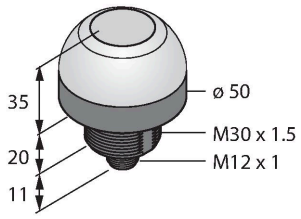
# K50APT2WXDQ
# Pick-to-Light – Placement Sensor
# Capacitive Sensor



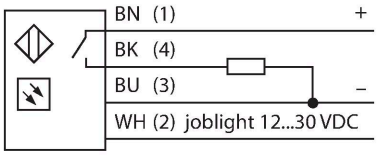
## Technical data

| | |
|---|---|
| Type | K50APT2WXDQ |
| ID | 3800425 |
| **Signal and display data** | |
| Purpose | Pick-to-Light |
| Function | Touch Button |
| Switch Function | Momentary |
| Features of color 1 | White, Permanently on |
| Special features | I/O module-compatible<br>Wash down |
| **Electrical data** | |
| Operating voltage | 12…30 VDC |
| DC rated operational current | ≤ 150 mA |
| Max. current consumption per color | 75 mA |
| Output function | NO contact, PNP |
| Input type | PNP |
| Response time typical | < 50 ms |
| **Mechanical data** | |
| Design | Dome, K50 |
| Dimensions | Ø 50 x 66 x 66 mm |
| Housing material | Plastic, PC, Black |
| Window material | Polycarbonate, diffuse |
| Electrical connection | Connector, M12 × 1, PVC |
| Number of cores | 5 |
| Ambient temperature | -40…+50 °C |
| Relative humidity | 0…90 % |
| Protection class | IP67 |

## Features

- Protection class IP67/IP69K
- M12 × 1 connector
- Job light: white
- Mispick: -
- Trigger light: -
- Operating voltage 12…30 VDC
- PNP switching
- NO contact
- Capacitive sensor of the second generation
- High immunity to false actuation by splashing, detergents, oils and other contaminants

## Wiring diagram




## Functional principle

The K50 pick-and-place sensor is suitable for many mounting and component placement applications. The green work light or other signal lights are reflected perfectly by the entire dome (depending on the version). The transistor output can be easily connected to a system control, which is programmed for a special task sequence. The work light of the sensor is located in or next to every bin at the operator's workstation and indicates: 1. The bins with the components to be picked up for a particular work step and 2. the sequence in which the components have to be picked up. If the operator removes a part from the bin, the K50 detects the hand in the bin and sends a signal to the control unit. The system then checks if the

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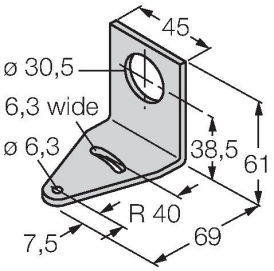
## Technical data

| | IP69 |
|---|---|
| **Tests/approvals** | |
| MTTF | 146 years acc. to SN 29500 (Ed. 99) 40 °C |
| Approvals | CE, cULus listed |

correct component has been picked up and – depending on the configuration – switches the corresponding work light off and the next one on, according to the assembly sequence. The work sequence control leads to increased efficiency, improved quality control and reduces rework and testing expenses.
The term work light therefore refers to the visual indicator of the bin from which a part should be removed next. The actuation indicator confirms the removal with a different color. The mispick indicator illuminates if a bin was reached into when the work light was not set.

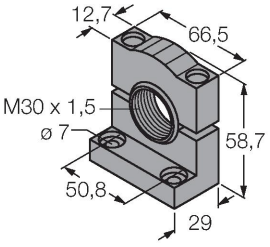
## Accessories

| SMB30A | 3032723 |
|---|---|



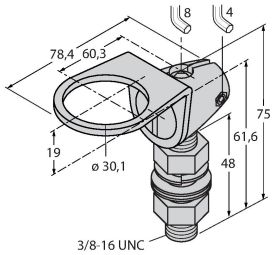

Mounting bracket, rectangular, stainless steel, for sensors with 30mm thread

| SMB30SC | 3052521 |
|---|---|



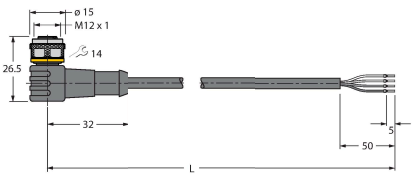

Mounting bracket, PBT black, for sensors with 30 mm thread, rotatable

| SMB30FA | 3074005 |
|---|---|




Montagewinkel; Werkstoff VA 1.4401

## Accessories

| Dimension drawing | Type | ID | |
|---|---|---|---|
| | RKC4.4T-2/TEL | 6625013 | Connection cable, female M12, straight, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com |
|  | WKC4.4T-2/TEL | 6625025 | Connection cable, female M12, angled, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com |

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