

## SmartWatchWeb Wireless Field Device

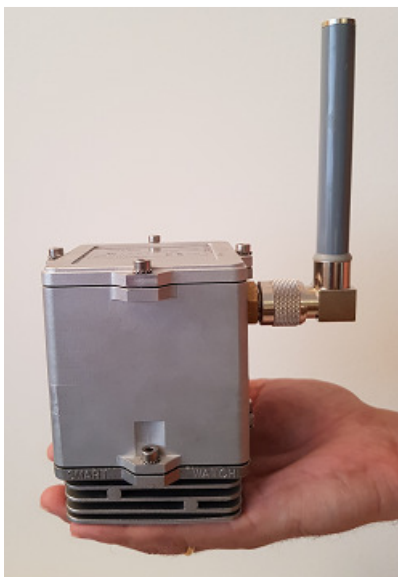
*Improving Energy Efficiency and Safety* **SWWRF41**

### 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 is small size to easy installation on small steam traps



**SmartWatchWeb™ SWWRF41**

### Typical Applications

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

- Improving energy efficiency
- Reducing deployment costs
- 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 (pending)
- Low Power:
  - < 100  $\mu$ A sleeping mode
  - down to 500  $\mu$ A equivalent continuous consumption in active mode (configuration dependent)
- IP66 Protection Grade

**SWWRF41 – Technical Specifications**

<b>Hardware</b>	Size	Enclosure	90x90x80 mm
		Antenna	Ø12.5x105 mm
	Weight		1.2 kg
	Material	Enclosure	Cast Aluminum or Stainless Steel
	Protection		IP66 housing
<b>Communications</b>	Wired		RS-485 Half-Duplex, Modbus protocol
	Radiofrequency		2.4 GHz ISM Band, 802.15.4 standard compliant
<b>Sensors</b>	Battery	Range	3.5 V
		Resolution	13 mV
	RSSI	Range	-128 to 127 dBm
<b>Operating Range</b>	Temperature		-20 to 70 °C
	Humidity		0 to 90 %RH, non-condensing
	Voltage		3.5 V
<b>Power Consumption</b>	Sleep		< 100 µA
	Active	Idle	< 0.5 mA
		RX	< 30 mA
		TX	< 65 mA
<b>Certification</b>	ATEX & IECEX	Expedient	pending
		Marking	II 1G Ex ia IIC T4 Ga -20 < Ta < 60 °C
	CE Marking		According with ATEX directive (94/9/CE)

**More Information**

For more information contact your Bitherm Dealer

**Headquarters**

Ulises 89  
BiTherm Building  
28043 Madrid (Spain)  
Tel: (+34) 91 404 80 87 Fax: (+34) 91 404 48 75

**Factory**

Polígono Industrial Lo Bolarín  
Artes y Oficios 24  
30360 La Unión - Murcia (Spain)  
Tel: (+34) 968 540 445 Fax: (+34) 968 540 878