

# CMYX

## COLOR MARK SENSOR

Increase process throughput with high-speed, accurate and reliable color mark detection. The CMYX™ employs our field-proven, patented technology, combining a broad-spectrum light source, small spot size and fast response to achieve high-speed mark detection capable of detecting standard one-track PHARMA-CODE (0.5mm thin bar width) at 2000ft/min. The metal alloy case and glass lens provide robust construction expected in an industrial environment.

Whether you need to verify color mark presence or measure the position of the print-to-cut triangle, the CMYX provides the accuracy and precision for reliable process control.

The CMYX 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 CMYX useful in a wide range of applications.

The CMYX includes a discrete PNP/NPN output that is automatically set for PNP or NPN operation.

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## Applications

- Color verification
- Printing processes
- Registration mark detection
- Print-to-cut control, folder gluer applications
- Pharma code
- Small part detection

## Design & Features

- 0.4mm spot size
- 25uS response time
- Display range 00-99
- Broad spectrum white LED
- Adjustable gain
- Programmable discrete output
- Automatic and manual threshold adjustment
- Small size

## Ordering Information



CMYX  
Color Mark Sensor

## Accessories



UVX-300B  
Bracket



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

## Functions

**NORMAL OPERATING MODE**  
**CALIBRATION**  
**THRESHOLD**  
**LED INTENSITY**  
**HYSTERESIS LEVEL**  
**DISCRETE OUTPUT**  
**SECURITY**  
**TEACH MODE**

Displays relative reflection intensity  
 User sensitivity adjustment  
 Set detection level  
 Set LED, LO, MED, HI  
 Set undetect level 1-9 steps below threshold  
 Set normally open or normally closed  
 Lock/unlock pushbutton controls  
 Auto-set detection threshold

## Specifications

**White light source**  
**Sensing distance**  
**Spot size**  
**Distance Variation Sensitivity**  
**Response time**  
**Switching Frequency**  
**LED intensity**  
**Relative intensity display range**  
**Sensitivity**  
**Signal level**  
**Detection threshold**  
**Digital Output**  
**Output Function**  
**Security**  
**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**

LED, min. 100,000 hrs.  
 25mm

0.4mm dia.  
 <3% @ +/- 1mm from focal point

25uS

40kHz

3 levels

00 to 99

Adjustable

Two 7 segment digits

Auto-Detect NPN/PN

NO/NC selectable

LOCK / UN-LOCK keypad

Green LED

Red LED

Yellow LED

EEPROM non—volatile memory

51mm (2.0") x 61mm (2.4") x 25mm (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

Green LED

Red LED

Yellow LED

LED  
 Power  
 Detect  
 Program

### Connector M12

Pin 1

Pin 2

Pin 3

Pin 4

Pin 5

Power to 24VDC  
 Discrete output  
 PNP/NPN NO/NC  
 Ground  
 Not used  
 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.

NOT INTENDED FOR USE IN  
PERSONAL SAFETY APPLICATIONS.

MADE IN THE USA

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