

Datasheet SLC-Motion203-G

Smart Controller for Light on Demand

The SLC-Motion203-G is a Zhaga D4i-certified street light controller with an integrated PIR motion sensor. Acting as the central intelligence, the controller enables light-on-demand applications and seamlessly connects lighting assets to modern management systems. Its integrated GNSS receiver enables automatic positioning and simplified commissioning. In combination with a cellular device, the controller supports remote monitoring and control of lighting assets.



Remote Management

Provides real-time monitoring, management, and remote control of lighting networks via the SL-Control web platform.



On-Site Management

Enables on-site configuration of lighting parameters, including dimming levels, for individual luminaires or luminaire groups.



Mesh Network

Uses a self-organising 2.4 GHz mesh network for reliable communication between luminaires within range.



Over-The-Air Updates

Supports remote firmware updates for connected controllers via the SL-Control web platform.



Automatic Positioning

The integrated GNSS receiver provides precise positioning and time synchronisation for automated lighting control.



AstroDim

Automatically adjusts lighting profiles based on precise sunrise and sunset times at the installation location.



Brightness Sensor

An integrated brightness sensor enables automatic on/off control based on ambient light levels.



Tilt Sensor

Integrated tilt sensing enables detection of pole movement, collision events, and changes in orientation across all axes.



Temperature Sensor

Integrated temperature sensor supports predictive maintenance by detecting abnormal operating conditions.



Motion Sensor

Motion sensors support dynamic lighting by automatically adjusting light levels when movement is detected.



DALI Features

Application Controllers

✓ Supports DALI version-1 control gear
✓ Supports DALI-2 control gear
✓ Support for event messages from input devices
✓ Support for other application controllers on the same bus
✓ Support for Occupancy sensors (DALI part 303)
✓ Support for Light sensors (DALI part 304)
✓ Support for LED (DALI part 207)
✓ Support for Switching (DALI part 208)
✓ Support for Colour control (DALI part 209, DT8) ↳ Supports colour type Tc ↳ Supports colour type RGBWAF
✓ Supports feedback from control gear (including lamp failure feedback)
✓ Support for addressing or grouping of control gear
✓ Support for Luminaire-mounted control devices (DALI part 351) ↳ Type B
✓ Support for Luminaire data (DALI part 251)
✓ Support for Energy data (DALI part 252)
✓ Support for Diagnostics data (DALI part 253)
✓ Luminaire-mounted control devices (DALI part 351) ↳ Type A
✓ D4i certified

Connector

✓ Zhaga connector (Book 18)

Operating Parameters

Supply Voltage Range	12 – 30 V DC typ. 24 V DC
Current Input (24 V DC)	12 – 15 mA
Average Power Usage (24 V DC)	320 mW
Operating Temperature	-40...+80 °C
DALI Input Current	max: 250 mA
Protection Class	IP66
Impact Protection	IK09

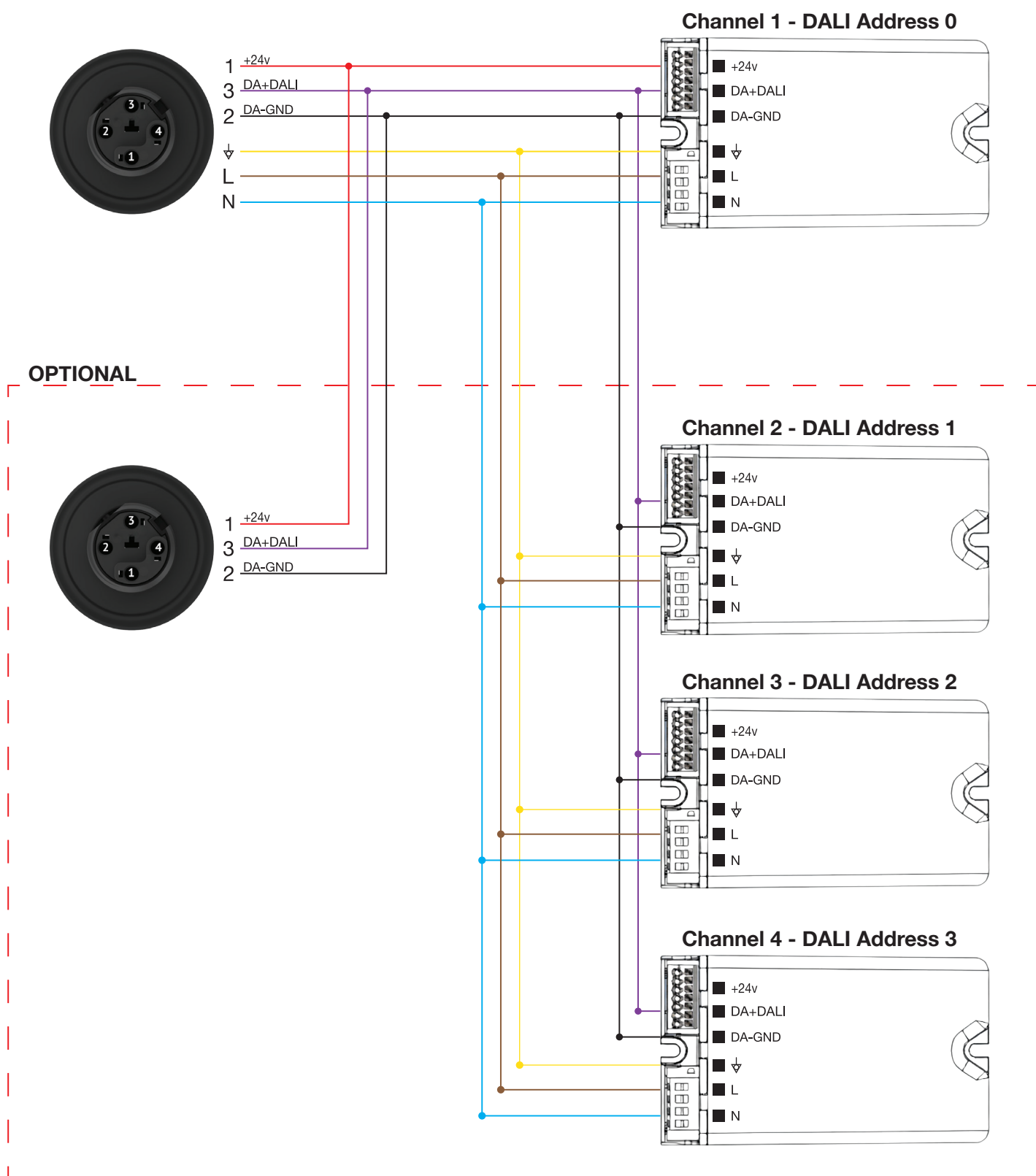
Maximum Ratings

Supply Voltage	34 V DC
Current Input	18 mA
Storage Temperature	-40...+90°C

Mesh Characteristics

RF Frequency Range	2.420 – 2.480 GHz
RF Nominal Output Power	+8 dBm
Receiver Sensitivity	-100 dBm

Wiring



When two controllers are used, one DALI output is automatically disabled.

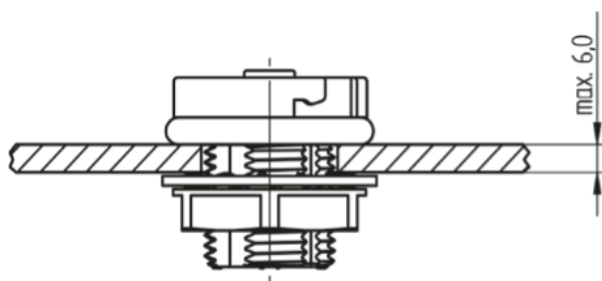
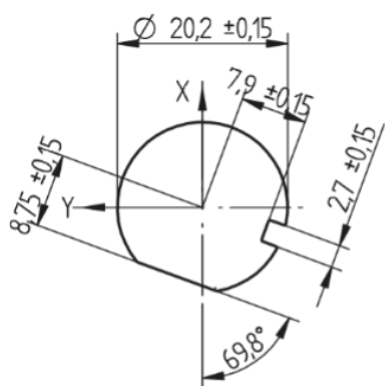
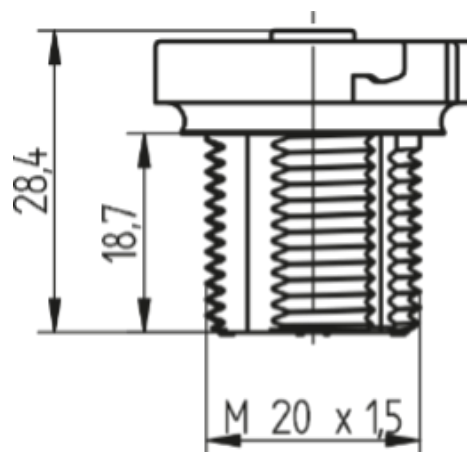
Dimensions SLC-Motion203-G

Diameter	81.50 mm
Height	54.00 mm
Weight	80 g
Dome Material	Polycarbonate
Dome Color	Transparent Smoke Grey
Base Material	PBT
Base Color	Grey



Dimensions Zhaga Connector

Diameter	30.00 mm
Height	28.40 mm
Thread Length	18.70 mm
Thread Pitch	M20 x 1.5
Material	PBT
Wire Size	20-16 AWG (0.5 - 1.5 mm²)
Mounting	Tightening torque 1.8 – 2.4 Nm (27 mm hex socket)



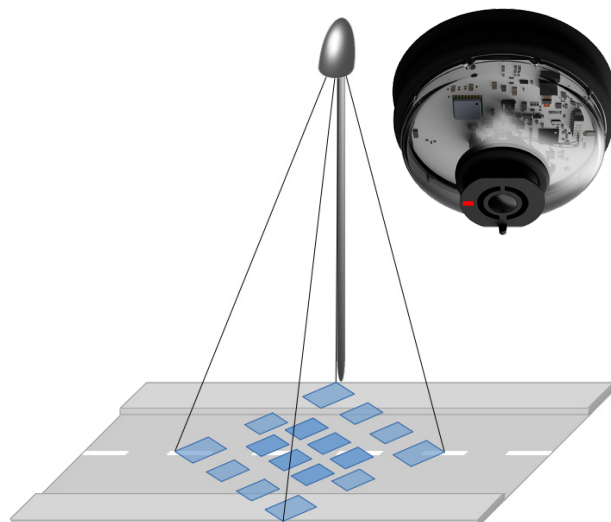
Installation

The sensor must be mounted at the bottom of the luminaire to ensure reliable motion detection.



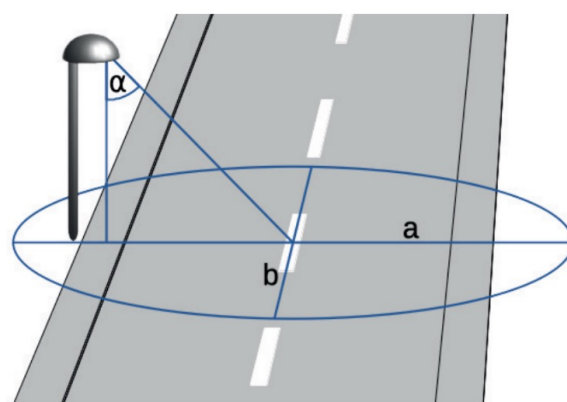
Sensor Alignment

- Align the red marker along the road.
- Position the alignment tab at the lowest point.
- Provides a 45° detection field for optimal motion detection.
- The sensor is adjustable in all directions.



Alignment Angle

Height	Alignment angle (α)				
		0°	10°	20°	30°
5 m	A	5.7	6.0	7.5	11.8
	B	5.7	5.7	6.0	6.5
6 m	A	6.8	7.3	9.0	
	B	6.8	6.9	7.2	
7 m	A	7.9	8.5	10.5	
	B	7.9	8.0	8.4	
8 m	A	9.0	9.7		
	B	9.0	9.2		
9 m	A	10.2	10.9		
	B	10.2	10.3		
10 m	A	11.3	12.1		
	B	11.3	11.5		
11 m	A	12.4			
	B	12.4			

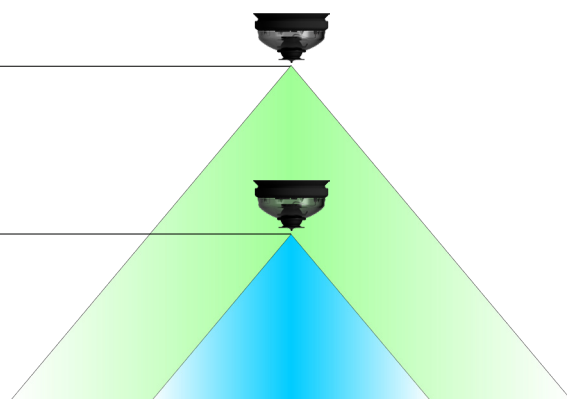


- Standard (ST)
Height: From 0 m up to 6 m
- High Sensitive (HS)
Height: From 6 m up to 12 m

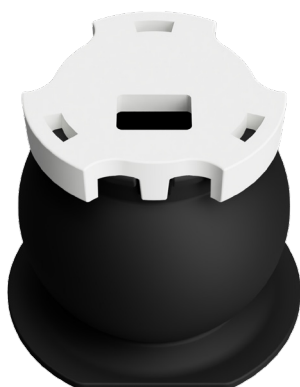
Sensor Types

High Sensitive (HS)
Height: From 6 m up to 12 m

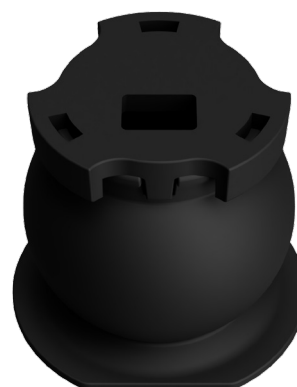
Standard (ST)
Height: From 0 m up to 6 m



Standard (ST)
White Cover



High Sensitive (HS)
Black Cover



Optional Alignment Tool

An optional alignment tool is available for easy and precise sensor alignment.



All information has been carefully checked; however, errors and technical changes are reserved.