

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



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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	370nm UV LED, 100,000 hrs.
Light spot size	6...8mm dia. @ 50mm
Light source intensity	3 levels
Sensing distance	up to 350mm
Receiver Spectral Response	350...1000nm
Response time	<150uS
Switching Frequency	6kHz
Relative intensity display range	00 to 50
Sensitivity	X1, X10
Signal level	Two 7 segment digits
Detection threshold	Two 7 segment digits
Digital Output	Auto-Detect PNP / NPN
Output Function	NO/NC selectable
Analog Output	0...5V
Power indicator	Green LED
Detect indicator	Red LED
Programming indicator	Yellow LED
Data retention	EEPROM non-volatile memory
Dimensions	51mm x 61mm x 25mm (2.0" x 2.4" x 1.0")
Weight	95 g (0.21 lbs.)
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 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.