



DAYLIGHT SENSOR FOR ZONE 1/21

DS-Ex



1 Safety information and Notes

1.1 Storage of this manual

Keep this user manual safe and in the vicinity of the device. All persons who work on or with it should be advised on where the manual is stored.

1.2 Special conditions of safe use

The rated temperature range is listed on the label and is more restricted than in the certificate.

1.3 List of notes

WARNING!	Installation to be by skilled electricians and instructed personnel in accordance with national legislation, including the relevant standards and, where applicable, in accordance with IEC 79.17 on electrical apparatus for explosive atmospheres.
WARNING!	For the installation, maintenance and cleaning of the sensor, it is absolutely necessary to observe the latest applicable regulations and provisions concerned with explosion protection (EN60079-0, EN60079-14) as well as the Accident Prevention Regulations.
WARNING!	The sensor can be operated in ATEX Gas/Dust Zone 1/21 or Zone 2/22 hazardous area, or in safe area. Refer to the ATEX certificates for further information.
WARNING!	The sensor must not be stored or operated outside of its rated temperature range as stated on the ATEX certification label
WARNING!	The technical data indicated on the ATEX rating labels, this manual and the ATEX certificates must be observed at all times.
WARNING!	The ATEX rating labels must be fitted at all times, if damaged they must be replaced immediately or the sensor must be removed from service and the hazardous area.

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WARNING!	Changes to the design and modifications to the equipment are not permitted.
WARNING!	Never operate the sensor outside its rated voltage, current and power as indicated in the specification or the safety of the unit may be impaired.
CAUTION	Ensure that the sensor is mounted safely and securely using suitable fixings.

2 Technical Specification

The built-in daylight sensor can measure ambient natural light. It will switch off the load automatically (approx. 10 min delay) when artificial light is no longer required (natural light lux level exceeds daylight threshold).

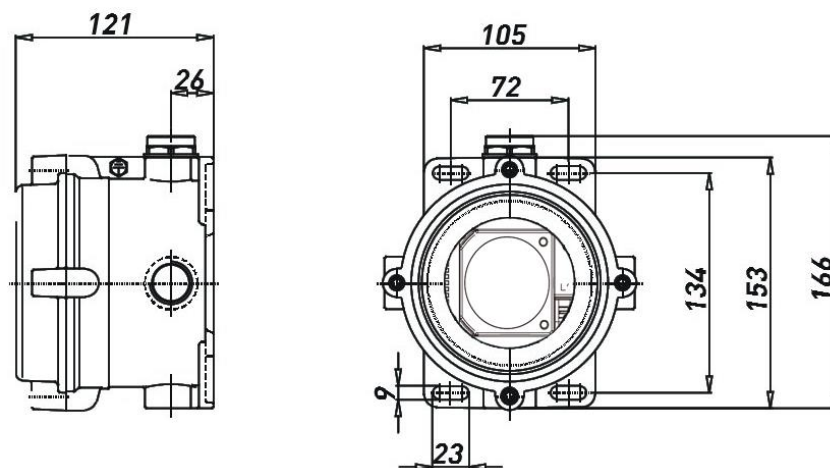
Note: If the 'Daylight Threshold' is set at 'disabled', the load will always stay on even when the natural light lux level is sufficient.

2.1 Specification

Type:	DS-Ex (Housing CPST-26/EMH90)
Ex rating:	ATEX II 2GD / Ex db IIC T6 Gb / Ex tb IIC T85°C Db IP66 INERIS03ATEX0009X
Voltage:	220/240Vac – 50/60Hz
Rated Load:	400W (capacitive load), 800W (resistive load)
Terminals:	Up to 4mm ² max
Operating Temperature:	-20°C to +55°C
Detection Angle:	30–150°
Power Consumption:	Approx. 0.5W
Light Control:	2–500Lux, Disable
Entries:	3 x M25 threaded entries (1 x M25 Exd stopping plug supplied)

NOTE:	The high-frequency output of this sensor is <0.2mW. This is approximately 1% of the transmission power of a mobile phone.
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2.2 Dimensions



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3 Installation and Wiring

WARNING:	Please ensure that the electricity supply is switched OFF before installing or servicing the sensor. DO NOT OPEN THE Exd ENCLOSURE WHEN ENERGISED
WARNING:	DO NOT OPEN IF AN EXPOSIVE ATMOSPHERE IS PRESENT



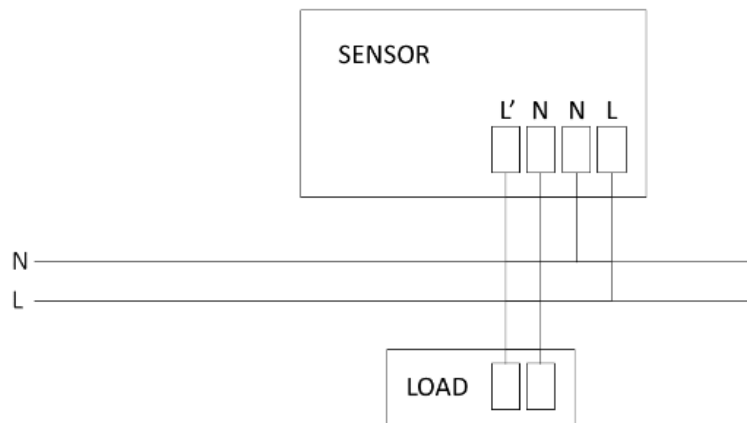
The sensor has a 6-wire electrical interface (4mm² max):

- 2 x N (neutral)
- 1 x L (phase / external supply)
- 1 x L' (switched phase / output to load)
- 2 x PE

3.1 Wiring

ON/OFF function:

A single sensor can trigger multiple luminaires. Connect L' and N to the drivers/ballasts of the grouped fittings for simultaneous switching up to the maximum values.



3.2 Daylight Threshold



The sensor is mounted inside the lid.

- To access the DIP switches, unscrew the daylight sensor holder and flip over.
- Adjust to the required settings and re-assemble. (Factory setting 30 Lux)

DIP Switch settings:

	1	2	3	4	5	6			1	2	3	4	5	6		
I	●	●	●	●	●	●	Disable	V	○	○	○	●	○	○	50 Lux	
II	●	○	○	○	○	○	2 Lux	VI	○	○	○	○	●	○	100 Lux	
III	○	●	○	○	○	○	10 Lux	VII	○	○	○	○	○	●	300 Lux	
IV	○	○	●	○	○	○	30 Lux	VIII	○	○	○	○	○	○	500 Lux	

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Other Sensors:

Microwave Sensor (AC)

Motion Detector

MWS-Ex
IP 65

Applications: Long range motion sensor for detection zone

Body: Absolut reliable with powder-pact fields

Detector: 30 mW/0.100 dBm

Mounting: Fully adjustable (swivel)

ATX certified: Zone 0/21

CE Ex II, III, IIC T100°C Div. P66 H05

Input voltage: 230-240V AC

Switching load: 400V/0.2A switching detector (20A/1)

Motion detection sensitivity: 2, 3, 5 m/s with 100% detection control

Control: 24VDC/100mA (max) to 24VDC/100mA (max) - This unit is not suitable for use in hazardous areas

Termination: 2, 3, 5 m/s, 100% detection control

EMC: Class B

Weight: 1.5 kg

Options: - 24VDC/100mA (max) to 24VDC/100mA (max)

IP65/66/67

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Microwave Sensor (DC)

Motion Detector

MWS-Ex-DC
IP 65

Applications: Long range motion sensor for detection zone

Body: Absolut reliable with powder-pact fields

Detector: 30 mW/0.100 dBm

Mounting: Fully adjustable (swivel)

ATX certified: Zone 0/21

CE Ex II, III, IIC T100°C Div. P66 H05

Input voltage: 24VDC

Switching load: 24V/0.2A (max) - 24V/0.2A (max) - 24V/0.2A (max)

Motion detection sensitivity: 2, 3, 5 m/s with 100% detection control

Control: 24VDC/100mA (max) to 24VDC/100mA (max) - This unit is not suitable for use in hazardous areas

Termination: 2, 3, 5 m/s, 100% detection control

EMC: Class B

Weight: 1.5 kg

Options: - 24VDC/100mA (max) to 24VDC/100mA (max)

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