

OPAX-1000

OPACITY SENSOR

Verify opacity of containers with on-line, high-speed, accurate and reliable measurements. The OPAX-1000™ combines proven sensor technology with innovative hardware to provide an easy-to-use system to measure light transmission in a wide variety of applications including packaging containers used in pharmaceutical, food and personal care. Many products require packaging designed to protect the contents from the damaging effects of light. Establishing pass/fail criteria for minimum opacity of these containers and providing on-line measurement of every container eliminates defects and allows real-time control of these processes.

Container materials include HDPE, LDPE and other opaque materials such as paper and composite films. The metal alloy case and glass lens provide robust construction expected in an industrial environment.

The OPAX features a 2-digit display that provides an indication of signal strength making set-up and integration quick and easy. The sensor includes both a discrete PNP/NPN output and an analog output. The analog output signal may be used to assess the relative opacity of samples.

OPAX



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Applications

- Pharmaceutical containers
- Food packaging
- Personal care products
- HDPE containers
- LDPE containers
- Composite films
- Blow molded products
- Paper products

Design & Features

- Small spot size
- High sensitivity and high resolution
- Fast response
- Display range 00-99
- Adjustable gain
- Analog output
- PNP/NPN discrete output

Ordering Information



OPAX 1000
Opacity Sensor



OPAX-1000T
Transmitter

Accessories



OPAX-1000B
Mounting bracket



LMX-300
Laser position sensor



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

**NOT INTENDED FOR USE IN
PERSONAL SAFETY APPLICATIONS.**

Functions

NORMAL OPERATING MODE
CALIBRATION
THRESHOLD
LED INTENSITY
HYSTERESIS LEVEL
DISCRETE OUTPUT
OUTPUT PULSE STRETCH
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
 Set minimum output period 10...90mS
 Lock/unlock pushbutton controls
 Auto-set detection threshold

Specifications

Light source
Light source intensity
Sensing distance
Response time
Switching frequency
Relative intensity display range
Sensitivity
Signal level
Detection threshold
Digital output
Output function
Analog output
Power indicator
Detect indicator
Programming indicator
Data retention
OPAX 1000R (receiver)
Dimensions

LED, min. 100,000 hrs.
 3 levels
 up to 300mm
 <150uS
 6kHz
 00 to 99
 Adjustable
 Two 7 segment digits
 Two 7 segment digits
 Auto-Detect PNP / NPN
 NO/NC selectable
 0...5V
 Green LED
 Red LED
 Yellow LED
 EEPROM non—volatile memory

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
 Analog output 0 to
 5V DC
 Remote LOCK/
 UNLOCK input

Weight
OPAX 1000T (transmitter)
Dimensions

51mm x 61mm x 25mm
 (2.0" x 2.4" x 1.0")
 95 g (0.21 lbs.)

Weight
Transmitter aperture set
Supply voltage
Operating current

8mm x 38mm
 (0.312" x 1.5")
 20g (0.7oz.)
 0.38mm (0.015"), 0.75mm (0.030"), 2.5mm (0.100")
 24 VDC
 60 mA

Short circuit protection
Overload / reverse polarity protection
Operating temperature
Storage temperature
Housing

Discrete output
 Supply voltage
 -20°C...55°C
 -20°C...70°C
 Metal alloy

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.