

## Non-Contact Length & Speed Measurement of Power Cable

### Profile:

Power cable manufacturer needing to track quality and quantity during production.

### Solution:

- LaserSpeed Pro 4500: Length & Speed Measurement System

### Results:

- Highest available accuracy helps you ensure the highest possible product quality
- Non-contact length and speed measurement technique ensures no damage to product
- Permanently calibrated for production line simplicity
- No moving parts eliminates need for on-going maintenance
- Flexible mounting options make installation quick and easy



Every manufacturer wants to keep track of product quality and quantity during the production process. But when the manufacturer is producing power cable, that's not as easy as it may sound.

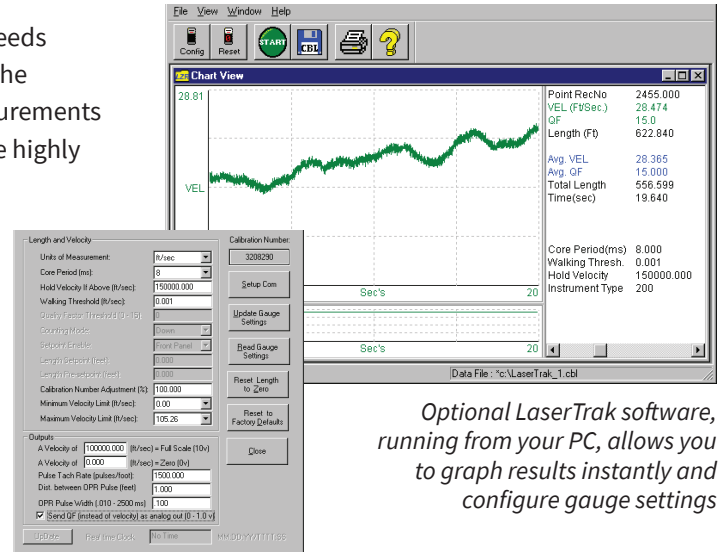
### Understanding The Problem

Manufacturers typically utilize contact encoders to measure product length and speed during production. But contact encoders may present measurement accuracy problems when used to measure power cable. The outer jacket of power cable is often irregularly shaped and composed of a low-friction material. This can increase the likelihood of slippage during manufacturing, which may result in inaccuracies of up to 2% as compared to traditional methods. Even this seemingly low level of inaccurate measurements is not trivial. Measurement inaccuracies of as low as 2% may equate to 20 meters per kilometer (20 feet per 1000) of excess length. With power cable's high value per length, such product giveaway equates to a significant manufacturing cost.

## The Solution:

## LaserSpeed Pro 4500

Nordson offers a measurement solution that meets the specific needs of power cable manufacturing: the LaserSpeed Pro 4500 Gauge. The LaserSpeed Pro 4500 provides you with non-contact length measurements through a unique, laser-based measurement technique. Since the highly accurate measurement is performed optically, there are no moving parts which could contact the power cable. This highly reliable gauge is designed for heavy industrial environments, is easy to install, and doesn't require re-calibration. The LaserSpeed Pro 4500's measurement accuracy of 0.05% offers a fast payback in savings. For a nominal product giveaway reduction of 15 meters per kilometer (15 feet per 1000), the LaserSpeed Pro 4500 can pay for itself in a matter of weeks.



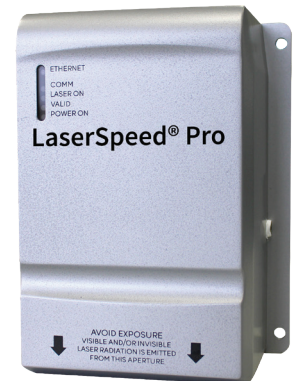
*Optional LaserTrak software, running from your PC, allows you to graph results instantly and configure gauge settings*

## How It Works

## Length & Speed Measurement

Adding the LaserSpeed Pro 4500 Gauge to your production line is simple. Just remove the existing encoder(s), and drop in the LaserSpeed Pro 4500 in place. Make quadrature or pulse output connections from the LaserSpeed to your existing control system, ensure that the LaserSpeed Pro is installed at an appropriate standoff distance, and configure the setting for pulses per foot/meter, as desired. Connect the LaserSpeed Pro to power, turn it on, and start measuring immediately.

For dirty production line environments, an optional air-wipe or quick-change window may be recommended to ensure measurement accuracy. Discuss this or any other concerns you may have with your Nordson Sales Representative.



### Connectivity

- One quadrature output fixed at 1000 pulses per meter/foot
- One quadrature output with adjustable pulses per meter/foot
- One index pulse output for connecting to printer or cutter
- Scalable analog output for speed measurement

### Optional Accessories (for all LS4000 gauges)

- Analog Converter: Converts 0 to 2VDC speed output to; 0 to 10VDC, 0 to 5VDC,  $\pm 10$ VDC,  $\pm 5$ VDC, 0 to 20 mA, 4 to 20 mA
- Hot Object Filter: For products over 500°C
- Air Wipe: Helps keep window clean in dirty environments
- Quick Change Window: For easy cleaning and maintenance of the window
- Sensor Cable: 3m, 10m, 20m, 30m, 50m lengths
- Terminal Block: Breakout box for sensor cable

For questions or support go to: <https://ndc.custhelp.com/>

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