



TDS210-01 Illuminance Sensor

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TDS210-01 Illuminance Sensor use also have higher sensitivity to weak light detector as the sensor, has a wide measuring range, high accuracy, good waterproof performance, easy to use, easy to install and long transmission distance, suitable for most applications, especially in agricultural greenhouses, urban lighting and other places.

FEATURES

- High sensitivity
- Applicable to various harsh environments
- High precision, wide measuring range
- Compact size
- Various output signals optional
- Easy installation

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SPECIFICATIONS

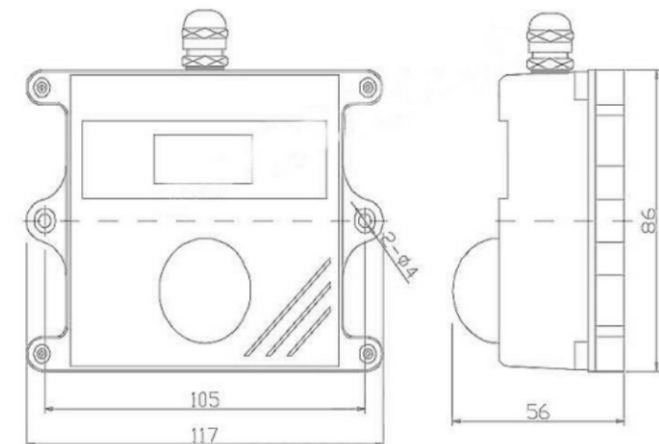
Item	Specification
Range	0-100lux, 0-2000lux, 0-20klux, 0-200klux optional
Spectral range	380-780nm
Supply	Mark on the label
Output	4-20mA, 0-5V, 0-10V, RS485
Accuracy	<5%FS
Response time	1s
Temperature effect	$\pm 0.2\%/^{\circ}\text{C}$
Repeatability	<1%FS
Display	LCD optional
Operating temperature	-40°C~+75°C
Weight(unpacked)	170g
Shell material	ABS, metal shell can be customized
Dimension	117*86*56mm

Please keep the circular detector clean.

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DIMENSION

Unit:mm



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ELECTRICAL CONNECTIONS

Connector (cable)	Current /Voltage	RS485
Red	V+	V+
Black	V-	V-
Yellow	Signal out	RS485A
Green		RS485B

Note: This product has been tested and complies with European CE requirements for EMC directive.

PARAMETER SELECTION TABLE

Remark	Series	Type	Supply	Range	Output	Cable Length	
TDS							
	210						
		01					
			A				5V
			B				12-24V
			X				Other
				A			0-100lux
				B			0-2000lux
				C			0-20klux
				D			0-200klux
				X			Other
					A		4-20mA
					B		0-5V
					C		0-10V
					D		RS485
					X		Other
						2000	Units:mm (typ)
						3000	Units:mm
						...	Units:mm

Example: TDS210-01BBA2000 Supply: 12-24V, Range:0-2000lux,Output:4-20mA,Cable Length:2m.

Communication Protocol (MODBUS)

Transmission mode: MODBUS-RTU, Baud rate: 9600bps, Data bits:8, Stop bit:1, Check bit:no

Slave address:the factory default is 01H (set according to the need,00H to FFH)

- The 03H Function Code Example: Read The Illuminance Value

Host Scan Order(slave address:0x01)

01 03 00 00 00 01 840A

Slave Response

01 03 02 0025 799F

Illuminance:(0025)H=(37) D,37*10=370(Lux)

- The 06H Function Code Example: Modify the slave address

Host Scan Order (Changed the 01H to 02H):

01 06 00 00 00 02 080B

Slave Response:

01 06 02 00 02 3949

If you forget the original address, you should use the broadcast address(FEH) (ensure that no other devices on the bus at this time).


Note:

- All underlined is fixed bit;
- The last two bytes is CRC check command;
- If you changed the address, restart the device to take effect.

WARRANTY

This product is warranted to be free of defects in materials and construction for a period of 12 months from date of lead time.

Liability is limited to repair or replacement of defective item.

 Complies with applicable CE directives.

Manual subject to change without notice. Version 2.0

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