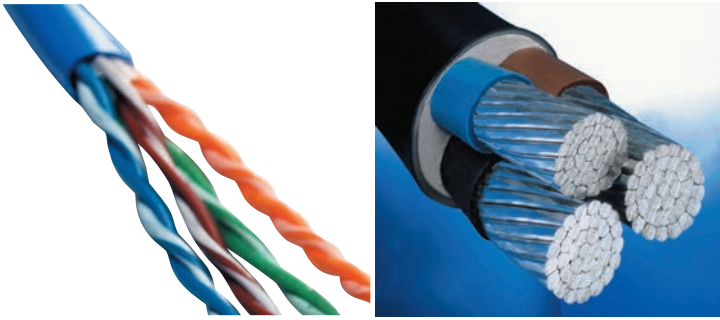


# CENTERSCAN 2010



Non-contact, eccentricity measurement system for wire & cable production



- ▶ Accurately, reliably measure insulation diameter and conductor eccentricity to maximize product quality and reduce production scrap
- ▶ Easily integrate into your production environment with built-in flexible communications
- ▶ Benefit from compact design for installation flexibility on your production line

# Intelligent technology that's engineered for the highest accuracy, performance and return on value

When the core of insulated wire and cable moves off-center, your product quality suffers. And with the increasingly tighter tolerances demanded by users, unchecked wire or cable eccentricity can leave you with reels of unusable product. The CenterScan 2010 measurement system accurately and reliably monitors the diameter of insulated wire and cable and eccentricity of conductors during extrusion and insulation processes. CenterScan 2010 dramatically controls and improves the quality of your product while reducing material consumption and scrap, increasing productivity, and maximizing your profits.

## Compact design meets broader installation requirements

Unlike competitive systems, CenterScan has a compact footprint and is designed with robust electronics that possess superior immunity to noise. This means not only can you install the gauge at a wider range of locations on the extrusion line, but you can locate it closer to other devices on the line with the assurance of still delivering the most accurate measurements.

## Faster, easier setup

Competitive gauges require product to be centered and leveled within a very narrow target window to ensure measurement accuracy. They also require elaborate and difficult calibration routines to zero any eccentricity offsets due to environmental factors. Since the CenterScan 2010 system is factory calibrated, no special adjustments or setups are needed to get your product properly centered and ready to run. If adjustments are required, CenterScan is easy to recompensate. CenterScan 2010 does not require a servo or mechanical tracking system or special guide rollers to keep the product centered. And, it is less sensitive to wire or cable position and allows the product to be positioned within a 6 mm (.24 in.) window.

## Simpler to operate and maintain

CenterScan 2010 is easy to learn and use, eliminating the need to hire and train highly specialized staff. It is also built to IP65 rating, providing environmental protection against dust particles, debris, and low-pressure water. An integrated air purge feature keeps the gauge optics free from airborne contaminants.

## Applications

The CenterScan 2010 gauge is designed to effectively measure all round, single conductor wire and cable with solid or stranded conductors. Wire and cable applications include:

- ▶ LAN
- ▶ Mini coaxial
- ▶ Installation
- ▶ RF
- ▶ Telephone
- ▶ And more...
- ▶ Coaxial
- ▶ Automotive

**CenterScan 2010 is compact, easy to calibrate and simple to use!**



## CenterScan 2010 measurement system includes:

- ▶ Inductor Driver
- ▶ Gauge head with high-frequency laser scanning technology and sensing coils
- ▶ Optional controller

## Optical and inductive measurement technology detects the center of your wire with the highest accuracy

CenterScan 2010 combines optical and inductive technology to precisely measure the insulation diameter and conductor eccentricity. The optical measurement system is based on the *legendary Beta LaserMike AccuScan* technology. This high-frequency laser scanning engine measures the outer diameter and position of insulation in two axes. The orientation of the conductor is measured inductively. A driver induces an alternating current into the conductor to produce a magnetic field along the wire. This field is detected by four sets of highly sensitive coils strategically located around the wire to determine the precise location of the conductor.

# Flexible communication for easy integration

## Wide range of interfacing options

The CenterScan 2010 measurement system includes a wide range of interfacing options for flexible communication and easy integration into your production environment. It comes standard with RS232 connection. Communication options include Profibus, Devicenet, Ethernet IP, and CANopen. Other options include analog outputs, relay outputs, in-head FFT, and single-scan flaw detection. A gauge status indicator displays the operating status of the CenterScan 2010. All connections are located in the gauge's side panel for easy access.

## Comprehensive control capabilities keep your production processes running smoothly

The CenterScan 2010 system transfers eccentricity and diameter measurements to either a Beta LaserMike controller, such as InControl, or third-party devices for integrated process control. Users are provided with detailed product information and process parameters, such as wire and cable dimensions, line speed (optional), and other status information to monitor every step of the manufacturing process to produce the highest quality product. CenterScan 2010 can also be supplied with **XVIEW**, a Windows®-based software tool that allows you to view trend and log measurement data on your desktop or laptop PC.



## Optional integrated display with operator interface

An ultra-bright fluorescent display with operator interface is available for the CenterScan 2010. This display can be mounted directly to the CenterScan 2010 system for easy readout and access by the operator. The gauge can be configured to operate as a local display or in stand-alone mode for continuous display of eccentricity and diameter measurements.



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Go to menu item above  
Select option above  
Increment value by one

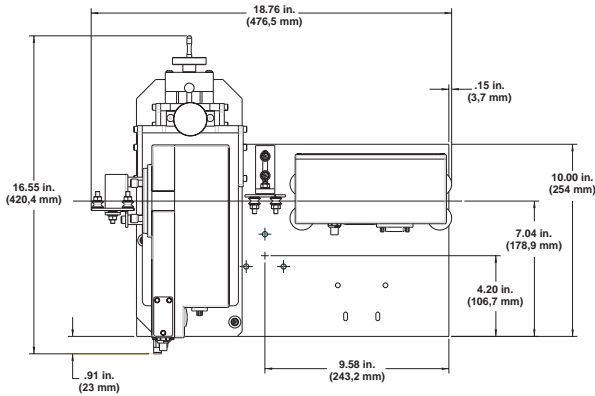
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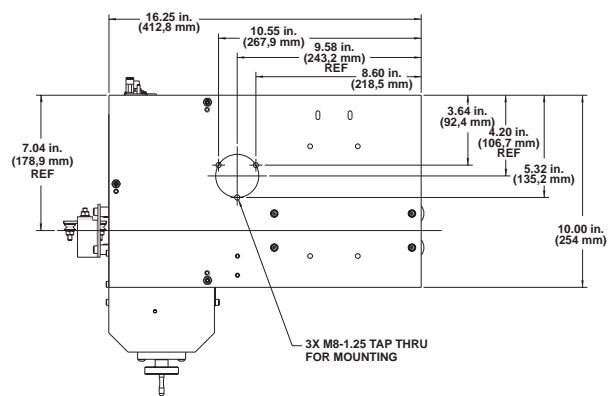
Beta LaserMike controllers, such as InControl, provide product and process-critical information including wire and cable position, diameter, eccentricity, ovality, and wall thickness, as well as line speed (optional), statistical data, alarms, and other details. You can also configure Beta LaserMike controllers to send input signals to PLCs to control external devices.

# Technical Specification

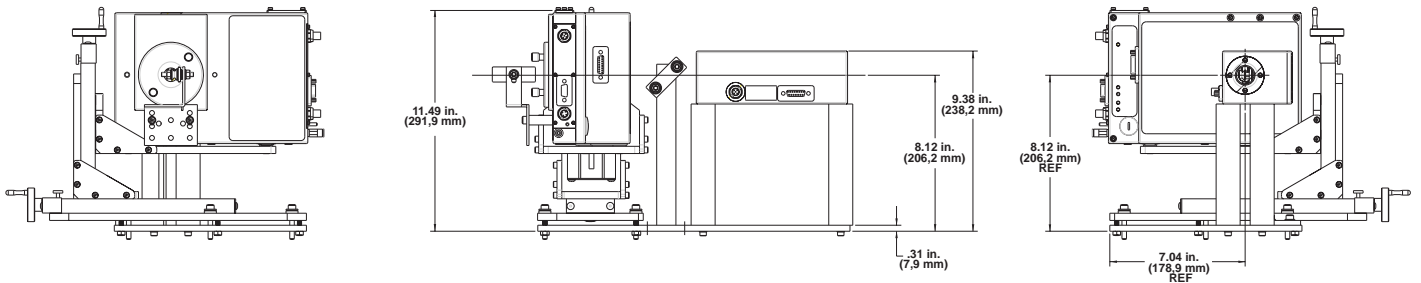
**Top View**



**Bottom View**



**Side Views**



CenterScan 2010	
<b>Measurement range</b>	0.1 – 10 mm (0.004 – 0.40 in.)
<b>Gate Size</b>	14 mm (0.55 in.)
<b>Resolution</b>	0.00001 mm (0.0000004 in.)
<b>Accuracy</b>	±0.0005 mm <sup>1</sup> (±0.000020 in.)
<b>Measurement speed</b>	1200 per axis per second
<b>Dimensions (overall)</b>	463 x 279 x 202 mm (18.25 x 11 x 7.96 in.)
<b>Weight</b>	12.3 kg (27 lbs)
<b>Environment:</b>	
<b>Ambient operating temperature</b>	5 – 50°C (41 – 122°F)
<b>Ambient storage temperature</b>	-20 – 50°C (-4 – 122°F)
<b>Power supply</b>	24 VDC; 2.3AMP

<sup>1</sup>±0.02% of product size

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