



Product: [76018WS](#)

MachFlex™, 18 C #28 Str TC, SRPVC Ins, OS+TC Srv, PVC Jkt, CMG

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Product Description

MachFlex™ for High Flex, 18 Conductor 28AWG (7x36) Tinned Copper, SRPVC Insulation, Overall Beldfoil®+Tinned Copper Serve(90%) Shield, PVC Outer Jacket, CMG

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)	18	28	7x36	TC - Tinned Copper

Insulation

Element	Material	Nom. Thickness	Nom. Insulation Diameter	Color Code
Conductor(s)	PVC - Polyvinyl Chloride	0.010 in (0.25 mm)	0.035 in (0.89 mm)	Black, Red, White, Green, Orange, Blue, Brown, Yellow, Violet, Slate, Pink, Tan, Red/Green, Red/Yellow, Red/Black, White/Black, White/Red, White/Green

Outer Shield

Shield Type	Material	Coverage	Drainwire Type
Tape	Bi-Laminate (Alum+Poly)	100%	26 AWG (7x34) TC
Spiral Serve / Screen	Tinned Copper (TC)	90%	

Outer Jacket

Separator	Material	Nom. Thickness	Nom. Diameter
Paper Tape	PVC - Polyvinyl Chloride	0.040 in (1.0 mm)	0.282 in

Overall Cable Diameter (Nominal):	0.282 in (7.16 mm)
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Electrical Characteristics

Electricals

Nom. Conductor DCR	Nom. Capacitance Cond-to-Cond	Max. Current
67 Ohm/1000ft	25 pF/ft (82 pF/m)	1 Amps per Conductor at 25°C

Voltage

UL Voltage Rating	Voltage Rating
300 V (AWM 2661)	300 V (CSA AWM I/II A/B)

Mechanical Characteristics

Temperature

UL Temperature	Operating
105°C	-10°C To 105°C (Static), 5°C To 105°C (Flexing)

Bend Radius

Flexing Min.	
2.3 in (58 mm)	
Max. Pull Tension:	31 lbs (14 kg)
Bulk Cable Weight:	51 lbs/1000ft

Standards and Compliance

Environmental Suitability:	Sunlight Resistance
Flammability / Reaction to Fire:	UL 1685 UL loading, FT4
NEC / UL Compliance:	Article 800, CM
AWM Compliance:	AWM 2661, AWM 10002, AWM I/II A/B
CEC / C(UL) Compliance:	CMG
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: 0.145 Revision Date: 05-31-2024
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Part Numbers

Variants

Item #	Color	Putup Type	UPC
76018WS 008100	Gray	Reel	612825410492
76018WS 0081000	Gray	Reel	612825410508

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