

# UVX-300

## 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 and long-range use. The metal alloy case and glass lens provide robust construction expected in an industrial environment.

The UVX features a 2-digit display that provides an indication of signal strength making set-up and integration quick and easy. The versatile sensor provides user set-up parameters including light source intensity adjustment, detection threshold and gain selection making the UVX useful in a wide range of applications.

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 coatings applied to clear films.

# UVX



INDUSTRIES

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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

- Small spot size
- High sensitivity and high resolution
- Fast response
- Display range 00-50
- Adjustable gain
- Analog output
- PNP/NPN discrete output

## Ordering Information



UVX-300  
Luminescence sensor

## Accessories



UVX-300L50  
50 mm focal lens



UVX-300B  
Bracket



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

**NOT INTENDED FOR USE IN  
PERSONAL SAFETY APPLICATIONS.**

## Functions

**NORMAL OPERATING MODE**  
**SENSITIVITY**  
**THRESHOLD**  
**UV LED INTENSITY**  
**HYSTERESIS LEVEL**  
**DISCRETE OUTPUT**  
**OUTPUT PULSE STRETCH**  
**SECURITY**  
**TEACH MODE**

Displays relative reflection intensity  
X1 and X10  
Set detection level  
Set LED, LO, MED, HI  
Set undetect level 1-9 steps below threshold  
Set normally open or normally closed  
Set minimum output period 10...90mS  
Lock/unlock pushbutton controls  
Auto-set detection threshold

## Specifications

**Light source**  
**Light spot size**  
**Light source intensity**  
**Sensing distance**  
**Receiver Spectral Response**  
**Response time**  
**Switching Frequency**  
**Relative intensity display range**  
**Sensitivity**  
**Signal level**  
**Detection threshold**  
**Digital Output**  
**Output Function**  
**Analog Output**  
**Power indicator**  
**Detect indicator**  
**Programming indicator**  
**Data retention**  
**Dimensions**  
  
**Weight**  
**Supply Voltage**  
**Operating Current**  
**Short Circuit Protection**  
**Overload / Reverse Polarity Protection**  
**Operating Temperature**  
**Storage Temperature**  
**Housing**  
**Mechanical Protection**

370nm UV LED, 100,000 hrs.  
6...8mm dia. @ 50mm  
3 levels  
up to 350mm  
350...1000nm  
<150uS  
6kHz  
00 to 50  
X1, X10  
Two 7 segment digits  
Two 7 segment digits  
Auto-Detect PNP / NPN  
NO/NC selectable  
0...5V  
Green LED  
Red LED  
Yellow LED  
EEPROM non-volatile memory  
51mm x 61mm x 25mm  
(2.0" x 2.4" x 1.0")  
95 g (0.21 lbs.)  
10...24 VDC  
60 mA  
Discrete output  
Supply voltage  
-20°C...55°C  
-20°C...70°C  
Metal alloy  
IP65 NOT FOR PRESSURE WASHDOWN

### Indicators

7-Segment display LED  
Green LED Power  
Red LED Detect  
Yellow LED Program

### Connector M12

Pin 1 Power to 24VDC  
Pin 2 Discrete output  
PNP/NPN NO/NC  
Pin 3 Ground  
Pin 4 Analog output 0 to  
5V DC  
Pin 5 Remote LOCK/  
UNLOCK input



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.