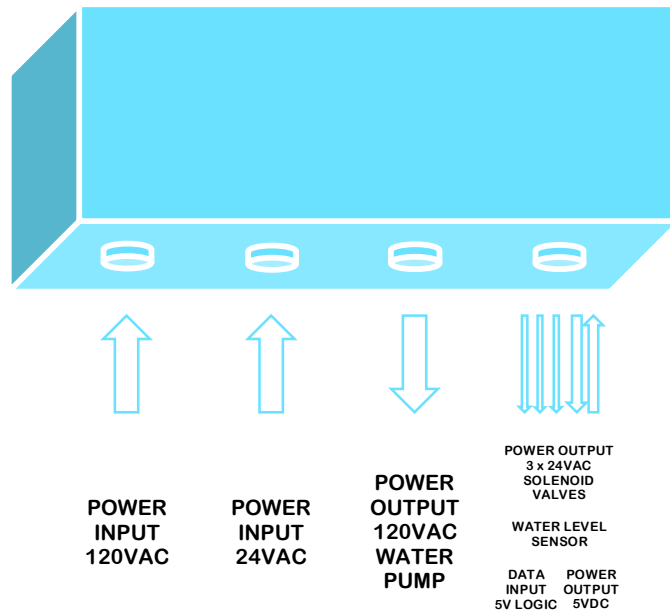


EQUIPMENT INPUT/OUTPUT DESCRIPTIVE DIAGRAM

COMPONENT BOX – BOTTOM



COMPONENT BOX – 3 or 4 physical openings to fully satisfy all different power and communication requirements of the system. IP rating IP65 or IP66 required before final distribution.

POWER INPUT 120VAC – Water pump power requirement of 110/120VAC, 8/10A, 50/60Hz via NEMA 5-15P, 18/20AWG wire with weather protection. Incoming line properly grounded with water pump power output 110/120VAC for safety.

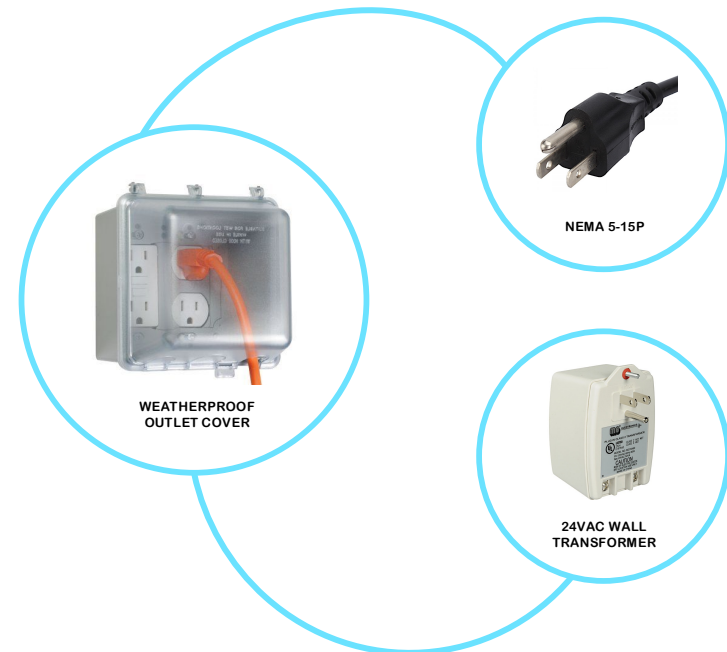
POWER INPUT 24VAC – Main system board and irrigation valves power requirements of 4.5/5/5.5VDC, 2/3A; and 18/28VAC, 200/800mA via 18/20AWG wire into a residential and/or commercial grade plug-in transformer.

POWER OUTPUT 120VAC WATER PUMP – Connectivity available for a compatible water pump via a NEMA 5-15R, 18/20AWG wire with adequate weather protection.

POWER OUTPUT 3 – 24VAC SOLENOID VALVES – Internal terminal block connector available for 3 incoming solid UF/UL 18AWG wires coming from the irrigation valves.

WATER LEVEL SENSOR – 5VDC, GND, and DATA to power an external ultrasonic module.

EXTERIOR POWER OUTLET – REQUIRED

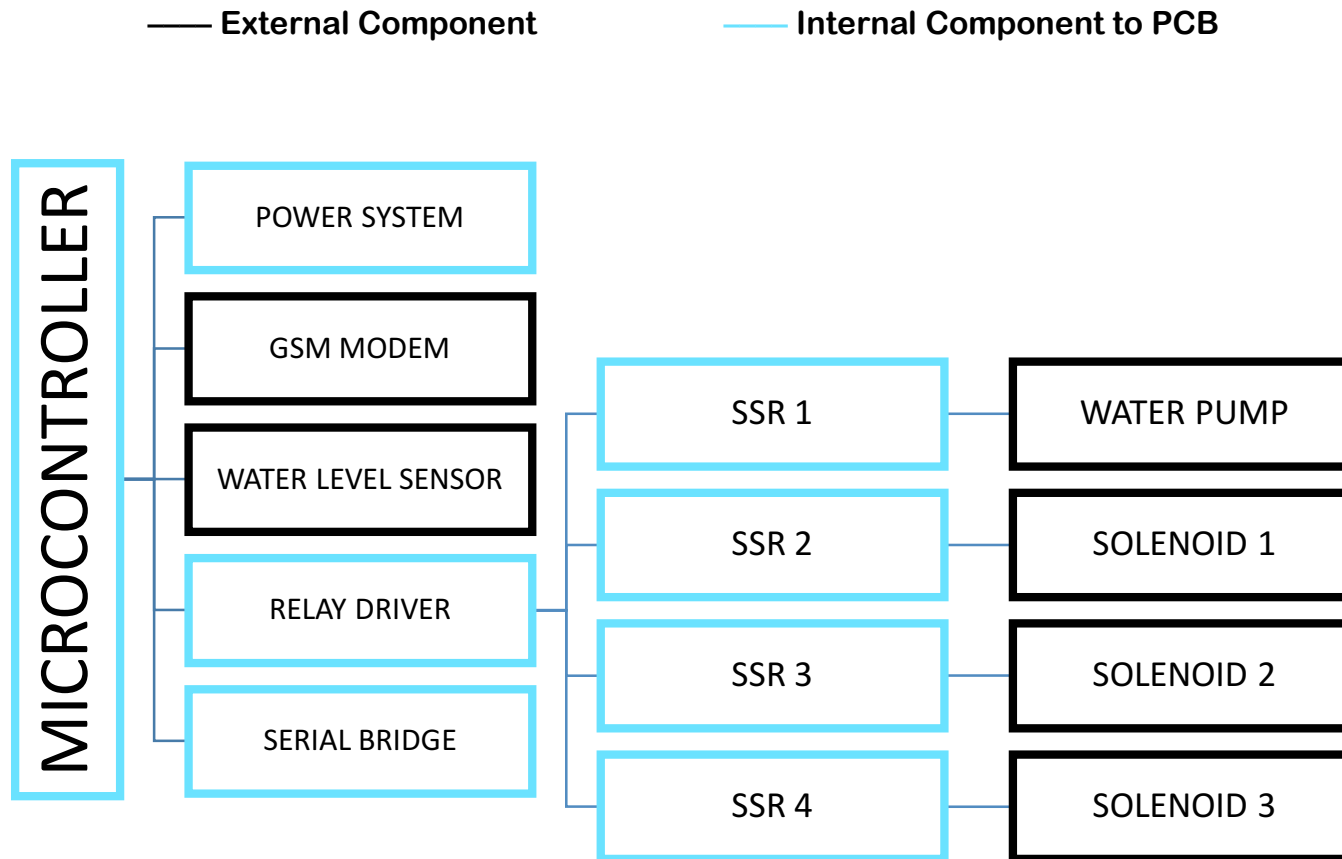


WEATHERPROOF OUTLET COVER – Additional coverage for outdoor electrical outlets.

NEMA 5-15P – Consumer or commercial level 18/20AWG extension cord with NEMA 5-15P/R plugs and adequate outdoor insulation.

24VAC WALL TRANSFORMER – External step down transformer for effective 120VAC to 24VAC conversion. A power rating in between 50VA and 60VA is recommended in most cases.

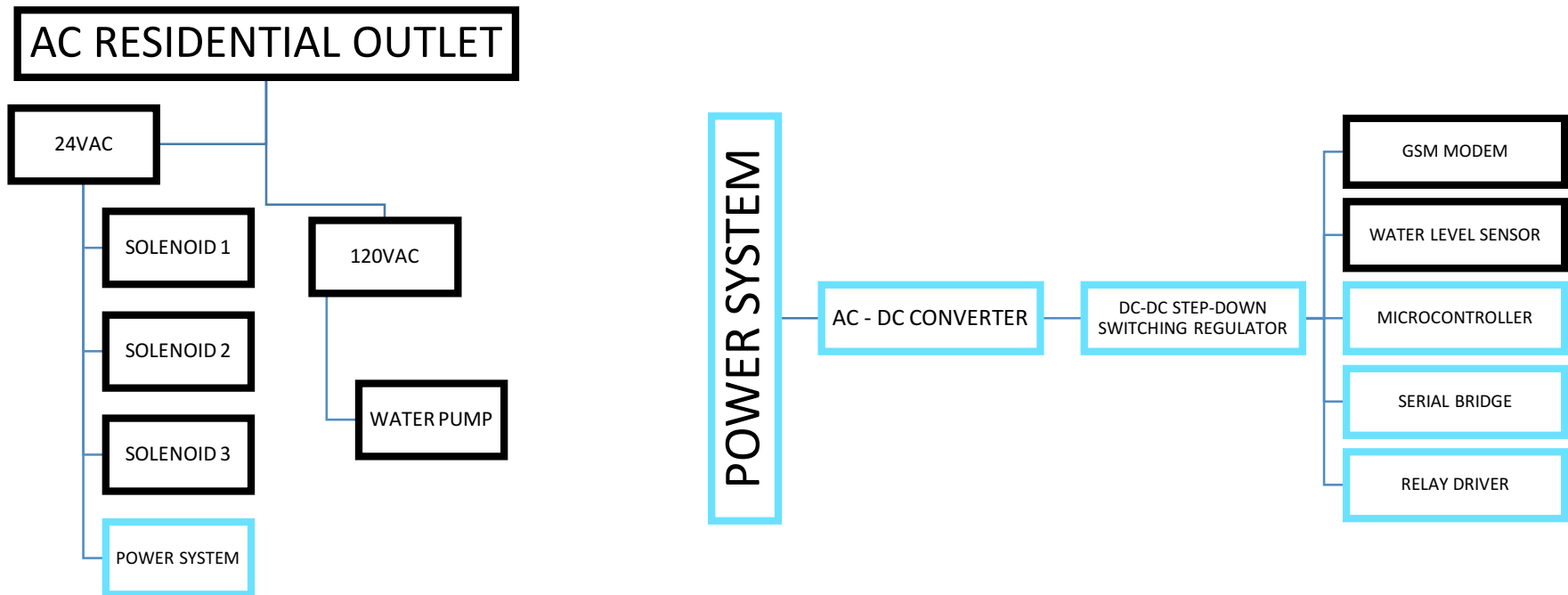
EQUIPMENT BLOCK DIAGRAM



POWER SYSTEM BLOCK DIAGRAM

— External Component

— Internal Component to PCB



GSM MODEM GENERAL FEATURES



SIM900 GPRS/GSM Board Quad-Band Module

- Quad-Band 850/900/1800/1900 MHz
- Compliant to GSM phase 2/2+
- Class 4 (2W @ 850/900 MHz)
- Class 1 (1W @ 1800/1900 MHz)
- Embedded TCP/UDP Stack
- Short Message Service
- Special Firmware – Embedded AT, FOTA, and MMS.
- Low Power Consumption – 1.5mA (sleep mode)
- Supply Voltage Range – 5VDC – 5.5VDC
- Standard 5V TTL Logic Levels
- Industrial Temperature Range – -40°C to +85°C
- Size – 8.5x5.7x2.0cm
- Certifications – CE, FCC, GCF, PTCRB, IC, ICASA, ROHS, REACH, NCC, Anatel, A-TICK, and ATEX.
- Carrier Approvals – Rogers, Orange, T-Mobile, Vodafone, Deutsche Telekom, Telia Sonera, TIM, TING, and GMA.
- Web Link Breakout – <http://www.sainsmart.com/sim900-gprs-gsm-board-quad-band-module-kit-for-arduino-high-quality-new.html>
- Web Link Module – <http://simcom.ee/modules/gsm-gprs/sim900/>