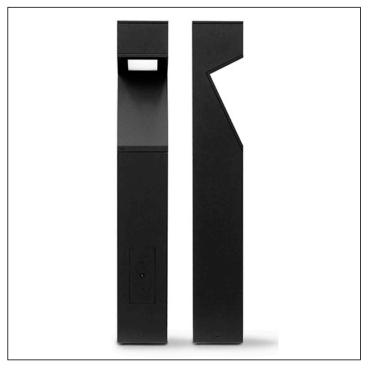
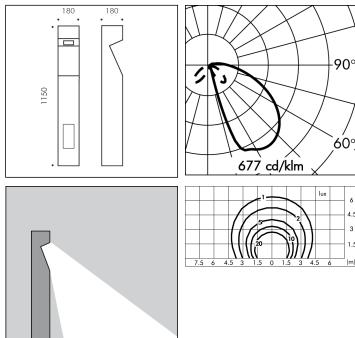
# BUSHELL

### MOAI





\*Photometric measured using WHITE LED 3000K

### Version is available on request.

### S.6160N.09 (Black)

1 module COB 4000K 220-240Vac DIMMABLE DALI2; PUSH Bollard

# Light Source Technical Data

Light source type:	COB
Colour temperature:	4000K
Rated module luminous flux:	5288lm
Rated luminaire luminous flux:	1875lm
Rated module power:	30W
Rated luminaire power:	33.9W
Luminaire efficacy:	55lm/W
ULR:	6.5%
BUG:	B0 - U3 - G1
CIE Flux Code:	35 70 91 93 100
Color Rendering Index:	CRI 80
Standard Deviation Color Matching:	MacAdam step 3

### Temperature and life time Technical Data

LED Lifetime:	L80 B10 70.000h Ta 25°C L80 B10 50.000h Ta 40°C
Lifespan of the LUMINAIRE:	min. 70.000h Ta 25°C min. 50.000h Ta 40°C
Performance ambient temperature:	Tq 25°C
Operating ambient temperature range:	da -20°C a +50°C
Storage temperature range:	da -20°C a +60°C

### **Power Supply Technical Data**

Voltage (AC):	220-240Vac
Frequency (AC):	50/60Hz
Voltage (DC):	198-276Vdc (No PUSH DIM)
Dimmable:	DALI2; PUSH PUSH Synchronization: - Max 4 Luminaires, distance <15m; - Max 35 Luminaires, distance <300m with S.2490 accessory.
Inrush Current:	5A 50µsec
Max. quantity of fixtures for Minature Circuit Breaker type B16A:	50
Max. quantity of fixtures for Minature Circuit Breaker type C16A:	85
Surge protection (between L-N):	3,5kV
Surge protection (between L/N-PE):	4kV

### **Technical Installation Data**

Electrical insulation class:	II
Protection class IP:	IP65
Mechanical resistance:	IK06
Weight:	15.54Kg
Power cable:	0.3m - H05RN-F

SPECIAL VERSION ON REQUEST: this Luminaires can be supplied with a surcharge in class III (without power supply). Requires working remote power supply in costant current at 900mA Vfmin=31.8Vdc Vfmax=37.5Vdc. Example SIMES compatible power supplies (check the complete list of the drivers on the catalogue):

Art. S.2444 POWER SUPPLY MULTI-POWER 230V/700mA-1050mA DALI2, PUSH DIM IN BOX IP67 35W

NB: Use 1 Power Supply for each Luminaires

S.6160N.09 REV: B

## SIMES

#### ΜΟΔΙ

### S.6160N.09 (Black)

**BUSHELL** 

### **SPECS SHEET**

### **LUMINAIRE TYPE**

Bollard fitting. IP rating IP 65

### **MATERIAL CHARACTERISTICS**

Extruded EN AW-6060 aluminium profile, die-cast EN AB-47100 aluminium housing with high corrosion resistance. Stone wash surface treatment prior to painting process. A4 grade Stainless Steel screws with 2,5-3% molybdenum content which increases the resistance against corrosion. Pre treated Silicone Gaskets. Painting Process: 3 Step Process

1) Surface treatment with BONDERITE. A heavy metal free chemical surface treatment containing ceramic nano particles giving a cohesive, inorganic and highly dense protective coating. 2) PRE POLYMERIZATION a process of introducing an epoxy primer with excellent characteristics to the paint which also offers very high resistance to oxidation due to its Zinc content. 3) POLYMERIZATION a process with the application of polyester powder with high resistance against UV rays and harsh weather conditions. Resistance test protection for Marine applications for 1200h. Mechanical resistance IK 06

### **VERY SOLID BOLLARD**

The accessory flange when rooted into the ground provides extra protection and prevents the bollard from being knocked over. The bollard head component is made from a one piece ALUMINIUM DIE-CAST. The 4 angled sides provide a very rigid solution.

#### LIGHTING PERFORMANCE

Reeded glass diffusor provides even horizontal light distribution at ground level. The glass is fixed to the aluminium support with a very strong resin. The eye perception is even lighting when the luminaire is in a real environment. With the Anti-glare screen accessory (S.6159 / S.6169) the upward emission (ULR) is reduced to 3% (Minimoai) and 3,5% (Moai). Lamp fixed position .

### **INSTALLATION AND MAINTENANCE**

The wiring of the fixtures must strictly respect the specifications. Where not provided by the fixture loop in /out or through wiring will cause infiltration of humidity and if in contact with the cables this may lead to an accelerated process of oxidation.

### WIRING

Supply 0.3m cable section type H05RN-F . The installation is easy: the lamp body is installed on the bollard structure, and is then fixed to it through an allen screw placed on the back of the bollard. The absence of screws in sight enhances the essential, minimalistic design of the fitting. Supplied with IP67 fast connector. Isolation: CLASS II . Available colours: Black (cod.09), Aluminium grey (cod.14). Weight: 15.54 Kg Glow Wire test: --

### LED module included

### **MOAI REGISTERED DESIGN**

This luminaire contains built-in LED modules. In case of damage or malfunction please contact the manufacturer to receive additional instructions on how to replace and relative spare parts to order. The LED modules cannot be handled in the luminaire by the end user.

This product contains a light source of energy efficiency class (EPREL - European Product Registry for Energy Labelling): D.

LED modules are engineered accordingly to the existing regulations of Lumen Maintenance (LM80) and Technical Memorandum (TM21), where uniformity and quality of the light is 70,000 hours referred to L80 B10 Ta 25 °C (50,000 hours referable to L80 B10 Ta 40 °C). Lifespan of the luminaire min. 70.000 hours Ta 25 °C, min. 50,000 hours at 40 °C. Performance Ambient temperature Tq 25 °C. Operating ambient temperature range is from -20 °C to +50 °C. Storage temperature range from -20 °C to +60 °C.

### **ELECTRONIC EQUIPMENT SENSITIVE TO OVERVOLTAGE.**

We recommend installing surge protection devices "SPD" in the electrical system. Protection devices prevent the intensity of these phenomena's, protecting the appliances from the risk of being damaged and extending the lifespan. Outdoor luminaires are subject to all types of permanent, temporary, or transient electrical disturbances. Such disturbances can create permanent damage or failure affecting its performance and durability. The surge protection device (supplied by SIMES) is utilized to limit the destructive effect of these phenomena. We suggest that each luminaire must be connected to one protection device at not more than 10m away. For correct coordination of the protections, a surge protection device must also be provided inside the electrical panel of the system (the selection of this device must be carried out from the electrical designer and is not supplied by SIMES).

S.6160N.09 REV: B

# BUSHELL

#### MOA

### S.6160N.09 (Black)



## **ACCESSORIES**



#### S.2499 SURGE PROTECTION DEVICE 10kV CLASS II

Compatible with all lighting fixtures and electronic ballast accessories classified under electrical Protection Class II Rated voltage 230-277V SPD type 2+3 Max Surge Protection 10kV IP67 EACH FIXTURE MUST BE CONNECTED TO ONE SINGLE SURGE PROTECTION DEVICE AT A DISTANCE OF NO MORE THAN 10m



### S.5507

#### 3 WAY GEL CONNECTOR

For cables up to  $5x1,5mm^2$  diam. Min 6,5mm / Max 12mm IP68 Dimensions:  $90 \times 43 \times 30$  mm



#### S.6169 ANTIGLARE SHIELD



#### S.5310 FLANGE

 $\emptyset$  180 mm flange to be fixed in concrete with stainless steel screws for fixing in the ground.



#### S.2490

AWAY.

### Signal converter Input PUSH DIM Output DALI 2

Features DALI-2 dimming (1-100%). Control unit for the conversion from push button to DALI-2 interface. Allowed powering up to 35 DALI-2 interface in BROADCAST. Input current typ. 70 Ma - max. 110 Ma. Application in installation boxes. Light regulation 1-100% by means of PUSH: - a short push to turn on and off; - a longer push to increase or decrease light intensity. Dimensions 43mm x 46mm x 18.5mm



#### S.2492

### Virtual Midnight Interface Device IP20

Compact control IP20 module for automatic power reduction / brightness reduction for night-time. The device has an integrated bus supply (20mA) for up to 7 DALI luminaires. Possibility to extend up to max. 64 luminaires through the DALI Expander (S.2494). 2 operating modes are supported: - Operating mode B1: power reduction through mains phase or control phase; - Operating mode B2: power reduction using virtual midnight calculation. All necessary settings can be made using rotary and slide switches. The device must be located before the DALI luminaire inside an electrical cabinet / waterbox / junction box.



### S.2493

### Virtual Midnight Interface Device IP67

Compact control module for automatic power reduction / brightness reduction for night-time. The device has an integrated bus supply (20mA) that allows to control up to 7 DALI luminaires / DALI control gear. 2 operating modes are supported: - Operating mode B1: power reduction through mains phase or control phase; - Operating mode B2: power reduction using virtual midnight calculation. All necessary settings can be made using rotary and slide switches present on the device present inside the waterbox. The device must be located before the DALI luminaire / DALI control gear.



### S.2494

### DALI EXPANDER

The IP20 DINrail device is used to extend a DALI circuit via broadcast. The received input signal is amplified and transmitted in broadcast to the DALI luminaires / DALI control gears. The DALI Expander has an integrated DALI bus power supply (200mA) which can control up to a maximum of 64 DALI devices within 300 meters.



### S.2497

### Virtual Midnight Interface Device IP67 Expander to 64 Luminaires

Compact control module for automatic power reduction / brightness reduction for night-time. The box has a converter from DALI to VIRTUAL MIDNIGHT device and DALI EXPANDER (200mA) device integrated, that allows to control up to 64 DALI luminaires / DALI control gears within 300 meters. 2 operating modes are supported: - Operating mode B1: power reduction through mains phase or control phase; - Operating mode B2: power reduction using virtual midnight calculation. All necessary settings can be made using rotary and slide switches present on the device present inside the waterbox. The device must be located before the DALI luminaire / DALI control gears.