

Data sheet

Dhali Sensor Zhaga40

The Citygrid Dali sensor integrates smoothly into outdoor luminaires, allowing for truly adaptive lighting control.



Street luminaires using a motion sensor can ensure correct lighting when light is needed and prevent wasting energy when no light is required.

Using motion detection not only reduces power consumption, but simultaneously reduces light pollution and enhances public safety.

The Citygrid Dali Sensor comes in two versions:

- Citygrid Dali Sensor Build in
- Citygrid Dali Sensor Zhaga40

DUAL OPERATION MODE

- Stand alone mode
- Dali Sensor mode

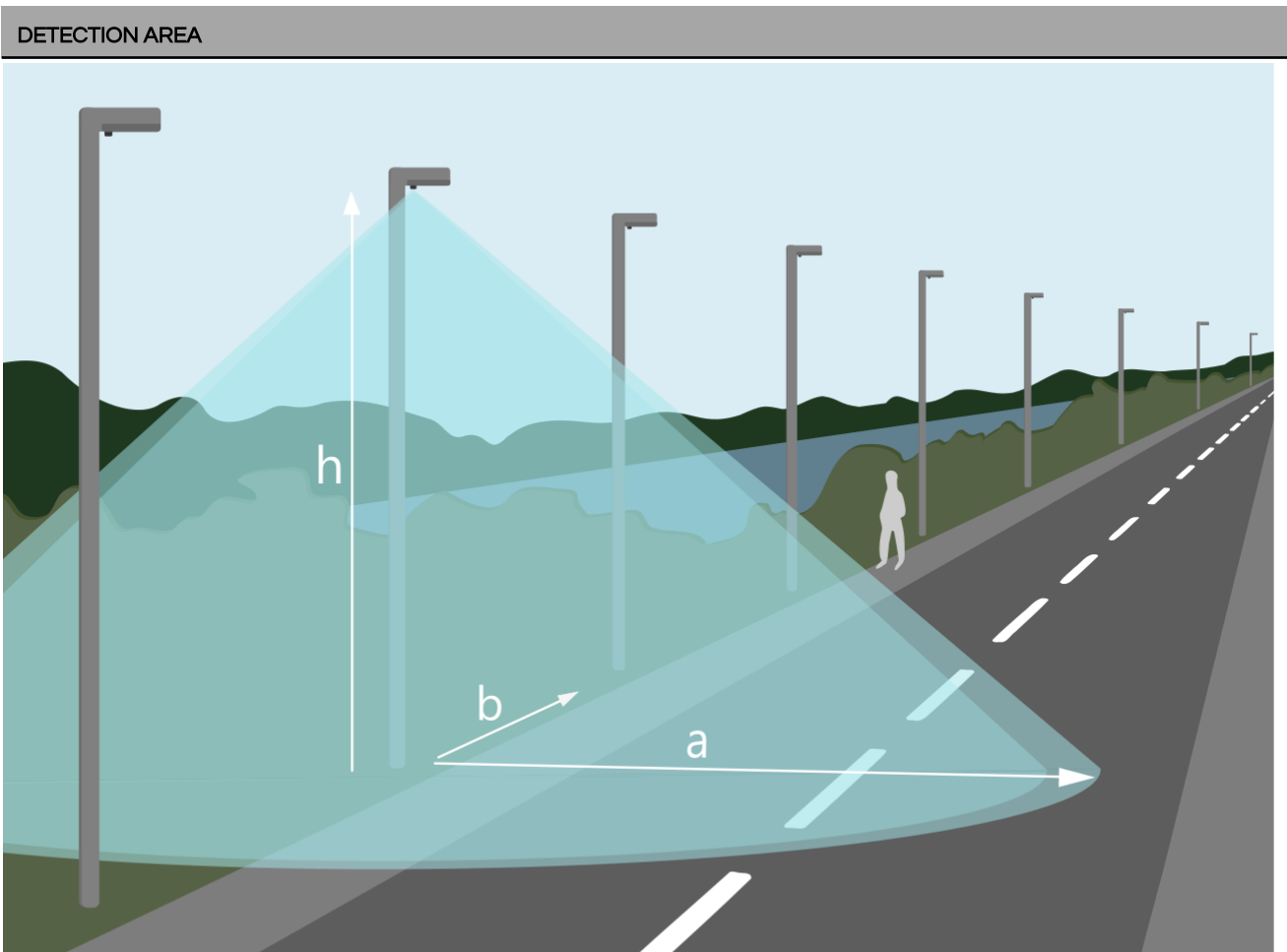
BENEFITS

- High performance motion sensing
- Powered over Dali
- Zhaga Book 18 socket compatible
- Very low power consumption
- Approved for outdoor installation
Detection distance up to 10 m

FEATURES

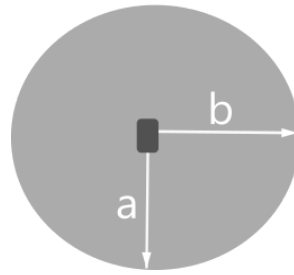
- Motion outputs: DALI2
- Ultra compact, low profile durable plastic casing

MOTION DETECTION			
Details	Value	Unit	Condition
Detection technology	PIR		Patent pending Analog detection algorithm
Recommended installation height	4 ...8	Meter	



Height h	Length a	Length b	Unit
4	4,2	5,0	m
5	5,3	6,3	m
6	6,3	7,5	m
7	7,1	7,5*	m
8	7,1*	7,1*	m

*The maximum detection range from the sensor is 10 meters. When the sensor is mounted higher than 6 meters the detection area at ground level shrinks slightly due to the sensor detection range. In those cases the detection lengths are measured 1 meter above the ground instead of at ground level.



Top-down view of detection area

STAND-ALONE MODE

Standalone mode is entered automatically if the unit is connected to a Zhaga connector, and after 15 minutes have detected a D4i LED driver but not detected a controller on the dali bus.

It will then operate alone and use the following settings:

Specification item	Value	Unit	Condition
Low level	25	%	
High level	100	%	Motion detection
On time after motion detection	5	min	
Dim up period	2	sec	
Dim down period	10	sec	

ELECTRICAL CHARACTERISTICS - INPUT

Specification item	Value	Unit	Condition
Input voltage (True the Dali Bus)	16	V _{dc}	±6,50 VDC
Power consumption	< 50	mW	Max current draw in Dali = 2mA

ELECTRICAL CHARACTERISTICS - SENSING

Specification item	Value	Unit	Condition
PIR Sensor – Analog	92	Detection zones	
Detection separation	5	Seconds	
Communication type	DALI 2		

TEMPERATURE & HUMIDITY

Type	Value	Unit	Condition
Operational temperature	-20 to +60	°C	Ambient
Storage temperature	-30 to +80	°C	Ambient

PROTECTION

Specification item	Value	Unit	Condition
IP rating	IP66		
IK rating	IK09		For side impact (Lens not included)

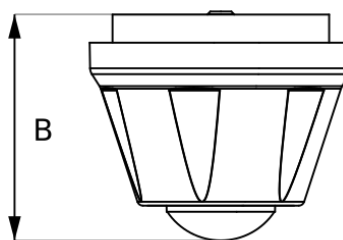
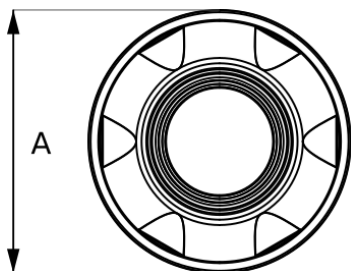
ELECTRICAL CONNECTIONS

Name (PIN-number)	Value	Unit	Condition
Power in (1)	Not used		
Shared GND and DALI – (2)	GND		
DALI+ (3)	16	V _{dc}	± 6,50 V _{dc}
General I/O (4)	Not used		

APPROVALS

Directive:	Standard:
EMC Directive: 2014/36/	EN 55015:2013
RoHS Directive: 2011/65/EU	EN 50581:2012

DIMENSIONS & WEIGHT			
Item	Value	Unit	Comment
A	47	mm	Diameter
B	40	mm	Height
Weight	0,028	kg	



INSTALLATION	
Description	Illustration
<p>The Dhali sensor Zhaga 40 is installed on a Zhaga book 18 connection on the luminaire head facing downwards.</p>	
<p>Hold the unit up to the Zhaga book 18 connection, turn to find the right position where the socket falls into place, and then turn to fasten.</p>	<p>Zhaga book 18 connection</p> <p>Turn to fasten</p> <p>Dhali sensor Zhaga40</p>

LOGISTIC DATA AND ORDER NUMBER	
Specification item	Value
Product Name	Dhali sensor Zhaga40
Seneco Order number	25007
Fagerhult Article number	86494
Parts	Dhali sensor Zhaga40
Pieces per box	
Box dimensions	
Box weight	

WARRANTY AND EXPECTED LIFETIME	
Specification item	Value
Warranty	5 years
Expected lifetime	Up to 100.000 hours of operation or 20 years since initial commissioning. Expected failure rate <10%



CAUTION

- Avoid touching live parts!
- Do not use the Dhali Sensor Zhaga40 with damaged housing and/or connectors!
- Do not service the Dhali Sensor Zhaga40 when the mains voltage is connected; this includes connecting or disconnecting a LED driver.
- The Dhali Sensor Zhaga40 should only be installed by a trained and qualified person.

Warranty and further information: www.seneco.dk

