

HTW-61-ES6201

ENERGY SAVER

APPLICATIONS

HTW-61-ES6201 is designed to control electrical consumption by detecting occupied/unoccupied presence, in order to connect/disconnect the air conditioning equipment and lighting automatically when the customer accesses or leaves the room.

OPERATION

PIR presence detector operating algorithm

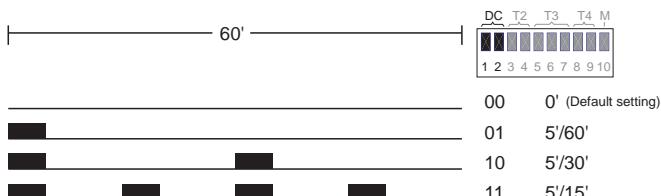
HTW-61-ES6201 has 1 input (E1) for a magnetic room contact placed on the doorframes of the room; 1 input (E2) for a magnetic window contact placed on the window frames. 3 inputs(E3,E4,E5) for PIR presence detectors.

When the door of the room is open, the energy saving system is activated instantly, and feed the following three outputs:

- **S1-Air-conditioning output with anti-humidity mode;**
- **S2-Air-conditioning/Lighting output with delay time;**
- **S3-Lighting output with delay time;**

Once the door is closed, the system will try to determine if there is movement within 3s~T4 in the room. If during this time, any of the PIR presence detectors indicates movement, the system will assume that there is presence in the room, then it will operate as an "Occupied" mode maintaining activate S1, S2 and S3 circuit. If no movement is detected during 3s~T4, the system initiates the room as "unoccupied", then disconnect the S2, S3 after delay time configured respectively as Fig.2 and Fig.3. Output S1 runs in Anti-Humidity mode as Fig.1

Fig. 1 for DC configuration of S1



Setup programmed frequency time for output S1- air conditioning anti-humidity mode depending on the position of Dip Switch 1, 2
The black rectangles represent the periods of operation of the S1 output.

Magnetic window contact operating algorithm

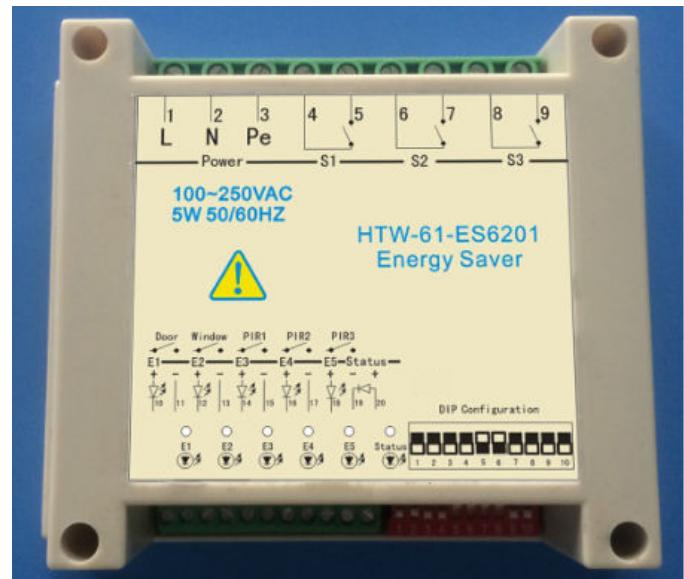
If a magnetic window contact switch is connected to the terminals 12-13, when the contact is open, the output S1 will disconnect after 1min, until closing window contact again.

Delay timing of outputs S2 and S3

The outputs S2 and S3 will be disconnected according to the delay time preselected with Dip Switch if no presence detected within 3s~T4 after door closed.

- **DIP-3&4 for S2**
- **DIP-5&6&7 for S3**

As described by the diagram of Figure 2 and 3.



Front view of the Energy Saver HTW-61-ES6201

Fig. 2 for T2 configuration of S2

DC	T2	T3	T4	M
1	2	3	4	5 6 7 8 9 10
1	0	0	0	0"
1	0	0	1	1' +T4
1	0	1	0	3' +T4
1	0	1	1	5' +T4

Fig. 3 for T3 configuration of S3

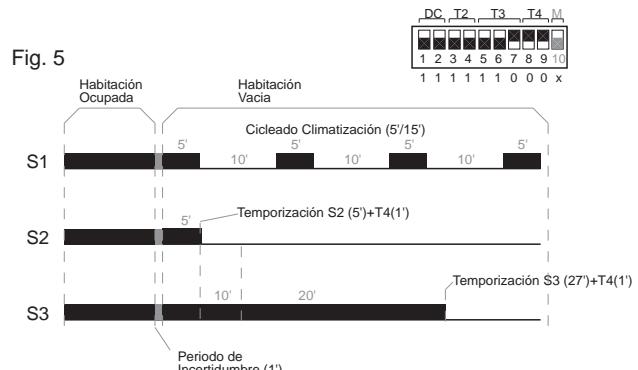
DC	T2	T3	T4	M
1	2	3	4	5 6 7 8 9 10
1	0	0	0	0"
1	0	0	1	30"+T4
1	0	1	0	1'
1	0	1	1	3'
1	1	0	0	5'
1	1	0	1	10'
1	1	1	0	27'+T4
1	1	1	1	50'+T4

Fig. 4 for T4 configuration of PIR detecting time
3s~T4 Max. PIR detecting time

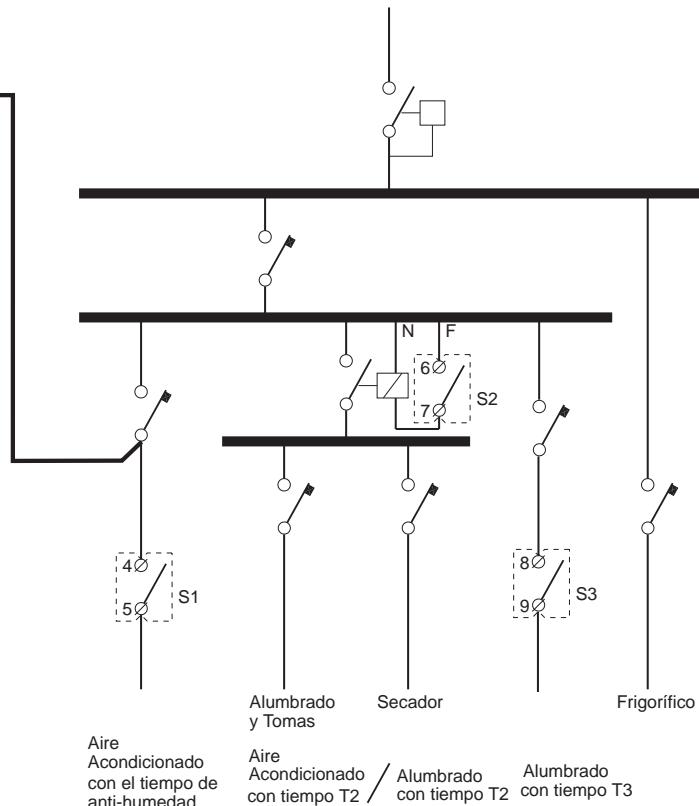
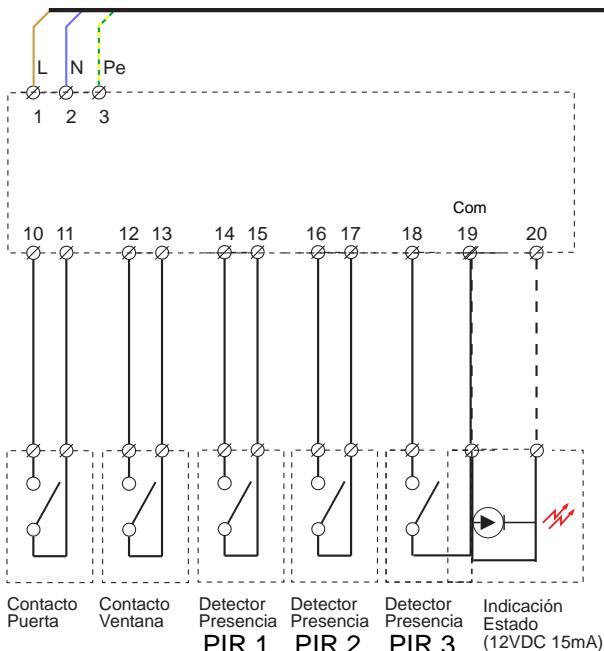
DC	T2	T3	T4	M
1	2	3	4	5 6 7 8 9 10
1	0	0	0	1' (T4 Default setting)
1	0	0	1	3'
1	0	1	0	5'
1	0	1	1	10'

Example of timing diagrams

The figure below illustrates the operation of Energy Saver with a standard configuration.

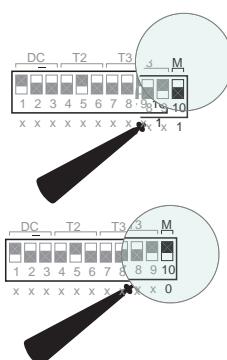


TYPICAL WIRING DIAGRAM



PIR NO/NC SELECTION PIR

Configuration DIP 10 switch as PIR detector type.



Configuración del Switch 10 para detectores PIR con contacto normalmente cerrado.

M = 1

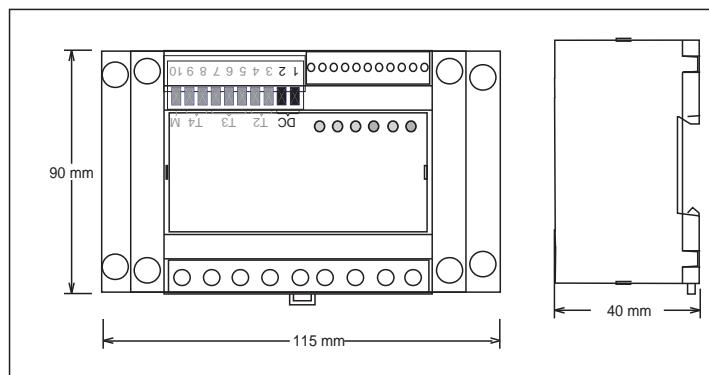
M = 1 as Normally Closed

Configuración del Switch 10 para detectores PIR con contacto normalmente abierto.

M = 0

Default setting M = 0 as Normally Open

DIMENSIONS



L*W*H:115*90*40mm

TECHNICAL SPECIFICATIONS

Specifications	
HTW-61-ES6201	
100~250 VAC- 50/60Hz 5W	
Inputs/Entradas	Outputs/Salidas
E1,E2,E3,E4,E5 Non-Voltage switch Contacto Seco	S1,S2,S3 Relay output: 250V, 16A Relé NA 250V 16A
Dimensiones	115x90x40mm
Rango de temperatura	5...45°C
Installation	Montaje Según normas
	rail DIN 35
Grado de protección	IP 20

Hotowell International Co.,Limited reserves the right to make changes in electrical and mechanical characteristics, without notice.

Refer to the appropriate manual for installation and configuration.

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