

# Pepperl+Fuchs Inductive Sensor Model NBN30-L2-B3B-V1

## Technical Specifications:

|                              |                                                                              |
|------------------------------|------------------------------------------------------------------------------|
| Device Type                  | Inductive proximity sensor, non-flush (unshielded), programmable             |
| Sensing Distance             | 30 mm nominal                                                                |
| Assured Operating Distance   | 0 ... 24.3 mm                                                                |
| Switching Function           | Programmable NO/NC                                                           |
| Interface                    | AS-Interface (2-wire, node type A/B, up to 62 nodes)                         |
| Operating Voltage            | 26.5 ... 31.9 V DC (via AS-i bus)                                            |
| Switching Frequency          | 0 ... 100 Hz                                                                 |
| Hysteresis                   | Approx. 5%                                                                   |
| No-load Supply Current       | ≤ 40 mA                                                                      |
| Response Delay               | ≤ 1000 ms                                                                    |
| Protective Features          | Reverse polarity protection, oscillator monitoring, short-circuit protection |
| LED Indicators               | Green (power), Yellow (switching), Red (error)                               |
| Functional Safety Parameters | MTTFd: 1330 years, TM: 20 years, DC: 0%                                      |
| Operating Temperature        | -25 °C ... +70 °C                                                            |
| Storage Temperature          | -40 °C ... +85 °C                                                            |
| Housing / Material           | Polyamide (PA) housing and sensing face                                      |
| Enclosure Rating             | IP67                                                                         |
| Connection                   | M12 × 1, 4-pin connector plug                                                |
| Weight                       | Approx. 210 g                                                                |
| Dimensions                   | 67 mm length × 40 mm width/height                                            |
| Standards & Certificates     | EN/IEC 60947-5-2, UL/cULus, CCC approved                                     |

## SEO Content:

The Pepperl+Fuchs NBN30-L2-B3B-V1 inductive sensor is a robust and programmable solution with AS-Interface connectivity, designed for modern industrial automation. Offering a long sensing distance of 30 mm, programmable NO/NC switching, and clear LED indicators for power, switching, and error, this sensor ensures flexibility and reliability. Its IP67-rated housing, wide temperature range, and long service life (MTTFd > 1300 years) make it ideal for demanding environments, robotics, packaging, and material handling applications.

## Key Features:

- 30 mm sensing distance, programmable NO/NC output
- AS-Interface connectivity with up to 62 nodes
- Built-in reverse polarity and oscillator fault monitoring
- LED indicators: green (power), yellow (switching), red (error)
- Durable polyamide housing with IP67 protection
- Rotatable sensor head for easy installation
- MTTFd of 1330 years for high reliability

- Wide operating temperature range: -25 °C to +70 °C
- Compliance with EN/IEC 60947-5-2 and UL/cULus certifications

### **Applications:**

- Modular assembly lines requiring scalable sensor networks
- Industrial automation with programmable sensor behavior
- Rugged environments requiring IP67 protection
- Robotics, packaging, and material handling systems
- Applications needing real-time diagnostics and status feedback