

Energy Harvester SPGA Series

**No power supply, battery or maintenance required.
Power generated with a low-force push.**

The SPGA Series Energy Harvester is a compact power-generating device employing electromagnetic induction to generate power with each push or release. Combined with low-power wireless technology, the device can function as a switch. It can be installed away from a main board, for example, in places where connection to a power source, or battery replacement, is difficult, and is ideal particularly for frequently operated equipment.



SPGA Series

Features

- Long operating life of 1 million cycles
- Excellent feel achieved with operating force of 6±1.5N
- Compact dimensions (17.5 × 23 × 17.9mm)

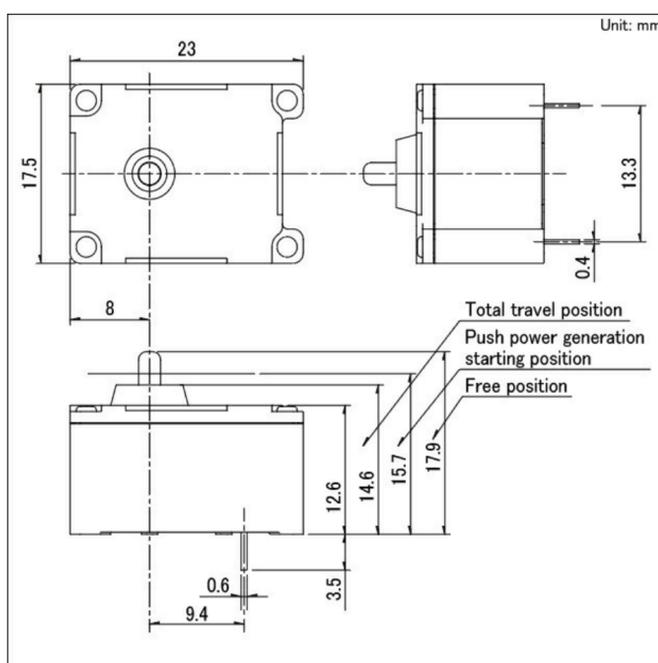
Applications

- Equipment with batteries in danger of going flat at the wrong time
- Operation, position sensing in places where circuitry or wiring is complicated
- Can be retrofitted to existing equipment as wiring not required

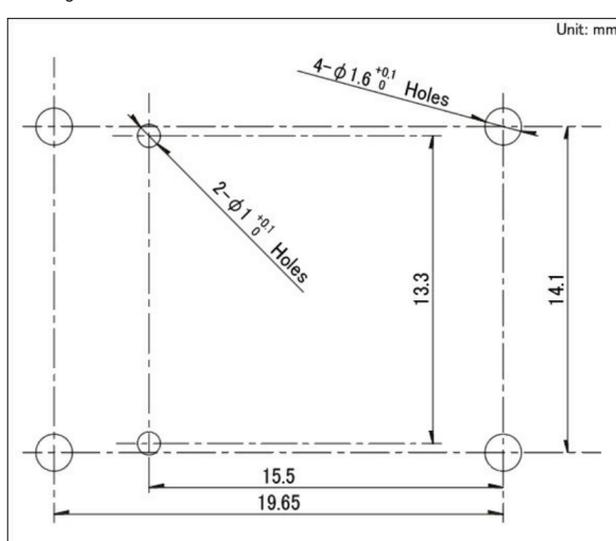
Items		Specifications	
Part number		SPGA110100	
Dimensions (W×D×H)		17.5×23×17.9mm	
Power generation		170μJ (for each operation)	
Operating force		6N±1.5N	
Travel		3.3mm	
Operation		Push	
Poles		1	
Terminal type		For PC board	
Operating temperature range		-20°C to +70°C	
Mechanical performance	Actuator strength	Operating direction	35N
		Perpendicular direction	5N
Durability	Operating life	1,000,000 cycles	
Environmental performance	Cold	-40°C 96h	
	Dry heat	85°C 96h	
	Damp heat	60°C, 90 ~ 95%RH 96h	
3D CAD (STEP)		↓	
Certificate of Compliance to RoHS regulations		↓	

※ Please contact an Alps Alpine sales representative about wireless systems, auxiliary circuits or other inquiries.

Dimensions



Mounting Hole Dimensions



Packing Specifications

Tray	
Number of packages (pcs.)	1 case / Japan 320
	1 case / export packing 320
Export package measurements (mm)	360×270×230

Soldering Conditions

Reference for Hand Soldering	
Soldering temperature	350±5°C
Soldering time	3s max.

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