

# 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



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## 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
- 25uS 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

<b>Light source</b>	370nm UV LED, 100,000 hours	<b>Indicators</b>	
<b>Sensing distance</b>	28min	<b>Green LED</b>	Power
<b>Spot size</b>	3.0mm dia.	<b>Red LED</b>	Detect
<b>Depth of field</b>	+/- 3mm	<b>Yellow LED</b>	Program
<b>Response time</b>	25uS	<b>Connector M12</b>	
<b>Switching Frequency</b>	40kHz	<b>Pin 1</b>	Power 10 to 24VDC
<b>LED intensity</b>	3 levels	<b>Pin 2</b>	Analog output 0 to 5V DC
<b>Sensitivity</b>	1X, 10X	<b>Pin 3</b>	Ground
<b>Digital Output</b>	Auto-Detect NPN/PNP	<b>Pin 4</b>	Discrete output PNP/NPN
<b>Security</b>	LOCK/UN-LOCK keypad	<b>Pin 5</b>	Remote LOCK/UNLOCK input
<b>Background indicator</b>	Green LED		
<b>Detect indicator</b>	Red LED		
<b>Programming indicator</b>	Yellow LED		
<b>Data retention</b>	EEPROM non—volatile memory		
<b>Dimensions</b>	2.0" (51mm) x 2.4" (61mm) x 1.0" (25mm)		
<b>Weight</b>	0.21 lbs. (95g)		
<b>Supply Voltage</b>	10-24 VDC		
<b>Operating Current</b>	60 mA		
<b>Short Circuit Protection</b>	Discrete output		
<b>Overload / Reverse Polarity Protection</b>	Supply voltage		
<b>Operating temperature</b>	-20°C...55°C		
<b>Storage temperature</b>	-20°C...70°C		
<b>Housing</b>	Metal alloy		
<b>Mechanical Protection</b>	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.