



Part no.: 50136564
LCS-2M30P-F20NNC-K020V
Capacitive sensor



Figure can vary

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Part no.: 50136564 – LCS-2M30P-F20NNC-K020V – Capacitive sensor

Technical data

| Basic data | |
|----------------------------|-------------|
| Series | LCS-2 |
| Switching distance S_n | 2 ... 20 mm |
| Assured switching distance | 16.2 mm |

| Electrical data | |
|------------------------|---------------------------------------------------------|
| Protective circuit | Short circuit protected Polarity reversal protection |

| Performance data | |
|-------------------------|-----------------|
| Supply voltage | 10 ... 30 V, DC |
| Residual ripple | 0 ... 10 % |
| Open-circuit current | 10 mA |
| Rated operating current | 300 mA |

| Outputs | |
|-------------------------------------|------------|
| Number of digital switching outputs | 1 Piece(s) |

| Switching outputs | |
|--------------------------|--------------------------|
| Type | Digital switching output |
| Voltage type | DC |

| Switching output 1 | |
|---------------------------|---------------------------|
| Assignment | Connection 1, conductor 2 |
| Switching element | Transistor, NPN |
| Switching principle | NC (normally closed) |

| Timing | |
|---------------------|--------|
| Switching frequency | 100 Hz |

| Connection | |
|-----------------------|------------|
| Number of connections | 1 Piece(s) |

| Connection 1 | |
|----------------------|----------------------|
| Type of connection | Cable |
| Cable length | 2,000 mm |
| Sheathing material | PVC |
| Number of conductors | 3 -wire |
| Wire cross section | 0.35 mm ² |

| Mechanical data | |
|------------------------|-----------------------------|
| Design | Cylindrical |
| Thread size | M30 x 1.5 mm |
| Dimension (Ø x L) | 30 mm x 85 mm |
| Type of installation | Embedded |
| Housing material | Plastic, Polybutylene (PBT) |
| Sensing face material | Plastic, Polybutylene (PBT) |
| Cover material | Plastic, Polybutylene (PBT) |

| Operation and display | |
|--------------------------------|------------|
| Type of display | LED |
| Number of LEDs | 1 Piece(s) |
| Switching distance, adjustable | Yes |

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Environmental data

| | |
|--------------------------------|---------------|
| Ambient temperature, operation | -25 ... 70 °C |
|--------------------------------|---------------|

Certifications

| | |
|----------------------|---------------|
| Degree of protection | IP 67 |
| Protection class | III |
| Standards applied | IEC 60947-5-2 |

Correction factors

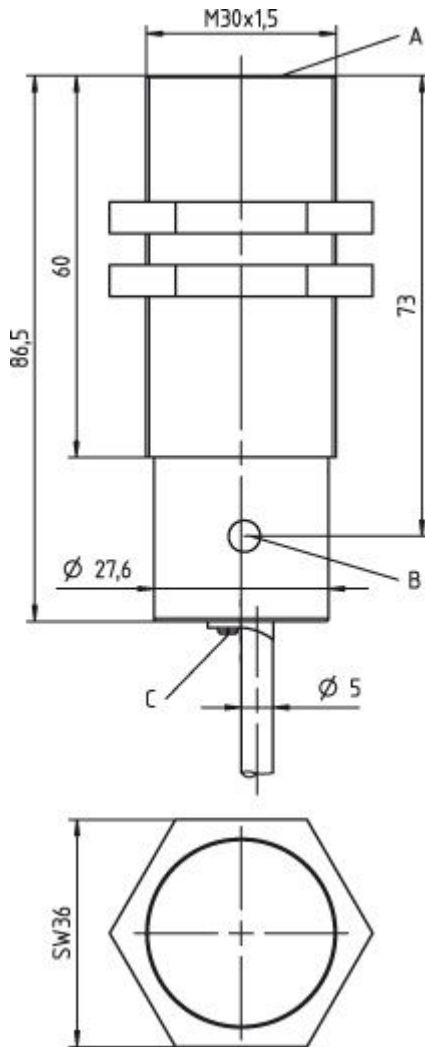
| | |
|----------------------------|---------------|
| Acetone | 0.75 |
| Acrylic resin | 0.1 ... 0.25 |
| Alcohol | 0.85 |
| Ammonia | 0.7 ... 0.85 |
| Aniline | 0.4 |
| Gasoline | 0.1 |
| Celluloid | 0.15 |
| Liquid chlorine | 0.1 |
| Ebonite | 0.15 |
| Epoxy resin | 0.15 ... 0.35 |
| Crude oil | 0.05 |
| Ethanol | 0.85 |
| Ethylene glycol | 0.93 |
| Freon R22 and 502 (liquid) | 0.35 |
| Grain | 0.15 ... 0.3 |
| Glass | 0.2 ... 0.55 |
| Glycerin | 0.98 |
| Rubber | 0.15 ... 0.9 |
| Wood, wet | 0.6 ... 0.85 |
| Wood, dry | 0.1 ... 0.4 |
| Marble | 0.5 |
| Flour | 0.05 |
| Melamine resin | 0.25 ... 0.55 |
| Milk powder | 0.2 |
| Nylon | 0.2 ... 0.3 |
| Oil-containing paper | 0.25 |
| Paper | 0.1 |
| Polyamide | 0.3 |
| Polyester resin | 0.15 ... 0.5 |
| Pressboard | 0.1 ... 0.3 |
| PTFE | 0.1 |
| Quartz glass | 0.2 |
| Salt | 0.35 |
| Sand | 0.15 ... 0.3 |
| Water | 1 |
| Cement dust | 0.25 |
| Sugar | 0.15 |

Classification

| | |
|------------|----------|
| eCl@ss 8.0 | 27270102 |
| eCl@ss 9.0 | 27270102 |

Dimensioned drawings

All dimensions in millimeters



- A Active surface
- B Yellow LED
- C Potentiometer

Electrical connection

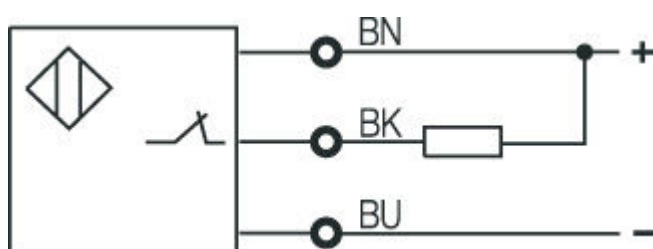
| Connection 1 | |
|--------------------|----------|
| Type of connection | Cable |
| Function | |
| Cable length | 2,000 mm |
| Sheathing material | PVC |
| Cable color | |

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| Connection 1 | |
|----------------------|----------------------|
| Number of conductors | 3 -wire |
| Wire cross section | 0.35 mm ² |

| Conductor color | Conductor assignment |
|-----------------|----------------------|
| Brown | 10 - 30 V DC |
| Black | OUT |
| Blue | GND |

Circuit diagrams





Operation and display

LEDs


| LED | Display | Meaning |
|-----|--------------------------|----------------------------------|
| 1 | Yellow, continuous light | Switching output/switching state |

Accessories

Mounting technology - Other

| | Part no. | Designation | Article | Description |
|-------------------------------------------------------------------------------------|----------|-------------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | 50132730 | AC D30M-CS | Clamp | Contains: 2x M36 mounting nut Diameter, inner: 30 mm Design of mounting device: Mounting clamp Mounting bracket, at system: Screw type, Through-hole mounting Mounting bracket, at device: Insertable, Clampable with limit stop Type of mounting device: Clampable, With limit stop Material: Metal |
|  | 50111503 | MC 030K | Clamp | Diameter, inner: 30 mm Design of mounting device: Mounting clamp Mounting bracket, at system: Through-hole mounting Mounting bracket, at device: Clampable Type of mounting device: Rigid Material: Plastic |

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| | Part no. | Designation | Article | Description |
|-----------------------------------------------------------------------------------|----------|-------------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | 50111504 | MC 030K-LS | Clamp | Diameter, inner: 30 mm Design of mounting device: Mounting clamp Mounting bracket, at system: Through-hole mounting Mounting bracket, at device: Clampable with limit stop Type of mounting device: Rigid Material: Plastic |

Notes

Observe intended use!

- This product is not a safety sensor and is not intended as personnel protection.
- The product may only be put into operation by competent persons.
- Only use the product in accordance with its intended use.