

# Belden Infinity® Flexible Automation Cable

## Overview and Application Guide

Belden Infinity is a complete line of control, data, video, and power cables specifically designed to handle the rigorous speeds and near-constant motion encountered in automated equipment such as robots, pick and place machines, automatic handling systems, multi-axis machine tools, and conveyor systems.

When the application demands highly flexible cables offering exceptional cable life and performance, specify Belden Infinity.

### Belden Infinity Means More Performance And Longer Life

**Reduced Cable Memory** — Belden Infinity's unique design and neutralized cabling, results in cables that are relaxed, with almost no memory.

**Greater Flex Life** — Belden Infinity cables offer superior flexibility and are able to handle the vigorous motions and high speeds encountered in automated equipment.

**Greater System Uptime** — Belden Infinity cables combine specialized manufacturing techniques with precision copper stranding and rugged insulation and jacketing compounds to maximize flex life and reliability.

**No Talc Problems** — Unlike the potentially harmful talc used in other cables, Belden's non-toxic, non-irritating slipper compound facilitates flexing and also complies with OSHA regulations. It's safer for employees and operators and is less likely to contaminate solder joints or mechanical compounds.

**CE Conformity** — All Belden Infinity cables are CE marked per the Conformité Européenne low voltage directive, allowing trade of product in Europe.

**Custom Designs** — Other designs available upon request.

### Product Series Descriptions

- **C-TC+** — The C-TC+ series is designed for C-track and extreme flex applications up to 9 million flex cycles\*. This series utilizes super fine stranding and some of the tightest lay lengths allowed by UL, providing outstanding flex life.
- **FCC** — The FCC series is a cost effective alternative for C-track and moderate flexing applications rated up to 1 million flex cycles\*.
- **Flex Data Cables** — Belden Infinity Flex Data cables are designed for industrial applications where precise data transmission is combined with high-flexing. These cables are ideal for effective operation of computer controlled equipment or other automated production processes, even in harsh environments.
- **Flex Vision** — Belden Infinity Vision cables are continuous flex video cables designed for machine vision applications. They are ideal for motion-controlled video and with inspection and measurement equipment.

### Application Guide

| Belden Infinity Series | C-Track Systems | Multi-Axis Machining | Robotics | Automated Assembly Systems | Material Handling Systems | Pick & Place Systems | Automated Storage Retrieval | Gantry Systems | Machine Vision | Motion-Controlled Video | Inspection & Measure Equip. | Festooning | Servo | Power |
|------------------------|-----------------|----------------------|----------|----------------------------|---------------------------|----------------------|-----------------------------|----------------|----------------|-------------------------|-----------------------------|------------|-------|-------|
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| <b>FCC</b><br>Oil & abrasion resistant<br>600V UL & CSA rated<br>Life Expectancy:<br>Over 1 million flex cycles*   | ● | ● |   | ● | ● | ● | ● | ● |   |   | ● | ● | ● | ● |
| <b>C-TC+</b><br>Oil & abrasion resistant<br>600V UL & CSA rated<br>Life Expectancy:<br>Over 9 million flex cycles* | ★ | ★ | ● | ★ | ★ | ★ | ★ | ★ |   |   | ★ | ★ | ★ | ★ |
| <b>DATA</b><br>Oil & abrasion resistant<br>300V UL & CSA rated<br>Life Expectancy:<br>Over 1 million flex cycles*  | ● | ● | ● | ● | ● | ● | ● | ● |   |   | ● | ● |   |   |
| <b>VISION</b><br>30V UL & CSA rated<br>Life Expectancy:<br>Over 1 million flex cycles*                             | ● | ● |   | ● | ● | ● | ● | ● | ★ | + | + | ● |   |   |

● Good    + Better    ★ Best

\*Based on proper installation techniques in a C-track cable guide.