

# G-NET Verification System



*Integrated detection and verification system enhances quality to reduce production and shipping losses in adhesive applications.*



Nordson's G-NET verification system is a comprehensive on-line quality control network that provides adhesive pattern detection, product inspection and production measurement. The microprocessor-based monitoring system offers extensive protection against rejects and product waste. The G-NET verification system is ideal for critical high-speed operations, such as the manufacture of corrugated, bags and sacks, envelopes and post-press products.

Real-time monitoring on the production line simultaneously detects faulty patterns and product features that can cause production delays or shipping losses due to unsealed products. This inclusive system also monitors and reports production performance for operating and cost analyses.

Patented glue sensors require no adhesive additives or tracers that can conflict with regional food and drug regulations or deteriorate adhesive characteristics and machineability. Unlike laser- or microwave-based sensors, Nordson glue sensors operate at greater tolerance levels with higher resolution for more accurate readings without false errors. Nordson sensors provide a response time of 100 microseconds with a resolution of  $\pm 1$  millimeter and handle complex patterns in high-speed operations.

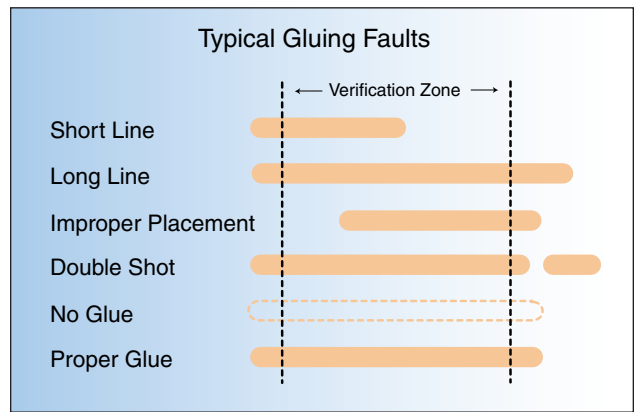
The system monitors a misfeed, skew or overlap and bent or missing flaps. Each system accepts up to eight glue sensors and may use two additional sensors for detecting bar code and double-fed products. In-line ejectors remove rejects to a collection basket, and an automatic machine-stop control minimizes jams that can back up production.

The G-NET control integrates and tracks all system functions. An intuitive console design simplifies operator programming of all pattern and feature tolerances. The control recognizes repeating patterns and initiates a teach mode to speed programming. Operators can visually monitor glue sensor activity via a graphic display that shows individual depositions in real-time as they occur on the substrate.

The G-SITE network interface provides the junction for all inputs and outputs of single and multiple units to the G-NET console. This functional network architecture allows operators to adapt sensors and configure locally without rerouting cable to the console.

## Features and Benefits

- **Sensor technology does not require adhesive additives** that can negatively affect adhesive machineability, characteristics, bonding results and formulation changeovers.
- **Easy-to-understand and operate console** simplifies daily use.
- **Single-sided sensor and G-SITE network interface** simplify mounting and speed installation.
- **Online graphic video display of up to eight glue sensors** in as many as four zones provides a discrete reading of each adhesive deposition.
- **Printed production report** documents statistical data for each shift and generates timely summaries to help measure productivity and costs.



## Specifications

### G-NET SYSTEM

<b>Capabilities</b>	4 zone triggers, 8 glue sensors, 2 external-force sensors, tracking and ejection, batch counting and kicking, report printing, built-in horn alarm, RS232 compatible
<b>Options</b>	Remote horn, remote beacon, kicker, ejector, ink marking
<b>Interfaces</b>	Bar code scanners; other special purpose sensors
<b>Real-Time Graphic Display</b>	1/4 VGA
<b>Line Speed</b>	0 to 700 m/min (0 to 2300 ft/min)
<b>Mounting</b>	Stand mount or articulated arm
<b>Electrical Service</b>	110-240 VAC, 50/60 Hz

### SENSOR (GD100 and GD100W)

<b>Response Time</b>	100 microseconds
<b>Minimum Bead Size</b>	1 mm extrusion and wheel deposition; 0.5 mm diameter dot deposition
<b>Distance to Substrate</b>	20 mm (0.79 in.)
<b>Light Source Life</b>	50,000 hours minimum

### Dimensions

<b>Sensor Amplifier</b>	191 x 64 x 25 mm (7.5 x 2.5 x 1.0 in.)
<b>Sensor Lens</b>	16 mm dia. x 70 mm (0.63 in. dia. x 2.75 in.)
<b>Fiberoptic</b>	457 or 813 mm (18 or 32 in.)
<b>G-NET</b>	356 x 330 x 203 mm (14 x 13 x 8 in.)
<b>G-SITE</b>	305 x 254 x 76 mm (12 x 10 x 3 in.)



For more information, talk with your Nordson representative or contact your Nordson regional office.

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