



Product: [7435WS](#)

MachFlex™, 2+1G C #14 Str BC, PVC-NYL Ins, OA TC Brd, TPE Jkt, TPE Jkt, 1000V WTTTC, 600V TC-ER

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Product Description

MachFlex™ for High Flex, 2+1G Conductor 14AWG (41x30) Bare Copper, PVC-NYL Insulation, Overall Tinned Copper Braid(85%) Shield, TPE Inner Jacket, TPE Outer Jacket, 1000V WTTTC, 600V TC-ER

Technical Specifications

Product Overview

Suitable Applications:	Robotics, Robot, Continuous Flex
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Physical Characteristics (Overall)

Conductor

Element	AWG	Stranding	Material	No. of Conductors
	14	41x30	BC - Bare Copper	2
Ground Wire	14	41x30	BC - Bare Copper	1

Conductor Count:	3
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Insulation

Material	Nominal Diameter
PVC/Nylon - Polyvinyl Chloride + Nylon	0.117 in

Color Chart

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

Inner Jacket

Material	Nominal Diameter	Nominal Wall Thickness
TPE - Thermoplastic Elastomer	0.285 in	0.025 in

Outer Shield

Type	Material	Coverage [%]	Nominal Diameter
Braid	Tinned Copper (TC)	85%	0.313 in

Outer Jacket

Material	Nominal Diameter	Nominal Wall Thickness
TPE - Thermoplastic Elastomer	0.407 in	0.047 in

Electrical Characteristics

Conductor DCR

Nominal Conductor DCR
2.5 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
Flex Cycle Rating:	1 Million Flexes
Bulk Cable Weight:	119 lbs/1000ft
Max. Pull Tension:	201 lbs
Min. Bend Radius (Continuous Flexing):	4.1 in

Standards

NEC/(UL) Compliance:	TC-ER, W TTC
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:	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
7435WS 060250	Chrome	Reel	250 ft	612825186595
7435WS 0601000	Chrome	Reel	1,000 ft	612825186588
7435WS 0605000	Chrome	Reel	5,000 ft	612825186601

Footnote:	C - CRATE REEL PUT-UP.
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History

Update and Revision:	Revision Number: 0.283 Revision Date: 02-03-2025
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Belden believes this product to be in compliance with all applicable environmental programs as listed in the data sheet. The information provided is correct to the best of Belden's knowledge, information and belief at the date of its publication. This information is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. The Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.

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