

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 $6\pm 1.5\text{N}$
- Compact dimensions (17.5 × 23 × 17.9mm)

Applications

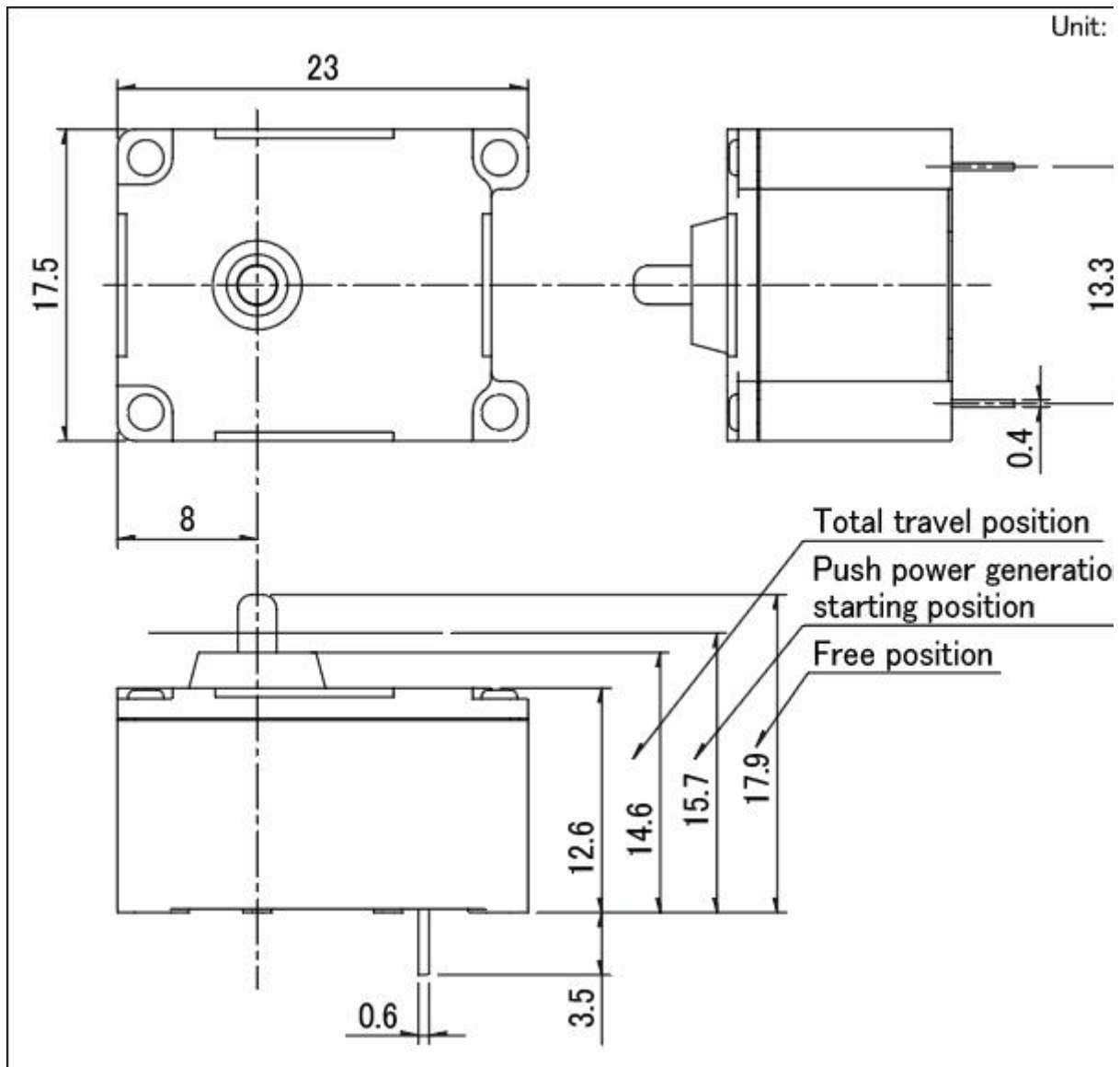
- Equipment with batteries in danger of going flat at the wrong time
- Operation, position sensing in places where circuitry or wiring is complicated
- Can be retrofitted to existing equipment as wiring not required

Items	Specifications
Part number	SPGA110100
Dimensions (W×D×H)	17.5×23×17.9mm

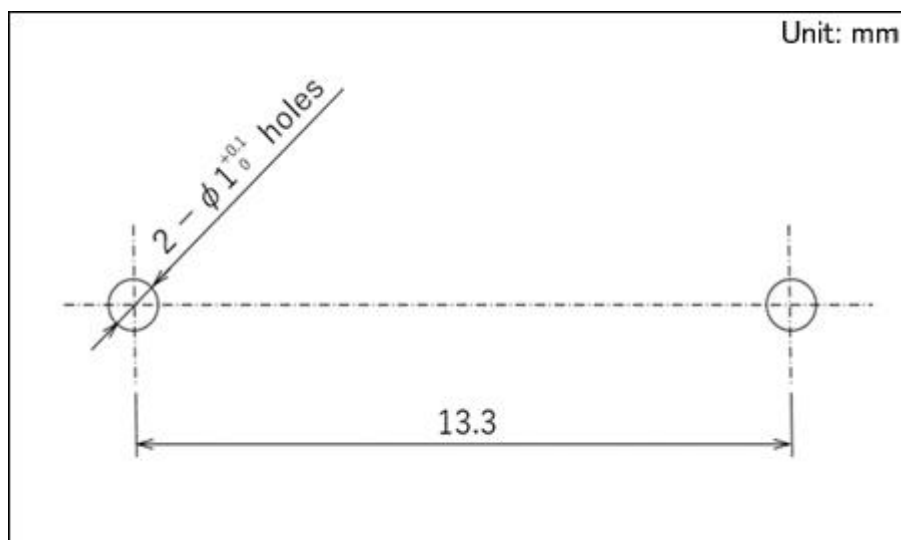
Power generation		170μJ (for each operation)	
Operating force		6N±1.5N	
Travel		3.3mm	
Operation		Push	
Poles		1	
Terminal type		For PC board	
Operating temperature range		-20°C to +70°C	
Mechanical performance	Actuator strength	Operating direction	35N
		Perpendicular direction	5N
Durability	Operating 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 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.