

# Inductive Sensors



| Housing Style                                                | Part Number          | ID Number | Features       | Sensing Range (mm) | Output          |
|--------------------------------------------------------------|----------------------|-----------|----------------|--------------------|-----------------|
| <b>12 mm - Embeddable, <i>picofast</i>® Connection</b><br>   | Bi 2-G12-AN6X-V1131  | T4635583  |                | 2                  | 3-Wire DC NPN   |
|                                                              | Bi 4-G12-AN6X-V1131  | T1690707  | Extended Range | 4                  |                 |
|                                                              | Bi 2-G12-AP6X-V1131  | T4606597  |                | 2                  | 3-Wire DC PNP   |
|                                                              | Bi 4-G12-AP6X-V1131  | T1690703  | Extended Range | 4                  |                 |
|                                                              | Ni 5-G12-AN6X-V1131  | T4635721  |                | 5                  | 3-Wire DC NPN   |
|                                                              | Ni 5-G12-AP6X-V1131  | T4635690  |                | 5                  | 3-Wire DC PNP   |
| <b>12 mm - Embeddable, <i>eurofast</i>® Connection</b><br>   | Bi 2-G12-AN6X-H1141  | T4606693  |                | 2                  | 3-Wire DC NPN   |
|                                                              | Bi 2-G12-AP6X-H1141  | T4606595  |                | 2                  | 3-Wire DC PNP   |
|                                                              | Bi 4-EG12-AP6X-H1141 | T4607091  | Extended Range | 4                  |                 |
| <b>12 mm - Nonembeddable, <i>eurofast</i> Connection</b><br> | Ni 5-G12-AN6X-H1141  | T4635793  |                | 5                  | 3-Wire DC NPN   |
|                                                              | Ni 5-G12-AN7X-H1141  | T1714593  |                | 5                  |                 |
|                                                              | Ni 8-G12-AN6X-H1141  | T4611383  | Extended Range | 8                  |                 |
|                                                              | Ni 5-G12-AP6X-H1141  | T4635692  |                | 5                  | 3-Wire DC PNP   |
| <b>12 mm - Nonembeddable, <i>eurofast</i> Connection</b><br> | Ni 5-G12-Y0-H1141    | T1005594  |                | 5                  | 2-Wire DC NAMUR |
| <b>12 mm - Embeddable, <i>eurofast</i> Connection</b><br>    | Bi 2-G12K-AP6X-H1141 | M4670260  |                | 2                  | 3-Wire DC PNP   |

For detailed sensor specifications see Section M.  
Normally Closed versions available upon request, consult factory.

### 3-Wire DC - (AN, RN, AP, RP)

|                                                   |                                                   |
|---------------------------------------------------|---------------------------------------------------|
| Ripple . . . . .                                  | ≤10%                                              |
| Differential Travel (Hysteresis) . . . . .        | 3-15% (5% typical)                                |
| Voltage Drop Across Conducting Sensor . . . . .   | ≤1.8 V                                            |
|                                                   | - Si...K08/K10(AP71, AN7). . . ≤0.7 V             |
|                                                   | - Bi/Ni../S34 . . . . . ≤1.8 V                    |
|                                                   | - Bi 2-Q8SE-AP/AN.. . . . ≤2.5 V                  |
| Trigger Current for Overload Protection . . . . . | ≥220 mA on 200 mA Load Current                    |
|                                                   | ≥170 mA on 150 mA Load Current                    |
|                                                   | ≥120 mA on 100 mA Load Current                    |
| Off-State (Leakage) Current . . . . .             | <100 µA                                           |
| No-Load Current . . . . .                         | <10 mA ( <b>Uprox</b> ≤15 mA)                     |
| Time Delay Before Availability . . . . .          | ≤8 ms                                             |
| Power-On Effect . . . . .                         | Per IEC 947-5-2                                   |
| Reverse Polarity Protection . . . . .             | Incorporated                                      |
| Wire-Break Protection . . . . .                   | Incorporated                                      |
| Transient Protection . . . . .                    | Per EN 60947-5-2                                  |
| Shock . . . . .                                   | 30 g, 11 ms                                       |
| Vibration . . . . .                               | 55 Hz, 1 mm Amplitude in all 3 Planes             |
| Repeatability . . . . .                           | ≤2% of Rated Operating Distance                   |
|                                                   | Bi 2-Q8SE-AP/AN.. ≤5% of Rated Operating Distance |

### 4-Wire DC (VN, VP)

|                                                   |                                       |
|---------------------------------------------------|---------------------------------------|
| Ripple . . . . .                                  | ≤10%                                  |
| Differential Travel (Hysteresis) . . . . .        | 3-15% (5% typical)                    |
| Voltage Drop Across Conducting Sensor . . . . .   | ≤1.8 V at 200 mA                      |
| Trigger Current for Overload Protection . . . . . | ≥220 mA on 200 mA Load Current        |
|                                                   | ≥170 mA on 150 mA Load Current        |
|                                                   | ≥120 mA on 100 mA Load Current        |
| Off-State (Leakage) Current . . . . .             | <100 µA                               |
| No-Load Current . . . . .                         | <10 mA (Uprox ≤15 mA)                 |
| Power-On Effect . . . . .                         | Per IEC 947-5-2                       |
| Reverse Polarity Protection . . . . .             | Incorporated                          |
| Wire-Break Protection . . . . .                   | Incorporated                          |
| Transient Protection . . . . .                    | Per EN 60947-5-2                      |
| Shock . . . . .                                   | 30 g, 11 ms                           |
| Vibration . . . . .                               | 55 Hz, 1 mm Amplitude in all 3 Planes |
| Repeatability . . . . .                           | ≤2% of Rated Operating Distance       |

### Solid State Relay (AM6 and VM6)

|                                                  |                      |                                       |                        |
|--------------------------------------------------|----------------------|---------------------------------------|------------------------|
| Ripple . . . . .                                 | ≤10%                 | Time Delay before availability . . .  | ≤50 ms                 |
| Rated Operational Current. . . . .               | 10-30 VDC            | Reverse Polarity Protection . . . . . | Incorporated           |
| Differential. . . . .                            | 3-15% (5% typical)   | Wire-Break Protection . . . . .       | Incorporated           |
| Voltage Drop                                     |                      | Short Circuit Protected . . . . .     | No                     |
| (Across Conducting Sensor) at I <sub>e</sub> . . | 400 m V              | Transient Protection. . . . .         | Per EN 60947-5-2       |
| Continuous Load Current . . . . .                | ≤6 Amp               | Shock . . . . .                       | 30 g, 11 ms            |
| Off-State (leakage) Current . . . . .            | ≤0.1 mA              | Vibration . . . . .                   | 55 Hz, 1 mm Amplitude, |
| Inrush Current . . . . .                         | ≤8.0 A (10.0 ms max) |                                       | in all 3 planes        |
| No-Load Current . . . . .                        | ≤25 mA               | Repeatability . . . . .               | ≤2%                    |