

ONE-PART AND TWO-PART PHOTOCELLS



Reducing impact on the environment by ensuring ultra-efficient energy consumption whilst keeping streets and roads safe

ZODION PRECISION SWITCHING

One of the UK's foremost technology specialists, Zodion enjoys a worldwide reputation for innovative, advanced photoelectric control units (PECUs).

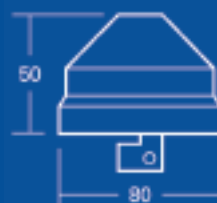
Used to switch street lights on and off with great precision, these units are designed and manufactured to meet three essential criteria:

- > To keep streets well lit and safe
- > To reduce impact on the environment by ensuring maximum efficiency
- > To save money as a consequence of increased switching accuracy

The Zodion range is extensive and can be customised to meet an even wider range of applications. In addition to the one-part and two-part photocells shown here, we also manufacture a miniature and sub-miniature range and have recently introduced SmartCELL incorporating our most advanced photocell technology to date.

HOW ZODION PECUs WORK

Zodion PECUs – photoelectric control units – are essentially light-operated switches. They respond to changing light levels with exceptional sensitivity, switching street lights on just before dusk (to allow for warm-up) and off as soon as there is sufficient daylight next morning. Because lamps are only activated when light is needed and switched off when it isn't, Zodion advanced functionality keeps energy consumption to a minimum and therefore minimises environmental impact.



Casing dimensions for all units (with exception of SS55B)

SUPER 6 ONE PART SOLID STATE SWITCHING

10 YEAR WARRANTY

Especially designed to guarantee maximum operating life through use of the highest grade components including ultra long-life capacitors and through-hole plating.

TECHNICAL SUMMARY

Type:	Fully electronic solid state
Sensor:	Filtered Photodiode
Filter type:	BG 18
Voltage:	198V to 264V 50Hz
Switch on level:	70 LUX
Switching diff:	1:0.5 NEG
Typical load:	3 x 400W
Operating temperature:	-20°C to +80°C
Max switching capacity:	10A or 90μF (subject to derating at higher temps)
Switching delay:	15 secs approx
Enclosure material:	Polycarbonate
Power consumption:	<0.25W
Approvals:	EN 50081 - I EMISSIONS EN 50082 - I IMMUNITY UMSUG CODE 940001 I 1/4 WATT
IP rating:	IP67



SS9 / SONTEK PART NIGHT SWITCHING

An innovative solution for areas where all-night lighting is not necessary

Incorporating an advanced timing algorithm that runs on a microprocessor and constantly adjusts to changing light patterns throughout the year, the SS9 controls the light source by switching off the lantern during the hours of least traffic flow. (Between the middle of the night and 5.30am GMT approximately. Other switching options are available on request.)

Fully interchangeable with conventional all-night photocells and easily fitted, the SS9 eliminates the need for all time clocks and other real-time devices. In the case of a power failure, the unit recalibrates itself automatically – no attention is needed.



TECHNICAL SUMMARY

Type:	Dual circuit switching timed changeover midnight*
SS9:	Switch to off at midnight*
	On at 5.30 am if below 35 LUX
Sontek:	Switch to control signal at midnight* (dim mode)
	On at 5.00 am if below 35 LUX (bright mode)
Sensor:	Filtered Photodiode (photopic response)
Voltage:	198V to 264V 50Hz
Switch on level:	Standard 70 LUX (other levels on request)
Switching diff:	On 70 LUX - off timed (1:0.5 for full cycle)
Typical load:	400W
Operating temperature:	-20°C to +60°C
Switching delay:	20 secs approx
Enclosure material:	UV Stabilised Polycarbonate
Power consumption:	<0.25W
Fitting:	20mm dia conduit with trailing leads
Approvals:	EN 50081 - I EMISSIONS EN 50082 - I IMMUNITY
	*Middle of night (hours of darkness)



In response to environmental concerns, Zodion has developed an energy saving dimming photocell. In conjunction with our SONTEK units, dimmable lanterns dramatically reduce the amount of energy consumed.*

**Please note The Control signal voltage must be supplied at time of order.*



SS6 ONE PART SOLID STATE SWITCHING

A technical breakthrough in photocell technology utilising the finest optical photodiode to ensure extremely accurate switching. Incorporates state-of-the-art circuit design



TECHNICAL SUMMARY

Type:	Fully electronic solid state
Sensor:	Filtered Photodiode
Filter type:	BG 18
Voltage:	198V to 264V 50Hz
Switch on level:	70 LUX
Switching diff:	1:0.5 NEG
Typical load:	3 x 400W
Operating temperature:	-20°C to +80°C
Max switching capacity:	10A or 90μF (subject to derating at higher temps)
Switching delay:	20 secs approx
Enclosure material:	Polycarbonate
Power consumption:	<0.25W
Approvals:	EN 50081 - I EMISSIONS EN 50082 - I IMMUNITY UMSUG CODE 940001 I 1/4 WATT
IP rating:	IP65

SS3 ONE PART SOLID STATE SWITCHING

TECHNICAL SUMMARY

Type:	Fully electronic solid state
Sensor:	Filtered Photodiode
Voltage:	198V to 264V 50Hz
Switch on level:	70 LUX
Switching diff:	1:0.5 NEG
Typical load:	2 x 400W
Operating temperature:	-20°C to +80°C
Max switching capacity:	7.5A or 90μF (subject to derating at higher temps)
Switching delay:	15 secs approx
Enclosure material:	Polycarbonate
Power consumption:	<0.25W
Approvals:	EN 50081 - I EMISSIONS EN 50082 - I IMMUNITY UMSUG CODE 940001 I 1/4 WATT
IP rating:	IP65

Robust and proven circuitry (similar to that of the SS6) ensures long, accurate and trouble-free life whilst incorporating a filter system that results in reduced manufacturing costs and a corresponding price benefit.



SS55B TWO PART SOLID STATE SWITCHING



This two part photocell is the ideal alternative where one part photocells are undesirable. The SS55B incorporates the precise filtered photodiode sensor as standard. Sensors and bases are not matched and may be freely interchangeable*.

**Please Note SS55B is not compatible with older units fitted with Cadmium Sulphide Sensors*

TECHNICAL SUMMARY

Type:	Fully electronic solid state
Sensor:	Filtered Photo Integated Circuit
Voltage:	198V to 264V 50Hz
Switch on level:	Standard 70 LUX
Switching diff:	1:0.5 NEG
Typical load:	2 x 250W
Operating temperature:	-20°C to +55°C
Max switching capacity:	5A or 60μF
Switching delay:	15 secs approx
Enclosure material:	Polycarbonate
Power consumption:	<0.25W
Approvals:	EN 50081 - I EMISSIONS EN 50082 - I IMMUNITY



SS5 DR / SS5 DR/HD

ONE PART ELECTRO-MAGNETIC SWITCHING

TECHNICAL SUMMARY

Type:	Electronic electro magnetic relay load switching
Sensor:	Filtered Photodiode
Filter type:	BG 18
Voltage:	198V to 264V 50Hz
Switch on level:	70 LUX
Switching diff:	1:0.5 NEG
Typical load:	SS5 DR 2 x 250W (5A or 60µF) SS5 DR/HD 3 x 400W (8A or 90µF)
Operating temperature:	-20°C to +80°C
Max switching capacity:	SS5 DR 5A or 60µF SS5 DR/HD 8A or 90µF
Switching delay:	10-15 secs
Enclosure material:	Polycarbonate
Power consumption:	<0.25W
Approvals:	EN 50081 - I EMISSIONS EN 50082 - I IMMUNITY
SS5 DR	UMSUG CODE 940001 I 1/4 WATT
IP rating:	IP65

SS5 DR

Fitted with the finest optical photodiode sensor for long-term accuracy and a quality electro-magnetic relay for improved switching performance.

In addition, the SS5 DR's unique circuitry incorporates a predictive transfer algorithm that protects the contacts when switching, reducing wear and improving cell life.

SS5 DR/HD

Offers increased load switching to 8 amps thanks to a heavy duty single pole magnetic relay. Supplied at 70 Lux switch on value and a 1:0.5 negative ratio, provides maximum saving on burning hours.

SS3 DR ONE PART ELECTRO-MAGNETIC SWITCHING

TECHNICAL SUMMARY

Type:	Electronic electro magnetic relay load switching
Sensor:	Filtered Photodiode
Voltage:	198V to 264V 50Hz
Switch on level:	70 LUX
Switching diff:	1:0.5 NEG
Typical load:	2 x 250W
Operating temperature:	-20°C to +80°C
Max switching capacity:	5A or 60µF
Switching delay:	15 secs approx
Enclosure material:	Polycarbonate
Power consumption:	<0.25W
Approvals:	EN 50081 - I EMISSIONS EN 50082 - I IMMUNITY UMSUG CODE 940001 I 1/4 WATT
IP rating:	IP65

Utilises a high grade electro - magnetic relay for load switching that allows the unit to withstand the most arduous operating conditions. SS3 DR incorporates a premium filter system that reduces manufacturing costs and delivers a corresponding price benefit. In addition, the SS3 DR includes a predictive transfer algorithm that protects the contacts when switching, reduces wear and improves cell life.

SS4 D / SS4 ED / SS4 DN

ONE PART ELECTRO-MAGNETIC SWITCHING

TECHNICAL SUMMARY

Type:	Electronic electro magnetic relay load switching
Sensor:	Photodiode
Filter type:	Photodiode
Voltage:	198V to 264V 50Hz
Switch on level:	70 LUX
Switching diff:	SS4 D / SS4 ED 1:1.5 POS SS4 DN 1:0.5 NEG
Typical load:	2 x 250W
Operating temperature:	-20°C to +70°C
Max switching capacity:	5A or 60µF
Switching delay:	15 secs approx
Enclosure material:	Polycarbonate
Power consumption:	<0.5W
Approvals:	EN 50081 - I EMISSIONS EN 50082 - I IMMUNITY

SS4 D

A breakthrough in low cost photcell technology that includes an electro-magnetic relay and a photodiode sensor that reduces burning hours, lowers power consumption and ensures lifetime switching accuracy.

SS4 ED

Electronic circuit delivers extremely accurate and reliable switching control. Also includes a VDR (Voltage Dependent Resistor) as standard, protecting the circuit from high transient voltages.

SS4 DN

Adds a low cost negative switching ratio option to the SS4 range. Has the capacity to cut burning costs significantly, saving power consumption and associated costs.



MINIATURE RANGE

Please contact our Sales Team for a Miniature brochure



ONE OF THE UK'S FOREMOST TECHNOLOGY SPECIALISTS

With over thirty years of experience, Zodion enjoys a worldwide reputation for the manufacture and supply of advanced electronic photo control units and lamp ballasts. These include:

- > The breakthrough Patented SmartCELL, an outstanding development that delivers power factor correction through innovation.
- > The pioneering ZEBC Electronic Ballast, a diverse management solution designed to offer a variable lighting feature.

Our technologies are used extensively by local authorities, utility companies, original equipment manufacturers and contractors. We also provide lighting controls for highway signage applications.



SmartCELL



ZEBC Ballast

Vizion®

Intelligent Street Lighting Management System

Zodion has continued its commitment with developing innovative solutions by launching Vizion.

Vizion is an intelligent Central Management System designed for the central control of your street lighting.

Vizion provides advanced wireless technology giving you unparalleled control to optimise energy usage or reduce CO₂ emissions.



FM 09458

Zodion pursue a policy of continuous product improvement and reserve the right to change technical specifications without notice.

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