

# Power Puck® 60 Energy Harvester

For CSI 9420 Wireless Vibration Transmitters



Power Puck energy harvesting solutions are available from Emerson for most of the wireless transmitters using black power modules. An exception is the CSI 9420 Vibration Transmitter. While this transmitter also relies on power modules, the start-up and peak power requirements of the CSI 9420 are not met by the Intelligent Power Module (IPM) that is compatible with other Rosemount transmitters.

To address the demanding power requirements of the CSI 9420 and enable fast update rates with long life power, Perpetua offers a Power Puck energy harvesting solution for Non-Hazardous locations (also referred to as "Safe Area" or "Ordinary Location").

Using an external Power Management Unit (PMU) that matches the power requirements of the CSI 9420, the power life can be extended to more than ten years. In addition, the PMU incorporates the same battery back-up power found in black power modules.

Power Life in Years for the CSI 9420 With Energy Harvesting Configuration: 2 Accelerometers, LCD							
Temperature Difference	20C	25C	30C	35C	40C	50C	60C
	36F	45F	54F	63F	72F	90F	108F
1 min.	0.1	0.1	0.1	0.1	0.1	0.2	0.2
2 min.	0.2	0.2	0.3	0.3	0.3	0.3	0.4
5 min.	0.7	0.8	1.5	2.8	5.5	>10	>10
10 min.	1.5	2.7	>10	>10	>10	>10	>10
20 min.	2.6	>10	>10	>10	>10	>10	>10
40 min.	6.9	>10	>10	>10	>10	>10	>10
60 min.	>10	>10	>10	>10	>10	>10	>10

## Benefits

- More than 10 years of battery life with update rates of 10 minutes at 30°C temperature delta
- Reliable operation where dust, moisture, debris, and extreme temperatures are common
- Redundant power supply - automatically switching to backup battery power should the temperature delta become too small for energy harvesting

## Specifications

Power Puck Energy Harvester	
Diameter, contact	60mm (2.4 in.)
Diameter, fins projected	99mm (3.9 in.)
Height	101mm (4 in.)
Weight	374g (0.8 lb.)

Power Management Unit	
Dimensions	120 x 90 x 60 mm 4.7 x 3.5 x 2.4 inches
Weight	560g (1.2 lb.)

## Mounting Accessories

Power Pucks: Standard mount is magnetic, intended for flat, metal surfaces. Adapters are available for mounting to other surfaces, such as warm/hot pipes (1-, 2-, 3-, 4-, 6-, 8-, 10-, 12-inches) or surfaces above 105°C.

## Description

Power Puck® Energy Harvester for CSI 9420 Wireless Transmitters for Non-Hazardous installations (also referred to as "Safe Area" or "Ordinary Location"). Includes the PMU and shipped with two 6-meter cables.

**Part Number:** 00625-01

## For More Information

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