The FT 50 UV uses the effect of luminescence in which ultraviolet light is converted into visible light.

Examples of applications are the detection of labels on glass bottles, of invisible printed marks for object alignment and the presence of oil, to which a luminescent substance has been added. Luminescent substances include fluorescent chalk, paint and ink, highlighters, adhesive, sealing compound, lubricants, optical brighteners in paper, textiles, plastics.

**HIGHLIGHTS:**

- Detection of different types of luminescence (red, blue, etc) through simple teach-in
- Reliable detection even when only the tiniest quantities of luminophore are present in the objects
- Very good depth of focus, hence detection at different object ranges and with fluttering objects such as paper
- Small, accurate light spot
- Robust, anti-glare mode with e.g. glass and highly-reflective metal
## Technical data

### Electrical data
- **Operating voltage**: 10 ... 28 V DC
- **Max. residual ripple**: 10 %
- **Switching output Q**: PNP N.O.
- **Switching frequency (t1/tp 1:1)**: 500 Hz
- **No-load supply current**: ≤ 40 mA
- **Max. output current Ie**: 100 mA
- **Max. voltage drop Ud**: ≤ 2.4 V
- **Switching output indicator**: < 100 nF
- **Power-on delay**: < 300 ms
- **Power-on indicator**: LED green
- **Switching output indicator**: LED yellow
- **Pulse stretching / OFF delay**: 50 ms
- **Input ET (external teach-in)**: activation teach-in: > 12 ... 28 V, operation: < 3 V
- **Input Lock (key lock)**: key locked: > 12 ... 28 V, key not locked: < 3 V
- **Reverse battery protection (Ub), short-circuit protection (Q)**: reverse battery protection (Ub), short-circuit protection (Q)
- **Protection class**: 2

### Optical data
- **Scanning distance**: 18 mm
- **Operating range**: 5 ... 50 mm
- **Used light**: UV diode, 365 nm
- **Size of light spot**: 3 mm round (for a scanning distance of 18 mm)
- **Setting**: teach-in on object
- **Plastic, ABS, shock-resistant**
- **PMMA**
- **Protection class**: IP 67
- **Ambient temperature range**: -20 ... +60 °C
- **Storage temperature range**: -20 ... +80 °C
- **Connector**: M12, 5-pin
- **Weight**: EN 60947-5-2
- **Approx. 40 g**

### Mechanical data
- **Casing material**: plastic, ABS, shock-resistant
- **Front screen material**: PMMA
- **Protection standard**: IP 67
- **Ambient temperature range**: -20 ... +60 °C
- **Storage temperature range**: -20 ... +80 °C
- **Type of connection**: connector M12, 5-pin
- **Weight**: EN 60947-5-2
- **Approx. 40 g**

### Wiring

### Dimensions

### Relative sensitivity / Scanning distance

#### Ordering information

<table>
<thead>
<tr>
<th>Type code</th>
<th>FT50-C-UV-1-PSL5 (Art. 575-11020)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cable</td>
<td>e.g. LS-2m-G-PUR (Art. 902-51652)</td>
</tr>
<tr>
<td>Standard mounting bracket</td>
<td>MS F 50 (Art. 579-50000)</td>
</tr>
<tr>
<td>Mounting bracket for sensor protection</td>
<td>MSP F 50 (Art. 579-50005)</td>
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</tbody>
</table>