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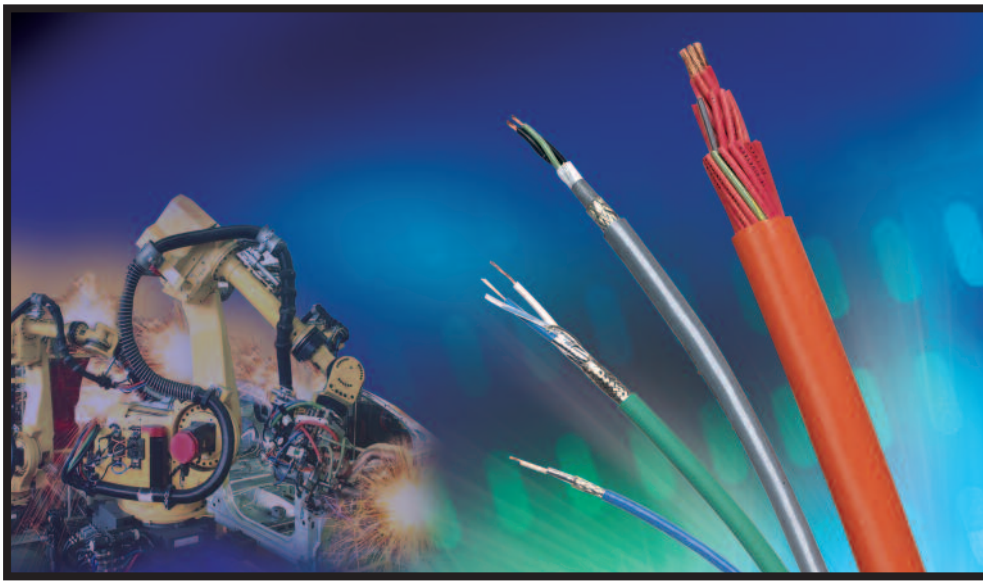
New Product Bulletin

NP 303

Belden Infinity® Cables

These highly flexible control, power, video and data cables handle the rigorous speeds and near-constant motion of C-track systems, robots, pick-and-place machines, automatic handling systems, multi-axis machine tools, conveyor systems and wind turbines.



Belden Infinity 'Continuous-flexing' Cables Are Built Rugged For High Performance In Any Type of Environment and Include Enhanced Approvals

With Belden, you can be confident that the cables you need will be delivered to you when and where you need them, they will be of consistent high quality, and our service and support will satisfy any and all of your requirements.

The Belden Infinity line is indicative of this promise, consisting of four high performance cable families built specifically for the rigors of mission-critical, continuous flexing applications. The Belden Infinity C-TC+, FCC, Flex Data and Flex Vision cables help ensure maximum uptime, even when they must operate in the harshest or most extreme environments.

To maximize the cables' flex life and reliability, Belden combines specialized manufacturing techniques with precision copper stranding and rugged insulation and jacketing compounds.

Belden Infinity C-TC+ Cables for Extreme Flexing

To ensure optimal performance at 10 million flex cycles, Belden utilizes a unique cable manufacturing process for its Belden Infinity C-TC+ cables that nearly eradicates cable memory. The cable's special construction also eliminates the performance concerns associated with conductor torque and fatigue.

With this rugged, high performance construction, and the inclusion of oil-, sunlight- and abrasion-resistant Belflex® jackets, C-TC+ cables meet the NFPA requirements for industrial machinery. They are ideal for extreme flexing applications such as C-track systems, wind turbines, robots, multi-axis machining, automated assembly systems, material handling systems, pick-and-place retrieval, automated storage systems and gantry systems.

Belden Infinity FCC Cables For Moderate Flexing

Belden Infinity FCC cables feature oil-, sunlight- and abrasion-resistant Belflex jackets to meet the NFPA requirements for industrial machinery. They are appropriate for C-track and moderate flexing environments of over 1 million flex cycles, making them a cost-effective alternative to C-TC+ cables in applications such as machine tool, assembly lines and control systems.

Belden Infinity Flex Data Cables

For the effective operation of computer-controlled equipment or other automation production processes, specify Belden Infinity Flex Data cables.

Belden 300V Flex Data twisted pair cables can withstand 1 million flex cycles with 24 AWG highly stranded bare copper conductors (41x40) for exceptional flexibility, overall Beldfoil® + 85% tinned copper braid shield, foam polyethylene insulation (with skin) and PVC jacket. The cables are rated RS-232/485 or RS-232/422 (part no. 7205A) and they have a temperature rating of -20° to +60°C.

Belden Infinity Flex Vision Cables

Belden Infinity Flex Vision cables are designed for use in machine vision applications such as inspection and measurement devices, automated warehouse equipment, automated production processes and motion controlled video.

Belden 75 Ohm Flex Vision coaxial cables can withstand 1 million flex cycles and are rated UL AWM Style 1354. They have stranded conductors for greater flexibility, foam polyethylene insulation, tinned copper "French Braid" shield for 95% shield coverage, and a PVC jacket.

Featured Brand

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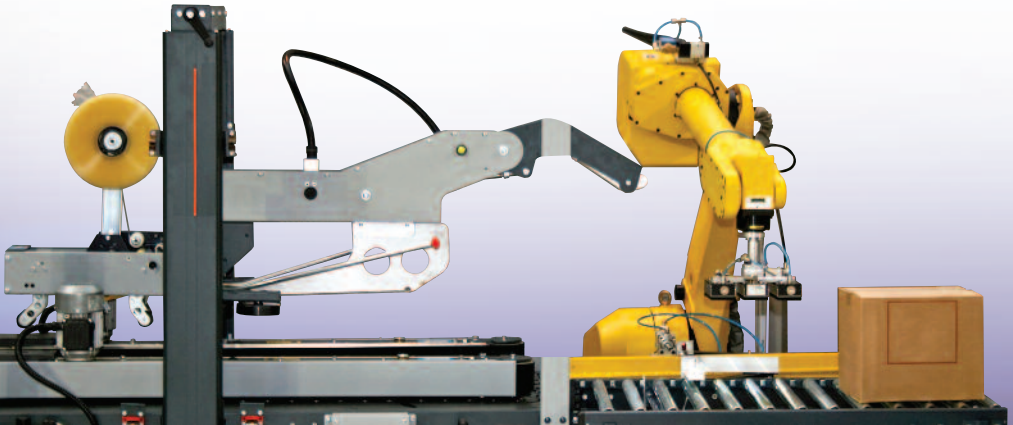
Belden Infinity C-TC+ Cable (10 Million Flex Cycles)

	Non-Shielded		85% Braid Shielded	
	Part No.	No. of Conductors	Part No.	No. of Conductors
20 Gauge	**7101W**	3		
	7102W	4		
	7105W	9		
	7106W	12	**7106WS**	12
	7107W	18		
	7108W	25		
18 Gauge	**7110W**	3		
	7111W	4	**7111WS**	4
	7113W	7		
	7116W	18		
	7117W	25		
16 Gauge	**7122W**	3		
	7123W	4	**7123WS**	4
	7125W	7		
	7126W	9		
	7127W	12		
	7129W	25	**7129WS**	25
14 Gauge			**7136WS**	4
12 Gauge	**7145W**	4		

Cable Specifications	
Conductors	Fine Stranded Tinned Copper Conductors
Insulation	PVC/Nylon
Shielding	Tinned Copper Braid (85% Coverage) Non-Shielded Version also available
Jacket	Belflex
Jacket Color	Orange
Voltage Rating	600V UL TC-ER (18 AWG & Larger) 300V UL PLTC-ER (20 AWG) 1000V CSA AWM I/II A/B 1000V WTTC (18 AWG & Larger)
Temperature Range	-40°C to +90°C (Cold Impact) -50°C to +90°C (Cold Bend)
Approvals	UL TC-ER (18 AWG & Larger) UL PLTC-ER (20 AWG) UL MTW & AWM UL Oil Res I & II IEEE 1202/383 CSA AWM I/II A/B FT4 Sunlight Resistance UL Direct Burial NFPA 79 for Industrial Machinery Class I & II Div 2 Suitable for Hazardous Location Installation C(UL) Type TC & CIC FT4 WTTC CE & RoHS Compliant CA Prop 65 Compliant REACH Compliant

C-TC+	●	●	●	●	●	●	●	●			●	●	●	●	●
Application Guide	C-Track System	Multi-Axis Machining	Robotics	Automated Assembly Systems	Material Handling System	Pick & Place Retrieval	Automated Storage	Gantry Systems	Machine Vision	Motion-Controlled Video	Inspection & Measurement Equipment	Festooning	Servo	Power	Wind Turbines
Oil-, Sunlight- & Abrasion-Resistant 600V UL TC-ER Rated															



Belden Infinity FCC Cable (1 Million Flex Cycles)

	Non-Shielded		85% Braid Shielded	
	Part No.	No. of Conductors	Part No.	No. of Conductors
20 Gauge	**7400W**	2		
	7401W	3	**7401WS**	3
	7402W	4		
	7403W	5	**7403WS**	5
	7404W	7	**7404WS**	7
	7405W	9		
	7406W	12		
	7407W	18		
	7408W	25	**7408WS**	25
18 Gauge	**7409W**	2		
	7410W	3	**7410WS**	3
	7411W	4	**7411WS**	4
	7412W	5		
	7413W	7	**7413WS**	7
	7414W	9		
	7415W	12	**7415WS**	12
	7416W	18	**7416WS**	18
	7417W	25	**7417WS**	25
	7418W	34		
16 Gauge	**7421W**	2		
	7422W	3	**7422WS**	3
	7423W	4	**7423WS**	4
	7424W	5		
	7425W	7		
	7426W	9		
	7427W	12	**7427WS**	12
	7428W	18	**7428WS**	18
	7429W	25	**7429WS**	25
	7430W	34		
14 Gauge	**7435W**	3	**7435WS**	3
	7436W	4		
	7438W	7	**7438WS**	7
	7439W	9		
	7440W	12		
	7442W	25		

	Non-Shielded		85% Braid Shielded	
	Part No.	No. of Conductors	Part No.	No. of Conductors
12 Gauge	**7444W**	3		
	7445W	4	**7445WS**	4
10 Gauge	**7447W**	4	**7447WS**	4
8 Gauge			**7450WS**	4
6 Gauge	**7453W**	4		

Cable Specifications

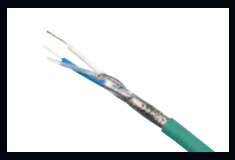
Conductors	Fine Stranded Tinned Copper Conductors
Insulation	PVC/Nylon
Shielding	Tinned Copper Braid (85% Coverage) Non-Shielded Version also available
Jacket	Belflex
Jacket Color	Chrome
Voltage Rating	600V UL TC-ER (18 AWG & Larger) 300V UL PLTC-ER (20 AWG) 1000V CSA AWM I/II A/B 1000V WTTC (18 AWG & Larger)
Temperature Range	-40°C to +90°C (Cold Impact) -50°C to +90°C (Cold Bend)
Approvals	UL TC-ER (18 AWG & Larger) UL PLTC-ER (20 AWG) UL MTW & AWM UL Oil Res I & II IEEE 1202/383 CSA AWM I/II A/B FT4 Sunlight Resistance UL Direct Burial NFPA 79 for Industrial Machinery Class I & II Div 2 Suitable for Hazardous Location Installation C(UL) Type TC & CIC FT4 WTTC CE & RoHS Compliant CA Prop 65 Compliant REACH Compliant

FCC	●	●		●	●	●	●	●			●	●	●	●	●
Application Guide	C-Track System	Multi-Axis Machining	Robotics	Automated Assembly Systems	Material Handling System	Pick & Place Retrieval	Automated Storage	Gantry Systems	Machine Vision	Motion-Controlled Video	Inspection & Measurement Equipment	Festooning	Servo	Power	Wind Turbines
Oil-, Sunlight- & Abrasion-Resistant 600V UL TC-ER Rated															

Belden Infinity Flex Data Cable (1 Million Flex Cycles)

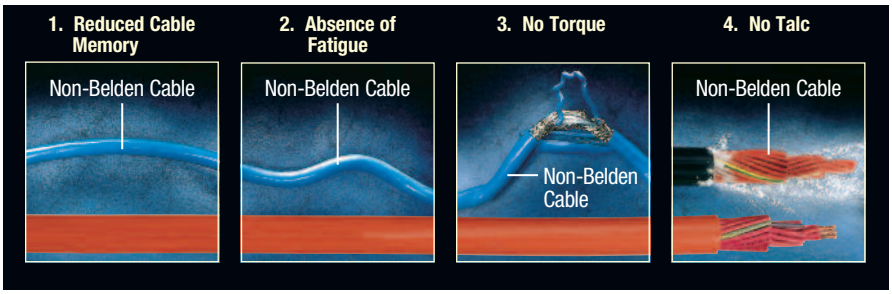
	Part No.	No. of Pairs	RS-Type	Impedance (Ω)
24 Gauge	**7200A**	1	232, 485	120
	7201A	2	232, 485	120
	7202A	3	232, 485	120
	7203A	4	232, 485	120
	7205A	1	232, 422	100
	7206A	1	232, 485	150

Cable Specifications	
Conductors	Fine Stranded Bare Copper Conductors
Insulation	Foam Polyethylene Insulation with Skin
Shielding	Overall Beldfoil® Shield with Tinned Copper Braid (85% Coverage)
Jacket	PVC
Jacket Color	Green
Voltage Rating	300 V RMS
Temperature Range	-20°C to +60°C
Approvals	UL & C(UL) CM Rated UL Oil Res I & II RS-232/485 RS-232/422 (Part No. 7205A) CE & RoHS Compliant CA Prop 65 Compliant

Flex Data	●	●		●	●	●	●	●			●	●			
Application Guide 	C-Track System	Multi-Axis Machining	Robotics	Automated Assembly Systems	Material Handling System	Pick & Place Retrieval	Automated Storage	Gantry Systems	Machine Vision	Motion-Controlled Video	Inspection & Measurement Equipment	Festooning	Servo	Power	Wind Turbines
Oil- & Abrasion-Resistant UL & C(UL) Rated															

Be Certain with Belden

Belden Infinity Cables Offer Better Performance, Longer Life for Your Applications



Belden Infinity Cables help ensure maximum uptime, even in the harshest and most extreme environments.

C-TC+ and FCC Control Cables: Easy Flexing, Longer Flex Life

Unlike conventional cables and cordage, Belden Infinity C-TC+ and FCC cables offer the following benefits to the end-user:

1. **Reduced Cable Memory:**
   Belden cables are produced in a neutralized or relaxed state and they remain in this state throughout their use so they exhibit greater flex life.

2. **Absence of Fatigue:**
   The absence of central core conductors means easy flexing. Central core conductors are susceptible to fatigue and failure due to the intense forces placed on them.

3. **No Torque:**
   Each layer of insulated conductors is cabled in an opposite direction from the preceding layer to eliminate torque. The inherent twist induced in other cable brands causes the internal conductors to torque and the cable to corkscrew.

4. **No Talc:**
   An OSHA-compliant, inert slipper compound reduces friction and facilitates flexing. Cables that contain airborne contaminants such as talc can be toxic, irritating, and may contaminate systems, components or machinery.

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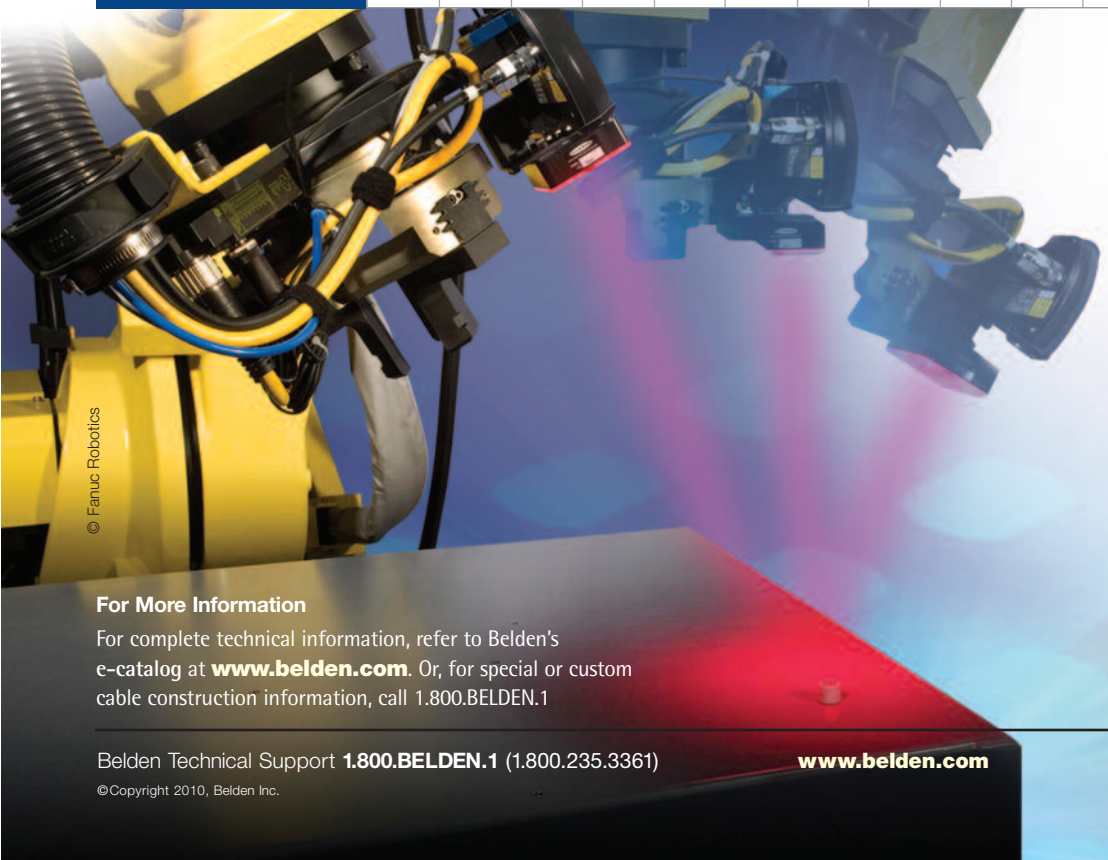
Belden Infinity Flex Vision Cable (1 Million Flex Cycles)

Part No.	RG-Type	AWG	Stranding
7500A	Sub-Mini	30	7x38
7501A	Mini	26	19x38
7502A	59	22	19x34
7503A	6	20	7x15x40
7504A	11	16	7x37x40

Cable Specifications	
Conductors	Fine Stranded Bare Copper Conductor*
Insulation	Foam Polyethylene Insulation
Shielding	Tinned Copper Braid (95% Coverage)
Jacket	PVC
Jacket Color	Blue
Voltage Rating	30 V RMS (UL AWM Style 1354)
Temperature Range	-40°C to +80°C
Approvals	UL AWM Style 1354 30V CSA AWM I/II A/B FT1 CE & RoHS Compliant CA Prop 65 Compliant

* 7500A has a tinned copper alloy conductor

Flex Vision	●	●		●	●	●	●	●	●	●	●	●			
Application Guide	C-Track System	Multi-Axis Machining	Robotics	Automated Assembly Systems	Material Handling System	Pick & Place Retrieval	Automated Storage	Gantry Systems	Machine Vision	Motion-Controlled Video	Inspection & Measurement Equipment	Festooning	Servo	Power	Wind Turbines
30V UL/CSA Rated															



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For More Information

For complete technical information, refer to Belden's e-catalog at **www.belden.com**. Or, for special or custom cable construction information, call 1.800.BELDEN.1

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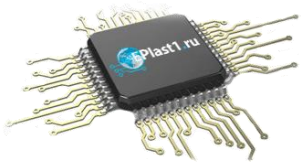
Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits,General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

Телефон: 8 (812) 309 58 32 (многоканальный)
Факс: 8 (812) 320-02-42
Электронная почта: org@eplast1.ru
Адрес: 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.