

CNTX-30-TP

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
Contrast Sensor, 3mm spot



CNTX-35-TP
Contrast Sensor, 0.5mm spot

Accessories



130-10140362
Bracket

Functions

OPERATING MODE
MARK
BACKGROUND
RED LED ON
GREEN LED ON
YELLOW LED ON
RED FLASHING
GREEN FLASHING
YELLOW FLASHING

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

Specifications

White Light source

Broad spectrum LED,
min. 100,000 hours
28mm

Sensing distance Spot size

CNTX-30-TP 3.0mm dia.
CNTX-35-TP 0.5mm dia.

Depth of field Response time

+/- 3mm
25uS

Switching Frequency

40kHz

LED intensity

3 levels

Gray Scale

0 to 50

Digital Output

Auto-Detect NPN/PNP

Analog Output

0...5V (20mV resolution)

Security

LOCK/UN-LOCK keypad

Background indicator

Green LED

Detect indicator

Yellow LED

Data retention

EEPROM non-volatile memory

Dimensions

2.0" (51mm) x 2.4" (61mm) x 1.0" (25mm)

Weight

0.21 lbs. (95g)

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

Plastic

Mechanical Protection

IP65 NOT FOR PRESSURE WASH DOWN

Indicators

Green LED
Yellow LED

Power
Detect

Connector M12

Pin 1
Pin 2

Power 10 to 24VDC
Analog output 0 to
5V DC

Pin 3
Pin 4

Ground
Discrete output
PNP/NPN

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.