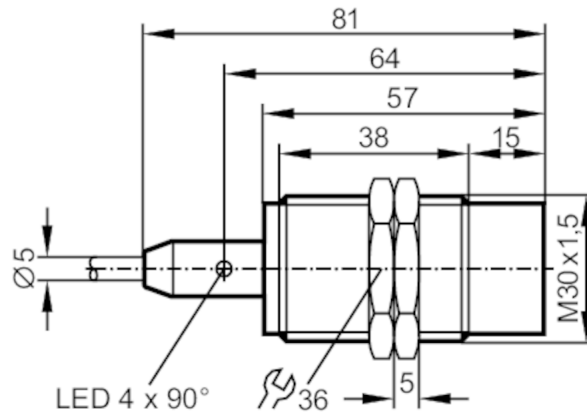




## Inductive sensor

IIKC022-ASKG/M/6M/ZH



## Product characteristics

|                    |                    |
|--------------------|--------------------|
| Electrical design  | PNP/NPN            |
| Output function    | normally open      |
| Sensing range [mm] | 22                 |
| 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...36 DC                       |
| Current consumption         | [mA] | < 10; (only in 3-wire operation) |
| Protection class            |      | II                               |
| Reverse polarity protection |      | yes                              |

## Outputs

|                                                      |                                 |
|------------------------------------------------------|---------------------------------|
| Electrical design                                    | PNP/NPN                         |
| Output function                                      | normally open                   |
| Max. voltage drop switching output DC [V]            | 2.5                             |
| Minimum load current [mA]                            | 2; (only in 2-wire operation)   |
| Max. leakage current [mA]                            | 0.5; (only in 2-wire operation) |
| Permanent current rating of switching output DC [mA] | 100                             |
| Switching frequency DC [Hz]                          | 100                             |
| Short-circuit protection                             | yes                             |
| Type of short-circuit protection                     | pulsed                          |
| Overload protection                                  | yes                             |

### Detection zone

|               |      |    |
|---------------|------|----|
| Sensing range | [mm] | 22 |
|---------------|------|----|



## Inductive sensor

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|                         |      |           |
|-------------------------|------|-----------|
| Real sensing range Sr   | [mm] | 22 ± 10 % |
| Operating distance      | [mm] | 0...17.82 |
| Increased sensing range |      | yes       |

## Accuracy / deviations

|                    |           |                                                                              |
|--------------------|-----------|------------------------------------------------------------------------------|
| Correction factor  |           | steel: 1 / stainless steel: 0.7 / brass: 0.5 / aluminium: 0.45 / copper: 0.4 |
| Hysteresis         | [% of Sr] | 1...20                                                                       |
| Switch point drift | [% of Sr] | -10...10                                                                     |

## Operating conditions

|                     |      |               |
|---------------------|------|---------------|
| Ambient temperature | [°C] | -40...85      |
| Protection          |      | IP 67; IP 69K |

## Tests / approvals

|                             |                                                                                                             |                                                                                                |
|-----------------------------|-------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| EMC                         | automotive area                                                                                             |                                                                                                |
|                             | noise emission and noise immunity: 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                                                                                        |
|                             | EN 60068-2-6 Fc                                                                                             | 20 g (10...3000 Hz) / -20...50 °C                                                              |
| Vibration resistance        |                                                                                                             | 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]                                                                                                     | 1089                                                                                           |
| UL approval                 | Ta                                                                                                          | 0...40 °C                                                                                      |
|                             | Enclosure type                                                                                              | Type 1                                                                                         |
|                             | power supply                                                                                                | Limited Voltage/Current                                                                        |
|                             | File number UL                                                                                              | E174191                                                                                        |

## Mechanical data

|            |      |                     |
|------------|------|---------------------|
| Weight     | [g]  | 373                 |
| Housing    |      | threaded type       |
| Mounting   |      | non-flush mountable |
| Dimensions | [mm] | M30 x 1.5 / L = 81  |



Inductive sensor

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|                    |                                                                                                   |
|--------------------|---------------------------------------------------------------------------------------------------|
| Thread designation | M30 x 1.5                                                                                         |
| Materials          | threaded sleeve: stainless steel; sensing face:<br>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 |
|----------------|--------------|

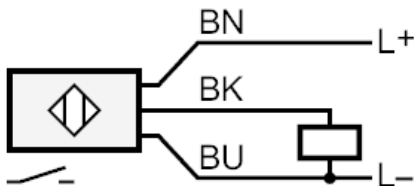
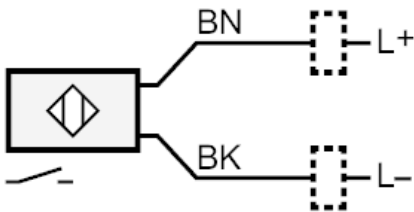
Remarks

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

Electrical connection

Cable: 6 m, PUR, Ø 5.4 mm; burning behaviour to ECE R118 rev. 2; 3 x 0.5 mm²

Connection



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