

Technical Specifications

Barcode Positioning System

ROSS



PRODUCT TECHNICAL SPECIFICATIONS

The Barcode Positioning System (BPS) from Ross Video is designed for accurate, sub-millimeter positioning on Furio dolly systems. Ideal for broadcast environments, the BPS ensures smooth, precise camera movements over extended tracks, providing reliable performance for live productions.

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KEY FEATURES

The Barcode Positioning System (BPS) is designed to optimize the accuracy and reliability of Ross Video's Furio dolly systems, providing smooth, controlled motion across extended tracks.

As of July 2024, the BPS replaces the wiredraw encoders in all Furio systems, enhancing positional accuracy, reliability, and reducing maintenance requirements. All new Furio purchases now include BPS by default

Feature	Description
Sub-millimeter Accuracy	Positioning accuracy down to less than 1 mm, crucial for precise dolly movements.
Speed Measurement	Simultaneous position and speed tracking for enhanced motion control.
Durability	UV-resistant, weatherproof barcode tape for use in a variety of environments.
Compatible with Furio Systems	Seamless integration with Furio Studio and SkyDolly systems, including easy installation.
Real-Time Feedback	Integrated with Ross SmartShell software for live monitoring and control.
Barcode Tape Options	Available in customizable lengths, supporting both straight and curved tracks.
Flexible Installation	Capable of installation on horizontal and vertical curves, with specialized mounting kits available

TECHNICAL SPECIFICATIONS

Position Accuracy

The BPS is ideal for applications requiring precise control of motion across extended tracks.

Feature	Value
Accuracy	Sub-millimeter (<1 mm)
Resolution	Configurable from 0.1 mm to 1 mm
Maximum Track Length	Up to 10,000 meters Up to 10,000 meters
Speed Measurement	Configurable, up to 10 m/s
Working Range	50 mm to 170 mm from the barcode tape

Barcode Tape Specifications

Designed to handle various environments, the barcode works effectively across various track layouts and conditions.

Feature	Value
Barcode Grid Dimensions	30 mm grid available
Material	UV-resistant polyester
Tape Lengths	Available in the following lengths: <ul style="list-style-type: none">• 5 meters• 10 meters• 20 meters• 30 meters• 40 meters• 50 meters• 70 meters
Durability	Scratch and smudge resistant, suitable for outdoor and indoor environments
Minimum Curve Radius	300 mm for curved tracks

Electrical Specifications

The BPS supports flexible voltage inputs and integrates seamlessly with Furio systems, ensuring smooth operation and precision control

Feature	Value
Operating Voltage	18-30 V DC
Power Consumption	Max 17.7 W (with heating), Max 3.7 W (without heating)
Interface Options	RS-232, RS-422 RS-232, RS-422
Baud Rate	Configurable, 4,800 to 115,200 baud
Environmental Tolerance	-35°C to 50°C (with heating), -5°C to 50°C (without heating)

Physical Specifications

Physical specifications outline the compact design and mounting options for the BPS system.

Feature	Value
Dimensions	108.7 mm x 100 mm x 48.3 mm (without connection hood)
Weight	580 grams
Housing Material	Diecast aluminum, IP65-rated
Mounting Options	Includes M12 connectors, wall, rod, and rail mounts available
Dimensions	108.7 mm x 100 mm x 48.3 mm (without connection hood)

Software Integration

The BPS integrates with Ross SmartShell v7.0b or higher, providing real-time control, configuration, and diagnostics.

GETTING HELP

- Product's Online Help system opens in your default web browser.
- Our 24-hour hotline service provides access to technical expertise around the clock. After-sales service and technical support is provided directly by Ross Video personnel.
- During business hours (Eastern Standard Time), technical support personnel are available by telephone.
- After hours and on weekends, emergency technical support is available. A telephone-answering device will provide the names and phone numbers of technical support and field service personnel who are on call. These people are available to react to any problem and to do whatever is necessary to ensure customer satisfaction. For serious issue which need urgent attention and tracking, please ensure you are given a ticket number and refer to this in future communications.
 - **Technical Support: (+1) 613-652-4886**
 - **After Hours Emergency: (+1) 613-349-0006**