TR-801S/TR801D realisation of power-switch and dimming function by Doppler principle and radar technology.

TR-801S is a microwave switch device featuring power on-off function that support multiple luminaire aggregated up to 300W.

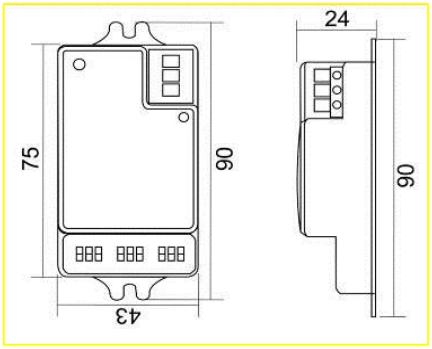
TR-801D features microwave dimming function regulating the intensity of light emission from its full brightness to 50% or none thereby reduce the power consumption.

General Introduction

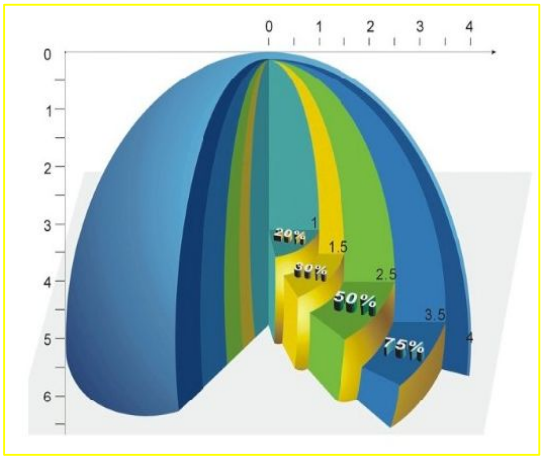
Both TR-801S and TR801D is respectively active motion detector featuring with adjustable sensitivity, daylight detection and time setting basing on Doppler principle and radar technology.

The plane antenna integrates with high performance micro-chip is assembled in a unique design of IP65 housing. It is free from irritated nuisance alarm and resistance to rain, fog, wind, dust, snow and extreme temperature.

Unlike the infrared motion sensor, it could be hidden behind any non-metallic objects, such as lighting fixture, false ceiling board or weatherproof junction box for outdoor application.



Overall size of TR-D801



Detection range

The microwave device generally provides multiple functions including adjustment of detection range, light holding time.

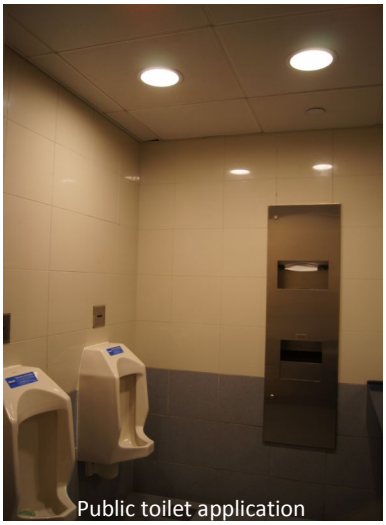
- Detection range: from 1 meter to 10 meter circumference;
- Light holding time: from 5 seconds to 10 minutes;

In addition of TR-801S, TR-801D is featuring dimming function monitoring the light emission of luminaire from its full level to 50% to none.

TR-D801is installed inside the weatherproof fluorescent batten in multi-storey car park and staircase application

Technical parameters

Input power	240VAC, 50/60Hz
Frequency of microwave	5.8GHz ± -7.5MHz
Microwave power	<2mW
Operation temperature	-35°C to +70°C
Working luminous	2~2000 lux (or customize to higher)
Rated load	300W (max)
Detection range (adjustable)	1 10 meters circumference
Detection angle	150 degrees
Mounting height	8 meters (max)
Light holding time (adjustable)	5 sec/15 sec/3 min/5 min/10 min
Dimming level (adjustable)	100% ⇨ 50% ⇨ 30% ⇨ 10% ⇨ 5% ⇨ 0%

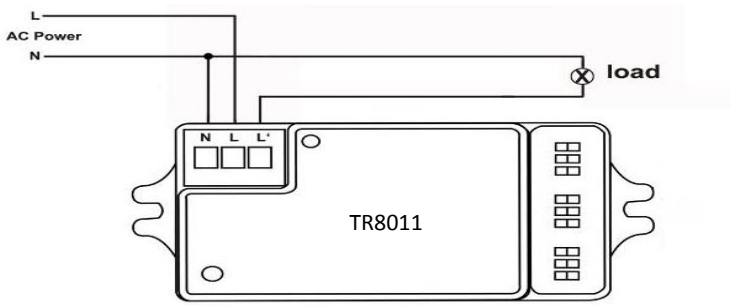


Public toilet application

NOVETE®

Wiring diagram

The following diagram illustrates the wiring interface with LED driver and luminaire.



Installation steps:

1. Connect N/L with grid power source
2. Connect N/L[1] with LED power source
3. Regulate the threshold of light control setting as shown below
4. Setting the detection range
5. Setting the holding time

Light control setting (daylight sensor)

The chosen light response threshold can be infinitely regulated from approx. 5-100lux. It contains a daylight sensor in order to allow a function only below a defined brightness threshold.

	1	2	3	
A	●	●	●	5lux
B	○	●	●	10lux
C	○	○	●	30lux
D	●	○	●	100Lux
E	○	○	○	Disable

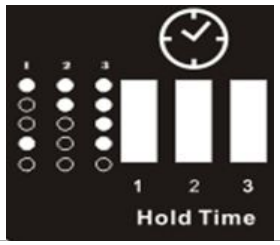
Detection range setting

Detection area could be regulated by selection of the combination on the DIP switches to fit precisely for specific application from 100% to 10%.

	1	2	3	
A	●	●	●	10%
B	●	○	●	30%
C	●	●	○	50%
D	○	●	○	80%
E	○	○	○	100%

Holding time setting

Light can be set to stay ON for any period of time between 5 seconds to 10 minutes. Any movement detected before this time elapse will restart the timer.



	1	2	3	
A	●	●	●	5S
B	○	●	●	15S
C	○	○	●	180S
D	●	○	●	300S
E	○	○	○	600S

Packing

OA measurement	75 x 43 x 24mm (housing size) 90 x 43 x 24mm (overall size)
Box measurement	90 x 45 x27mm (one piece per box)
Carton measurement	32.2 x 24.5 x 9.0 cm (100 piece/carton)
Gross/net weight	6.3kg/5.0kg

The ideal device for effective energy saving in public lighting application