

## Product Description

XTRL-200 allows wireless communication between remote sensors and a process control module. Communication is accomplished with matched 2.4GHz XBee transceivers with a unique network address and encryption making communication safe and secure. Broadcast range is up to 1 mile line of sight or ~300ft indoors. Included are 2 modules complete with circuit boards, XBee transceivers, power supplies and enclosures.

The **Remote Sensor Module** has terminals for 4 sensor inputs. The sensors must be compatible with a 5VDC supply and a sourcing normally open output (PNP/N.O.). Power supply is 5VDC.

The **Process Control Module** has 4 corresponding relay outputs. The relay contacts are rated 10A at 120VAC, 5A at 240VAC, and 8A at 30VDC. Power supply is 5VDC.

When a sensor is triggered in the Remote Sensor Module, the XBee transceivers communicate this change in switching state. The corresponding relay in the Process Control Module then changes state which can be used to start or stop a process, trigger an alarm, or communicate with a PLC (not included) for other purposes.

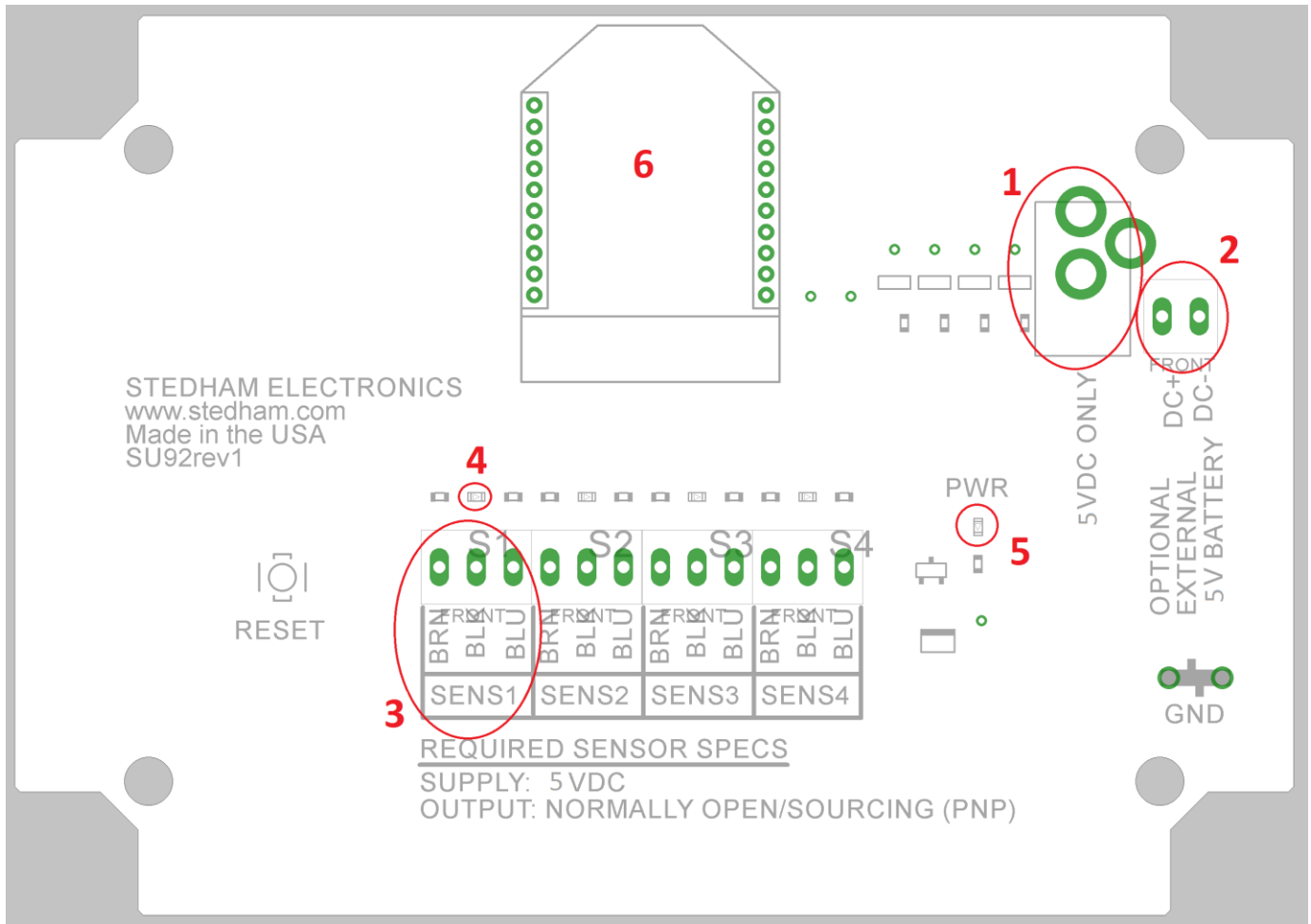
## Installation

Removal of the circuit boards from the enclosure may be required before the enclosure is mounted. This is accomplished by removing the 4 mounting screws. Once the enclosure is mounted, reinstall the circuit boards.

The circuit boards may be powered with the supplied wall transformers which can be supplied with 100-240 VAC, 50/60Hz or alternate power supplies of compatible VDC output. Alternate power supplies may be connected at the optional two terminal connection.

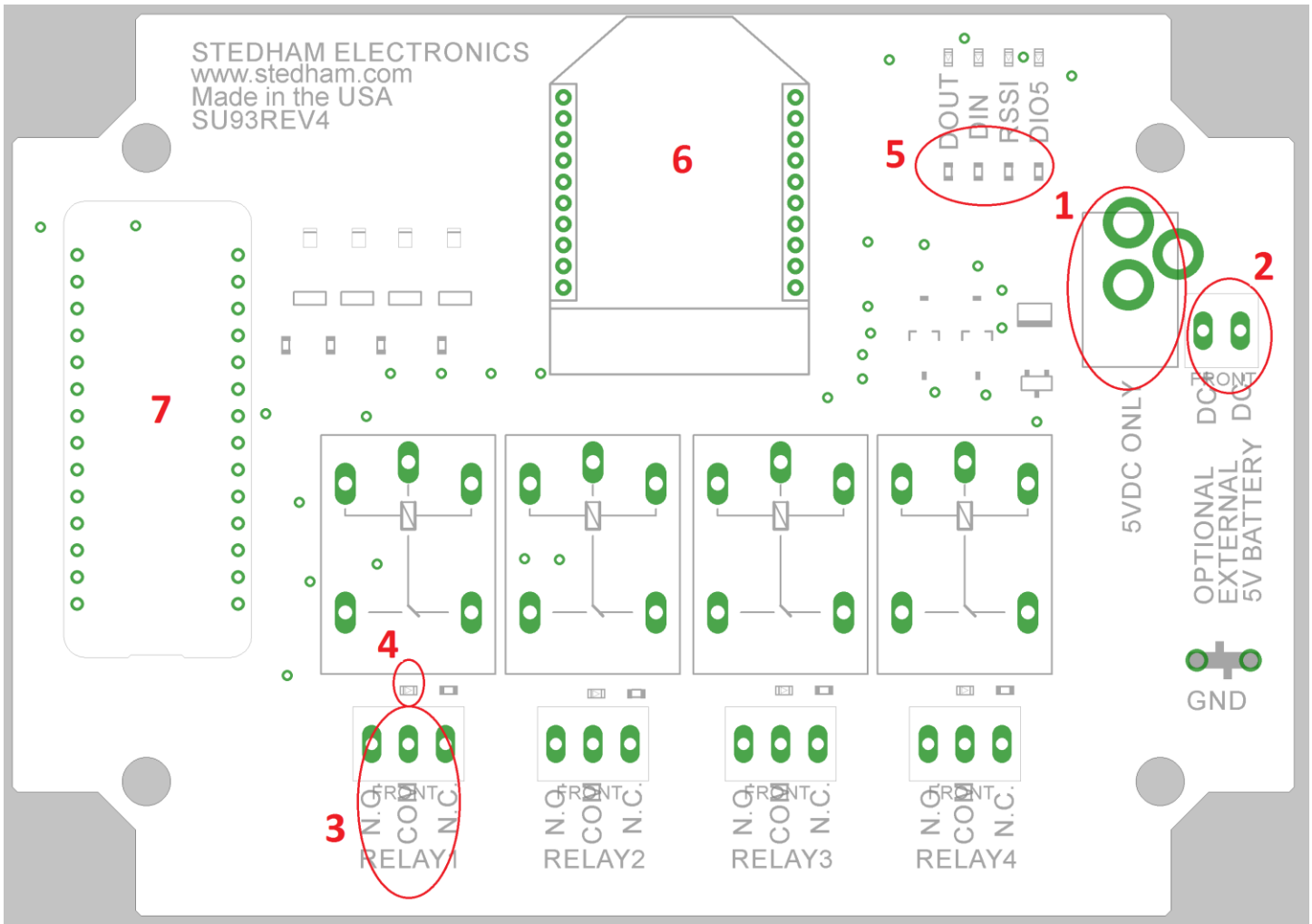
Both modules utilize the same enclosure easing mounting requirements. They are NEMA 4X / IP66 rated, UL listed to UL 508A, Type 4X and 12K specifications, with surface or wall mounting capability. Knockouts are provided for conduit installation if desired.

Remote Sensor Module



- 1: Wall transformer receptacle (5VDC only)
- 2: Inputs for optional 5VDC power supply or (solar rechargeable battery pack option available 3<sup>rd</sup> QTR 2017)
- 3: Terminal for sensor # 1 inputs (typical of 4 terminals in all)  
 BRN is 5VDC power supply  
 BLK is sensor output (PNP – sourcing/N.O. – normally open) recommended. Normally open or normally closed output is selectable in the Process Control Module.  
 BLU is DC-
- 4: Sensor signal LED indicator (typical of 4 terminals in all)
- 5: Module power on LED indicator.
- 6: XBee radio module paired to the XBee radio module in the Process Control Module for security purposes.

Process Control Module



- 1: Wall transformer receptacle (5VDC only)
- 2: inputs for solar rechargeable battery pack option (available 3<sup>rd</sup> QTR 2017)
- 3: Relay contacts rated 10A at 120VAC/5A at 240VAC/8A at 30VDC (typical of 4 relays in all)
- 4: Relay energized LED indicator (typical of 4 relays in all)
- 5: Communication active LED indicators – in normal operation DOUT is flashing quickly, DIN is not on, RSSI is steady, and DIO5 is flashing slowly.
- 6: XBee radio module paired to the XBee radio module in the Remote Sensor Module for security purposes.
- 7: Processing unit with firmware with steady green LED in normal operation.

## Enclosures

The same enclosure is used for both modules to simplify installation.

- Made in Germany
- UL Listed to UL 508, Type 4X & 12K specifications (File E208470)
- Meets IP66 rating (IEC of EN60529)
- IK08 impact rating (DIN EN 50102)
- Protection class: II - isolate protection (VDE 0106)
- Rated insulation voltage - AC: 690 V / DC: 1000
- Metric knockouts in base (**10 x M16/20**)
- Gray or tinted clear cover option
- Polyurethane gasket
- Plastic screw design (Polyamide 6, fiberglass reinforced)

