

MAS

**PHOTODIODE SENSOR
WITH 4-20mA Output
2 Wire, Loop Powered, Microprocessor**



[CORRECT ORIENTATION SHOWN]

PROJECT	
LOCATION	

FEATURES

- Compatible with many lighting and building automation controllers
- Measuring range 0-10,000 Fc
- Output 4-20mA
- Adjustable response time
- Indoor sensor adhesive ceiling mount
- All others 1/2" NPT mount
- Class 2 wiring device
- NIST traceable factory calibration available
- Title 24 Listed
- RoHS compliant
- 2 year warranty

DESCRIPTION

The MAS is a two wire, microprocessor photosensor which provides a light level input into lighting control and building automation systems. The MAS has four models which are used in different locations in and around a building. Indoor sensors are used in offices and classrooms. Outdoor sensors detect light for sign and site illumination control. Atrium sensors measure light in lobbies. Skylight sensors read the ambient light available in warehouse skylights. Each sensor has a different range and focus of the light being measured.

MAS sensors are powered by 24VDC, but can accept from 18 to 30VDC. The output signal is 4-20mA. This robust signal can travel up to 4,000ft without the signal degrading. Both the 4mA and 20mA values are calibrated to factory standard footcandle settings using NIST

traceable equipment. These standard ranges are based on 20 years experience in the lighting controls industry and are the most suitable for many applications. All MAS sensors are Class 2 wiring devices Custom wire lengths, lens and housing modifications and multi-point NIST calibration services are also available.

The MAS sensor utilizes a field calibration tool; the MAS-CAL. This device can be connected to a digital multi-meter and an MAS sensor to display the actual milliamp signal of the MAS. The MAS-CAL can also configure the MAS sensor. The sensor range can be set equal to, half or double the factory preset. The sensor time response can be set equal to, or double the factory value, in addition to providing an instantaneous signal. The MAS sensor can be programmed up to 4,000 feet away using the MAS-CAL.

TECHNICAL DATA - MAS SERIES

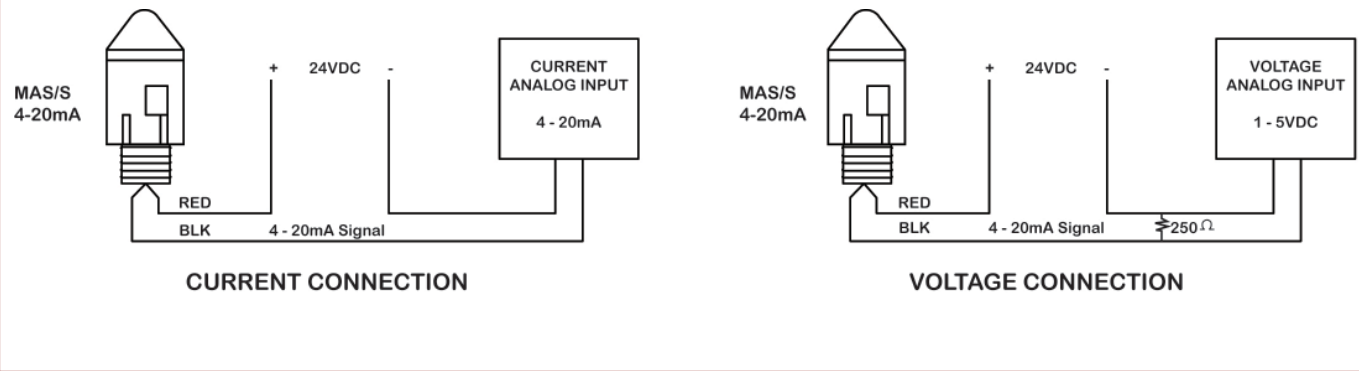
Input Voltage: 18 TO 30VDC
Current: 20mA
Low Output: SEE TABLE 1 4mA
High Output: 20mA
Photodiode: Blue Enhanced
Fixed Signal Range: 4-20mA
Adjustment: MAS-CAL
 Time Response 0T-Instant, 1T-10min, 2T-20min
 Fc Range 1/2X-Half, 1X-Factory, 2X-Twice
Tolerance: 12%
 Repeatability +/- 0.5%
 Linearity 2%
 Temperature +/- 10%
 Protection Non-Polarized
Wiring: Red: Input Voltage
 Black: Signal Current
Compliance: NEC Class 2 ; RoHS ; Title 24

Fixed Corresponding Fc.

Sensor	Minimum
MAS/II	0Fc
MAS/O	0Fc
MAS/A	50Fc
MAS/S	100Fc

TABLE 1

CONNECTION DRAWING



MAS SENSOR SELECTION

Sensor	Style	Lens	Filter	Mounting	Orientation	Factory Set Max. Calibration*		
						1/2X	1X*	2X
MAS/II	Indoor	Fresnel	Clear	Ceiling	Down	50 Fc	100 Fc	200 Fc
MAS/O	Outdoor	Flat	Clear	1/2" NPT	Horizontal	125 Fc	250 Fc	500 Fc
MAS/A	Atrium	Dome	Opaque	1/2" NPT	Horizontal	500 Fc	1,000 Fc	2,000 Fc
MAS/S	Skylight	Dome	Dark	1/2" NPT	Up	2,500	5,000 Fc	10,000 Fc

* Charge applies if non-standard calibration is requested

ORDERING INFORMATION

