G100 EHG Wireless Panel Switch

Features

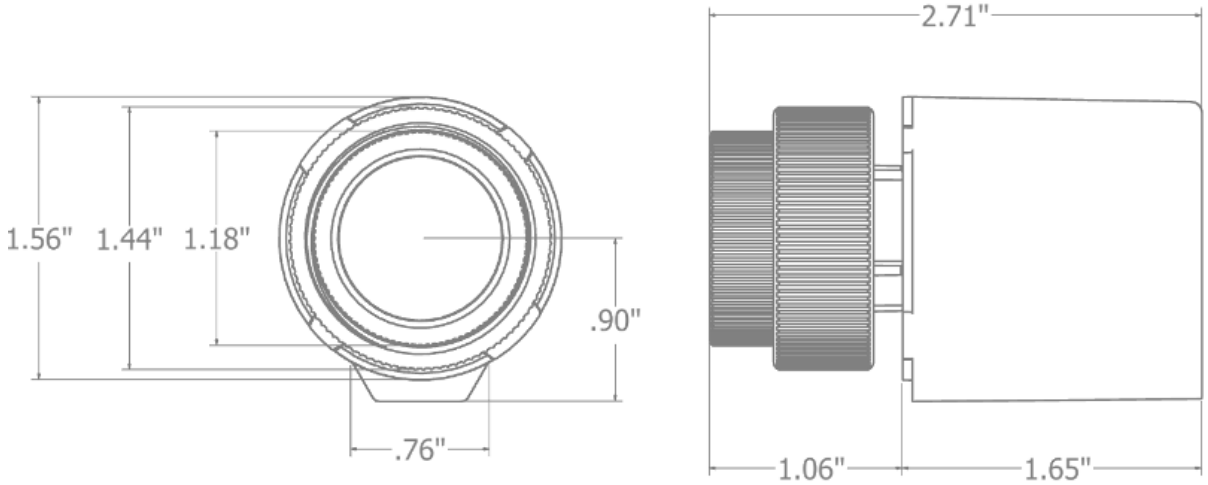
- Standard 22mm panel mount switch
- Button press provides 7.2mJ raw energy
- Harvesting circuit provides 4.2mJ energy stored on capacitor
- Capable of driving BLE Beacon[1] or ISM transmitters such as LoRa[2] or FSK.

Applications

- Remote on/off control of devices and equipment
- Industrial on/off switch
- Remote triggering control

Dimensions

Housing contains E100xxx Energy Harvesting Circuit and has space for an end-user MCU and RF transceiver board. Reference design with U-BLOX NINA-B3 ISL9123 voltage regulator and typical sensors is available.



1 See app note coming to **gemns.com** soon
2 Simulated load for triplicate transmission of DR4 6 byte packet, 1.8V@35mA TX for 13dBm.

gemns™

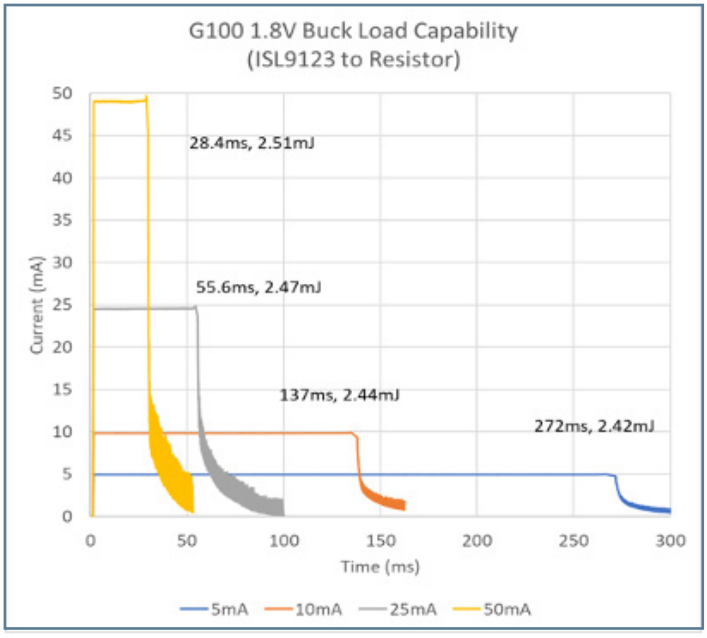
P.O. Box 229 | Sagaponack, NY 11962 | www.gemns.com

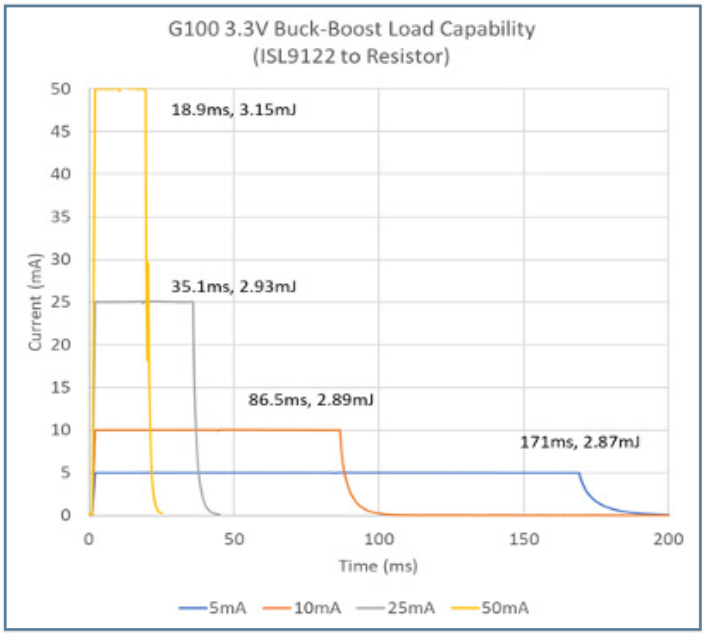
G100 EHG Wireless Switch

Generator Specifications

Raw Energy Output (typ.)	7.2 mJ (AC, dissipated into Resistive Load)
Bulk Stored Energy (typ.)	4.2 mJ, on 400uF Storage Capacitor
Voltage at max charge	4.6 V, on 400uF Storage Capacitor
Regulated Energy – 1.8V	> 2.25 mJ, external ISL9123
Regulated Energy – 3.3V	> 2.75 mJ, external ISL9122
Actuation Force	70 oz
Cycle Durability	1,000,000[3] Press/Release Cycles
Operating Temperature	-40 to +85 °C

Energy Output Curves for Typical Load Regulator





Data provided is by actuation using mechanical cycle tester as reference. Higher current and shorter duration loads lose less energy to quiescent currents and idle loads and operate closer to peak efficiency.

3 Validated cycle life

P.O. Box 229 | Sagaponack, NY 11962 | www.gemns.com