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# PLEASE READ OUR INSTALLATION INSTRUCTIONS VERY CAREFULLY

# Installation Instructions for the TUEX Doppler Sensor DS 58.10.42677

Working description: The TUEX Doppler Sensor is an active motion detector. The TUEX Doppler Sensor emits a high frequency electro-magnetic (5.8 GHz) of very low energy (<10 mW) wave and receives its echo. The TUEX Doppler sensor detects the change in echo from even the slightest movement in the detection zone.

The microprocessor then triggers the "switch ON" command.

NOTE: The TUEX Doppler Sensor will detect movements through doors, panes of glass and thin walls.

## **Technical specifications of the TUEX Doppler Sensor**

Power supply 220-240 Volt 100-130 Volt 1

Power frequency 50/60 Hz Internal Protection IP 20

HF system 5.8 GHz CW ISM band

Transmission power: <10mW

Rated inductive load: for 220-240 Volt types: 200 VA

for 100-130 Volt types: 100 VA

Adjustable reach: between 3 and 10 m radius

Detection angle 360° in front of the TUEX sensor Time setting from 8 seconds to 12 minutes

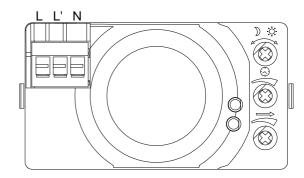
Light control from 2~2000 LUX

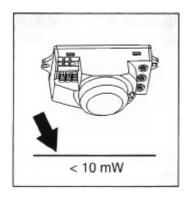
Power consumption: approx.0.9W (in rest situation)

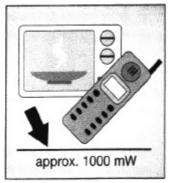
## **Electrical connections of the TUEX Sensor**

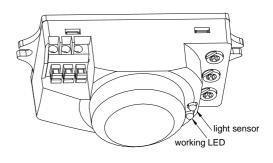
N= neutral L= power line L'= switch wire

Connect the mains to: N and L Connect the load to: N and L'









NOTE: the high frequency output of the TUEX Doppler Sensor is <10 Mw- that is just one 100<sup>th</sup> of the transmission power of a mobile phone or the output of a microwave oven.

Important: persons or objects moving towards the TUEX Doppler sensor are detected best

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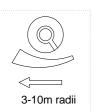
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#### Reach setting (sensitivity) of the TUEX Doppler Sensor



Reach is the term used to describe the radii of the more or less circular detection zone produced on the ground after mounting the sensor at a height of 2.5 m, turn the reach control fully anticlockwise to select minimum reach (approx.3 m radii), and fully clockwise to select maximum reach (approx. 10 m radii).

NOTE: the above detection distance is gained in the case of a person who is between  $1.6 \sim 1.7$  m tall with middle figure and moves at a speed of  $1.0 \sim 1.5$  m/sec. If person's

stature, figure and moving speed change, the detection distance will also change.

#### **Time setting of the TUEX Doppler Sensor**



The sensor can be set to stay ON for any period of time between approx. 8 sec (turn fully anticlockwise) and a maximum of 12 min (turn fully clockwise). Any movement detected before this time elapse will re-start the timer. It is recommended to select the shortest time for adjusting the detection zone and for performing the walk test.

NOTE: after the load switches OFF, it takes approx. 1sec before it is able to start detecting movement again. The load will only switch on in response to movement once this period has elapsed.

#### **Light-control setting of the TUEX Doppler Sensor**



The chosen light response threshold can be infinitely from approx. 2-2000 LUX. Turn it fully anti-clockwise to select dusk- to-dawn operation at about 2 LUX. Turn it fully clockwise to select daylight operation at about 2000 LUX.

NOTE: The knob must be turned fully clockwise when adjusting the detection zone and performing the walk test in daylight.

#### **Troubleshooting**

Malfunction	Cause	Remedy
The load will not work	·Wrong light-control setting selected	·Adjust light level setting
	·Load faulty connected	·Check load connections
	·Main power is switched OFF	·Check of working LED lits
The load work always	-Continuous movement in the detection	·Check zone sensitivity setting
	zone	
The load work without any	·The TUEX Doppler Sensor is not	·Mount the TUEX Doppler Sensor
identifiable movement	mounted for on the right location	on a suitable location
	·Movement occurred, but not identified by	·Check zone sensitivity setting
	the TUEX Doppler Sensor (movement	
	behind wall, movement of a small object	
	in immediate load vicinity etc.)	
The load will not work despite	·Rapid movements are being suppressed	·Check zone sensitivity setting
visible movement	to minimize malfunctioning or the	
	detection zone you have set is too small	

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