



Product: [77605W](#)

MachFlex™, 5+G C #16 Str BC, PVC Ins, PVC Jkt, AWM 2587

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Product Description

MachFlex™ for High Flex, 5+G Conductor 16AWG (168(7x24)x38) Bare Copper, PVC Insulation, PVC Outer Jacket, AWM 2587

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)	4	16	168x38	BC - Bare Copper
Ground	1	16	168x38	BC - Bare Copper

Insulation

Element	Material	Nom. Thickness	Nom. Insulation Diameter	Color Code
Conductor(s)	PVC - Polyvinyl Chloride	0.022 in (0.56 mm)	0.111 in (2.82 mm)	Red and Numbered
Ground	PVC - Polyvinyl Chloride	0.022 in (0.56 mm)	0.111 in (2.82 mm)	Yellow/Green/Green

Outer Shield

Shield Type	Material
No Shield	No Shield

Outer Jacket

Separator	Material	Nom. Thickness	Nom. Diameter
Tissue Tape	PVC - Polyvinyl Chloride	0.035 in (0.89 mm)	0.396 in

Overall Cable Diameter (Nominal):	0.396 in (10.1 mm)
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Electrical Characteristics

Electricals

Element	Nom. Conductor DCR	Nom. Capacitance Cond-to-Cond	Max. Current
Conductor(s)	4.1 Ohm/1000ft	34 pF/ft (110 pF/m)	11.2 Amps per Conductor at 30°C
Ground Wire	4.18 Ohm/1000ft (13.7 Ohm/km)		

Voltage

UL Voltage Rating	Voltage Rating
600 V (AWM 2587)	600 V (CSA AWM I/II A/B)

Mechanical Characteristics

Temperature

UL Temperature	Operating
90°C	-40°C To 90°C (Static), -5°C To 90°C (Flexing)

Bend Radius

Flexing Min.
3.2 in (81 mm)

Max. Pull Tension:	106 lbs (48.1 kg)
Bulk Cable Weight:	260 lbs/1000ft

Standards and Compliance

Environmental Suitability:	Oil Resistance
AWM Compliance:	AWM 2587, AWM 10012, AWM I/II A/B
European Directive Compliance:	EU CE Mark, 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: 0.141 Revision Date: 05-31-2024
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Part Numbers

Variants

Item #	Color	Putup Type	UPC
77605W 010100	Black	Reel	612825412212

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