

AutoOn Operation Manual

(Model : TMSM200-1000)



- **Venture Company, INNO-BIZ Company**
- **ISO9001, ISO14001**

Auto On (Motion Sensor Module)**Model: TMSM200-1000****1. Applications and Features**

- Auto On (model: TMSM200-1000) is a microwave sensor that detects minute motion of human bodies and reflective objects. It is operated by AC source and automatically on and off electric instruments including lamps. So it can drastically reduce the amount of electricity.
- It can be applicable to all the lamps.
- It can detect moving objects more than 20m and insensitive to dust, light, and ambient temperature etc.
- The attached CDS detects environmental light not to turn on the lamps to reduce unnecessary lighting.
- The electric instruments can be used in parallel connection if the overall power consumption of used electric instruments doesn't exceed 1500W. The case when the power consumption is more than 1500W, an external solid state relay should be used additionally to switching the devices.
- The detection range can be adjusted according to the area of the application. The coverage can be widened unlimitedly by parallel connection of Auto On's.

2. Maximum ratings

Item	Max. Ratings	Note
Voltage	250VAC max	
Load	1000W max	1000W max for the inductive loads such as incandescent lamps and motors etc.
Ambient temperature	-10°C ~ 50°C	Limited to the interior usage
Humidity	35%~95%	Not to be used in humid environment

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3. Specifications

Item	Specification	Factory setting	Note
Voltage	Single phase 110~220VAC, 50~60Hz	-	
Frequency	10,525±25 MHz		RF Doppler sensor
EIRP	25mW max		
Controllable Instruments	Every electric instruments	-	
Load Power	1000W max	-	<ul style="list-style-type: none"> ▪ Less than 1000W for inductive loads ▪ unlimited using external SSR
VR1	brightness	<ul style="list-style-type: none"> ▪ CW → operates at darker environment ▪ CCW → operates at lighter environment 	Always operates (min) <ul style="list-style-type: none"> ▪ min : always operates ▪ max : operates at dark ▪ 1 Lux~1500 Lux
VR2	Time	<ul style="list-style-type: none"> ▪ CW → increase ▪ CCW → decrease 	1sec(min) <ul style="list-style-type: none"> ▪ 1sec~10min(0~1min/1~5min/5~10min) ▪ 3sector, linear per each
VR3	coverage	<ul style="list-style-type: none"> ▪ CW → decrease ▪ CCW → increase 	Max coverage <ul style="list-style-type: none"> ▪ coverage: 3~20m
Electric wires	Black 2, Yellow 2	-	4 wires
Switch	LEFT → Motion & Brightness Right → Sensor Only	Right	

- Variable Resistors(VR1/VR2/VR3) : 10 steps. Adjust by a cross screwdriver
- The operation time is automatically initialized at every motion detection, so that unnecessary on-off of electric instruments is minimized.

Auto On (Motion Sensor Module)

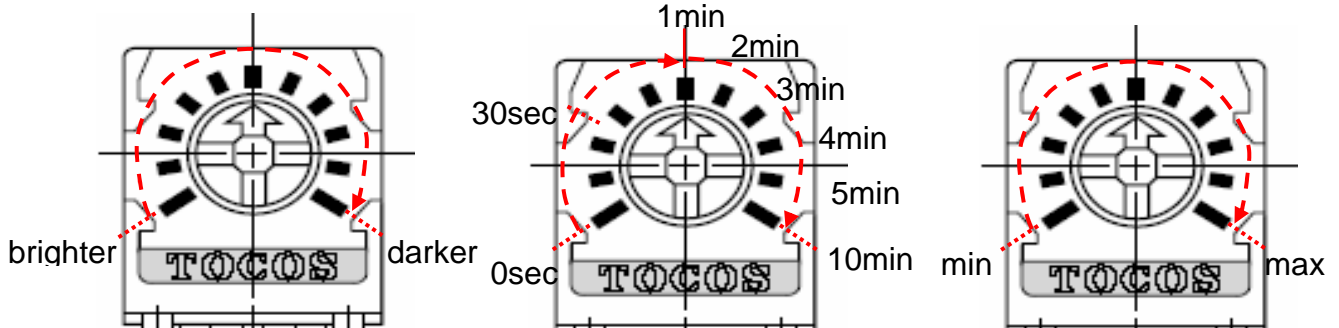
Model: TMSM100-1500



Light threshold (VR1)

Relay on-time (VR2)

Sensitivity (VR3)



- CCW : brighter threshold
(on/off for brighter environment)
- CW : darker threshold
(on/off for darker environment)
- Center is nominal

- 1sec~1min : linear
- 1min~5min : linear
- 5min~10min : linear

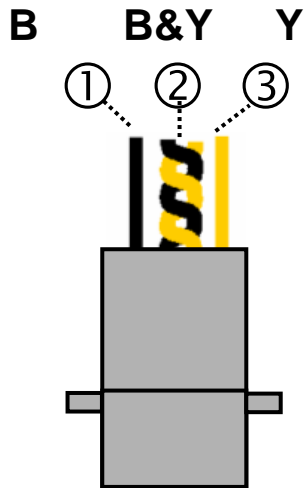
coverage : 3m~15m

Fig.2. Tuning functions

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Model: TMSM100-1500

4. Wiring



#	wire
①	B
②	B+Y
③	Y

Fig.3. IO's of AutoOn (4 wires : B, B, Y, Y → 3wires : R, R+Y, Y)

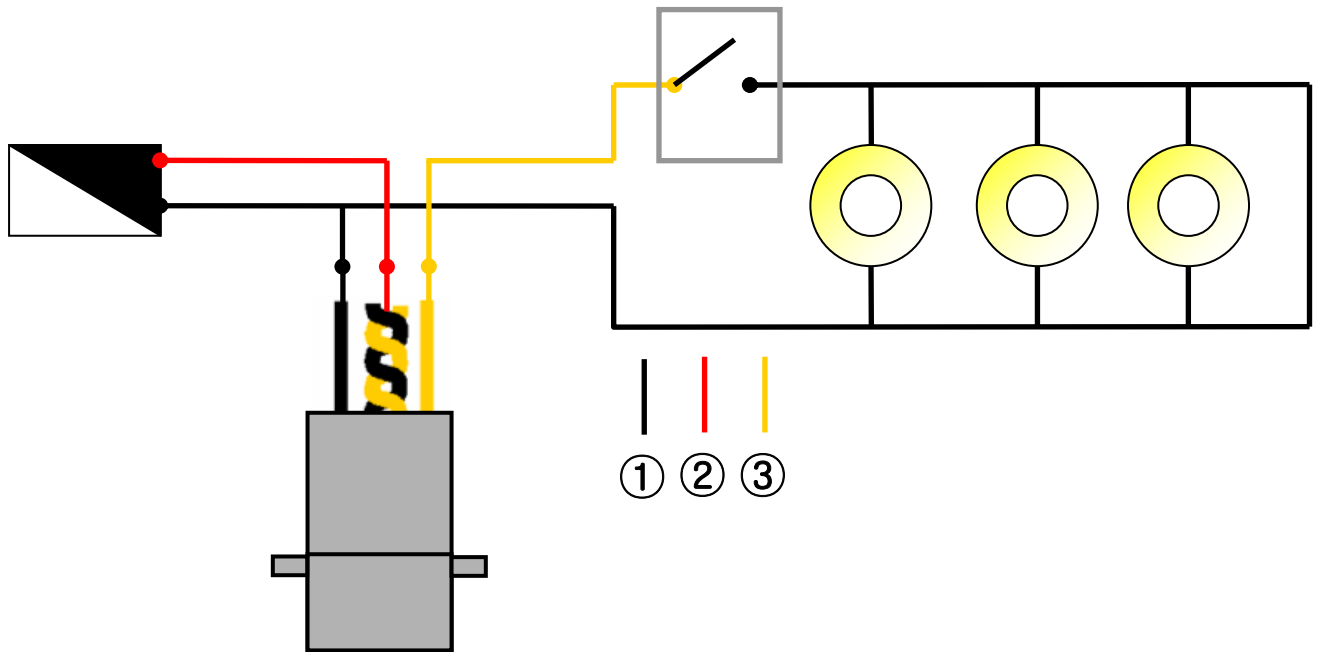


Fig.4. One AutoOn (when load is less than 1000W)

Auto On (Motion Sensor Module)

Model: TMSM100-1500

5. Operation

Switch	Mode	Description
LEFT	Motion & Brightness	Relay is in contact in case of both darker than threshold value and detecting of moving objects, and vice versa
Right	Sensor only	Relay is in contact in case of detecting of moving objects, and vice versa

* Relay is open when the environment brightness is brighter than light threshold

- Applying line voltage, it operates after 10 sec.
- For sensor & brightness mode, relay is in contact in case of both darker than threshold value and detecting of moving objects, and vice versa
- For sensor only mode, relay is in contact in case of detecting of moving objects, and vice versa
- Relay contact time for sensor & brightness mode, is automatically extended if motion detection is made within relay contact time

FCC Caution:

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.