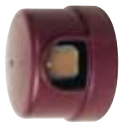


# DAYLIGHT SWITCHES



EYE Lighting maintains a range of automatic daylight switches that are used to switch luminaires off once light levels rise to pre-determined levels. NEMA base types are available which feature a quick-connect (insert and twist) mounting system and this type is commonly used by utilities for street lighting. Wire-in types are also available for replacement or retrofit purposes.

**NEMA BASE TYPES**

NEMA-base daylight switches can be divided into electronic types or the more basic cadmium sulphide types. The electronic types feature an integrated chip for more sensitive and precise control. Cadmium Sulphide types offer a more basic—yet still reliable—technology.

**ELECTRONIC NEMA-BASE TYPES**

NEMA-base electronic PE Cells provide more precise lighting control and stable performance. These devices

use an integrated chip together with a silicon light-sensing element and maintain specification performance levels for up to five times longer than conventional cadmium sulphide (CdS) controls. The combination of these design features prevents light level drift so that the light switching levels remain constant for the life of the control unit.

Electronic PE Cell is available in 2 basic sub-types:

- 2072 NPIT with a conventional positive switching ratio.
- SST240 with an inverse switching ratio.

SPECIFICATIONS	SST240	2072NPIT
PRODUCT CODE	101040	101060
TYPE	ELECTRONIC	ELECTRONIC
RATING	1800VA	1800VA
NOMINAL INPUT	185V-305V	185V-305V
OPERATING LEVELS	'ON' 25 +/-10% 'OFF' 20 +/-10%	'ON' 10 Lux +/-10% 'OFF' 45 Lux +/-10%
TIME DELAY RELAY TRANSFER	30 - 60 secs	5 secs
TEMPERATURE RANGE	-40 to +65°C	-40 to +65°C
ENVIRONMENTAL	100% Relative Humidity	100% Relative Humidity
CONSTRUCTION	UV Stabilised Polypropylene	UV Stabilised Polypropylene
DIMENSIONS	76mm (Dia) 54mm (H)	76mm (Dia) 54mm (H)
BASE	Standard NEMA Type	Standard NEMA Type

**CADMIUM SULPHIDE NEMA-BASE TYPES**

Daylight switches based on photoconductive, cadmium sulphide (CdS) cells offer stable, long life operation. Two sub-types are available:

- M Series Cell (with surge protection)
- LC208-277 (economical type)

The M Series features a ceramic substrate forms the base for the CdS. Visible on the surface of this substrate is a complicated electrode pattern with cold-welded cell terminal connections. This design is employed to prevent changes in cell resistivity from causing oxidization which will in turn contribute to photo-control drift. The entire cell,

including the terminal post connections, is then coated with a non discolouring, UV resistant clear layer. This organic-based, semiconductor compatible coating provides additional protection from humidity, condensation and airborne contaminants. The unit is also fitted with a metal oxide resistor (MOV) designed to effectively clamp voltage surges that may otherwise damage the unit.

The LC208-277 daylight switch is a more economical cadmium sulphide cell which is designed to be fitted with the universally used NEMA base. It is suitable for general use for electrical loads up to 1800VA.

SPECIFICATIONS	M-240	LC208-277
PRODUCT CODE	101035	101045
TYPE	CdS	CdS
RATING	1800 VA	1800 VA
NOMINAL INPUT	185V-305V	185V-305V
OPERATING LEVELS	'ON' 30 Lux (+/-25%) Turn Off Ratio 1:4 (Ave)	15 Lux +/- 25% Turn Off Ratio 1:4 (Ave)
TIME DELAY RELAY TRANSFER	30-60 Seconds	30-60 Seconds
TEMPERATURE RANGE	-40°C to +60°C	-40°C to +60°C
ENVIRONMENTAL	100% Relative Humidity	96% Relative Humidity
CONSTRUCTION	High Impact Noryl Housing with UV Inhibited Acrylic Integral Window	High Impact Polycarbonate Housing with UV Acrylic Inhibited Integral Window
DIMENSIONS	76mm (Dia) 54mm (H)	76mm (Dia) 54mm (H)
BASE	Standard NEMA Type	Standard NEMA Type
SURGE ARRESTER	FITTED	NOT FITTED



Electronic NEMA Base Type



CdS NEMA Base Type (M Series)



CdS NEMA Base Type (LC208-277)

# DAYLIGHT SWITCHES

## NEMA Base Accessories

Replacement NEMA base sockets are available in either a weatherproof type with an M20 connection or a standard wire-in type.

The BCM-15 is a NEMA-base compatible locking type socket for use with daylight switching photo-electric (PE) cells. This model is fitted with a weatherproof cover and is suitable for mounting onto an M20 thread. Its dimensions are 96mm in overall height and 65mm in diameter.

The CM15 is also a NEMA-base compatible locking type socket for use with daylight switching PE cells. This type comes complete with a mounting bracket and colour coded leads for wiring in. It is rated at 3 Amps 250VAC. Its dimensions are 33mm in height and 65mm in diameter.

The ALR range of Photoelectric Daylight switches feature either a highly sensitive CdS cell operating a bimetallic relay or electronic circuitry that efficiently reacts to changes in illumination levels (i.e. the natural light dims during daylight hours) and adjusts the level of artificial light accordingly. Daylight switches automatically switch lighting fixtures on at sunset and off at sunrise.



SPECIFICATIONS	BCM-15	CM-15
PRODUCT CODE	100190	100195
TYPE	NEMA Standard	NEMA Standard
RATING	3 Amps, 250VAC	3 Amps, 250VAC
WEATHERPROOF	YES	NO
DIMENSIONS	65mm (Dia) 86mm (H)	65mm (Dia) 33mm (H)

EYE Lighting maintains a range of automatic daylight switches that are used to switch luminaires off once light levels rise to pre-determined levels. There are two styles of wire-in daylight switches available in its product line-up:

- AA Button PE Cells
- PBL Weatherproof PE Cells.

## AA Button Types

The AA-1068 button photo-control is designed for internal mounting and is constructed using high impact, UV-stabilised polycarbonate. The wire leads exit from the rear and the nipple fits through either the sheet metal side, die cast aluminium housing or plastic enclosure of a luminaire. The polymer encapsulated CdS cell is protected from the elements by locking out air and moisture. The clear plastic lens is UV stabilised and ultrasonically sealed for water tightness.



SPECIFICATIONS	AA-1068
PRODUCT CODE	101030
TYPE	CdS
RATING	1200W
NOMINAL INPUT	185V-305V
OPERATING LEVELS	'ON' 10 Lux (+/-25%) 'OFF' <50 Lux (+/-25%)
TIME DELAY RELAY TRANSFER	>30 seconds
TEMPERATURE RANGE	-40°C to +65°C
CONSTRUCTION	Polycarbonate Housing UV Stabilised Acrylic Window
DIMENSIONS	52mm (L) 29mm (W) 22mm (H) 152mm Leads 19mm Straight Nipple

## D2 Base Daylight Switches

Some daylight switches used in Australia are designed for the “D2” style base. The D2 – like the NEMA type – relies on pin connectors which insert and twist to lock in place. A difference is that the D2 base is wired inside a fixture.

The PBM2403(L) is a PE cell that utilises the D2 base system. This photoconductive cadmium sulphide (DdS) cell is designed for reliable long –term performance. The thermal relay is normally closed for fail safe operation. This unit is widely used in low voltage street lights and post top units where an easily replaceable PE Cell is required.



SPECIFICATIONS	PBM 2403 (L)
PRODUCT CODE	101020
TYPE	CdS
RATING	3 Amps
NOMINAL INPUT	240V/50HZ (+/- 10%)
OPERATING LEVELS	'ON' 31.5-125 Lux 'OFF' <400 Lux
CONSTRUCTION	Melamin Phenol Resin
DIMENSIONS	26mm (Dia) 63mm (H) 51mm Cell Cover Length
BASE	D2 Type

## PBL Types

The PBL weatherproof CdS PE Cells are compact and ready to mount in an exterior environment. The leads are colour coded in standard colours (Red-Active, Black-Neutral, White-Lead) to simplify installation and connection. The cell is supplied complete with its own mounting bracket and is suitable for pole or wall mount.



SPECIFICATIONS	PBL2403	PBL2406	PBL2410
PRODUCT CODE	101000	101005	101010
TYPE	CdS	CdS	CdS
RATING	3 Amps	6 Amps	10 Amps
NOMINAL INPUT	240V ±10%	240V ±10%	240V ±10%
OPERATING LEVELS	ON' 10-80 Lux 'OFF' <400 Lux	ON' 10-80 Lux 'OFF' <400 Lux	ON' 10-80 Lux 'OFF' <400 Lux
CONSTRUCTION	Acrylic resin cover with polystyrene body, Steel Mounting Bracket	Acrylic resin cover with polystyrene body, Steel Mounting Bracket	Acrylic resin cover with polystyrene body, Steel Mounting Bracket
WEATHERPROOF	YES	YES	YES
DIMENSIONS	76mm (H) 64mm offset from wall	76mm (H) 64mm offset from wall	76mm (H) 64mm offset from wall

