

General Description

The valve monitors family SWW1X are steam leak detectors that belong to SmartWatchWeb monitoring system network. These devices allow to detect steam leakage on valves by monitoring ultrasounds, temperature and pressure (optional)

Main Features

Four (4) measurement channel:

- Temperature
- Pressure (2x)
- Ultrasounds

Half - Duplex communication over RS-485 bus up to 125 devices.

Optional RF communication solution.

- 2.4 GHz ISM band, 802.15.4 compliant

Certification

- ATEX, IECEX
- EMC 61326-1:2012

Low Power:

- < 2mA without pressure sensor
- each pressure sensor adds around 5 mA extra
- IP66, IP67 Protection Grade
- Non-Intrusive installation

Intallation

Bitherm SWW10 / SWW11 is easy to installa, it begin 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 derectly on the available connector on the top of the trap



Typical Applications

BiTherm smartWatchweb system can be used to detect and survey steam leaks and presence of toxic or flammable gas. The steam leak monitor can be used for several applications such as:

- improving energy efficiency
- Reducing leaks of process gas
- Reducing steam leaks
- Reducing CO2 emissions
- Monitoring steam traps and safety valves
- Reducing inspection costs.
- Reducing maintenance costs.



SWW10 / SWW11 Technical Specifications

Enclosure	Size	Body	90x90x80 mm (3.54x3.54x3.15 in)	
		Body and connections 90x115x110 mm (3.54x4.52x4.33 in)		
	Weight	0.7 Kg (1.55 lbs)		
	Material	Base	Brass / Cast Aluminum	
		Cover	Cast Aluminum	
		Bolts	Stainless Steel	
Protection	IP66 , IP67 / NEMA 4x/6 weatherproof housing			
Communications	Wired	RS-485 Half-Duplex, up to 125 devices per bus, Modbus protocol		
	Radiofrequency	2.4 GHz ISM Band, 802.15.4 standard compliant		
Sensors	Temperature	Type	NTC	
		Range	-20 to 170°C	
	Pressure	Range	0 to 25 bar	
	Ultrasound	Type	Piezoelectric	
Range		40 kHz		
Operating Range	Pressure	n/a		
	Temperature	-20 to 80 °C		
	Humidity	0 to 99 %RH, non-condensing		
	Voltage	3.5 to 8 V		
Power Consumption	Idle	< 0.5 mA		
	Samplig	No extra sensors	< 2 mA	
		1 pressure sensor	< 7 mA	
		2 pressure sensor	< 12 mA	
Certification	ATEX	II 1G Ex ia IIC Ga T4 -20<Ta<80°C		
	IECEX	Ex ia IIC Ga T4 -20<Ta<80°C		
	EMC	IEC 61326-1:2012		
	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.


Headquarters

BITHERM SISTEMAS S.A.
 Ulises 89
 28043 Madrid (Spain)
 Ph: (+34) 91 736 45 57
ventas@bitherm-sistemas.com

Factory

PURGADORES DE CONDENSADO S.L.
 Artes y oficios 24, nave 9
 30360 La Unión, Murcia (Spain)
 Ph: (+34) 968 54 04 45
purgasa@bitherm.com