

igus CF211 and CF11 Series Continuous Flexing Control and Signal Cable



AutomationDirect offers Igus CF211 and CF11 series Continuous Flexing Control and Signal Cable for continuous flexing applications. These cables are available in sizes from 26AWG to 20AWG with shielded conductors and up to 4 twisted pairs. Individual conductors are bare copper and stranded for flexing applications. Conductor insulation is a mechanically high-quality color-coded TPE mixture. These cables are available in a halogen-free PUR, halogen-free PVC or standard PVC casing, all of which are low-adhesion highly abrasion resistant and adapted to suit the requirements in e-chains® (following DIN EN 50363-10-2). All provide resistance to sunlight, oil penetration, and are flame retardant.

Cable are a excellent choice for connecting low-voltage signal like encoders, position sensors and analog signals or any application requiring a continuous flexing cable with a signal of less than 300 volt.

The Igus CF211 and CF11 series data cables are specifically designed, tested, and manufactured for continuous flexing, high mechanical load application requirements, and will provide a guaranteed service life between 5 million and 10 million cycles when operated within specified conditions*.

Features

- 0.14 mm² to 0.50 mm² (26AWG to 20AWG)
- Overall shielded constructions
- Low adhesion pressure extruded outer jacket that is oil resistant and flame retardant
- Rated for continuous flexing applications with high mechanical load requirements
- Guaranteed service life between 5 million and 10 million cycles when operated within specified conditions
- UL Recognized type AWM (appliance wiring material)
- Cut to length in 1 foot increments
- 3 year warranty* (see note 1)

Cycles					5 million	7.5 million	10 million
Temperature, from/to [°F]	v max. [ft/s]		a max. [ft/s²]	Travel distance [ft]	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]
	Unsupported	Gliding					
-13/5	16.41	9.84	164.1	≤ 328.1	10	11	12
5/158					7.5	8.5	9.5
158/176					10	11	12

Note 1

* and Series Guaranteed lifetime according to guarantee conditions



Click on the above thumbnail or go to
<https://www.automationdirect.com/VID-WD-0016>
 for a short introduction on our cut to length cable





Continuous Flexing Control and Signal Cable CF11 Series (Shielded)

Continuous Flexing Control and Signal Cable CF11 Series (Shielded)			
Conductors Gauge & Stranding	26AWG (0.14 mm ²) to 24AWG (0.25 mm ²) bare copper	Conductor Markings	Color code in accordance with DIN 47100
Voltage Ratings	300V per UL	Overall Shield	Aluminum/Polyester tape and extremely bend-resistant braiding made of tinned copper wires. Coverage approx. 70% linear, approx. 90% optical
	Tested to 1500V	Outer Jacket	Pressure extruded PVC mixture
Min. Bend Radius	e-Chain®, 6.8 x diameter	UV Resistance	Yes
	Flexible, 5 x diameter	Oil Resistance	Yes (following DIN EN 50363-10-2), Class 3
	Fixed, 4 x diameter	Flame Retardant	Yes
Temperature Ratings	e-Chain, -31°F to +212°F (-35°C to +100°C)	Approvals	Halogen-free Following DIN EN 60754 REACH RoHS-II Cleanroom According to ISO Class 1. CE
	Flexible, -58°F to +212°F (-50°C to +100°C)		
	Fixed, -67°F to +212°F (-55°C to +100°C)		
Max. Velocity	Unsupported, 32.8 ft/s (10m/s) Gliding, 19.7 ft/s (6m/s)	Sample Print Legend	igus chainflex CF11.01.04.02 ... (4x(2x0.14)) EAC CE RoHS-II conform www.igus.de +++ chainflex cable works +++
Max. Acceleration	328.1 ft/s ² (100m/s ²)		
Length of Travel	Unsupported travels and up to 400m for gliding applications, Class 6		
Conductor Insulation	TPE mixture		

e-Chain® is a trademarked flexible cable carrier by igus®. igus® cable can be used in any suitable cable carrier.

Continuous Flexing Control and Signal Cable Series CF11 (Shielded)							
Part Number	Number of Twisted Pairs	AWG	Strand (# x AWG)	Maximum O.D. (Inches ±10%)	Minimum Cut Length (ft)*	Approximate Weight (lb/ft)	Price per foot
<u>CF11-01-04-02-1</u>	4	26	18	0.30	20	0.43	\$5.49
<u>CF11-02-01-02-1</u>	1	24	32	0.24		0.26	\$3.71
<u>CF11-02-02-02-1</u>	2			0.26		0.33	\$4.80
<u>CF11-02-03-02-1</u>	3			0.31		0.55	\$6.40
<u>CF11-02-04-02-1</u>	4			0.33		0.60	\$8.08

* See web store for maximum cut lengths



Please Note: Our prices on Flexing Control Cable are closely tied to the market price for copper. This allows us to offer the best savings possible if conditions are favorable; however, it also means that our prices may increase if market conditions warrant.



Continuous Flexing Control and Signal Cable CF211 Series (Shielded)

Continuous Flexing Control and Signal Cable CF211 Series (Shielded)			
Conductors Gauge & Stranding	24AWG (0.25 mm²) to 20AWG (0.50 mm²) bare copper	Conductor Markings	Color code in accordance with DIN 47100
Voltage Ratings	300V per UL	Overall Shield	Aluminum/Polyester tape and extremely bend-resistant braiding made of tinned copper wires. Coverage approx. 70 % linear, approx. 90 % optical
	Tested to 1500V	Outer Jacket	Pressure extruded PVC mixture
Min. Bend Radius	e-Chain®, 7.5 x diameter	UV Resistance	Yes
	Flexible, 6 x diameter	Oil Resistance	Yes (following DIN EN 50363-10-2), Class 3
	Fixed, 4 x diameter	Flame Retardant	Yes
Temperature Ratings	e-Chain, -13°F to +176°F (-25°C to +80°C)	Silicone-free	Yes
	Flexible, -40°F to +176°F (-40°C to +80°C)	Approvals	cURus AWM Style 2464 CSA REACH RoHS-II Cleanroom According to ISO Class 1. CE
	Fixed, -58°F to +176°F (-50°C to +80°C)		
Max. Velocity	Unsupported, 16.40 ft/s (5m/s) Gliding, 9.84 ft/s (3m/s)		
Max. Acceleration	164.04 ft/s² (50m/s²)		
Length of Travel	Unsupported travels and up to 100m for gliding applications, Class 5	Sample Print Legend	igus chainflex CF211.02.04.02 ... (4x(2x0.25)) E310776 cяUus AWM Style 2464 VW-1 AWM I/II A/B 80°C 300V FT1 EAC/CTP CE RoHS-II conform www.igus.de +++ chainflex cable works +++
Conductor Insulation	TPE mixture		

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Continuous Flexing Control and Signal Cable CF211 Series (Shielded)							
Part Number	Number of Twisted Pairs	AWG	Strand (## x AWG)	Maximum O.D. (Inches ±10%)	Minimum Cut Length (ft)*	Approximate Weight (lb/ft)	Price per foot
<u>CF211-02-01-02-1</u>	1	24	32	0.20	20	0.21	\$1.48
<u>CF211-02-02-02-1</u>	2			0.24		0.28	\$2.39
<u>CF211-02-04-02-1</u>	4			0.31		0.48	\$3.36
<u>CF211-03-03-02-1</u>	3	22	42	0.31		0.54	\$3.28
<u>CF211-05-01-02-1</u>	1	20	28	0.22		0.28	\$1.57
<u>CF211-05-02-02-1</u>	2			0.28		0.48	\$2.79
<u>CF211-05-03-02-1</u>	3			0.35		0.70	\$3.54
<u>CF211-05-04-02-1</u>	4			0.37		0.86	\$4.89

* See web store for maximum cut lengths



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Continuous Flexing Control and Signal Cable CF211-PUR Series (Shielded)

Continuous Flexing Control and Signal Cable CF211-PUR Series (Shielded)			
Conductors Gauge & Stranding	24AWG (0.25 mm ²) to 20AWG (0.50 mm ²) bare copper	Conductor Markings	Color code in accordance with DIN 47100
Voltage Ratings	300V per UL	Overall Shield	Aluminum/Polyester tape and extremely bend-resistant braiding made of tinned copper wires. Coverage approx. 70% linear, approx. 90% optical
	Tested to 1500V	Outer Jacket	Pressure extruded PUR mixture
Min. Bend Radius	e-Chain®, 6.8 x diameter	UV Resistance	Yes
	Flexible, 5 x diameter	Oil Resistance	Yes (following DIN EN 50363-10-2), Class 3
	Fixed, 4 x diameter	Flame Retardant	Yes
Temperature Ratings	e-Chain, -31°F to +212°F (-35°C to +100°C)	Silicone-free	Yes
	Flexible, -58°F to +212°F (-50°C to +100°C)	Approvals	cURus AWM Style 20233 CSA Halogen-free Following DIN EN 60754 REACH RoHS-II Cleanroom According to ISO Class 1. CE
	Fixed, -67°F to +212°F (-55°C to +100°C)		
Max. Velocity	Unsupported, 32.9 ft/s (10m/s) Gliding, 19.7 ft/s (6m/s)		
Max. Acceleration	328.1 ft/s ² (100m/s ²)	Sample Print Legend	igus chainflex CF211.PUR.02.04.02 (4x(2x0.25)) E310776 сЯUus AWM Style 20233 VW-1 AWM I/II A/B 80°C 300V FT1 DNV-GL 13 656-14 HH EAC/CTP CE RoHS-II conform www.igus.de +++ chainflex cable works +++
Length of Travel	Unsupported travels and up to 400m for gliding applications, Class 6		
Conductor Insulation	TPE mixture		

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Continuous Flexing Control and Signal Cable CF211-PUR Series (Shielded)							
Part Number	Number of Twisted Pairs	AWG	Strand (# x AWG)	Maximum O.D. (Inches ± 10%)	Minimum Cut Length (ft)*	Approximate Weight (lb/ft)	Price per foot
							
<u>CF211-P-02-01-02-1</u>	1	24	32	0.20	20	0.20	\$2.08
<u>CF211-P-02-02-02-1</u>	2			0.24		0.23	\$3.46
<u>CF211-P-02-03-02-1</u>	3			0.28		0.42	\$4.06
<u>CF211-P-02-04-02-1</u>	4			0.30		0.44	\$4.63
<u>CF211-P-05-01-02-1</u>	1	20	28	0.22		0.27	\$2.01
<u>CF211-P-05-02-02-1</u>	2			0.28		0.40	\$3.56
<u>CF211-P-05-04-02-1</u>	4			0.37		0.80	\$7.06

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