

# ColorMax FLEX

COLOR SENSORS

Verify the presence of targets that can be differentiated by color faster and with greater control. The ColorMax™ employs our field-proven, patented technology to provide an easy-to-use system for measuring color in a wide variety of applications. Fast response makes the ColorMax suitable for high-speed automation processes such as printing, packaging and sorting operations. Accurate color measurement and reliable performance makes the ColorMax the perfect choice for automotive, pharmaceutical and plastics industries.

The ColorMax FLEX models provide 4 programmable color recognition channels with PNP/NPN outputs, red, green and blue analog outputs, serial data output and Communications Protocol for high level integration into your control systems.

ColorMax Application Program provides a comprehensive approach to sensor set-up, color channel management and real-time sample analysis display. Low color variation of 0.5% and a 20kHz switching frequency are the best specs in the industry, providing the performance required by demanding applications. The metal alloy case and glass lens provide robust construction expected in an industrial environment.

# COLORMAX



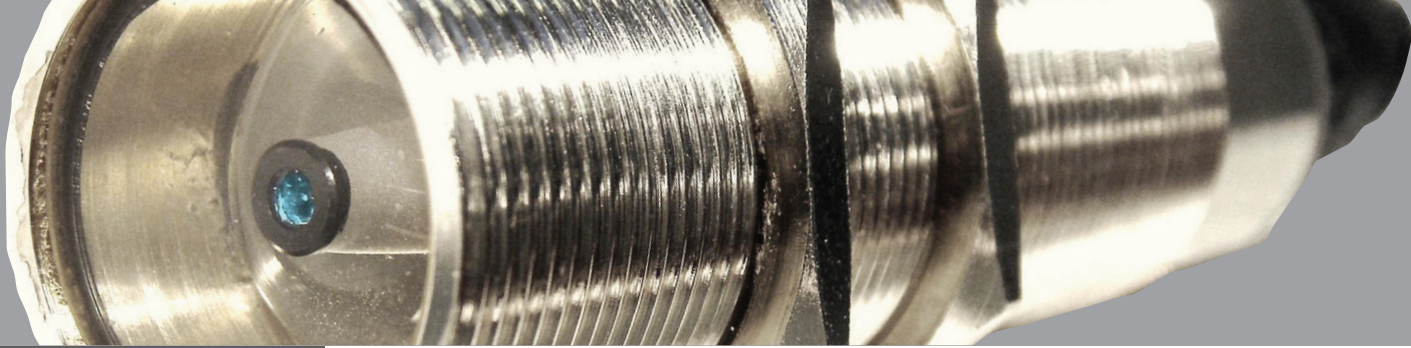
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## Applications

- Automotive assembly, parts
- Packaging, pharmaceutical, food
- Plastic and rubber parts
- Electronic components
- Paper labels, printing

## Design & Features

- Fastest response time
- Highest resolution
- Auto-teach and manual functions
- Sophisticated algorithms that ignore luster
- PC-based configuration
- USB / RS232 Interface
- Lock out operator from changing settings

## Ordering Information



Model	spot size (mm)
CM1000-4FLEX-4	4
CM1000-4FLEX-8	8
CM1000-4FLEX-25	25

## Accessories



CM1000-KIT2

## Functions

**COLOR RECOGNITION**  
**AVERAGING**  
**TEACH**  
**TOLERANCE**  
**EXTERNAL TRIGGER**  
**ILLUMINATION**  
**RGB VALUE DISPLAY**  
**DISCRETE OUTPUT**

4 channels  
 1 to 64 readings  
 RGB values 1 to 100%  
 0.5% to 50%  
 Level, Edge, Free Run  
 0 to 100%  
 Bar graph - absolute value, Pie chart - relative value  
 High or Low (V\_ or ground)

## Specifications

### Detection Range

4mm spot 30mm-50mm  
 8mm spot 30mm-100mm  
 25mm spot 30mm-150mm  
 50mm

### Recommended Operating Distance Spot Diameter

4,8 or 25mm @ 50mm  
 target distance

### Light Source Switching Frequency Receiver

White LED  
 20 kHz  
 RGB photodiode

### Discrete Outputs Analog Outputs Power

4  
 Red, green blue (3 channels 0...5V)  
 12-30 VDC

### External Trigger Communication Protection Circuitry

12-30 VDC  
 RS-232C / USB  
 Reverse polarity, over current  
 (PTC thermal resettable fuse)

### Dimensions Weight Housing

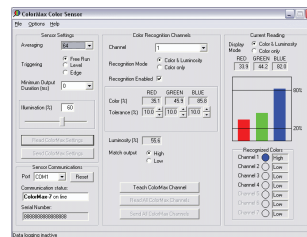
(length, diameter) 110mm x 30mm  
 180g (.4lbs)  
 316 stainless steel

### Type of Protection Operating Temperature Storage Temperature

IP67 NOT FOR PRESSURE WASH DOWN  
 -10 to 55°C  
 -20 to 70°C

### Connector Circular Accessories

12-pin, IP67  
 Mounting bracket, jam nuts (two), interface cable  
 assembly, 12 VDC power supply, application  
 software, I/O board with status indicators



- Exclusive PC-based configuration.
- Operator lockout prevents operators from changing the sensor settings in order to avoid reporting manufacturing quality issues.
- Software driven control of discrete output logic



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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