

## LED PULSE SENSOR (LPS)

This product picks up the light output pulses from a single phase or 3-phase energy meter and converts this into an electrical pulse. The electric pulse can then be used in a suitable logger to monitor energy usage.

### Benefits of using the LED PULSE SENSOR

- Easy attachment
- Non-intrusive
- Measures the same power as the revenue meter \*
- Low cost
- Only need one on 3-phase systems \*\*

\* Current clamps introduce a number of inaccuracies. They have a tolerance when measuring the current and one would need to measure the voltage as well to calculate the actual power used. The LPS measures exactly what the revenue meter measures (On 3-phase systems 3 current clamps are required)



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The black cross on the unit assists the user to align the optical sensor with the LED on the energy meter. However the cross should only be used as an initial starting position for the LPS. Optimum alignment can only be achieved by connecting the LPS to the data logger and ensuring that LED pulses are correctly recorded.



The LPS is provided with a sticky pad which is used to attach it to the meter.

The unit is supplied with 1 meter of twin cable. The more negative side of the two wires is marked with a black line.

Every time the LED on a typical energy meter pulses, the resistance of a well-aligned LPS drops to around 2kohms. The exact value of this resistance depends on the brightness of the LED on the meter and the alignment of the LPS when it is attached to the meter. To detect this pulse, the electronics on the logger should have a pull up resistance of at least 10kohms.

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