

# Inductive Proximity Sensors

## 1.27mm to 1.5mm Sensing Range

3-Wire  
DC

Inductive

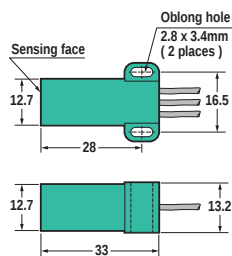
| Specifications                                                                                                                                                                                                                                                                                                                                                                                                            |                        | 3-Wire DC                                                                                                                 |                                                                                                    |                                                                                                                     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|---------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| SENSING RANGE                                                                                                                                                                                                                                                                                                                                                                                                             |                        | 1.27mm                                                                                                                    | 1.27mm                                                                                             | 1.5mm                                                                                                               |
| SHIELDED                                                                                                                                                                                                                                                                                                                                                                                                                  |                        | Yes                                                                                                                       | Yes                                                                                                | Yes                                                                                                                 |
| MODEL NUMBER(S)                                                                                                                                                                                                                                                                                                                                                                                                           |                        | 101XK11-1                                                                                                                 | 101XK11-Q                                                                                          | —                                                                                                                   |
|                                                                                                                                                                                                                                                                                                                                                                                                                           |                        | —                                                                                                                         | —                                                                                                  | NBB1.5-6.5M20-E2-V3                                                                                                 |
| <b>OUTPUT:</b><br>Transistor,<br>Normally Open                                                                                                                                                                                                                                                                                                                                                                            | Suffix <b>E0/E/Q/1</b> | NPN, sinking                                                                                                              | NPN, sinking                                                                                       | —                                                                                                                   |
|                                                                                                                                                                                                                                                                                                                                                                                                                           | Suffix <b>E2</b>       | —                                                                                                                         | —                                                                                                  | PNP, sourcing                                                                                                       |
| LOAD CURRENT                                                                                                                                                                                                                                                                                                                                                                                                              |                        | 20mA max.                                                                                                                 | 20mA max.                                                                                          | 200mA max.                                                                                                          |
| LEAKAGE CURRENT                                                                                                                                                                                                                                                                                                                                                                                                           |                        | ≤10μA                                                                                                                     | ≤10μA                                                                                              | ≤10μA                                                                                                               |
| VOLTAGE DROP                                                                                                                                                                                                                                                                                                                                                                                                              |                        | ≤1VDC                                                                                                                     | ≤1VDC                                                                                              | ≤2VDC                                                                                                               |
| SHORT CIRCUIT AND<br>OVERLOAD PROTECTION                                                                                                                                                                                                                                                                                                                                                                                  |                        | Yes                                                                                                                       | Yes                                                                                                | Yes                                                                                                                 |
| REVERSE POLARITY<br>PROTECTION                                                                                                                                                                                                                                                                                                                                                                                            |                        | Yes                                                                                                                       | Yes                                                                                                | Yes                                                                                                                 |
| SUPPLY VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                            |                        | 6-16VDC                                                                                                                   | 6-16VDC                                                                                            | 10-30VDC                                                                                                            |
| LED(s)                                                                                                                                                                                                                                                                                                                                                                                                                    |                        | No                                                                                                                        | No                                                                                                 | Yes (1) 4-way                                                                                                       |
| CURRENT CONSUMPTION                                                                                                                                                                                                                                                                                                                                                                                                       |                        | ≤18mA                                                                                                                     | ≤18mA                                                                                              | ≤10mA                                                                                                               |
| REPEATABILITY                                                                                                                                                                                                                                                                                                                                                                                                             |                        | ≤.01mm                                                                                                                    | ≤.01mm                                                                                             | ≤.01mm                                                                                                              |
| HYSTERESIS                                                                                                                                                                                                                                                                                                                                                                                                                |                        | 3-15%(5% typical)                                                                                                         | 3-15%(5% typical)                                                                                  | 3-15%(5% typical)                                                                                                   |
| SWITCHING FREQUENCY                                                                                                                                                                                                                                                                                                                                                                                                       |                        | 1kHz                                                                                                                      | 1kHz                                                                                               | 2kHz                                                                                                                |
| ELECTROMAGNETIC<br>COMPATIBILITY COMPLIANCE                                                                                                                                                                                                                                                                                                                                                                               |                        | NEMA ICS5-2000<br>See page 6                                                                                              | NEMA ICS5-2000<br>See page 6                                                                       | NEMA ICS5-2000<br>See page 6                                                                                        |
| PROTECTION IEC                                                                                                                                                                                                                                                                                                                                                                                                            |                        | IP67                                                                                                                      | IP67                                                                                               | IP67                                                                                                                |
| AMBIENT TEMPERATURE                                                                                                                                                                                                                                                                                                                                                                                                       |                        | -40°F to +212°F                                                                                                           | -40°F to +212°F                                                                                    | -14°F to +158°F                                                                                                     |
| HOUSING MATERIAL                                                                                                                                                                                                                                                                                                                                                                                                          |                        | Glass-filled thermoplastic polyester                                                                                      | Glass-filled thermoplastic polyester                                                               | Stainless steel                                                                                                     |
| SENSING FACE                                                                                                                                                                                                                                                                                                                                                                                                              |                        | Glass-filled thermoplastic polyester                                                                                      | Glass-filled thermoplastic polyester                                                               | Crastin                                                                                                             |
| <b>APPROVALS</b><br> General Purpose<br><br> General Purpose<br> Nonincendive |                        | No                                                                                                                        | No                                                                                                 | Yes                                                                                                                 |
|                                                                                                                                                                                                                                                                                                                                                                                                                           |                        | No                                                                                                                        | No                                                                                                 | Yes                                                                                                                 |
|                                                                                                                                                                                                                                                                                                                                                                                                                           |                        | No                                                                                                                        | No                                                                                                 | No                                                                                                                  |
| ELECTRICAL CONNECTION                                                                                                                                                                                                                                                                                                                                                                                                     |                        |  305mm wires<br>PVC covered,<br>#22AWG |  Solder<br>type |  Quick<br>disconnect<br>type V3 |

See pages  
767-812  
for cordsets

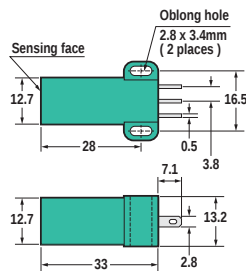
### Dimensions (mm)

 Metal  Crastin or glass-filled thermoplastic polyester

**MS Series**  
**101XK11-1**



**MS Series**  
**101XK11-Q**



**Basic Series**  
**NBB1.5-6.5M20-E2-V3**

