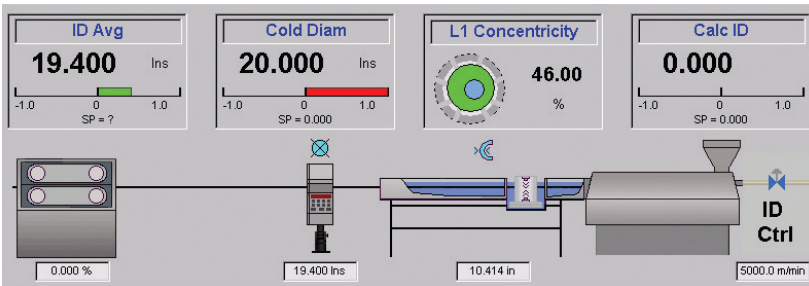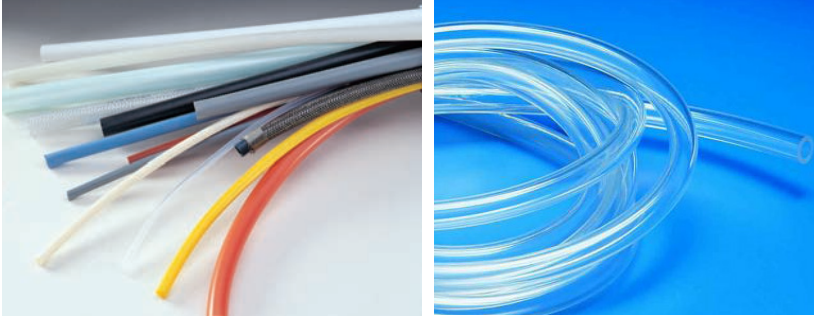# DATAPRO SERIES

DataPro 5000

BETA LaserMike
An NDC Technologies Brand

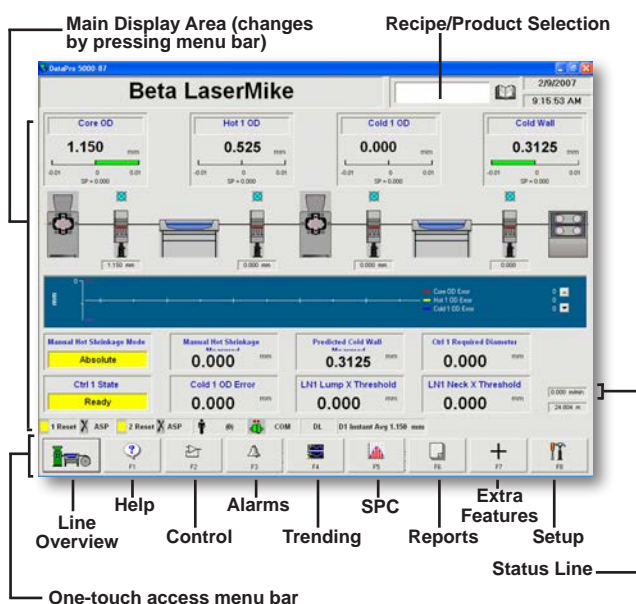## Process control and data management systems for pipe and tube manufacturing

► Capture real-time product and process data from Beta LaserMike gauges during production

► Optimize your process with closed-loop feedback for efficient, quality manufacturing

► Reduce start-up time, downtime and scrap by using live cross-sectional views to instantly make die-centering adjustments

► Use SPC data to improve process trends and enhance your quality documentation

BETA LaserMike Products

Intelligence that transforms the world.

Comprehensive Process Controller
& Data Management System

DataPro 5000

DataPro 5000

BETA LaserMike
An NDC Technologies Brand

The DataPro 5000 is a high-end, fully featured process controller and data management system. It has an easy-to-use, touch-screen interface that provides an intuitive, color graphical overview of product dimensions and process parameters. DataPro 5000 is designed with various users in mind: operators, supervisors, process engineers, and plant managers. The user interface can be quickly configured to meet your unique informational needs and allows efficient access to data.

Easy-To-Use Touch Screen Interface

Broad Range of Inputs/Outputs (I/O)*

- 8 Digital I/O (24 VDC)
- 4 Analog I/O (±10 V, 12 bit) including:
  - Analog summing junction control outputs
- 8 Relays including:
  - Contact alarm outputs
  - Contact control outputs
- Ethernet 10/100 Base T
- Serial (RS-232) and USB
- Parallel port
- USB/Network printer port
- VGA output for additional monitor
- Line speed/length measurement input (via Analog, pulse, or differential inputs A/B)

The number of inputs/outputs can vary based on application needs. Discuss communication requirements with our application specialists.

DataPro 5000 Features:

- Color touch-screen display
- Line overview page
- Closed-loop control (2 control loops, auto set-pointing)
- Alarming for warning and tolerance limits, including alarm history log
- Real-time Trending (configurable trend charts)
- Real-time Statistical Process Control (SPC) with on-screen statistics and charts
- Reporting capabilities including customizable printed or electronic reports (product ID/product lot number/batch reports)
- Data logging (configurable local or network data logging)
- Recipes (unlimited product recipes for quick changeovers)
- Security (10 levels of security for system protection)
- Networking (Ethernet and USB ports allow easy data access)
- Instant support of multiple languages for operation and printing; user-customizable

Options

- Industrial enclosure – arm or pedestal mountable
- Industrial remote touch-screen – includes VGA extender and industrial enclosure
- Standard remote touch-screen – includes VGA extender, but does not include enclosure
- Pedestal stand for enclosures – controller industrial enclosure or remote touch screen
- Uninterruptable Power Supply (UPS) – with serial output to shut down controller at power loss

Intelligence that transforms the world.

Real-Time Monitoring of
Process and Product Quality Data

<< **DataPro 5000 Line Overview Page** provides a complete line overview along with relevant process data. Can be easily customized to meet your unique data set requirements. Dashboard-style view lets you prioritize efforts to continuously enhance the quality of your product and overall process.
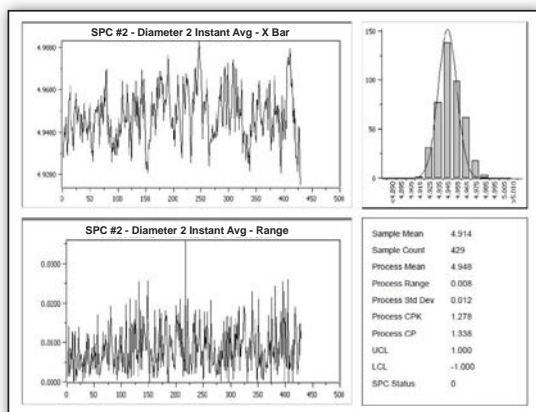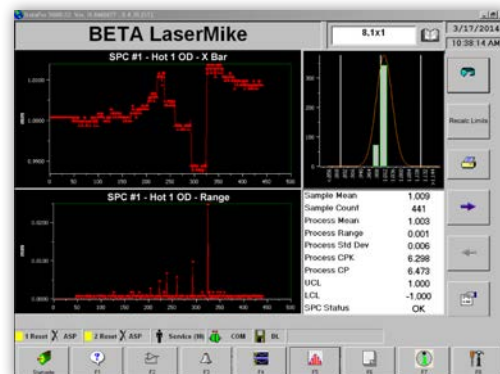
DataPro 5000 Eccentricity View enables you to >> accurately monitor the eccentricity of wire and cable conductors during extrusion and insulation processes to reduce start-up time, avoid material give-away/waste, and improve product quality.

<< **DP5000 Real-Time Trend Charts** allow you to easily select the data set you want to track and record with just the touch of a fingertip.

DataPro 5000 SPC Data Analysis feature collects and >> displays process data on 8 individual channels. Customized SPC calculations help you to improve product trends and the effectiveness of your quality system documentation for customer and auditor compliance efforts.

<< **DP5000 Reporting** feature lets you create and print custom error and SPC reports with graphical distribution to document product and process quality. Reports can be triggered manually or automatically, for example, via a production event and stored electronically or printed to hard copy. You can also generate spool reports with critical cable measurement data.

<< **DP5000 Data Logging** feature allows you to record and analyze process data without having to stand near and observe the extrusion line. Data can be logged manually or automatically to a local drive at the DataPro 5000 or to a network drive away from the plant floor. The time interval can be adjusted from 1 second to 10 minutes.

```
*DataPro 5000 Datalog File
Started 14-Mar-14
15:15:01
*DataLog_Line35_14-Mar-14
*Time        OD1      OVALITY1
15:15:31     1.026    0.124
15:16:01     1.027    0.125
15:16:31     1.036    0.134
15:17:01     1.040    0.135
15:17:31     1.035    0.134
15:18:01     1.039    0.137
15:18:31     1.041    0.136
15:19:01     1.029    0.127
15:19:31     1.021    0.119
15:20:01     1.030    0.128
15:20:31     1.029    0.127
```

High-Quality, Mid-Range
Process Controller & Data Management System
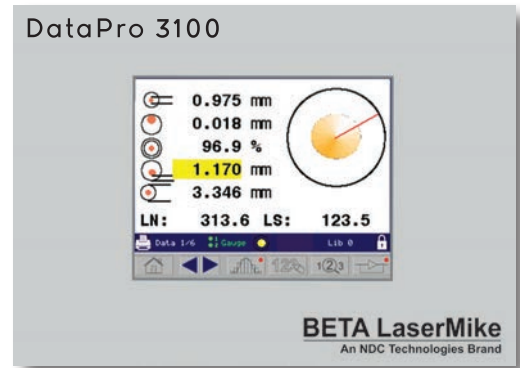
DataPro 3100

The DataPro 3100 is a mid-r ange process controller with integrated data management system. It has a bright, color touch-screen display for easy viewing on the production line. It is simple to use, yet offers power control capabilities in a compact design.

DataPro 3100 Features:

- Color TFT touch-screen display

- Provides power and communication for up to two gauges

- Die centering cross-section display when used with UltraScan gauges for wall thickness measurement (1-layer only)

- Magnified display for longer viewing range

- Closed-loop control (1 control loop)

- Alarming for warning and tolerance limits

- Statistical Process Control (SPC) with on-screen statistics

- Reporting (fixed hard-copy reports)

- Recipes (100 product recipes for quick changeovers)

- Security (3 levels of security for system protection)

- Instant support of multiple languages for operation and printing

Option

- Industrial enclosure—pedestal mountable and 48.26 mm (19 in.) rack adapters

DataPro 3100

BETA LaserMike
An NDC Technologies Brand

Variety of Inputs/Outputs (I/O)

- 5 Digital I/O (24 VDC)

- 2 Analog I/O (±10 V, 12 bit):
    - Analog summing junction control outputs
    - Programmable Analog output

- 4 Relays including:
    - Contact alarm outputs
    - Contact control outputs

- Open collector stepper motor control outputs

- USB printer port*

- Ethernet configuration & Data I/O

- Line speed/length measurement input (via Analog, pulse, or differential inputs A/B)

DataPro 3100 Specifications			
Display	14.5 cm (5.7 in) TFT touch screen	**Printed reports**	Yes (fixed)
Gauge support**	UltraScan Pro AccuScan 4000/5000/6000 LaserSpeed Pro	**Data logging**	Via Ethernet
		Serial ports	RS-232 (2) to gauges only
Max gauges	2	**Ethernet port**	Configuration & Data Output
Applications	Inner/Outer Diameter Wall & Concentricity Length & Speed	**Alarming**	Yes
		Product recipes	Yes (100)
Cross-section display	Yes (1 layer only)	**Security**	3 levels (operator, supervisor, service)
Control loops	1	**Remote display output**	No
Auto setpoint control	No	**I/O**	Digital, analog, relay contacts, serial, USB printer & Ethernet
SPC	2 numeric channels		
Trend charts	Yes		

*Supports Epson 890II Printer
**Includes two (2) 24V sockets for powering gauges

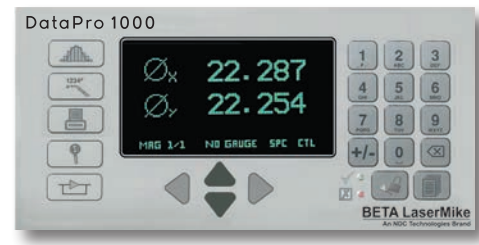Intelligence that transforms the world.

Economical
Process Controller & Indicator

DataPro 1000

The DataPro 1000 is an economical process controller, as well as an indicator for diameter control operations. It offers a self-tuning controller display to achieve the best results when capturing product diameter measurements. The DataPro 1000 offers the best of both worlds when looking for a cost effective but powerful package.

DataPro 1000 Features:

- Ultra-bright, multi-line vacuum fluorescent display
- Magnified display for longer viewing range
- Supports 1 diameter gauge
- Closed-loop control (1 control loop)
- Alarming for warning and tolerance limits
- Statistical Process Control (SPC) with on-screen statistics
- Programmable analog output
- Ethernet data transmission
- Reporting (fixed hard-copy reports)
- USB printer port (True Type)
- Instant support of multiple languages (English, Spanish, German, and Portuguese)
- Security (two levels)

Array of Inputs/Outputs (I/O):

- 5 Digital I/O (24 VDC)
- 2 Analog I/O (±10 V, 12 bit):
  - Analog summing junction control output
  - Programmable Analog output
- 4 Relays including:
  - Contact alarm outputs
  - Contact control outputs
- Open collector stepper motor control outputs
- USB printer port*
- Line speed/length measurement input (via Analog, pulse, or differential inputs A/B)
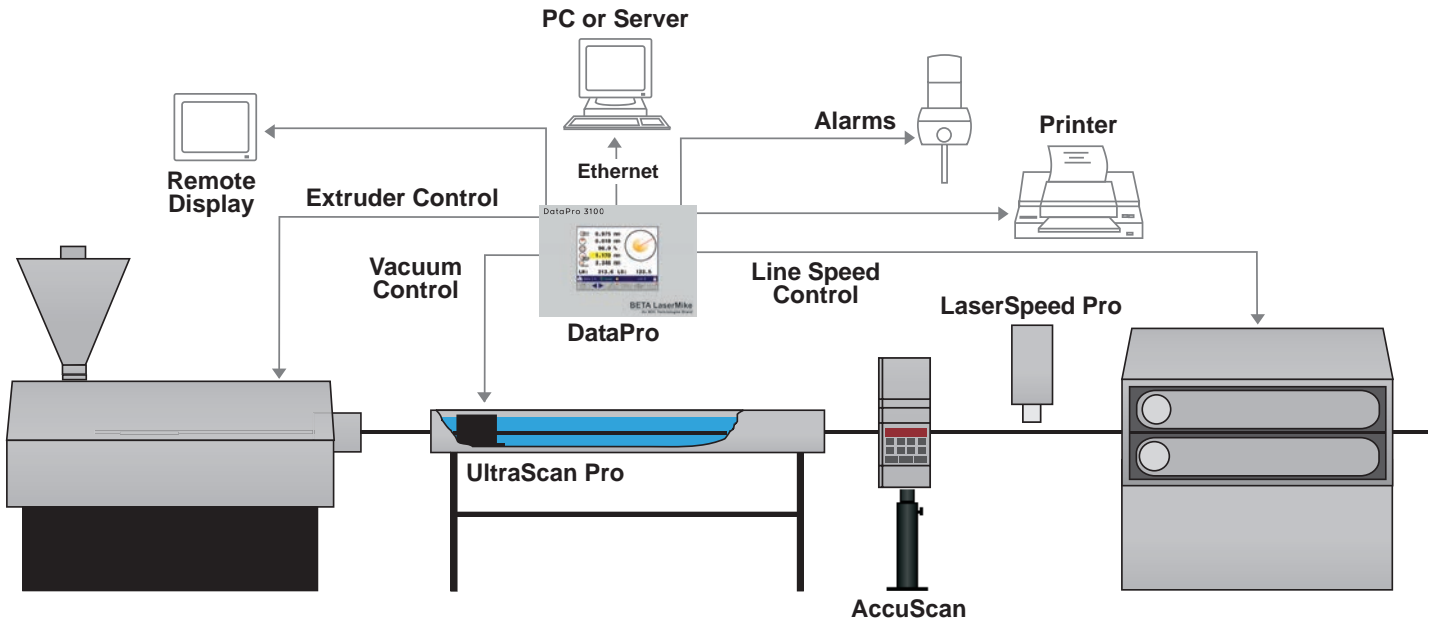- Ethernet configuration & Data I/O

Option

- -Industrial enclosure—pedestal mountable and 48.26 mm (19 in.) rack adapters

DataPro 1000 Specifications				
Display	10.4 cm (4.1 in) Vacuum fluorescent	Printed reports	Yes (fixed)
Gauge support	AccuScan 4000/5000/6000 LaserSpeed Pro	Data logging	No
Max gauges	1	Serial ports	RS-232 to gauge only
Applications	Outer Diameter Length & Speed	Ethernet port	Data Output
		Alarming	Yes
Cross-section display	No	Product recipes	No
Control loops	1	Security	2 levels (operator, service)
Auto setpoint control	No	Remote display output	No
SPC	1 numeric channels	I/O	Digital, analog, relay contacts, serial, USB printer & Ethernet
Trend charts	No		

*Supports Epson 890II Printer

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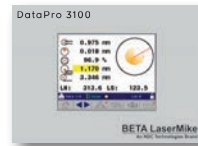
Integration with In-Process
Dimensional Measurement Products

DataPro controllers are designed for easy and flexible integration with Beta LaserMike in-process dimensional gauges on extrusion lines, such as AccuScan diameter and ovality gauges, UltraScan Pro wall and concentricity gauges and LaserSpeed Pro length and speed gauges. DataPro can also be integrated with other devices and systems including alarm lights and printers to the actual extruder, puller, or vacuum tank.
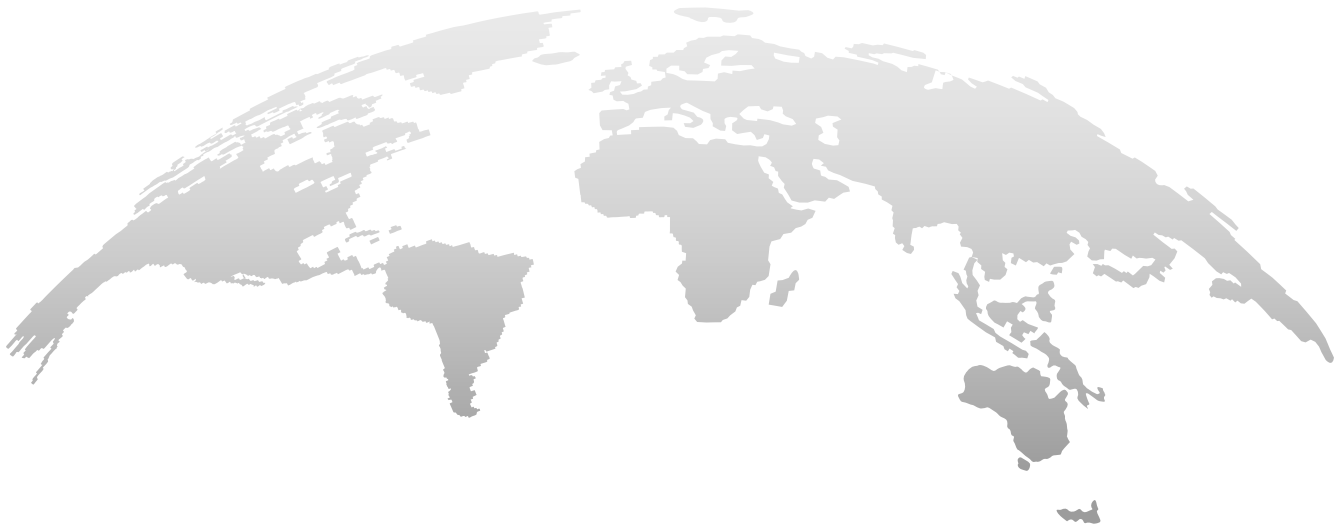
DataPro Controller Models

DataPro 5000

DataPro 3100

DataPro 1000

DataPro Controller Models			
Feature	**DataPro 5000**	**DataPro 3100**	**DataPro 1000**
Display	38.1 cm (15 in.) TFT touch screen	14.5 cm (5.7 in.) TFT touch screen	10.4 cm (4.1 in.) Vacuum fluorescent
Gauge support	AccuScan 4000/5000/6000 UltraScan Pro Shaped Products (i.e., sector, overhead) LaserSpeed Pro Lump & Neck CenterScan CapScan Preheater	AccuScan 4000/5000/6000 UltraScan Pro Shaped Products (i.e., sector, overhead) LaserSpeed	AccuScan 4000/5000 LaserSpeed Pro Shaped Products (i.e., sector, overhead)
Max gauges	10	2	1
Applications	Inner/Outer Diameter Wall & Concentricity Length & Speed Fault Detection Eccentricity Capacitance Preheating	Inner/Outer Diameter Wall & Concentricity Length & Speed Eccentricity	Outer Diameter Length & Speed
Cross-section display	Yes (multi-layer possible)	Yes (1 layer only)	No
Control loops	2	1	1
Auto setpoint control	Yes	No	No
SPC	8 graphical channels	2 numeric channels	1 numeric channel
Trend charts	5 channels	Yes (ultrasonic)	No
Printed reports	Yes (custom)	Yes (fixed)	Yes (fixed)
Data logging	Yes	No	No
Serial ports	RS-232	RS-232 (2)	RS-232
Ethernet port	Yes (10/100 Base T)	Configuration & Data Output	Data Output
Alarming	Yes	Yes	Yes
Product recipes	Yes (not limited)	Yes (100)	No
Security	10 levels (custom)	3 levels (operator, supervisor, service)	2 levels (operator, service)
Remote display output	VGA with optional touch screen	No	No
I/O	Digital, analog, relay contacts, serial, USB, parallel, Ethernet & VGA	Digital, analog, relay contacts, serial, USB printer & Ethernet	Digital, analog, relay contacts, serial, USB printer & Ethernet

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Optimizing Your Investment with World-Class Service and Support

Nordson's technical expertise comes from deep experience supporting thousands of products at the world's leading manufacturers. Our portfolio of support offerings leverages this expertise to assist you through the service lifecycle. We offer a complete range of cost-effective support solutions including commissioning, training, technical support and service agreements. Customers rely on our 24-7 availability via myNDC – the industry's most progressive service cloud portal. Whether it's configuring new equipment, training your technical staff or solving a technical problem, you can count on our experienced team to help maintain the health and performance of your BETA LaserMike product.

Visit myNDC service cloud at ndc.custhelp.com.

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