

## SmartWatchWeb Steam Leak Monitor

### SWW11(with thermocouple)

*Improving Efficiency, Safety and Security*

#### General Description

The valve monitors family SWW11 are steam leak detectors that belong to SmartWatchWeb™ monitoring system network. These devices allow to detect steam leakage on valves by monitoring ultrasounds and temperature.

#### Typical Applications

BiTherm SmartWatchWeb™ system can be used to detect and survey steam leaks. The steam leak monitor can be used for several applications such as:

- Improving energy efficiency.
- Reducing leaks of process gas.
- Reducing steam leaks.
- Reducing CO<sub>2</sub> emissions.
- Monitoring steam traps and safety valves.
- Reducing inspection costs.
- Reducing maintenance costs.

#### Main Features

- 3 Measurement channels:
  - Temperature.
  - Ultrasounds.
  - Pressure (optional)
- Half-Duplex communication over RS-485 Modbus RTU protocol.
- Low power consumption (< 2 mA) .
- IP66, IP67 Protection Grade.
- Easy, non-intrusive installation.
- EMC 61326-1:2012 standard compliant.
- IECEx approval.

#### Easy Installation

Bitherm SWW11 is easy to install, it being a non-invasive system, no penetration is required.

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

Installation of field units on steam traps, safety valves, or on-off valves is made with clamps 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.



*Field sensor SWW11 (with thermocouple) .*

## SWW11 – Technical Specifications

Enclosure	Size	160x135x95 mm (6.3x5.3x3.7 in)	
	Weight	0.8 Kg	
	Material	Body	Stainless steel 316L
		Cable gland	Stainless steel 316L
		Bolts	Stainless steel
	Protection	IP66 , IP67 / NEMA 4x, 6 weatherproof housing	
Communications	Wired	RS-485 Half-Duplex, Modbus RTU protocol	
Sensors	Temperature	Type	Thermocouple
		Range	Up to 540°C
	Ultrasound	Type	Piezoelectric
		Frequency	40 kHz
Operating Range	Humidity	0 to 99 %RH, non-condensing	
	Voltage	3.5 to 8 VDC	
Power Consumption	Idle	< 0.5 mA	
	Sampling	< 2 mA	
Ex Certification	IECEX (SWW11)	Expedient No.	UL 16.0034X
		Marking	Ex ia IIC T4 Ga, -20°C < Ta < +75 °C
	EMC	IEC 61326-1:2012 standard compliant	

## More Information

For more information about SWW1X please visit [www.bitherm.com](http://www.bitherm.com) or contact your Bitherm distributor.



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