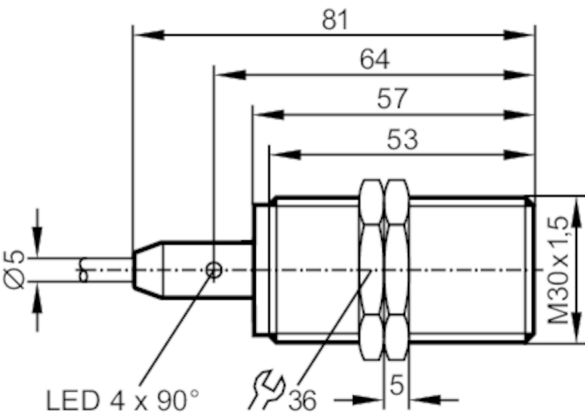




Inductive sensor

IIK3012BBPKG/M/60V/15M/ZH



| Product characteristics                         |      |                                      |
|-------------------------------------------------|------|--------------------------------------|
| Electrical design                               |      | PNP                                  |
| Output function                                 |      | normally open                        |
| Sensing range                                   | [mm] | 12                                   |
| Housing                                         |      | threaded type                        |
| Dimensions                                      | [mm] | M30 x 1.5 / L = 81                   |
| Application                                     |      |                                      |
| Special feature                                 |      | Increased sensing range              |
| Application                                     |      | Use in mobile and harsh applications |
| Electrical data                                 |      |                                      |
| Operating voltage                               | [V]  | 10...60 DC                           |
| Current consumption                             | [mA] | < 10                                 |
| Protection class                                |      | II                                   |
| Reverse polarity protection                     |      | yes                                  |
| Outputs                                         |      |                                      |
| Electrical design                               |      | PNP                                  |
| Output function                                 |      | normally open                        |
| Max. voltage drop switching output DC           | [V]  | 2.5                                  |
| Permanent current rating of switching output DC | [mA] | 200                                  |
| Switching frequency DC                          | [Hz] | 100                                  |
| Short-circuit protection                        |      | yes                                  |
| Type of short-circuit protection                |      | pulsed                               |
| Overload protection                             |      | yes                                  |
| Detection zone                                  |      |                                      |
| Sensing range                                   | [mm] | 12                                   |
| Operating distance                              | [mm] | 0...9.72                             |
| Increased sensing range                         |      | yes                                  |



## Inductive sensor

IIK3012BBPKG/M/60V/15M/ZH

| Accuracy / deviations         |                                                                                                             |                                                                                                |
|-------------------------------|-------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| Correction factor             |                                                                                                             | steel: 1 / stainless steel: 0.7 / brass: 0.5 / aluminium: 0.45 / copper: 0.35                  |
| Hysteresis                    | [% of Sr]                                                                                                   | 1...20                                                                                         |
| Operating conditions          |                                                                                                             |                                                                                                |
| Ambient temperature           |                                                                                                             | [-°C]                                                                                          |
| Protection                    |                                                                                                             | IP 67; IP 69K                                                                                  |
| Tests / approvals             |                                                                                                             |                                                                                                |
| EMC                           | automotive area                                                                                             |                                                                                                |
|                               | noise emission and noise interference: ECE R10                                                              | E1 type approval                                                                               |
|                               | noise immunity according to DIN ISO 11452-2                                                                 | 100 V/m                                                                                        |
|                               | conducted interference in 24 V networks to ISO 7637-2: 2004 (pulse 1 to 4) and ISO16750-2: 2012 (load dump) |                                                                                                |
|                               | pulse                                                                                                       | 1 2a 2b 3a 3b 4 Load dump                                                                      |
|                               | severity level                                                                                              | III III III III III Test A                                                                     |
|                               | failure criterion                                                                                           | C A C A A C C                                                                                  |
|                               | EN 61000-4-2 ESD                                                                                            | 4 kV CD / 8 kV AD                                                                              |
|                               | EN 61000-4-3 HF radiated                                                                                    | 10 V/m                                                                                         |
|                               | EN 61000-4-4 Burst                                                                                          | 2 kV                                                                                           |
|                               | EN 61000-4-5 Surge                                                                                          | 0,5 kV mains line to line                                                                      |
|                               | EN 61000-4-6 HF conducted                                                                                   | 10 V                                                                                           |
|                               | EN 55011                                                                                                    | class B                                                                                        |
|                               | Vibration resistance                                                                                        | EN 60068-2-6 Fc                                                                                |
|                               |                                                                                                             | 50 sweep cycles, 1 octave per minute, in 3 axes                                                |
| Shock resistance              | EN 60068-2-27 Ea                                                                                            | 100 g 11 ms half-sine; 3 shocks each in every direction of the 3 coordinate axes / -40...85 °C |
| Continuous shock resistance   | EN 60068-2-27                                                                                               | 40 g 6 ms; 4000 shocks each in every direction of the 3 coordinate axes / -20...50 °C          |
| Fast temperature change       | EN 60068-2-14 Na                                                                                            | TA = -40 °C; TB = 85 °C; t1 = 30 min; t2 = < 10 s; 50 cycles                                   |
| Salt spray test               | EN 60068-2-52 Kb                                                                                            | severity level 5 (4 test cycles)                                                               |
| MTTF                          | [years]                                                                                                     | 907                                                                                            |
| Mechanical data               |                                                                                                             |                                                                                                |
| Weight                        | [g]                                                                                                         | 696.2                                                                                          |
| Housing                       |                                                                                                             | threaded type                                                                                  |
| Mounting                      |                                                                                                             | flush mountable                                                                                |
| Dimensions                    | [mm]                                                                                                        | M30 x 1.5 / L = 81                                                                             |
| Thread designation            |                                                                                                             | M30 x 1.5                                                                                      |
| Materials                     |                                                                                                             | threaded sleeve: stainless steel; sensing face: LCP natural; LED window: PEI; lock nuts: brass |
| Displays / operating elements |                                                                                                             |                                                                                                |
| Display                       | switching status                                                                                            | 4 x 90° LED, yellow                                                                            |
| Accessories                   |                                                                                                             |                                                                                                |
| Items supplied                |                                                                                                             | lock nuts: 2                                                                                   |

# IIM219



## Inductive sensor

IIK3012BBPKG/M/60V/15M/ZH

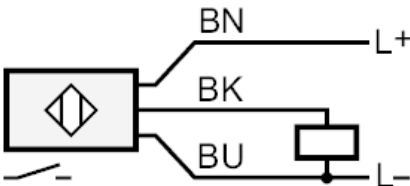
### Remarks

|               |        |
|---------------|--------|
| Pack quantity | 1 pcs. |
|---------------|--------|

### Electrical connection

Cable: 15 m, PUR; burning behaviour to ECE R118 rev. 2; 3 x 0.5 mm<sup>2</sup>

### Connection



|      |                |
|------|----------------|
| BK = | Core colours : |
| BN = | black          |
| BU = | brown          |
|      | blue           |