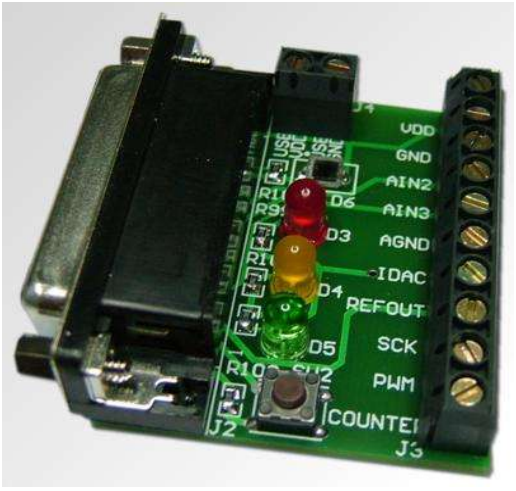
LIGHT APPLICATION ADAPTOR FOR EMANT300



The Light Application Adaptor is used for the teaching or demonstrating of PC Based Data Acquisition and Control. Used with the **EMANT300** Low Cost USB Data Acquisition Module, they form a very low cost DAQ teaching kit. It is ideal for use in hands-on teaching laboratories.

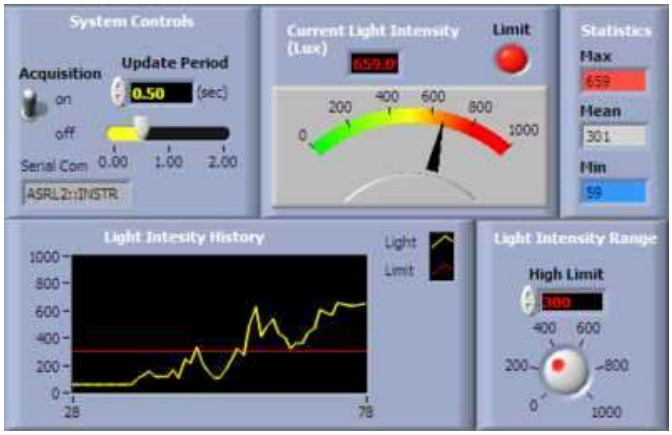
FEATURES

- 3 LEDS (Digital Output)
- 1 switch (Digital Input)
- 1 Light Sensor BPW34 (Analog Input)
- 1 Resistor or Thermistor (optional) (Analog Output)
- Screw Terminals for connecting other sensors and actuators directly for additional experiments like measuring temperature and strain.

Examples of lessons and demonstrations that can be built around this board

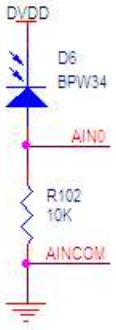
- Light Intensity logger
- Temperature logger
- Intrusion Alarm System
- Traffic Light Crossing
- Car park monitoring system
- Closed loop temperature control system[1]
- Simple Weighing Machine[1]

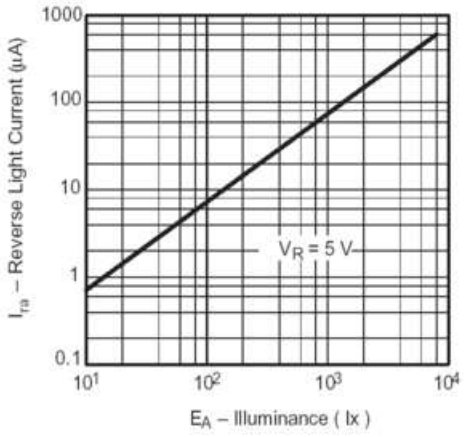
Note 1: Additional low cost, easily available components required



Examples programs using National Instrument's LabVIEW or in the .NET languages (C#, VB or VC++) are included. Plus instructions on how to build a light intensity logger..

The light sensor used is the BPW34. This is a high speed and high sensitive silicon PIN photodiode in a miniature flat plastic package. Due to its waterclear epoxy the device is sensitive to visible and infrared radiation. The large active area combined with a flat case gives a high sensitivity at a wide viewing angle.

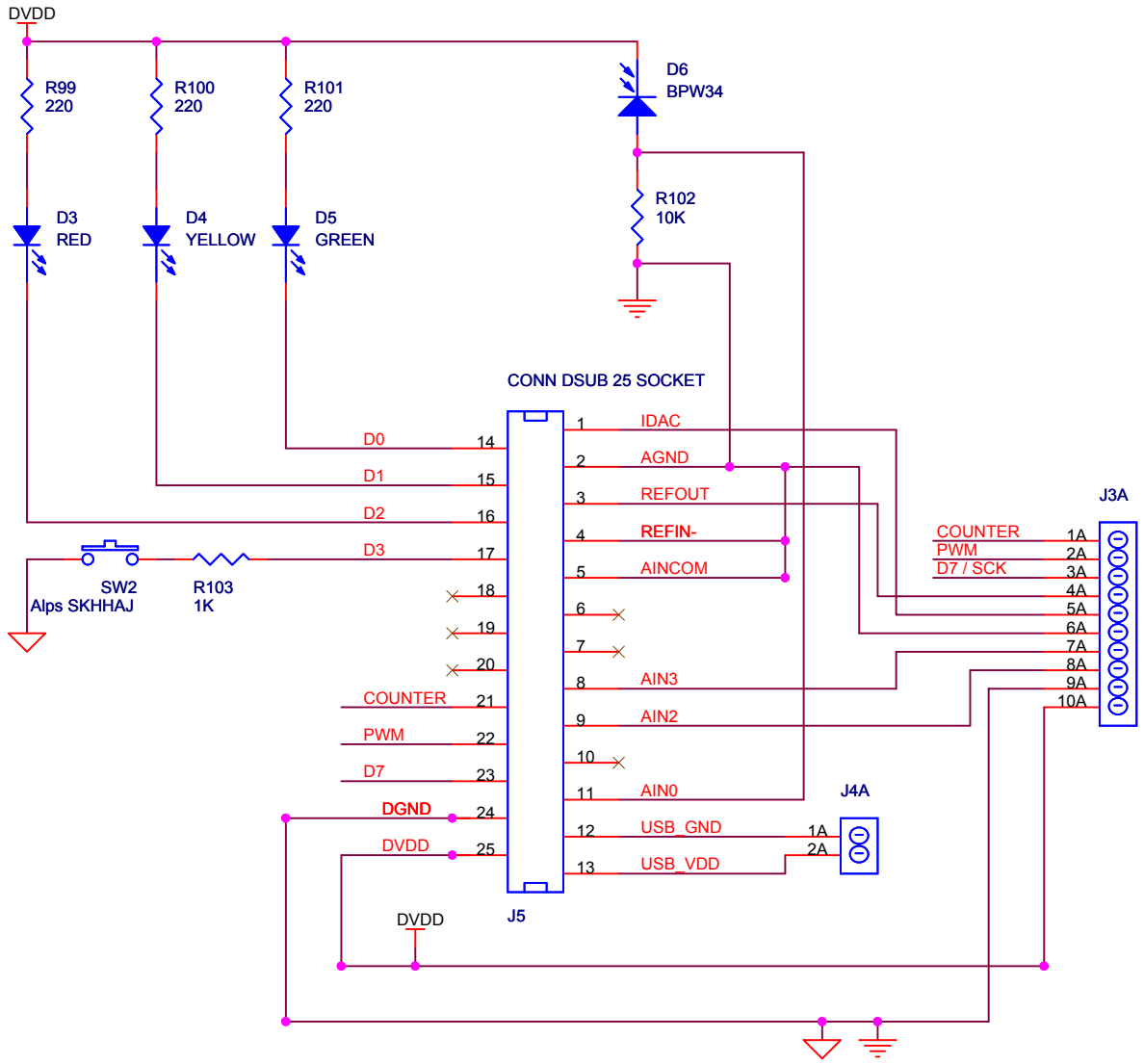




A simple relationship between lux (light intensity) and voltage is given by

$$lux = 1333 * V_o$$

To use LabVIEW, user must have the LabVIEW Development System ver 7 or later for Microsoft Windows. You need .NET Framework 1.1 or later for the .NET languages. Visual Studio 2003 or SharpDevelop IDE is also required. LabVIEW and Microsoft Windows are trademarks of National Instruments and Microsoft respectively



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