

# CNTX-30-TP-2M

## CONTRAST SENSOR

Increase process throughput with high-speed, accurate and reliable contrast differentiation. The CNTX™ combines a broad-spectrum light source, small spot size and fast response to achieve high-speed contrast differentiation of both neutral and color targets. The CNTX employs our field-proven, patented technology, for effective detection of registration marks, glossy surfaces, cap inserts, date codes and sorting of product by color in many industrial applications. The durable plastic case and polycarbonate lens provide robust construction expected in an industrial environment.

The CNTX provides simple, two-button teach with mark and background keys. The flexibility of the CNTX makes it easy to set-up in a wide variety of printing, packaging and converting applications. The CNTX is a perfect fit for many applications that require the ability to differentiate between two conditions that vary in contrast.

The CNTX 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 targets based on their reflectance characteristics.

# CNTX



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## Applications

- Sort products by color
- Detect registration marks
- Confirm presence of date codes
- Detection of glossy surfaces
- Detects cap inserts

## Design & Features

- 3.0mm spot size
- 25uS response time
- Two-button teach
- Broad spectrum white LED
- Automatic LED intensity adjustment
- PNP/NPN
- Discrete output
- Analog output
- Small size

## Ordering Information



CNTX-30-TP-2M  
Contrast Sensor,  
2 meter cable

## Accessories



130-10140362  
Bracket

## Functions

**OPERATING MODE**  
**MARK**  
**BACKGROUND**  
**YELLOW LED ON**  
**GREEN LED ON**  
**YELLOW FLASHING**  
**GREEN FLASHING**  
**YELLOW/GREEN FLASHING**

The CNTX-30-TP is in operating mode in detect or undetect state  
Sets mark level  
Sets background level  
Mark detected  
Background detected  
Background set, measure mark  
Mark set, measure background  
Insufficient contrast

## Specifications

<p><b>White Light source</b></p> <p><b>Sensing distance</b></p> <p><b>Spot size</b></p> <p><b>Depth of field</b></p> <p><b>Response time</b></p> <p><b>Switching Frequency</b></p> <p><b>LED intensity</b></p> <p><b>Gray Scale</b></p> <p><b>Digital Output</b></p> <p><b>Analog Output</b></p> <p><b>Security</b></p> <p><b>Background indicator</b></p> <p><b>Detect indicator</b></p> <p><b>Data retention</b></p> <p><b>Dimensions</b></p> <p><b>Weight</b></p> <p><b>Supply Voltage</b></p> <p><b>Operating Current</b></p> <p><b>Short Circuit Protection</b></p> <p><b>Overload / Reverse Polarity Protection</b></p> <p><b>Operating temperature</b></p> <p><b>Storage temperature</b></p> <p><b>Housing</b></p> <p><b>Mechanical Protection</b></p>	<p>Broad spectrum LED, min. 100,000 hours</p> <p>28mm</p> <p>3.0mm dia.</p> <p>+/- 3mm</p> <p>25uS</p> <p>40kHz</p> <p>3 levels</p> <p>0 to 50</p> <p>Auto-Detect NPN/PNP</p> <p>0...5V (20mV resolution)</p> <p>LOCK/UN-LOCK keypad</p> <p>Green LED</p> <p>Yellow LED</p> <p>EEPROM non—volatile memory</p> <p>2.0" (51mm) x 2.4" (61mm) x 1.0" (25mm)</p> <p>0.21 lbs. (95g)</p> <p>10-24 VDC</p> <p>60 mA</p> <p>Discrete output</p> <p>Supply voltage</p> <p>-20°C...55°C</p> <p>-20°C...70°C</p> <p>Plastic</p> <p>IP65 NOT FOR PRESSURE WASH DOWN</p>	<p><b>Indicators</b></p> <p><b>Green LED</b> Power</p> <p><b>Yellow LED</b> Detect</p> <p><b>Cable</b></p> <p><b>Brown</b> Power 10 to 24VDC</p> <p><b>White</b> Analog output 0 to 5V DC</p> <p><b>Blue</b> Ground</p> <p><b>Black</b> Discrete output PNP/NPN</p>
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**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.