

LIGHTING CONTROLS

SELF-CONTAINED AMBIENT LIGHT TRANSMITTERS MAS SERIES



Lighting and Operational Control Systems



DESCRIPTION

The PLC-Multipoint MAS Series sensors are microprocessor-based light monitors that measure ambient light levels. They provide an analog DC signal to various microprocessors and energy management systems. The sensor is powered by 24 VDC and provides a 4-20 mA analog signal over 2 wires. The MAS Series can be set to a range of 0 to 10,000 fc. It comes in many styles of housing, including indoor, outdoor, atrium and skylight. The MAS Series sensor's range can be changed with the MAS-CAL from up to 4000 feet away.

FEATURES

- Compatible with many lighting and BAS controllers
- Measuring range 0-10,000 Fc
- Output 4-20 mA
- Adjustable response time
- Lighting control for four application types
- NIST traceable factory calibration available
- Title 24 Listed



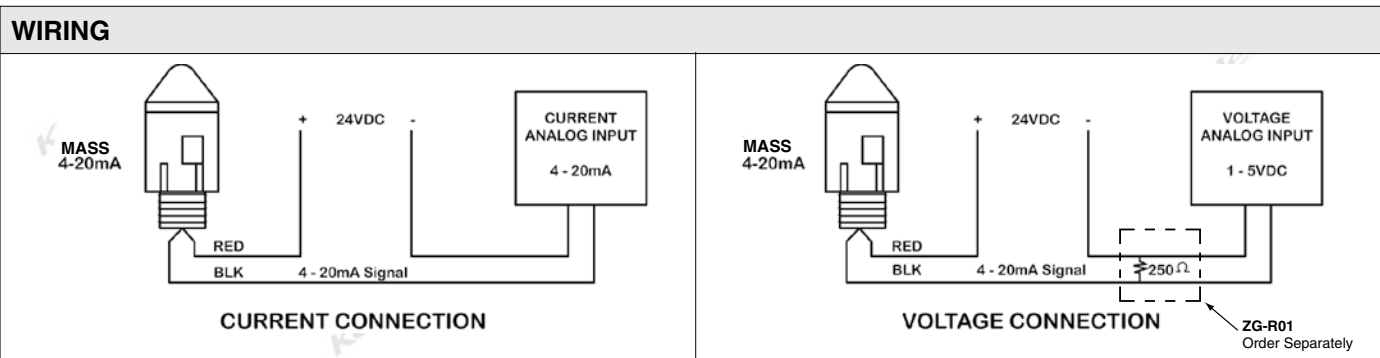
Note: Correct Mounting Orientation Shown



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SPECIFICATIONS			
Supply Voltage	18 to 30 VDC	Operating Humidity	10% to 95% Non-condensing
Accuracy	Overall ±12%	Wiring Terminations	2 wire loop, 18 AWG pigtails
	Operating Temp ±10%	Mounting	
	Linearity ±2%	Indoor (MASI)	Smooth back for ceiling down mounting w/ double stick tape
	Repeatability ±0.5%	Outdoor (MASO)	1/2" MNPT for Horizontal mount
Analog Output	4-20 mA @ 690	Atrium (MASA)	1/2" MNPT for Vertical-up mount
Sensor type	Blue-enhanced photo-diode	Skylight (MASS)	1/2" MNPT for Vertical-up mount
Range Adjust	Can be field adjusted with "MAS-CAL"	Enclosure Rating	NEMA 1-(Indoor, Atrium and Skylight) NEMA 3R (Outdoor)
Indoor (MASI)	0-(50,100,200) fc = Selected per order	Dimensions	
Outdoor (MASO)	0-(125,250,500) fc = Selected output per order	Indoor (MASI)	1.5" x 1.5" x 1.7" (38 x 38 x 43 mm)
Atrium (MASA)	50-(500,1000,2000) fc = Selected output per order	Outdoor (MASO)	1.4" x 1.4" x 2.4" (36 x 36 x 61 mm)
Skylight (MASS)	100-(2500,5000,10000) fc = Selected output per order	Atrium (MASA)	1.3" x 1.3" x 2.8" (33 x 33 x 71 mm)
Response Time Adjust	Instantaneous, 10 minutes or 20 minutes	Skylight (MASS)	1.3" x 1.3" x 2.8" (33 x 33 x 71 mm)
Protective Lens	Non-polarized plastic	Weight	0.13 lb (0.06 Kg)
Indoor (MASI)	Clear Fresnel lens	Approvals	ETL, NEC Class 2, RoHS, Title 24
Outdoor (MASO)	Clear flat lens	Warranty	2 year
Atrium (MASA)	Opaque dome		
Skylight (MASS)	Dark dome		
Operating Temperature	-40° to 140°F (-40° to 60°C)		





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MAS SERIES

ORDERING INFORMATION

Model	Ordering description	Filter Type	Foot Candles	Lens	Location	Mounting	Mounting Orientation
MASI-12X0T	Indoor light sensor 50 Fc instant time response	Clear	Min 0 Fc Max 200 Fc	Fresnel	Indoor	Ceiling	Down
MASI-12X1T	Indoor light sensor 50 Fc 10 min time response	Clear	Min 0 Fc Max 200 Fc	Fresnel	Indoor	Ceiling	Down
MASI-12X2T	Indoor light sensor 50 Fc 20 min time response	Clear	Min 0 Fc Max 200 Fc	Fresnel	Indoor	Ceiling	Down
MASI-1X0T	Indoor light sensor 100 Fc instant time response	Clear	Min 0 Fc Max 200 Fc	Fresnel	Indoor	Ceiling	Down
MASI-1X1T	Indoor light sensor 100 Fc 10 min time response	Clear	Min 0 Fc Max 200 Fc	Fresnel	Indoor	Ceiling	Down
MASI-1X2T	Indoor light sensor 100 Fc 20 min time response	Clear	Min 0 Fc Max 200 Fc	Fresnel	Indoor	Ceiling	Down
MASI-2X0T	Indoor light sensor 200 Fc instant time response	Clear	Min 0 Fc Max 200 Fc	Fresnel	Indoor	Ceiling	Down
MASI-2X1T	Indoor light sensor 200 Fc 10 min time response	Clear	Min 0 Fc Max 200 Fc	Fresnel	Indoor	Ceiling	Down
MASI-2X2T	Indoor light sensor 200 Fc 20 min time response	Clear	Min 0 Fc Max 200 Fc	Fresnel	Indoor	Ceiling	Down
MASO-12X0T	Outdoor light sensor 125 Fc instant time response	Clear	Min 0 Fc Max 500 Fc	Flat	Outdoor	1/2" NPT	Horizontal
MASO-12X1T	Outdoor light sensor 125 Fc 10 min time response	Clear	Min 0 Fc Max 500 Fc	Flat	Outdoor	1/2" NPT	Horizontal
MASO-12X2T	Outdoor light sensor 125 Fc 20 min time response	Clear	Min 0 Fc Max 500 Fc	Flat	Outdoor	1/2" NPT	Horizontal
MASO-1X0T	Outdoor light sensor 250 Fc instant time response	Clear	Min 0 Fc Max 500 Fc	Flat	Outdoor	1/2" NPT	Horizontal
MASO-1X1T	Outdoor light sensor 250 Fc 10 min time response	Clear	Min 0 Fc Max 500 Fc	Flat	Outdoor	1/2" NPT	Horizontal
MASO-1X2T	Outdoor light sensor 250 Fc 20 min time response	Clear	Min 0 Fc Max 500 Fc	Flat	Outdoor	1/2" NPT	Horizontal
MASO-2X0T	Outdoor light sensor 500 Fc instant time response	Clear	Min 0 Fc Max 500 Fc	Flat	Outdoor	1/2" NPT	Horizontal
MASO-2X1T	Outdoor light sensor 500 Fc 10 min time response	Clear	Min 0 Fc Max 500 Fc	Flat	Outdoor	1/2" NPT	Horizontal
MASO-2X2T	Outdoor light sensor 500 Fc 20 min time response	Clear	Min 0 Fc Max 500 Fc	Flat	Outdoor	1/2" NPT	Horizontal
MASA-12X0T	Atrium light sensor 500 Fc instant time response	Opaque	Min 50 Fc Max 2,000 Fc	Dome	Atrium	1/2" NPT	Horizontal
MASA-12X1T	Atrium light sensor 500 Fc 10 min time response	Opaque	Min 50 Fc Max 2,000 Fc	Dome	Atrium	1/2" NPT	Horizontal
MASA-12X2T	Atrium light sensor 500 Fc 20 min time response	Opaque	Min 50 Fc Max 2,000 Fc	Dome	Atrium	1/2" NPT	Horizontal
MASA-1X0T	Atrium light sensor 1000 Fc instant time response	Opaque	Min 50 Fc Max 2,000 Fc	Dome	Atrium	1/2" NPT	Horizontal
MASA-1X1T	Atrium light sensor 1000 Fc 10 min time response	Opaque	Min 50 Fc Max 2,000 Fc	Dome	Atrium	1/2" NPT	Horizontal
MASA-1X2T	Atrium light sensor 1000 Fc 20 min time response	Opaque	Min 50 Fc Max 2,000 Fc	Dome	Atrium	1/2" NPT	Horizontal
MASA-2X0T	Atrium light sensor 2000 Fc instant time response	Opaque	Min 50 Fc Max 2,000 Fc	Dome	Atrium	1/2" NPT	Horizontal
MASA-2X1T	Atrium light sensor 2000 Fc 10 min time response	Opaque	Min 50 Fc Max 2,000 Fc	Dome	Atrium	1/2" NPT	Horizontal
MASA-2X2T	Atrium light sensor 2000 Fc 20 min time response	Opaque	Min 50 Fc Max 2,000 Fc	Dome	Atrium	1/2" NPT	Horizontal
MASS-12X0T	Skylight light sensor 2500 Fc instant time response	Dark	Min 100 Fc Max 10,000 Fc	Dome	Skylight	1/2" NPT	Up
MASS-12X1T	Skylight light sensor 2500 Fc 10 min time response	Dark	Min 100 Fc Max 10,000 Fc	Dome	Skylight	1/2" NPT	Up
MASS-12X2T	Skylight light sensor 2500 Fc 20 min time response	Dark	Min 100 Fc Max 10,000 Fc	Dome	Skylight	1/2" NPT	Up
MASS-1X0T	Skylight light sensor 5000 Fc instant time response	Dark	Min 100 Fc Max 10,000 Fc	Dome	Skylight	1/2" NPT	Up
MASS-1X1T	Skylight light sensor 5000 Fc 10 min time response	Dark	Min 100 Fc Max 10,000 Fc	Dome	Skylight	1/2" NPT	Up
MASS-1X2T	Skylight light sensor 5000 Fc 20 min time response	Dark	Min 100 Fc Max 10,000 Fc	Dome	Skylight	1/2" NPT	Up
MASS-2X0T	Skylight light sensor 10000 Fc instant time response	Dark	Min 100 Fc Max 10,000 Fc	Dome	Skylight	1/2" NPT	Up
MASS-2X1T	Skylight light sensor 10000 Fc 10 min time response	Dark	Min 100 Fc Max 10,000 Fc	Dome	Skylight	1/2" NPT	Up
MASS-2X2T	Skylight light sensor 10000 Fc 20 min time response	Dark	Min 100 Fc Max 10,000 Fc	Dome	Skylight	1/2" NPT	Up

ACCESSORIES

MAS-CAL

Calibration unit for MAS series light level ZG-R01 250Ω Resistor