Belden



Product: 77603WS

MachFlex™, 3+G C #16 Str BC, PVC Ins, OA TC Brd, PVC Jkt, PVC Jkt, AWM 2587

Request Sample

Product Description

MachFlex™ for High Flex, 3+G Conductor 16AWG (168(7x24)x38) Bare Copper, PVC Insulation, Overall Tinned Copper Braid(85%) Shield, PVC Inner Jacket, PVC Outer Jacket, AWM 2587

Technical Specifications

Product Overview

Suitable Applications:	Robotics, Robot, Continuous Flex

Physical Characteristics (Overall)

Conductor

Element	AWG	Stranding	Material	No. of Conductors
Conductor(s)	16	168x38	BC - Bare Copper	2
Ground	16	168x38	BC - Bare Copper	1

Conductor Count:	3

Insulation

Element	Material	Nominal Diameter	Nominal Wall Thickness
Conductor(s)	PVC - Polyvinyl Chloride	0.111 in	0.022 in
Ground	PVC - Polyvinyl Chloride		

Color Chart

Color
Red and Numbered

Inner Jacket

Material	Nominal Diameter	Nominal Wall Thickness
PVC - Polyvinyl Chloride	0.321 in	0.030 in

Outer Shield

Type	Material	Coverage [%]
Braid	Tinned Copper (TC)	85%

Outer Jacket

Material	Nominal Diameter	Nominal Wall Thickness
PVC - Polyvinyl Chloride	0.419 in	0.035 in

Electrical Characteristics

Conductor DCR

Nominal Conductor DCR	Nominal Outer Shield DCR
4.0 Ohm/1000ft	3.2 Ohm/1000ft

Capacitance

Nom. Capacitance Conductor to Conductor
51 pF/ft

Inductance

Nominal Inductance
.18 µH/ft

Voltage

UL Voltage Rating
600 V

Temperature Range

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

Mechanical Characteristics

Oil Resistance:	Yes
Flex Cycle Rating:	14 Million Cycles
Bulk Cable Weight:	214 lbs/1000ft
Maximum Recommended Pulling Tension:	71 lbs
Minimum Continuous Flexing Bend Radius:	3.4 in
Minimum Minor Axis Bend Radius:	3.4 in

Standards

UL AWM Style Compliance:	AWM 2587, AWM 10012
CSA AWM Compliance:	AWM I/II A/B

Applicable Environmental and Other Programs

EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2003/11/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)
EU CE Mark:	Yes

Flammability, LS0H, Toxicity Testing

CSA Flammability:	FT1
UL voltage rating:	600 V RMS

Related Part Numbers

Variants

Item #	Color	Put-Up Type	UPC
77603WS 010100	Black	Reel	612825412151

History

Update and Revision:	Revision Number: 0.137 Revision Date: 03-05-2026

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