

Product: 7129WS

MachFlex™, 24+1G C #16 Str BC, PVC-NYL Ins, OA TC Brd, TPE Jkt, TPE Jkt, 1000V WTTC, 600V TC-ER

Request Sample

Product Description

MachFlex™ for High Flex, 24+1G Conductor 16AWG (168(7x24) x38) Bare Copper, PVC-NYL Insulation, Overall Tinned Copper Braid(85%) Shield, TPE Inner Jacket, 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
	16	168x38	BC - Bare Copper	24
Ground Wire	16	168x38	BC - Bare Copper	1

Conductor Count:	25

Insulation

Material	Nominal Diameter
PVC/Nylon - Polyvinyl Chloride + Nylon	0.109 in

Color Chart

Number	Color
1	Black and Numbered 1
2	Black and Numbered 2
3	Black and Numbered 3
4	Black and Numbered 4
5	Black and Numbered 5
6	Black and Numbered 6
7	Black and Numbered 7
8	Black and Numbered 8
9	Black and Numbered 9
10	Black and Numbered 10
11	Black and Numbered 11
12	Black and Numbered 12
13	Black and Numbered 13
14	Black and Numbered 14
15	Black and Numbered 15
16	Black and Numbered 16
17	Black and Numbered 17
18	Black and Numbered 18
19	Black and Numbered 19
20	Black and Numbered 20
21	Black and Numbered 21
22	Black and Numbered 22
23	Black and Numbered 23

24	Black and Numbered 24
25	Green/Yellow

Inner Jacket

Material	Nominal Wall Thickness
TPE - Thermoplastic Elastomer	0.025 in

Outer Shield

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

Outer Jacket

Material	Nominal Diameter	Nominal Wall Thickness
TPE - Thermoplastic Elastomer	0.918 in	0.083 in

Electrical Characteristics

Conductor DCR

Nominal Conductor DCR
5.7 Ohm/1000ft

Voltage

UL Voltage Rating
1000 V RMS
600 V RMS

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
UV Resistance:	Yes
Flex Cycle Rating:	10 Million Flexes
Bulk Cable Weight:	513 lbs/1000ft
Max. Pull Tension:	950 lbs
Min. Bend Radius (Continuous Flexing):	9.2 in

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 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

Related Part Numbers

Variants

Item #	Color	Put-Up Type	Length	UPC
7129WS 003250	Orange	Reel	250 ft	612825182481
7129WS 0031000	Orange	Reel	1,000 ft	612825182474
7129WS 0035000	Orange	Reel	5,000 ft	612825182498

Footnote:	C - CRATE REEL PUT-UP.

History

Update and Revision:	Revision Number: 0.194 Revision Date: 01-10-2024

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