

# Technical Data Sheet for EHPU-EMR

## EverGen® PowerStrap™ Facet



### PRODUCT FEATURES

- EU RoHS Compliant
- EU REACH Compliant
- Non-Invasive thermal energy harvesting power compatible with Emerson wireless Rosemount sensors
- Alternative to replaceable primary cell batteries
- Extends existing sensor battery life to >10 years
- Configurable for vertical and horizontal pipes
- Designed for pipe diameters ranging from 2" to 14"
- Operational in all geographic locations
- 5 minute, non-invasive installation on pipes
- 2 meter long cable for convenient installation
- Adjustable strap construction for single bolt tightening
- Standard 1 year warranty
- Class 1 Division 1 Groups A, B, C, & D certified
- Patented – US 8,933,317

### CERTIFICATIONS

#### US & CANADA Standards

- UL Intrinsically Safe
- Certificate: 262684
- Class I, Division 1, Groups A, B, C, and D;
- Class II, Division 1, Groups E, F, and G;
- Class III, Division 1;
- Class I, Zone 0, AEx ia IIC T4 Ga
- Ex ia IIC T4 Ga
- -40 °C < Ta < 65 °C

### ORDERING OPTIONS

Model Number	Description
EHPU-S-H-EMR	EVERGEN® PowerStrap™, 2"-6", Horizontal configuration
EHPU-S-V-EMR	EVERGEN® PowerStrap™, 2"-6", Vertical configuration
EHPU-L-H-EMR	EVERGEN® PowerStrap™, 6"-14", Horizontal configuration
EHPU-L-V-EMR	EVERGEN® PowerStrap™, 6"-14", Vertical configuration

### OPERATION CAUTIONS

For maximum reliability, storage and operation below a hot side temperature of 130°C is recommended. The ambient operating temperature range is from -40°C to +65°C.

### INSTALLATION

For proper installation please refer to the operation and installation manual.

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## BATTERY LIFE EXTENSION (Years)

The tables below depict estimated battery life (in years) with and without an II-VI Marlow EverGen® PowerStrap as a function of different base to ambient temperature differentials. When energy harvesting is available, battery is held in reserve. Maximum battery shelf life for lithium-ion batteries is 10 years. Performance is given for various Emerson Wireless Rosemount sensor products at different sensor transmit cycles.

Rosemount 648 Wireless Temperature Transmitter

Battery Only		Energy Harvesting (Pipe to Ambient ΔT)				
Transmission Rate	Battery Life (Years)	ΔT °C ΔT °F	20 36	25 45	30 54	35 63
1 sec	0.9		>10	>10	>10	>10
2 sec	1.7		>10	>10	>10	>10
4 sec	2.8		>10	>10	>10	>10
8 sec	4.5		>10	>10	>10	>10
16 sec	6.9		>10	>10	>10	>10
32 sec	9.7		>10	>10	>10	>10
60 sec	10		>10	>10	>10	>10

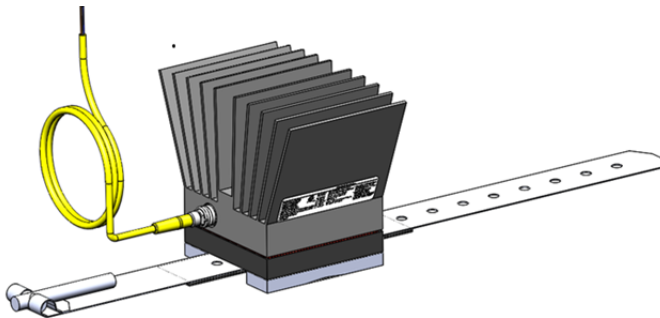
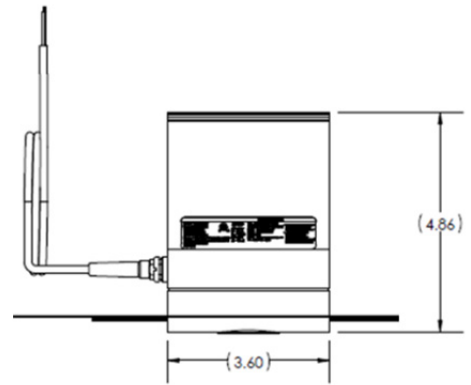
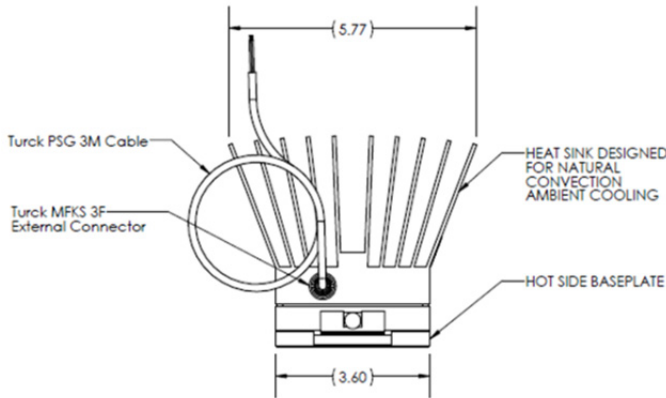
Rosemount 3308A Wireless Guided Wave Radar Level

Battery Only		Energy Harvesting (Pipe to Ambient ΔT)				
Transmission Rate	Battery Life (Years)	ΔT °C ΔT °F	20 36	25 45	30 54	35 63
1 sec	N/A		N/A	N/A	N/A	N/A
2 sec	N/A		N/A	N/A	N/A	N/A
4 sec	1.3		>10	>10	>10	>10
8 sec	2.3		>10	>10	>10	>10
16 sec	4.1		>10	>10	>10	>10
32 sec	6.6		>10	>10	>10	>10
60 sec	9.5		>10	>10	>10	>10

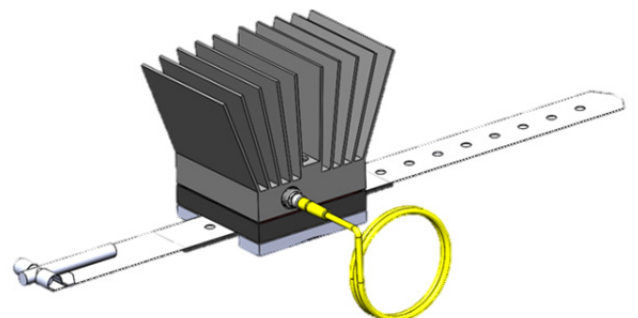
Rosemount 3051S Wireless Pressure Transmitter

Battery Only		Energy Harvesting (Pipe to Ambient ΔT)							
Transmission Rate	Battery Life (Years)	ΔT °C ΔT °F	20 36	25 45	30 54	35 63	40 72	50 90	60 108
1 sec	0.6		1.3	2.7	>10	>10	>10	>10	>10
2 sec	1.3		>10	>10	>10	>10	>10	>10	
4 sec	2.2		>10	>10	>10	>10	>10	>10	
8 sec	3.7		>10	>10	>10	>10	>10	>10	
16 sec	5.8		>10	>10	>10	>10	>10	>10	
32 sec	8.6		>10	>10	>10	>10	>10	>10	
60 sec	10		>10	>10	>10	>10	>10	>10	

For additional performance information, contact one of our Applications Engineers at 877-627-5691.



Horizontal Configuration



Vertical Configuration

All units are in inches unless otherwise stated.

For customer support or general questions please contact a local office or visit our website at [www.marlow.com](http://www.marlow.com).

Marlow reserves the right to make product changes without notice.