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.

EMX
INDUSTRIES

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	Displays relative reflection intensity
CALIBRATION	User sensitivity adjustment
THRESHOLD	Set detection level
LED INTENSITY	Set LED, LO, MED, HI
HYSTERESIS LEVEL	Set undetect level 1-9 steps below threshold
DISCRETE OUTPUT	Set normally open or normally closed
OUTPUT PULSE STRETCH	Set minimum output period 10…90mS
SECURITY	Lock/unlock pushbutton controls
TEACH MODE	Auto-set detection threshold

Specifications

Light source	LED, min. 100,000 hrs.	**Indicators**		
Light source intensity	3 levels	7-Segment display	LED	
Sensing distance	up to 300mm	Green LED	Power	
Response time	<150uS	Red LED	Detect	
Switching frequency	6kHz	Yellow LED	Program	
Relative intensity display range	00 to 99			
Sensitivity	Adjustable	**Connector M12**		
Signal level	Two 7 segment digits	Pin 1	Power to 24VDC	
Detection threshold	Two 7 segment digits	Pin 2	Discrete output	
Digital output	Auto-Detect PNP / NPN		PNP/NPN NO/NC	
Output function	NO/NC selectable	Pin 3	Ground	
Analog output	0…5V	Pin 4	Analog output 0 to	
Power indicator	Green LED		5V DC	
Detect indicator	Red LED	Pin 5	Remote LOCK/	
Programming indicator	Yellow LED		UNLOCK input	
Data retention	EEPROM non—volatile memory			
OPAX 1000R (receiver)				
Dimensions	51mm x 61mm x 25mm			
	(2.0" x 2.4" x 1.0")			
Weight	95 g (0.21 lbs.)			
OPAX 1000T (transmitter)				
Dimensions	8mm x 38mm			
	(0.312" x 1.5")			
Weight	20g (0.7oz.)			
Transmitter aperture set	0.38mm (0.015"), 0.75mm (0.030"), 2.5mm (0.100")			
Supply voltage	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	Metal alloy			

MADE IN THE USA