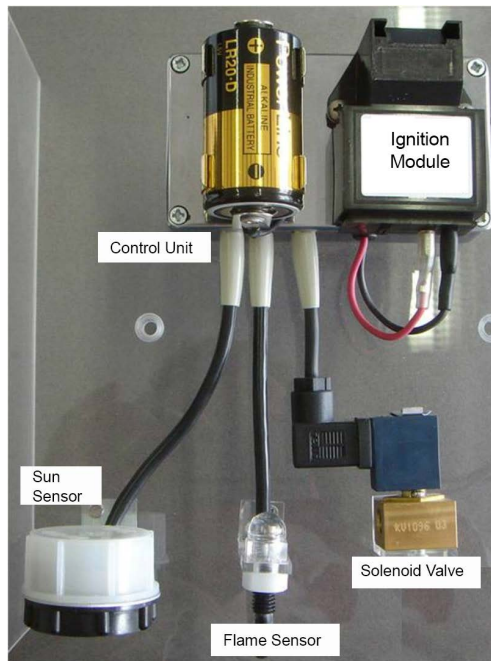


# Twilight switch BS-N



## Concept

The twilight switch is used to switch gas lights. Up to now, the switching systems worked with a servomotor and a control gear. The ignition is triggered by pressure switches. Due to their construction, these are much more susceptible to faults and are subject to greater mechanical wear.

They were replaced by an extremely robust solenoid valve which is switched by a control board. At the same time the ignition voltage was increased from 12,000 Volts to 20,000 Volts. The energy for this is supplied by a 1.5 Volt D cell battery. If the ignition fails, a re-ignition automatic is triggered. If this also fails to ignite, an automatic safety shutdown prevents the climate-damaging CO<sub>2</sub> from escaping into the atmosphere.

## Mode of operation

The sun sensor (LDR1) records the ambient brightness. If it falls below a certain threshold value, the twilight switch opens the solenoid valve and switches on the electronic ignition for 30 seconds. If the flame sensor (LDR2) detects a glow of the filaments, the ignition switches off immediately. The light is switched off (valve closed) when the dawn exceeds the switch-on point of the sun sensor.

## Technical data

Battery:	1,5 V D cell
Ignition voltage:	20.000 V
Open circuit voltage:	5,5 V
Working voltage:	3,4 V
Closed-circuit current:	ca. 300 µA
Switching current valve:	Impuls ca. 400 mA/16 ms
Switching voltage valve:	4 V
Threshold values (flame/sun):	Adjustable zw. 4 – 60 lx, 20 – 1 klx
Switching hysteresis:	ca. 5% from threshold value
Housing material:	Aluminum
Temperature resistance of the control elements:	-40°C bis +120°C
Cable lengths	
Sun sensor:	ca. 450 mm
Flame:	ca. 200 mm
Valve line:	ca. 450 mm
Valve:	Micro solenoid valve 2/2 way valve pulse controlled
Safety shutdown:	yes
Flame control:	yes
Automatic re-ignition:	yes
several circuit programs:	yes

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