

MTP fzc



Design & Production

Solar Traffic Sign



Active day and night

Design and Produce in UAE(Manufactory)



Solar Wireless Pedestrian Signal With Push Button



MTP fzc CO

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www.MosallasTraffic.com

Technical Specification		
Dimension	3 color signal: 355*1065*185mm 2 color pedestrian: 355*710*185mm Push Button: 200*300*50mm	
Weight	3 color signal:20Kg 2 color pedestrian:15kg Push Button: 1kg	
Body Material	3 color signal: Polycarbonate with Untie UV 2 color pedestrian: Polycarbonate with Untie UV Push Button: Aluminum with electrostatic black color	
Solar power	50 Watts, Life time more than 20 years	
Battery	Internal 12 volt, 36 Ah, sealed lead acid	
LED module for 3 color	110pcs Red 110pcs Yellow 110pcs Green	
LED module for Pedestrian	45pcs Red 45pcs Green	
LED module for Push button	4pcs Yellow	
LED Life	More than 100,000 Hours	
Light luminous	8000mcd	
Light Intensity	Automatic regulation light intensity in day and night(day intensity 5 times night) with microcontroller	
Wireless Transmitter and Receiver	433 MHz	
Covered Area	300m diameter	

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Working time after full charge	4 days
Working time in cloudy weather	8 days
Visible distance	More than 1000m
Angle	100 Degree
Operating Temperature	-20° C to 75° C
Waterproof	IP65

Technical properties of Solar Traffic Signal

1. The quality of all parts of the signal is from finest materials of polycarbonate. Also, the color of body box is special for this kind of work has following technical properties:

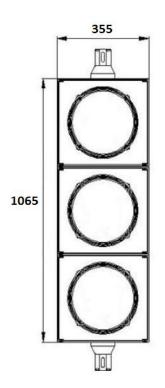
1-1. Melting point: 485°c

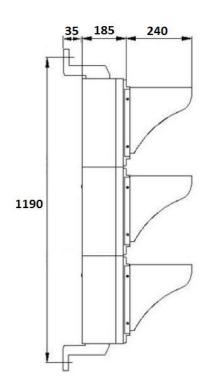
1-2. Degree of heat in glass removing: 150 c

1-3. Shock strength: 12 kg/cm

1-4. Tensile resistance: $59 kg/cm^2$

2. Size of its body is almost 185×355×355mm; its lens diameter is about 300mm which its 280mm is observed by others.





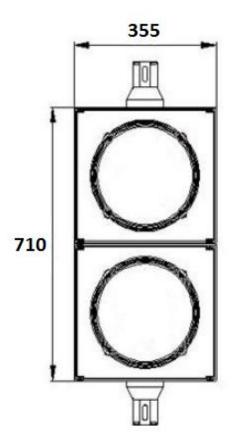


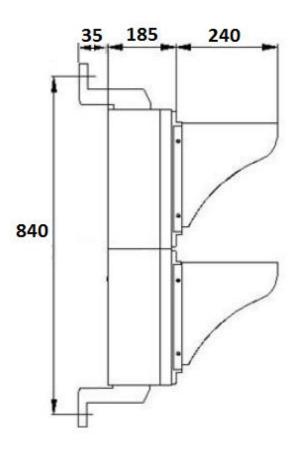
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- **3. Full mask of flashing light:** the diameter of full mask is 330 mm in top side and in the point of its connection into main body; this mask has the 300 mm diameter with depth of 215mm. This connection is done by screw, being put on the body.
- **4. Half mask:** The height of this mask is 185mm in outside of the body and its width is considered 230mm in the place of its connection with main body. This is done by a screw, being put on the body.
- **5. Door** shall be fastening on the body, in a shape toggle. Also, it has a rubber for the purpose of insulation.





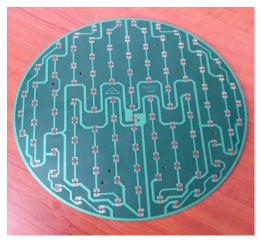
6. LED modulation

- 6-1. Casing of body is made from high quality polycarbonate, being suitable for traffic signal.
- 6-2. External lenses made from grid polycarbonate, to being suitable for lens.

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6-3. LED Module

LED's are identified very well and amount of their desired life is 100.000 hours in lawful range for traffic light and traffic signals and its light intensity is 8000mcd. Total numbers of LEDs in one module are equal to 110pcs.



LEDs module and its power supply is surely put on casing. Then insulated rubber is installed on the body, so there shall be no probabilities for entering water, damp and dust into electronically set.

External lens is used for correcting light diffusion.

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Also, it is responsible for protecting the set, so that it protects electronically set and filter from damages, resulting from strong shock (stone) or burning, as a result of throwing pyrotechnics parts. These shocks shall be cause of damaging external lens.

Changing and replacing external lens is easily possible by a worker.

7. Sealed Lead Acid batteries of 12v, 36Ah, having desired life of 5 years.





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8. Solar panel is 50W, 17v 2.5A, with the efficiency of %16.



SILICON SOLAR PV MODULE	
Model	SA-50P
Pm	50watt
Vmp	18Ÿ
Imp	2.5A
Voc	21. 24V
Isc	3.3A
Dimension	50*60*3cm
Max System Voltage	1000V
Test Condition	AM1.51000W/m ² 25°C

9. Intelligent microcontroller system

- 9-1. Measuring voltage of battery, solar panel, charge current and related measuring.
- 9-2. light Regulation and optimization of consumption, according to charge current (environmental light) and battery voltage and solar panel.
- 9-3. Neutralizing of change effects of battery voltage in light illumination of flashing light.
- 9-4. preventing of battery over charge and undesired de-charge of battery and neutralizing effect of heat.





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- 9.5. Using modulation of PWM for changing light illumination.
- 9.6. Probability of performing all changes, according to orders of buyer, (Software changes).
- 9.7. Working time, without any charge and with full battery is almost 14 days.
- 9.8. Charging time for empty battery is 24 hours in light, in case of performing operation, and 18 hours without any operation.
- 9.9. Maximum exited rates (day) into its minimum (night) is 3 to 1 and (it is changeable, on the basis of order).

Controller circuit is considered in a separated package.

10. Push Button

Push Button is made by aluminum with electrostatic powder coating color. It has one push button switch and 4pcs LED indicator,

After pushing this button, one internal timer will start counting down and LED indicator will blink.

Once internal countdown timer reach to zero, vehicle signal will going to red and pedestrian signal going to green.





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Details of solar Flashing Light and guide for its installation:

- Solar cell
- A pair of stand
- Main body
- Round Clamp

- Solar cell:

Each one- set Pedestrian Signal has a 50w solar panel.

Each solar panel has a cable, having 2 blue & black wires. After installation, mentioned cable is entered into body from central axis of upper stand, then, it connects into its terminal. Note that blue wire shall be connected into blue wire of terminal and black wire into black wire of terminal.





Solar panel is installed on pole by an aluminum tube. After orientation of solar panel into south, they are fastened by two house clips.

Stand

Each Flashing light has a pairs of connector for connecting main body into its pole, called Stand. For this installation, at first, Stands are faster on the main body, then Flashing light will installed on its pole by 2pcs of house clips.

One hole is considered one the pole for entering the cable of solar panel into stand axis and main body.



- Round Clamp(House Clips)

Eight round clamp is attached to one set of pedestrian signal,

2pcs for fixing 3color signal (vehicle signal), 2pcs for 2color signal(pedestrian signal), 2pcs for fixing solar panel and 2pcs for fixing Push Button Box on the pole.



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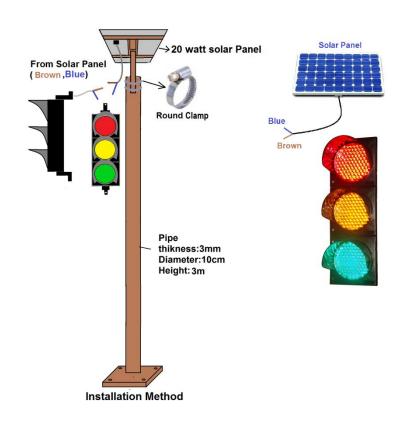
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Installation



Installation:

- 1- Fixing Signal on the Pole,
- 2- Fixing Solar panel on the top of pole in South direction,
- 3- Connect solar cable(Blue and Brown)to same color cable of Signal,
- 4- Fixing Push Button Box on the pole by round clamps and connect 4 wires of it to 4 terminals which is located on traffic signal
- 5-Turn ON the main switch located in signal box

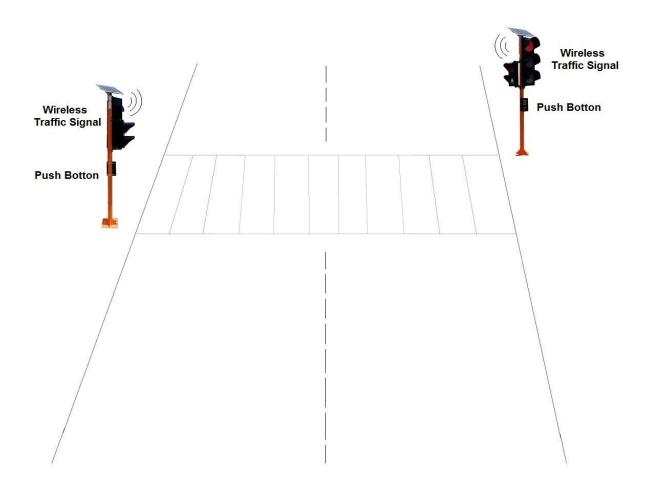


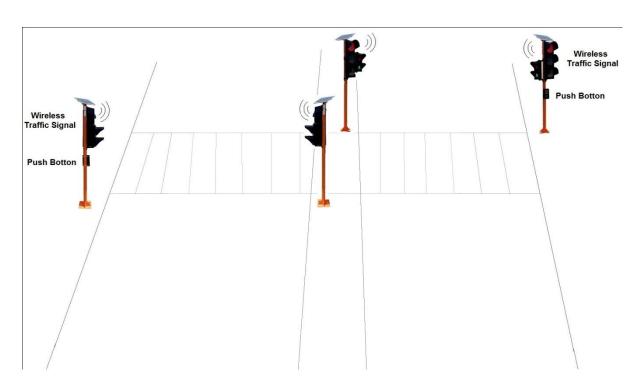


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