# FT 50 C-UV

Luminescence sensor

## PRODUCT HIGHLIGHTS

- Detection of luminescent materials, e.g. in paper, oil and glues
- Precise, small light spot for maximum positioning accuracy
- Flexibility through large scanning range
- Robust, dazzle-proof operation
- Plug rotatable for simple integration in the machine

| Optical data | |
|---|---|
| Scanning distance | 5 … 50 mm |
| Optimum scanning distance | 18 mm |
| Type of light | UV diode, 375 nm[1] |
| Light spot size | See diagram |

| Functions | |
|---|---|
| Indicator LED, green | Operating voltage indicator |
| Indicator LED, yellow | Switching output indicator |
| Sensitivity adjustment | Via teach-in button and control line |
| Teach-in | During standing process |
| Adjustment possibilities | Button lock via control input |
| Default setting | Max. sensitivity and N.O. |

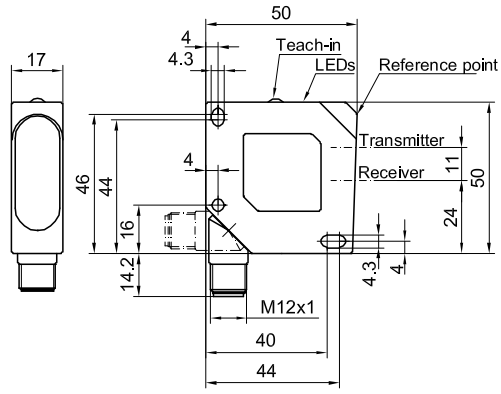
| Electrical data | |
|---|---|
| Operating voltage, $+U_B$ | 12 … 28 V DC[2] |
| No-load current, $I_0$ | ≤ 40 mA |
| Output current, Ie | ≤ 100 mA |
| Voltage drop, $U_D$ | ≤ 2.4 V |
| Max. capacitive load | < 100 nF |
| Protective circuits | Reverse-polarity protection, $U_B$ / short-circuit protection (Q) |
| Protection Class | 2 |
| Power On Delay | < 300 ms |
| Switching output, Q | PNP |
| Output function | N.O. |
| Switching frequency, f (ti/tp 1:1) | ≤ 500 Hz |
| Response time | 1 ms |
| Control input, ET[3] | 12 V … 28 V = teach-in<br>< 3V / open = normal operation |
| Control input, Lock | 12 V … 28 V = button locked<br>< 3V / open = normal operation (button free) |

| Mechanical data | |
|---|---|
| Dimensions | 50 x 50 x 17 mm[3] |
| Enclosure rating | IP 67[4] |
| Material, housing | ABS |
| Material, front screen | Glass |
| Type of connection | (See Selection Table) |
| Ambient temperature: operation | -10 … +55 °C |
| Ambient temperature: storage | -20 … +80 °C |
| Weight (plug device) | 40 g |
| Vibration and impact resistance | EN 60947-5-2 |

[1] Risk-free at observation distances of > 60 mm acc. to DIN EN 62471:2008. Do not look into beam at observation distances of < 60 mm.
[2] Max. 10 % ripple, within $U_B$, ~ 50 Hz / 100 Hz [3] Min. response time 100 ms [4] With connected IP 67 / IP 69K plug

| Scanning distance | Switching output | Type of connection | Part number | Article number |
|---|---|---|---|---|
| 5 … 50 mm | PNP | Plug, M12x1, 5-pin | FT 50 C-UV-1-PSL5 | 575-11020 |

## Plug connection

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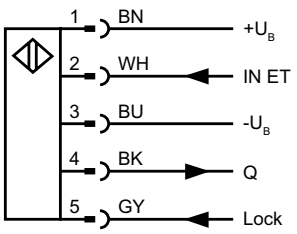
## Connection, 5-pin

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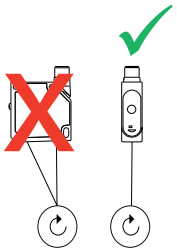
## Installation



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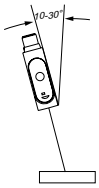


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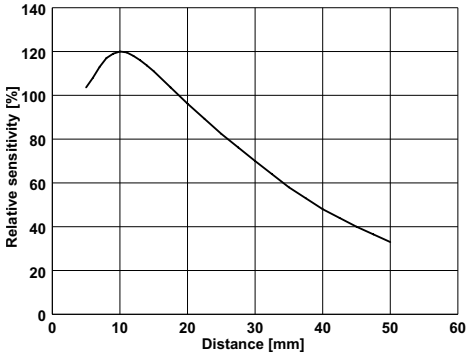
## Relative sensitivity*

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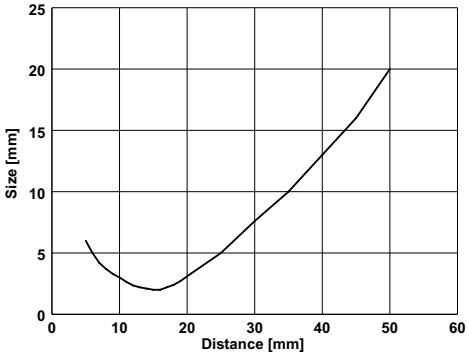
* Reference material: white, 90 % reflectivity

## Light spot size

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## Accessories

| | |
|---|---|
| Connection cables | From Page A-34 |
| Brackets | From Page A-4 |