

# UVX-300G

## 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 glues and adhesives in assembly, manufacturing and packaging processes. It can be used to check for gaps in glue dispensing operations, excess glue on joints and clogged nozzles. Even transparent glue is reliably detected. 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 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 five gain selections 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



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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 00-99
- Five gain settings
- Analog output
- PNP/NPN discrete output

## Ordering Information



UVX-300G  
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, x2, x3, x4, x5  
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

|   |  |                          |                              |
|---|--|--------------------------|------------------------------|
| <b>Light source</b>                           | 370nm UV LED,<br>100,000 hrs.              | <b>Indicators</b>        | LED                          |
| <b>Light spot size</b>                        | 6...8mm dia. @ 50mm                        | <b>7-Segment display</b> | Green LED Power              |
| <b>Light source intensity</b>                 | 3 levels                                   | <b>Green LED</b>         | Red LED Detect               |
| <b>Sensing distance</b>                       | up to 350mm                                | <b>Red LED</b>           | Yellow LED Program           |
| <b>Receiver Spectral Response</b>             | 350...1000nm                               | <b>Yellow LED</b>        |                              |
| <b>Response time</b>                          | <150uS                                     | <b>Connector M12</b>     |                              |
| <b>Switching Frequency</b>                    | 6kHz                                       | <b>Pin 1</b>             | Power to 24VDC               |
| <b>Relative intensity display range</b>       | 00 to 99                                   | <b>Pin 2</b>             | Discrete output              |
| <b>Sensitivity</b>                            | x1, x2, x3, x4, x5                         | <b>Pin 3</b>             | PNP/NPN NO/NC                |
| <b>Signal level</b>                           | Two 7 segment digits                       | <b>Pin 4</b>             | Ground                       |
| <b>Detection threshold</b>                    | Two 7 segment digits                       | <b>Pin 5</b>             | Analog output 0 to 5V DC     |
| <b>Digital Output</b>                         | Auto-Detect PNP / NPN                      |                          | Remote LOCK/<br>UNLOCK input |
| <b>Output Function</b>                        | NO/NC selectable                           |                          |                              |
| <b>Analog Output</b>                          | 0...5V                                     |                          |                              |
| <b>Power 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>                             | 51mm x 61mm x 25mm<br>(2.0" x 2.4" x 1.0") |                          |                              |
| <b>Weight</b>                                 | 95 g (0.21 lbs.)                           |                          |                              |
| <b>Supply Voltage</b>                         | 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 WASHDOWN             |                          |                              |



**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.