Brasov, Romania
Str. Carpatilor 21
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https://aexio.ro

LM403A Medium Intensity Aviation Obstruction Light

Products description and application

LM403A Medium intensity obstruction light Type A&B with working mode of 2000cd intensity white flashing in the daytime and 2000cd white flashing at night, and also with red 2000 cd steady burning/flashing at night optional.
Combined with advanced LED light source, optical and system control technology to meet the most demanding applications;
Suitable for towers, chimney, high building, bridge, large construction machinery, large port machinery, wind, power, generator, etc. for air traffic warning.
Outdoor and hazardous area suitable.

Features

Aluminium alloy die-cast shell with electrostatic powder spray surface treatment has good anti-vibration and corrosion resistance features.
Anti-UV and shock-resistant PC housing; Flammability level: UL94V-2
Automatic power off device if open the lights cover for safety protection.
LED Light source, long lifetime and low power consumption.
Wind resistance rating ≥240km/h
Local time setting control photocell control as priority for day to night switch optional
With fault alarm detection and fault alarm output function
With synchronization function (GPS)

Specification

Standard	CAAC	MH6012-2015
	ICAO	ICAO Annex 13 Volume 1, Sixth Edition
	FAA	Advisory Circular 150/5345-43H

Electrical parameters		Mechanical parameters	
Imput Voltage	AC110V-AC220V / DC48V	Operating temperature	-40 °C~+55°C
Average Power Consumption	Daytime: 45W (40FPM)	Storage temperature	-55°C~+70°C
Surge Lighting Protection	IEC61000-4-5 L-L -3kV IEC61000-4-5 L-G -6kV	Ambient humidity	0%~95% RH(No condensation)
Electrostatic discharge	IEC61000-4-2 Contact doscharge 8kV	IP rate Weight	IP66 18.2Kg

Optical parameters			
Light source	LED	Color	White/white+red
Signal Type	flasing	On/Off level	50-500lux
Flash Rate	Daytime/twilight: 20/30/40FPM Night:20/30/40/60 FPM, Stady burning (red) (default 40FPM)	LED lifespan	≥100000h
		Horizontal Beam	360°
		Spread Vertical Beam	≥3°
Flashing duration	Daytime/twilight 95ms; Red color at night: 670ms White color at night: 150ms		
Intensity	Day time: 20.000±25%cd Night: 2000±25%cd		

White and red color can be optional at night; when red color is chosen; white color shoud be standby; whitch means that when red color is on faliure at night; white color begean to operate.

Mounting dimensions (mm)

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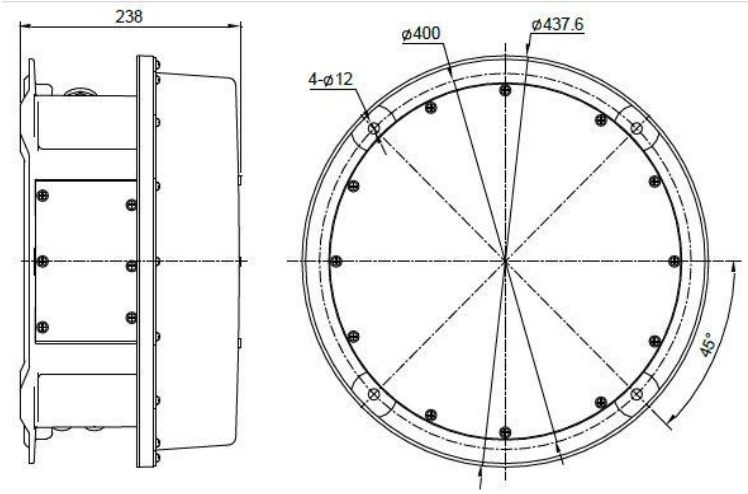
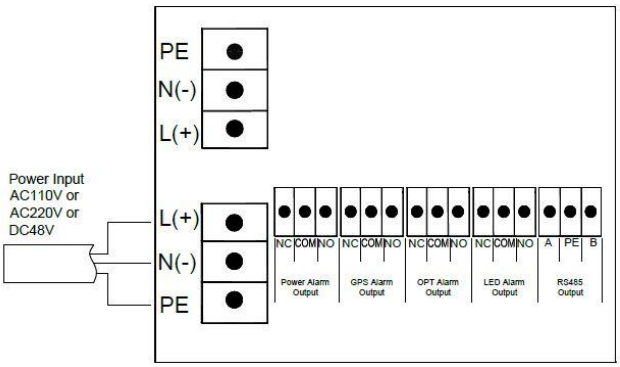
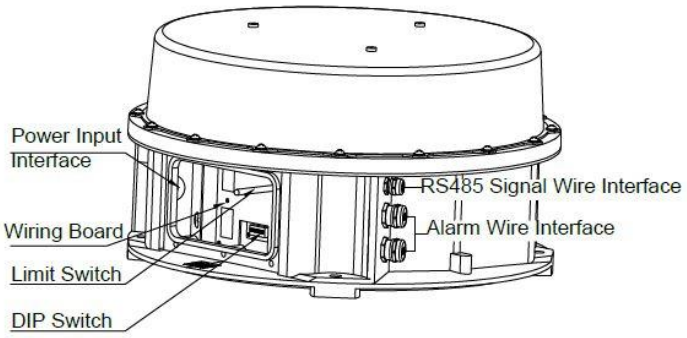


Connect drawing



Notice: The specific input voltage is subject to the order

.Wiring board wiring diagram



Schematic diagram of the wiring structure

Installation method of use

• Secure the light on a smooth surface which has enough strength, if there is no mounting surface, we can customize special mounting bracket as request.
• When installation, please stay away the nearby light source, at the same time, ensure the photocell is not cover by the near object. (suitable for the type with photocell).
• Make sure the power supply can match with the rated power of light before connecting.
• GPS synchronization function test in the outdoor without blocking the inviroment test, synchronization takes about 30 minutes.
• Open the wiring cover in side, Pass the input power cable through the power input connector on the left side of the lamp (AC or DC), connect the power cable correctly according to the marks on cable connection label. DC Voltage please pay attention to the polarity of the positive and negative poles. Penetrate the fault alarm wire and RS248 signal cable separately by the interface of alarm cable and signal on the right side of the light, and check the line, loease tighten the waterproof gland and buckles and linaly connected to the power supply. After power on, press the limited switch, the light starts to work.
• Every restart or power on of the lamp, it will delay 30 seconds for self-testing.
It has limited switch and is used to open the wiring cover and automatically powered off when open the light, but the power input to the end of the wiring board is still connected, please pay attention to safe operation.
• For AC voltage input lamps, it is recommended to use a 3 core 1.5mm² sheathed cable (cable outer diameter 5-10 mm) or a 3 core 2,5 mm²sheated cable (cable outer diameter 9-14mm) for power cable. Please consult us.
• For lamps with DC voltage input, it is recommended to use a 3 core 4mm² sheathed cable (outer cable diameter 13-18 mm) for power cable. Please consult us.

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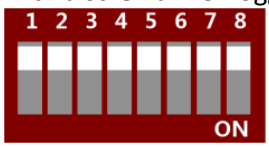
• Alarm cable was suggested to use 4*1-1,5mm² sheathed cable. Signal cale was suggested to use 3*0,5-1mm² twisted pair or shelted cable.

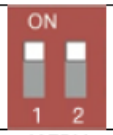
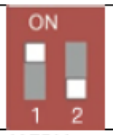
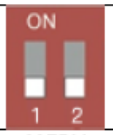
Light dial switch function using the method

*this product has mode manual adjustment function

*Flas mode manual adjustment method, please operate in the case of power off, oppen the lamp body, with a screwdriver loggle loggle DIP switch



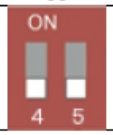
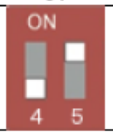
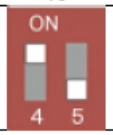
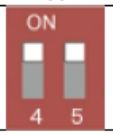
BIT1, Bit2, Obstruction light daytime flashing rate set location, detalies as below, (The factory seting defaults to 40FPM)

Dial Number	11	10	01	00
DIP figure				
Flash rate	60FPM	40FPM	30FPM	20FPM

BIT3：Obstruction light working mode setting as below: (The factory setting defaults to flashing at night)

Dial Number	1	0
DIP figure		
working mode	Steady burning at night (red)	Flashing at night

BIT4、BIT5：Obstruction light night flashing rate setting location, details as below：(The factory setting flashing rate defaults to 40FPM.)

Dial Number	00	01	10	11
DIP figure				
Flash rate	20FPM	30FPM	40FPM	60FPM

BIT6：Day and night switch selection as below: (The factory setting photocell priority)

Dial Number	0	1
DIP figure		
working mode	Time control priority	Photocell priority

BIT7：DIP switch function setting below:(The factory setting defaults to flash frequency setting valid.)

Dial Number	0	1
DIP figure		
control	Dial the frequency non-effective	Dial the frequency

BIT8：Red light at night or no red light(white flashing at night), setting below: (The factory setting default with no red light)

Dial Number	0	1
DIP figure		
With red light or not	yes	no

Remarks 1: The DIP swich is 0 at digital end, and 1 at ON

Remarks 2: Operation time of the obstruction light is synchronous by GPS module. When on GPS signal is powered on, it is initialized that is, night mode.

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Time control priority application introduction

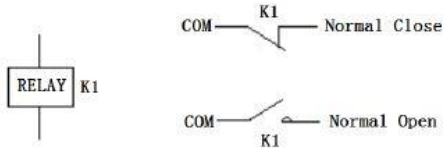
*Time-controlled factory default setting time stat open schedule:

Season (Start-End date)	Dawn	Day	Dusk	Night
Spring (21th March-21th June)	5:00-7:00	7:00-17:00	17:00-19:00	19:00-5:00
Sumer (22th June-23th Sep)	4:00-6:00	6:00-18:00	18:00-20:00	20:00-4:00
Autumn (24th Sep – 22th Dec)	5:00-7:00	7:00-17:00	17:00-19:00	19:00-5:00
Winter (23th Dec – 20th March)	6:00-8:00	8:00-16:00	16:00-18:00	18:00-4:00

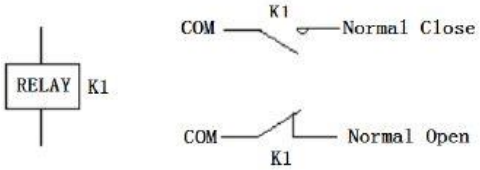
Remark 3 When the time into night, photocell control is invalid, lamp is forced to run in the night mode
Remark 4: When the time into the dawn, photocell control effectively, lamp will switch to day time, if the photocell control reaches a certain threshold, on the contrary to continue in the night.
Remark 5: When the time into the daytime, photocell control is invalid, the lamp is forced to run in daytime mode.
Remark 6: When the time into the dusk, photocell control effectively, lamp will switch to the night if the photocell control reaches a certain threshold, on the contrary to continue in the day time.
Remark 7: The period of spring, summer, autumn and winter is subject to the northern hemisphere.

Fault alarm function

*When the lamp is not receiving a power supply or a lamp fault: The relay has no action, „common terminal” and „normal close terminal” close as below:



*The lights are connected to the power supply and working properly; Relay action, „common terminal” and „normal open terminal” close as below:



*If there is no power access, or failure are received „disconnect” signal, the alarm signal line connected to the „common” + „normally open”;
*If the „closed” signal is received when there is no power supply access or the fault, the alarm signal line is connected to „common”+”normal closed”

Fault detection function description

*When the light is white. When the single-sided lamp is not tit or the white LED lamp bead of more than 25% of the whole lamp is not tit. The lamp will output a light alarm signal.
*When the light is red at night, When the red LED lamp based of more than 25% of the whole is not tit, the lamp will output a light alarm signal and switch too the night white light working mode.
*When the GPS have no signal for 30 minutes, the lamp will output a GPS alarm signal
*When the photocell lost signal for 24h, the lamp output a light alarm signal.
*when it is no voltage in the control panel of the lamp, the lamp will output failure alarm signal.

Precautions

For high-power lamp, the surface temperature is high, it cannot be covered. And the distance from the object no less than 3m, to avoid burning or fire.
Using PC material components (such as lamp cover shell) can not be in direct or indirect contact with industrial alcohol, banana water, isopropyl alcohol, carbon tetrachloride, cyclohexanone and other solvents, otherweise it will be corrosio cracking.
Make sure delay judgment about 15s after photocell change detected and about 10s delay alarm detected which as normal phenomenon.
Please do not open any components inside by yourself and do not look light horizontally to protect your eys wile the light working.
It is important to note that ambient temperature conditions are consistent with this product. Otherwise it will not work properly

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This product will be working when the temperature reise, are normal.
This product is sealed structure, non-professional personnel do not disassemble, once discovered, the cmpany will not warranty.
Do not operate with electricity.