



Product: 7111W ☑

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

Product Description

MachFlex™ for High Flex, 3+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

Physical Characteristics (Overall)

Conductor

	Element	AWG	Stranding	Material	No. of Conductors
		18	105x38	BC - Bare Copper	3
	Ground Wire	18	105x38	BC - Bare Copper	1
1	Conductor Co	ount:		4	

Insulation

Material	Nominal Diameter
PVC/Nylon - Polyvinyl Chloride + Nylon	0.089 in

Color Chart

Number	Color
1	Black and Numbered 1
2	Black and Numbered 2
3	Black and Numbered 3
4	Green/Yellow

Outer Shield



Outer Jacket

Material	Nominal Diameter	Nominal Wall Thickness
TPE - Thermoplastic Elastomer	0.313 in	0.047 in

Electrical Characteristics

Conductor DCR

Nominal Conductor DCR 5.7 Ohm/1000ft

Voltage



Temperature Range

UL Temp Rating:	75°C Dry, 90°C Wet
Other Temp Range:	Flexing: -5°C To +90 °C

Mechanical Characteristics

Oil Resistance:	Yes
Oil Resistance.	res
UV Resistance:	Yes
Flex Cycle Rating:	10 Million Flexes
Flex Cycle Rating.	10 Million Flexes
Bulk Cable Weight:	58 lbs/1000ft
Max. Pull Tension:	92 lbs
Min. Bend Radius (Continuous Flexing):	3.1 in
Willi. Bolia Hadias (Collandous Floxing).	0.1 111

Standards

NEC/(UL) Compliance:	TC-ER, WTTC
CEC/C(UL) Compliance:	CIC, TC
UL AWM Style Compliance:	AWM 20328
CSA AWM Compliance:	AWM I/II A/B

Applicable Environmental and Other Programs

EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2003/96/EC (BFR):	Yes
EU Directive 2011/65/EU (RoHS 2):	Yes
EU Directive 2012/19/EU (WEEE):	Yes
EU Directive 2015/863/EU (RoHS 2 amendment):	Yes
EU Directive Compliance:	EU Directive 2003/11/EC (BFR)
MII Order #39 (China RoHS):	Yes

Suitability

Suitability - Non-Halogenated:	No
Suitability - Oil Resistance:	Yes - Oil Res II
Suitability - Sunlight Resistance:	Yes

Flammability, LS0H, Toxicity Testing

UL Flammability:	UL1685 UL Loading
CSA Flammability:	FT4
IEEE Flammability:	IEEE 1202
UL voltage rating:	1000 V RMS

Plenum/Non-Plenum

Plenum (Y/N):	No
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Related Part Numbers

Variants

	Item #	Color	Put-Up Type	Length	UPC
ľ	7111W 003250	Orange	Reel	250 ft	612825182160
ľ	7111W 0031000	Orange	Reel	1,000 ft	612825182153
ľ	7111W 0035000	Orange	Reel	5,000 ft	612825182177
Ī	Footnote:				C - CRATE REE

History

Update and Revision:	Revision Number: 0.376 Revision Date: 01-10-2024

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