color Code
PVC/Nylon - Polyvinyl Chloride + Nylon	0.089 in (2.3 mm)	Black and Numbered 1, Black and Numbered 2, Black and Numbered 3, Green/Yellow

Outer Shield

Shield Type	Material	Coverage
Braid	Tinned Copper (TC)	85%

Inner Jacket

Material	Nom. Thickness	Nom. Diameter
TPE - Thermoplastic Elastomer	0.025 in (0.64 mm)	0.269 in (6.83 mm)

Outer Jacket

Material	Nom. Thickness	Nom. Diameter
TPE - Thermoplastic Elastomer	0.047 in (1.2 mm)	0.391 in

Electrical Characteristics

Electricals

Nom. Conductor DCR
5.7 Ohm/1000ft (19 Ohm/km)

Voltage

UL Voltage Rating
1000 V RMS, 600 V RMS

Mechanical Characteristics

Temperature

UL Temperature
75°C Dry, 90°C Wet

Bend Radius

Flexing Min.
3.9 in

Max. Pull Tension:	92 lbs (42 kg)
Bulk Cable Weight:	96 lbs/1000ft (140 kg/km)

Standards and Compliance

Environmental Suitability:	Sunlight Resistance, UV Resistance, Oil Resistance
Flammability / Reaction to Fire:	UL1685 UL Loading, IEEE 1202
NEC / UL Compliance:	TC-ER, WTTC
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: 0.393 Revision Date: 09-07-2025
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Part Numbers

Variants

Item #	Color	Putup Type	Length	UPC	Footnote
7111WS 0031000	Orange	Reel	1,000 ft	612825182184	C
7111WS 0035000	Orange	Reel	5,000 ft	612825182207	
Footnote:		C - CRATE REEL PUT-UP.			

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