

BriteX-1000P Probes

B R I G H T N E S S S E N S O R

High sensitivity, long-range sensor is affordable enough for multi-point sensing. The BriteX-1000P™ employs our field-proven, patented technology to provide a simple solution for in-line process control of pulp brightness, paper bleaching and de-inking, paper grading and textile applications. At a small fraction of the cost of competing instruments, the new sensor improves process control by allowing more measurement points for real-time process feedback. Tighter control of processes can reduce operating costs and minimize quality variations.

The BriteX sensor measures relative brightness defined by ISO 2470 as a reflectance factor of diffused blue light at 457nm. The BriteX features a 2-digit display that provides an indication of signal strength making set-up and integration quick and easy. The versatile sensor provides user set-up parameters including light source intensity adjustment, detection threshold and gain selection.

The BriteX includes both a discrete PNP/NPN output and an analog output. The analog output signal provides an indication paper or pulp brightness that can be correlated with ISO Brightness.

BRITE



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Applications

- In Process pulp
- Paper slurry
- Pulp bales on a conveyor
- Paper and cardboard
- Paper coatings
- Textiles
- Optical brighteners
(with 370nm UV light source)

Design & Features

- 370nm or 457nm light source
- titanium or 316 stainless steel probe
- Large spot size
- High sensitivity and high resolution
- Fast response
- Display range 00-99
- Adjustable gain
- Analog output
- PNP/NPN discrete output

Ordering Information



BriteX 1000P Probes
Brightness sensor

Model	probe material	LED(nm)
BX1000P-S-457	316SS	457
BX1000P-S-370	316SS	370
BX1000P-T-457	Titanium	457
BX1000P-T-370	Titanium	370

Accessories



39-3176T13
Vibration damping U-bolt



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	457nm LED life 100,000 hours 370nm LED life 100,000 hours 25mm glass window
Spot size	3 levels
Light source intensity	Contact 100mm
Sensing distance	350...1000nm
Receiver Spectral Response	<150uS
Response time	6kHz
Switching Frequency	00 to 99
Relative intensity display range	Adjustable
Sensitivity	Two 7 segment digits
Brightness level	Two 7 segment digits
Brightness threshold	Auto-Detect PNP / NPN
Digital Output	NO/NC selectable
Output Function	0...5V
Analog Output	Green LED
Power indicator	Red LED
Detect indicator	Yellow LED
Programming indicator	EEPROM non-volatile memory
Data retention	2" (51mm) x 4" (100mm) x 1" (25mm)
Dimensions	22" x 1.425" (56cm x 3.6cm)
Probe (L x D)	9.5" x 4.5" x 7.5" (24cm x 11.5cm x 19cm)
Enclosure (L x W x H)	
Weight	
316 SS	6 lbs. (2.7kg)
Titanium	5 lbs. (2.3kg)
Probe seal pressure	50 PSI
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	FRP (fiberglass reinforced plastic)
Mechanical Protection	IP67 NOT FOR PRESSURE WASH DOWN
Indicators	
7-Segment display	LED
Green LED	Power
Red LED	Detect
Yellow LED	Program
Connector M12	
Pin 1	Power to 24VDC
Pin 2	Discrete output
Pin 3	PNP/NPN NO/NC
Pin 4	Ground
Pin 5	Analog output 0 to 5V DC
	Remote LOCK/ UNLOCK input



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.