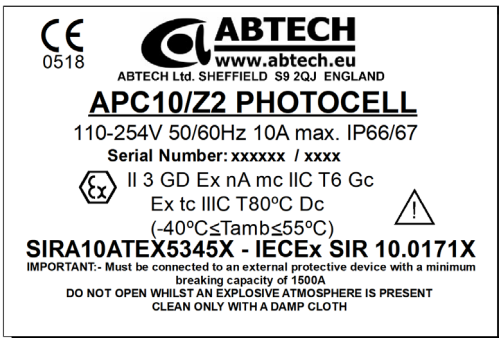
INSTALLATION, OPERATION & MAINTENANCE INSTRUCTIONS FOR ABTECH 'APC10/Z2' Photocell - SIRA10ATEX5345X, IECEx SIR 10.0171X



Marking

The marking shown is for a category 3 APC photocell.

The voltage range is 110V to 254V 50/60Hz and the max. current for the apparatus is 10A and is shown on the label.

The ambient temperature range for which this product is suitable is -40ºC to 55ºC and is marked on the label.

The photocell must be connected to an external protective device with a minimum breaking capacity of 1500A as detailed on the label.

Installation

1) Choose a suitable location for mounting the photocell. Ensure that the photocell window is positioned such that operation will not be influenced by any unnatural light.

   IMPORTANT – Installation in high-ambient temperatures

   When installing in areas susceptible to high ambient temperatures, it is important to consider the effects of thermal radiation from exposure to direct sunlight as this can increase the temperature of the internal components above their T rating and maximum design temperature. In these circumstances, the photocell should be installed under shade or have a sunshade fitted with the sensor head pointing away from the direct sunlight.

2) Undo the lid fixing screws & open the lid. Using a screwdriver, detach the green and yellow cables from the terminal block and remove the lid. Do not allow the lid to hang from the cable.

3) Using the mounting dimensions in the product catalogue data sheets, mark out the positions for the mounting holes on the surface where installation is required and drill the mounting holes for M6 fixing screws.

4) Place a mounting screw through one mounting hole in the box so that the thread of the screw protrudes from the back of the box. Lift the box into place and:-

   If clearance mounting holes are used, insert the protruding thread through the appropriate clearance hole and secure with a nut & washer on the other side of the mounting surface, or, if threaded holes are used, locate the end of the mounting screw over the threaded hole and, using an appropriate screwdriver, tighten the screw.

5) Rotate the box to line up the remaining holes and repeat (4) above.

6) Install and secure the cable glands in accordance with the manufacturer's instructions.

7) Insert the cables into the box leaving trailing leads of a length specified by site practice or the site engineer and secure any cable armour in accordance with site practice.

8) Terminate the cables in the terminals provided in accordance with the requirements of BS EN 60079-14:2008 and as shown in the wiring diagram below. Re-connect the green and yellow cables to the appropriate terminals.

9) Secure the lid by closing the lid and tightening the lid fixing screws.

Special Conditions for Safe Use

1) The maximum permitted load is 10A.
2) The enclosure and photocell window should be wiped only with damp cloth.
3) The photocell should be supplied by a circuit fitted with a protective device having a breaking capacity of not less than 1500A.

Earthing/Grounding

As an option, the APC Photocell may be provided with an external earth stud. If provided, it must be connected to the appropriate earth bonding circuit before electrical power is connected to the contents of the enclosure. If earth tags are used for earthing or bonding of cable glands, these should be fitted in accordance with the manufacturer's instructions.

Operation

1. The APC Photocell is fitted with current overload and thermal protective devices which cannot be reset. The APC Photocell should not be used outside its rated voltage and current.
2. The lid must be secured using all of the lid screws provided in order to maintain the IP rating.
3. No attempt must be made to remove the enclosure lid whilst electrical power is connected to the contents of the enclosure.
4. The mains power input going into the APC (via the L terminal) is the same as the output (Ls). The photocell acts purely as a switch, it does not alter the supply.

Maintenance

Routine maintenance is likely to be a requirement of local Health and Safety legislation. The laws of the applicable country must be considered and maintenance checks carried out accordingly. Additional periodic checks that are advisable to ensure the efficiency of APC Photocell are:-

	Activity	**Frequency**
1	Check that the lid seal is in place and not damaged	Each time the enclosure is opened
2	Check that all lid fixing screws are in place and secured	Each time the enclosure is closed
3	Check that the mounting bolts are tight and free of corrosion	Every 3 years
4	Check the security of all cable glands and entry devices	Every 3 years
5	Check that all screw clamp terminals are secure	As per manufacturer's recommendations
6	Check enclosure for damage	Every 3 years
7	Ensure photocell window is clean	Every 1 year

Chemical attack

The APC Photocell enclosure is manufactured using the following materials:- glass reinforced polyester resin (with or without carbon loading), polycarbonate, neoprene or silicone rubber, 316 grade stainless steel, brass.
Consideration should be given to the environment in which these enclosures are to be used to determine the suitability of these materials to withstand any corrosive agents that may be present.

Static hazard

Glass reinforced polyester resin and polycarbonate has a surface resistance greater than 10E9 Ohms. They can present a hazard from static electricity and may not be cleaned except with a damp cloth.

Vibration

The APC Photocell is designed for use in areas subject to normal industrial levels of vibration. It is not designed for use in areas subject to intentional or extreme conditions of vibration.

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Wiring Diagram