NEW REVOLUTIONARY!

LASERSPEED® PRO M SERIES
NON-CONTACT LENGTH & SPEED GAUGE FOR BOUNCING, UNGUIDED MOVING PRODUCTS

PATENT PENDING

No comparable measurement solution on the market today!

BETA LaserMike Products
LaserSpeed Pro M Series – Solving Industry’s Critical Measurement Challenge

Revolutionary LDV Gauge Provides Most Reliable Length & Speed Measurements
Unlike anything on the marketplace today, NDC’s new patent-pending LaserSpeed Pro M Series non-contact gauge uses a revolutionary Laser Doppler Velocimetry (LDV) optical technique to provide reliable, robust length and speed measurements of small, bouncing and unguided cylindrical moving products. From bare conductor wire...to small plastic tubing...to hot metal cylindrical rods, the LaserSpeed M Series gauge enables manufacturers to effectively control product speed and process functions in the most challenging production applications.

Issues with Bouncing, Moving Product?
LDV has been a long-proven method for accurately measuring the length and speed of products. But many applications involving the production of long, continuous cylindrical products pose measurement challenges. Products that cannot be well-guided, move off-axis and move out of the measurement range make it difficult for traditional LDV-based gauges to keep the laser on the product’s surface. This results in hard-to-obtain and unreliable length and speed measurements. Cylindrical products that are small and/or have a severe curvature compound this measurement issue.

The Cost of Unreliability
These measurement issues can dramatically affect the ability to control product speed, achieve accurate cut-to-length requirements and other critical process functions. Moreover, unreliable measurements can cost your organization a significant amount of money due to product give-away, waste resulting from scrap, loss in productivity, process downtime and other conditions.

Applications:
Use LaserSpeed Pro M Series in critical measurement applications such as hot and cold:
► Bare conductor wire
► Insulated primary wire
► Cable
► Steel/Copper wire draw lines
► Metal rod/bar*
► Small pipe/tube/hose
► Metal and non-metallic cord
► And other hard-to-measure cylindrical products

*Examples of metal bar/rod applications: reducing/sizing mills, non-twist rolling mills, prediction of tension, speed monitoring in mass flow automatic gauge control and cut-to-length measurement in torch/saw/shear operations.
Making Light Work

Airwipe and Quick-Change Window
Designed for dirty environments, the airwipe and quick change window help to ensure minimal downtime for window cleaning.

Breakout Box/Power Supply
Provides easy access to all gauge inputs and outputs. Also provides power to the LaserSpeed Pro.

Environmental Housing
Provides heavy-duty, double-sealed protection against hot and humid environments.

Accessory Case
A convenient case to hold the LaserSpeed Pro and all accessories safe and secure.

There is No Comparable Measurement Solution on the Market Today

How it Works
The LaserSpeed Pro M Series gauge is engineered with a proprietary optical engine not found in any other measurement system. It uses a special LDV beam method to project a unique laser pattern on the surface of the moving product. As small, bouncing and unguided cylindrical products move through an optimized measurement range, the LaserSpeed Pro M Series gauge reliably measures the length and speed with the highest repeatable accuracy.

Accessories

► Delivers unparalleled performance on hard-to-measure, round moving products regardless of size, curvature, material type, color or texture
► Permanently calibrated and no moving parts for lowest cost of ownership
► Easily integrates into the process with the widest range of connectivity options: ModBus TCP, Ethernet/IP and Profinet IO, as well as fieldbus support for Profinbus DP
► LaserSpeed Pro Webserver enables direct connection to gauge via IP address for diagnostics, data storage, trending, LaserTrak gauge setup and operation tools, and more
► 2-year product warranty on all components / 3-year warranty on advanced ultra-stable laser diode that provides the industry’s longest lifespan

► Delivers unparalleled performance on hard-to-measure, round moving products regardless of size, curvature, material type, color or texture
► Permanently calibrated and no moving parts for lowest cost of ownership
► Easily integrates into the process with the widest range of connectivity options: ModBus TCP, Ethernet/IP and Profinet IO, as well as fieldbus support for Profinbus DP
► LaserSpeed Pro Webserver enables direct connection to gauge via IP address for diagnostics, data storage, trending, LaserTrak gauge setup and operation tools, and more
► 2-year product warranty on all components / 3-year warranty on advanced ultra-stable laser diode that provides the industry’s longest lifespan

Accessories

Airwipe and Quick-Change Window
Designed for dirty environments, the airwipe and quick change window help to ensure minimal downtime for window cleaning.

Breakout Box/Power Supply
Provides easy access to all gauge inputs and outputs. Also provides power to the LaserSpeed Pro.

Environmental Housing
Provides heavy-duty, double-sealed protection against hot and humid environments.

Accessory Case
A convenient case to hold the LaserSpeed Pro and all accessories safe and secure.

DP700 Display NEW!
Displays LaserSpeed Pro length, velocity, quality factor and gauge status, and lets you configure gauge and process settings. Includes Ethernet/IP and Modbus TCP for Allen Bradly controls.

Adjustable Mounting Bracket
Enables you to adjust or tilt the gauge in three axes to achieve the desired measurement angle for your unique application.
### LS Pro 8500-4 M Series

<table>
<thead>
<tr>
<th>Feature</th>
<th>LS Pro 8500: &gt;50,000/s</th>
<th>Acceleration Rate</th>
<th>LS Pro 8500: &gt;50,000/s</th>
<th>Acceleration Rate</th>
<th>User Isolated Voltage</th>
<th>5 to 24 VDC [300mA]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standoff Distance</td>
<td>-403 300 mm (12 in.)</td>
<td>550 m/s²</td>
<td>-406 600 mm (24 in.)</td>
<td>1000 mm (39.4 in.)</td>
<td>±50 m/s²</td>
<td>Non-condensing</td>
</tr>
<tr>
<td>Speed Range</td>
<td>-403 0.4 to 4000 m/min</td>
<td></td>
<td>-406 0.8 to 8000 m/min</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1.3 to 13100 ft/min)</td>
<td></td>
<td>(2.6 to 26200 ft/min)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-410 1.0 to 12000 m/min</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(3.2 to 39400 ft/min)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accuracy</td>
<td>-403 &lt;±0.05% of reading</td>
<td></td>
<td>-410 Depth of Field &lt;25 mm: &lt;±0.10% of reading</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Depth of Field &gt;25 mm: &lt;±0.15% of reading</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Repeatability</td>
<td>-403 ±0.02%</td>
<td></td>
<td>-406 ±0.02%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-410 ±0.02%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measurement Depth of Field</td>
<td>-403 20 mm (0.8 in.)</td>
<td></td>
<td>-410 Depth of Field &lt;25 mm: &lt;±0.10% of reading</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-406 30 mm (1.2 in.)</td>
<td></td>
<td></td>
<td>Depth of Field &gt;25 mm: &lt;±0.15% of reading</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-410 40 mm (1.6 in.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measurement Height (Y axis)</td>
<td>-403 20 mm (0.8 in.)</td>
<td></td>
<td>-410 Depth of Field &lt;25 mm: &lt;±0.10% of reading</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-406 20 mm (0.8 in.)</td>
<td></td>
<td></td>
<td>Depth of Field &gt;25 mm: &lt;±0.15% of reading</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-410 20 mm (0.8 in.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Gauge can be cooled with air, water or encased in a protective housing (E or X).