

LIGHT

WIRING CONNECTIONS FOR: SKR 1850/LT Serial Numbers 40739 onwards

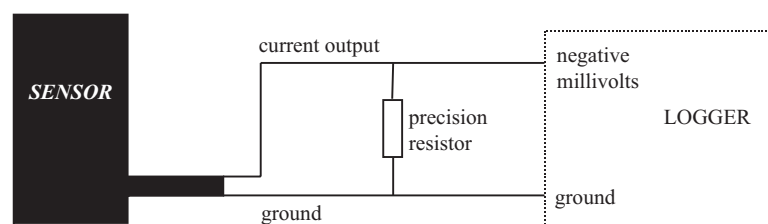
The sensor houses four semiconductor diodes which are connected back to back using a common ground connection. Thus there are five wires from each unit. These are shown below. The diodes are electrically fragile and no external sources of voltage or current should be applied to them.

SKR 1850/LT

The green wire should be connected to the common of the logger or readout unit.

Wire Colour	Function
Brown	Channel 1 negative current output
Yellow	Channel 2 negative current output
Grey	Channel 3 negative current output
White	Channel 4 negative current output
Green	Ground
Pink	Cable Screen

The current output from these sensors is often very small, e.g. 1 microamp or less. If the datalogger or recorder does not have a current input, then a precision resistor may be placed across each of the four sensor outputs to give a millivolt signal as below:



The millivolt signal will be proportional to the current output and resistor value as shown:

$$\text{mV per unit of light} = \text{microamp per unit of light} * \text{resistor (kohms)}$$

The resistor value should be as low as possible to get the mV output required for the anticipated light levels, and should not exceed 10 kohm (10,000 ohm). The millivolt output derived should not be greater than 60 mV otherwise a degree of non-linearity may occur.