7Solutions
In Gas Detection

AirWatch MK1
• Temp -20 – 45° C
• RH 0 – 95% Non Condensing
• Voltage 9 – 36VDC 0,2A
• WARNING: Not to be used in explosive atmosphere

factory USB   datalogging

Serial number

AirWatch MK1
7-00066

LEL   CO   H2S   OXY
OK   OK   OK   OK

alarm

connected

on/off   alarm reset

CE

AirWatch

DANGER
CONFINED SPACE
ENTER BY
PERMIT ONLY

PAINTED SEPT. 1979

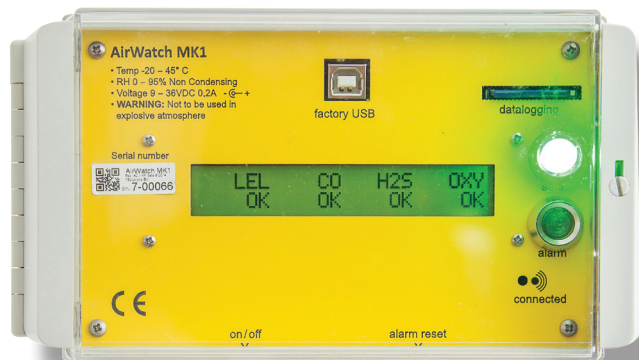# AirWatch

Switching zone gas detection

The AirWatch is your ready-to-use solution for the monitoring of various gases. Based on the measurement values and alarms, equipment is switched on or off, data is logged and employees are remotely informed of the gas concentrations present.

Switching everything on/off

The AirWatch is a non-ATEX detector head with pump, controller, alarm and switch in one device. It can operate switches on a wide variety of equipment in the event of a gas alarm, from generators to breathing air units and power supplies.

With the optional wireless function, you can also remotely monitor several AirWatches. The data is stored on the PC/laptop or on an optional SD card in the device itself, with real-time information giving a clear picture of the different locations.

Many configurations are possible, so the AirWatch can be used very flexibly, either in standalone mode or as part of a complete system.

Characteristics:

- **Functions in standalone mode or as part of a mesh network**
- **Automatically switches pumps, on/off buttons, ventilation, etc.**
- **Developed for demanding environments**
- **Can be used inside and outside**
- **Flexible and programmable**
- **Available for O_2, LEL, H_2S, CO and SO_2, other gases on request**
- **Built-in pump**
- **IP65**
- **Available with battery pack (continuous wireless for 8 days), alarms, data log, repeater, command centre, uninterrupted power supply (UPS) etc.**

Uses:

- **Turning off generators, power units, welding transformers, breathing air units, pumps, etc.**
- **Monitoring of closed spaces and areas**
- **Cleaning activities**
- **Water purification**
- **Petrochemical industry**
- **Shipyards**
- **Shutdowns**
- **Transportation, distribution, offloading**
- **(Container) fumigation**
- **Hospitals**
- **Construction and earthmoving**

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AirWatch general

Measurements	280 x 165 x 137 mm H x W x D
Weight	2.0 kg
Attachment	Default back cover with 2 magnets.
Sensors**	4 gases. Default sensors fitted: O_2, LEL, CO, H_2S
Visible alarm	Green LED for SAFE indication Red LED for ALARM indication Optional 93 dB alarm bar and sounder
System communication	Stand-alone by way of cable type 1 or 2, RS 485 or wireless by way of 2.4 GHz ISM band, IEEE 802.15.4 standard compliant.
Wireless range	300 metres (with line-of-sight)
Detectors	Supports up to 50 remote detectors
Keys and display	2 metal operating buttons LCD text screen with 2 lines and background lighting
Language	English
Sampling	Built-in pump
Power supply	9-36V DC Uninterrupted power supply for replacement of the supply or switching on the battery pack.
Potential-free contact	Max. 24V DC, 2A
Optional backup battery	Delay time 60 minutes maximum
IP rating	IP65
Operating temperature	-20°C to 45°C
Humidity	0-95% relative humidity, non-condensing
Data logging	SD card (4GB, optional)
Certification	NON-ATEX FCC: QNT-PT2400S20-A CE EN 300320 (RTTE guideline)

AirWatch pump

Operating flow	400-800 ml/min with an adjustable upper and lower flow alarm
Free flow	1,900 ml/min
Flow at 100 mbar	920 ml/min
Max. pressure	400 mbar
Flow at -100 mbar	850 ml/min
Max. vacuum	-400 mbar
Maximum sampling hose length	50 metres
Max. current	80 mA
Pump alarm	<100 ml/min

Sensor specifications**

Gas	Range	Resolution	Response t_{90}
Flammable gases (LEL)	0-100% LEL	1% LEL	15 sec
Oxygen (O_2)	0-25 vol.%	0.1 vol.%	15 sec
Carbon monoxide (CO)	1-2,000 ppm	1 ppm	30 sec
Hydrogen sulphide (H_2S)	0.1-100 ppm	0.1 ppm	30 sec
Ammonia (NH_3)	0-100 ppm	0.5 ppm	60 sec
Sulphur dioxide (SO_2)	0.1-50 ppm	0.1 ppm	35 sec
Chlorine (Cl_2)	0.05-20 ppm	0.05 ppm	60 sec

**Contact 7Solutions for other sensors.
All specifications are subject to change and improvement without prior notice.

AirWatch connection cable type 1.

Amphenol female 7 pins molex

Earth	DC negative
1	DC positive 9/36 volts DC
2	Com
3	NC
4	NO
5	RS-485 A
6	RS-485 B

Cable & wiring numbers

Y/G	DC negative
1	DC positive 9/36 volts DC
2	Com
3	NO
4	NC
5	RS-485 A
6	RS-485 B

Amphenol male 6 pins

A	DC positive 9/36 volts DC
B	DC negative
C	
D	NO
E	Com
F	NC

AirWatch connection cable type 2.

Amphenol female 7 pins molex

Earth	DC negative
1	DC positive 9/36 volts DC
2	Com
3	NC
4	NO
5	RS-485 A
6	RS-485 B
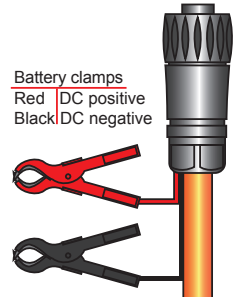
Battery clamps

Red	DC positive
Black	DC negative

Cable & wiring numbers

Y/G	DC negative
1	DC positive 9/36 volts DC
2	Com
3	NO
4	NC
5	RS-485 A
6	RS-485 B

Amphenol female 3 pins

A	Com
B	NO
C	NC

AirWatch chassis connector

23mm
23mm
ø 3mm
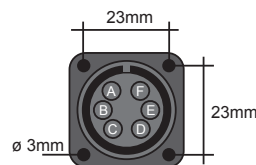
Connector female 6 pins

A	DC positive 9-36 volts DC
B	DC negative
C	
D	NO
E	Com
F	NC

Connector dummy caps. 3 female & 6 male pins

Amphenol male 6 pins

A	
B	
C	
D	
E	Bridged
F	Bridged

Amphenol female 3 pins

A	
B	Bridged
C	Bridged

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