

UVX-50-T

LUMINESCENCE SENSOR

Confirm manufacturing processes more reliably than vision systems that cost ten times more. The UVX™ employs our field-proven, patented technology, for effective detection of UV luminescent materials such as wood, grease, adhesives, UV inks and optical brighteners used in many industrial applications. Its high-sensitivity and fast response makes the UVX suitable for high-speed automation processes. The metal alloy case and glass lens provide robust construction expected in an industrial environment.

The UVX provides simple, two-button teach with mark and background keys. The flexibility of the UVX makes it easy to set-up in a wide variety of printing, packaging and converting applications. The UVX is a perfect fit for many applications that require the ability to detect a luminescent mark or material.

The UVX includes both a discrete PNP/NPN output and an analog output. The discrete output is automatically set for PNP or NPN operation. The analog output signal may be used to access the relative quantity of UV materials such as optical brightener and coatings applied to clear films.

UVX



Applications

- Adhesives, gums and glues
- Labels, packaging
- UV inks, visible and invisible
- UV crayons and chalk, lumber marking
- Tamper-evident-seals
- Textiles, luminescent threads
- Optical brightness, paper industry
- Grease and oils

Design & Features

- 3.0mm spot size
- 25µs response time
- Two-button teach
- Automatic LED intensity adjustment
- PNP/NPN
- Discrete output
- Analog output
- Small Size

Ordering Information



UVX-50-T
Luminescence sensor

Accessories



UVX-300B
Bracket



UVX-300C
Cable 5P, 5M, M12, F

NOT INTENDED FOR USE IN
PERSONAL SAFETY APPLICATIONS.

Functions

OPERATING MODE
MARK
BACKGROUND
RED LED ON
GREEN LED ON
YELLOW LED ON
RED FLASHING
GREEN FLASHING
YELLOW FLASHING

The UVX-50-T is in operating mode in detect or undetect state
Sets mark level
Sets background level
Mark detected
Background detected
Mark or background measurement in progress
Background set, measure mark
Mark set, measure background
Insufficient contrast

Specifications

| | | | |
|---|---|----------------------|--|
| Light source | 370nm UV LED, 100,000 hours | Indicators | Green LED Power Red LED Detect Yellow LED Program |
| Sensing distance | 28mm | | |
| Spot size | 3.0mm dia. | | |
| Depth of field | +/- 3mm | | |
| Response time | 25µs | Connector M12 | |
| Switching Frequency | 40kHz | Pin 1 | Power 10 to 24VDC |
| LED intensity | 3 levels | Pin 2 | Analog output 0 to 5V DC |
| Sensitivity | 1X, 10X | Pin 3 | Ground |
| Digital Output | Auto-Detect NPN/PNP | Pin 4 | Discrete output PNP/NPN |
| Security | LOCK/UN-LOCK keypad | Pin 5 | Remote LOCK/UNLOCK input |
| Background indicator | Green LED | | |
| Detect indicator | Red LED | | |
| Programming indicator | Yellow LED | | |
| Data retention | EEPROM non-volatile memory | | |
| Dimensions | 2.0" (51mm) x 2.4" (61mm) x 1.0" (25mm) | | |
| Weight | 0.21 lbs. (95g) | | |
| Supply Voltage | 10-24 VDC | | |
| Operating Current | 60 mA | | |
| Short Circuit Protection | Discrete output | | |
| Overload / Reverse Polarity Protection | Supply voltage | | |
| Operating temperature | -20°C...55°C | | |
| Storage temperature | -20°C...70°C | | |
| Housing | Metal alloy | | |
| Mechanical Protection | IP65 NOT FOR PRESSURE WASH DOWN | | |

MADE IN THE USA

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WARRANTY EMX INC. the product described herein for a period of 2 years under normal use and service from the date of manufacture. The product will be free from defects in material and workmanship. This warranty does not cover ordinary wear and tear, abuse, misuse, overloading, altered products, or damage caused by the purchaser from incorrect connections, or lightning damage. There is no warranty of merchantability. There are no warranties expressed, implied or any affirmation of fact or representation which extend beyond the description set forth herein. EMX Inc. sole responsibility and liability, and purchaser's exclusive remedy shall be limited to the repair or replacement at EMX's option of a part or parts not so conforming to the warranty. In no event shall EMX Inc. be liable for damages of any nature, including incidental or consequential damages, including but, not limited to any damages resulting from non-conformity defect in material or workmanship.