

SMARTWATCHWEB RF41

General Description

Bitherm SmartWatchWeb SWWRF41 is a wireless device for steam and gas leak detection on steam traps and valves.

SWWRF41 is powered by Lithium thionyl chloride battery. Its design is optimized for low power operation, improving lifetime of battery - powered devices. High output power (up to 20 dBm) allows to improve link quality and maximum distance between nodes even in industrial environments.

SWWRF41 has a small size which makes easy to installation on small steam traps.

Typical Applications

Bitherm SmartWatchWeb system can be used to detect and survey steam leaks and gas leakages on any Relief & Safety valve, steam trap or similar. Among the typical applications for this product we can list:

- Improving energy efficiency
- Reducing deployment cost
- Autonomous monitoring nodes
- Network support for other Bitherm products.

Main Features

2.4 GHz ISM Band RF link:

- ISA 100.11A
- 802.15.4 standard compliant

Half-duplex communication

ATEX / IECEx Certificated

Low power:

- <100 μ A sleeping mode
- down to 500 μ A equivalent continuous consumption in active mode (configuration dependent)

IP 67 Protection Grade



Installation

Bitherm SWW10 / SWW11 is easy to install, it begins a non-invasive system, no penetration is required (except for pressure sensor applications).

Field devices can be installed on any kind of steam trap, safety valve or on-off valve.

Installation of the field devices on steam traps, safety valves or on-off valves is made with a clamp or brackets. Bitherm steam traps do not require brackets, as the sensor is mounted directly on the available connector on the top of the trap.

SWW41 Technical Specifications

Enclosure	Size	Body	90x90x80 mm (3.54x3.54x3.15 in)
		Antena	Ø12.5x105 mm (3.54x4.52x4.33 in)
	Weight	1.2 Kg (2.64 lbs)	
	Material	Base	Cast Aluminum or Stainless steel
	Protection	IP67	
Communications	Radiofrequency	2.4 GHz ISM Band, 802.15.4 standard compliant	
Sensors	Battery	Range	3.6 V
		Resolution	13 mV
	RSSI	Range	-128 to 127 dBm
Operating Range	Temperature	-20 to 80 °C	
	Humidity	0 to 99 %RH, non-condensing	
	Voltage	3.6 V	
Power Consumption	Sleep	< 100 µA	
	Active	Idle	< 0.5 mA
		RX	< 30 mA
		TX	< 65 mA
Certification	ATEX	II 1G Ex ia IIC Ga T4 -20<Ta<80°C	
	IECEX	Ex ia IIC Ga T4 -20<Ta<80°C	
		Ex ia IIIC T135 °C Da	
	CE Marking	According to ATEX directive (94/9/CE)	



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For more information please visit web www.bitherm-sistemas.com or contact your Bitherm's distributor.


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