FT 50 UV

Luminescence Sensor.

FT 50 UV
Sensor for detection of luminescent substances e.g. in paper, labels, oils & adhesives

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

FT 50 C-UV

Luminescence Sensor.

Technical data

Electrical data

Operating voltage	10 ... 28 V DC
Max. residual ripple	10 %
Switching output Q	PNP N.O.
Switching frequency (ti/tp 1:1)	500 Hz
No-load supply current	≤ 40 mA
Max. output current I_e	100 mA
Max. voltage drop U_d	≤ 2.4 V
Max. capacitive load	< 100 nF
Power-on dely	< 300 ms
Operating voltage 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
Protective circuits	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

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
Vibration and shock resistance	EN 60947-5-2
Weight	approx. 40 g

Wiring

154-00148

Dimensions

153-00826
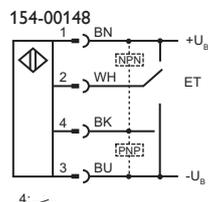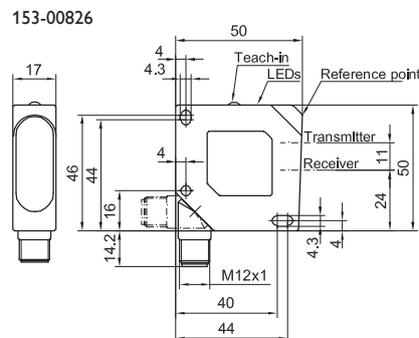
Relative sensivity / Scanning distance

155-01320
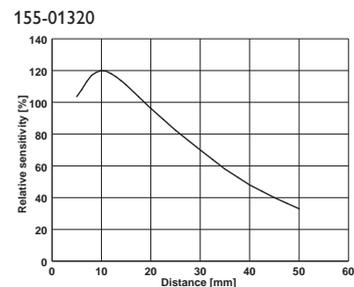
Ordering information

Type code	FT50-C-UV-1-PSL5 (Art. 575-11020)
Cable	e.g. L5-2m-G-PUR (Art. 902-51652)
Standard mounting bracket	MS F 50 (Art. 579-50000)
Mounting bracket for sensor protection	MSP F 50 (Art. 579-50005)