



SEE THE INVISIBLE!

Better performance for one-tenth the cost of vision systems

DATA SHEET

UVX-300G-C Luminescence Sensor

Confirm manufacturing processes more reliably than vision systems that cost ten times more. The patented technology in the UVX-300G-C luminescence sensor effectively detects UV luminescent glue and other materials. The UV light source in the UVX-300G-C is directed towards a target and the visible light is reflected from the target back to the UVX-300G-C. Many glues and adhesives are naturally UV luminescent and in other cases a UV marker may be easily added. Because UV luminescent materials are invisible under a normal light spectrum, product appearance is not affected.

Designed for the special needs of glue and adhesive detection.

The UVX-300G-C sensor is a unique, cost-effective solution to adhesive application quality problems, where the presence of adhesive needs to be verified and quantified. It differs from our general UV sensor in that it has higher sensitivity and resolution. It can detect subtle changes in glue coverage and is adjustable for different types of adhesives. The calibration feature allows the user to adjust the gain of the sensor to set a specific reading level.

Longest range, highest resolution, and easiest to use UV adhesive sensor.

- Unique numerical display lets you see the intensity of each reading. Now it's easy to refine processes and hysteresis.
- Calibration feature allows user sensitivity adjustment.
- Exceptional sensitivity and resolution.
- 3 to 6 times the range of any competing sensor. Won't get bumped or dirtied by target in the process.
- Only UV sensor with both auto-teach and manual calibration. Easy for low-skill operators, but able to be finely tuned.
- Adjustable UV light projection and high resolution allow pin-head size detection.
- Fast and convenient integration. In one sensor you get both analog and discrete output, auto-detect for PNP/NPN.
- Smallest and fastest on the market.

FOR GLUE APPLICATIONS

Applications

The UVX-300G-C was specially developed to detect glue and adhesives in assembly and manufacturing processes, such as in packaging machinery and in the manufacture of adhesive tape. It can be used to check for gaps in glue dispensing, excess glue on joints, and clogged nozzles. Even transparent glue is easily detected.

UVX-300G-C Design and Features

- Readings from 1 to 99
- Long range sensing capability
- Auto-Teach and Manual functions
- Receiver gain and detection threshold display
- High resolution
- Programmable discrete and analog outputs
- Fast response time
- Calibration function

EMX

INDUSTRIES, INC. 1-800-426-9912 • www.emxinc.com

**For quotes and questions,
contact Applications
Support:
1-800-426-9912
salesupport@emxinc.com**

UVX-300G-C Luminescence

Functions

OPERATING MODE	The UVX-300G-C is in operating mode in detect or undetect state.
REFLECTED UV LEVEL	Displays the relative reflection intensity.
CALIBRATION	Allows adjustment of sensitivity.
THRESHOLD	Displays the preset detection level.
MANUAL PROGRAM MODE	Switches the UVX-300G-C to PROGRAM MODE.
SET THRESHOLD	Sets the detect level.
SET UV LED INTENSITY	Sets the UV LED intensity to LO, MED, HI.
SET HYSTERESIS LEVEL	Sets the un-detect level 1–9 steps below the detect level.
SET OUTPUT NO/NC	Sets the discrete output to NO or NC.
SET DETECTION EXTEND TIME	Extends the detect output by selected time.
SET LOCK / UNLOCK	Locks and un-locks the UVX-300G-C pushbutton controls.
TEACH MODE	Switches the UVX-300G-C to TEACH MODE.
TEACH DETECT	Sets the level of reflection at which the UVX-300G-C will detect the target.
TEACH UNDETECT	Sets the level of reflection so UVX-300G will not detect the target.
PNP / NPN	The micro controller detects and selects the required output configuration.

Specifications

Supply Voltage	10–24 V DC
Operational Current	<60 mA
Detection Range	350mm
Reading Range	0 to 99
Hysteresis	10 settings
On/Off Delay	<150 µs
Switching Frequency	6 kHz
Output Pulse Stretch	0–90 ms (10 steps)
Discrete Output	Auto-Detect PNP/NPN
Analog Output	0–5 V
Output Function	NO/NC selectable
Short Circuit Protection	Yes (outputs)
Overload/Reverse Polarity Protection	Yes (supply voltage)
Remote Input	LOCK/UNLOCK
Signal Strength Display	Two 7 segment digits
Detection Threshold	Two 7 segment digits
Power Indicator	7 segment display LED
Detect Indicator	Red LED
Programming Indicator	Green LED
Data Retention	EEPROM non-volatile memory
UV Source	370 nm UV LED life 100,000 hours
Receiver Spectral Response	350 to 1000 nm
Operating Temperature	–20 to 55°C
Storage Temperature	–20 to 70 C
Housing	Metal alloy
Mechanical Protection	IP67
Connector	M12 5 pin
Size	2.5" x 2" x 0.75"

Values Stored in Non Volatile Memory

THRESHOLD, NO/NC, UV LED INTENSITY, Local LOCK/UNLOCK, DETECTION EXTEND TIME, HYSTERESIS LEVEL, TEACH DETECT, TEACH UNDETECT.

Indicators

7 Segment Display LED	Power ON
Red LED	Detect
Green LED	Program

Connector M12

Pin 1	Power 10 to 24 V DC
Pin 2	Discrete output PNP/NPN NO/NC
Pin 3	Ground
Pin 4	Analog output 0 to 5 V DC
Pin 5	Remote LOCK/UNLOCK input

Certifications

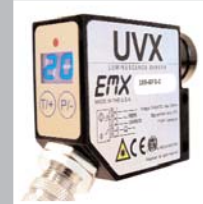


NOT INTENDED FOR USE IN PERSONAL SAFETY APPLICATIONS.

4564 Johnston Parkway • Cleveland, Ohio 44128
 Phone: 1-800-426-9912 or 216-518-9888 • Fax: 216-518-9884
 Email: salesupport@emxinc.com • Web: www.emxinc.com



Ordering Information



UVX-300G-C
Luminescence Sensor

Accessories



UVX-300L50
50 mm focal lens



UVX-300B
Bracket



UVX-300C
5-meter cable with M12 5 pin connector

