

NORTH EAGLES

SWISS INSTRUMENTS

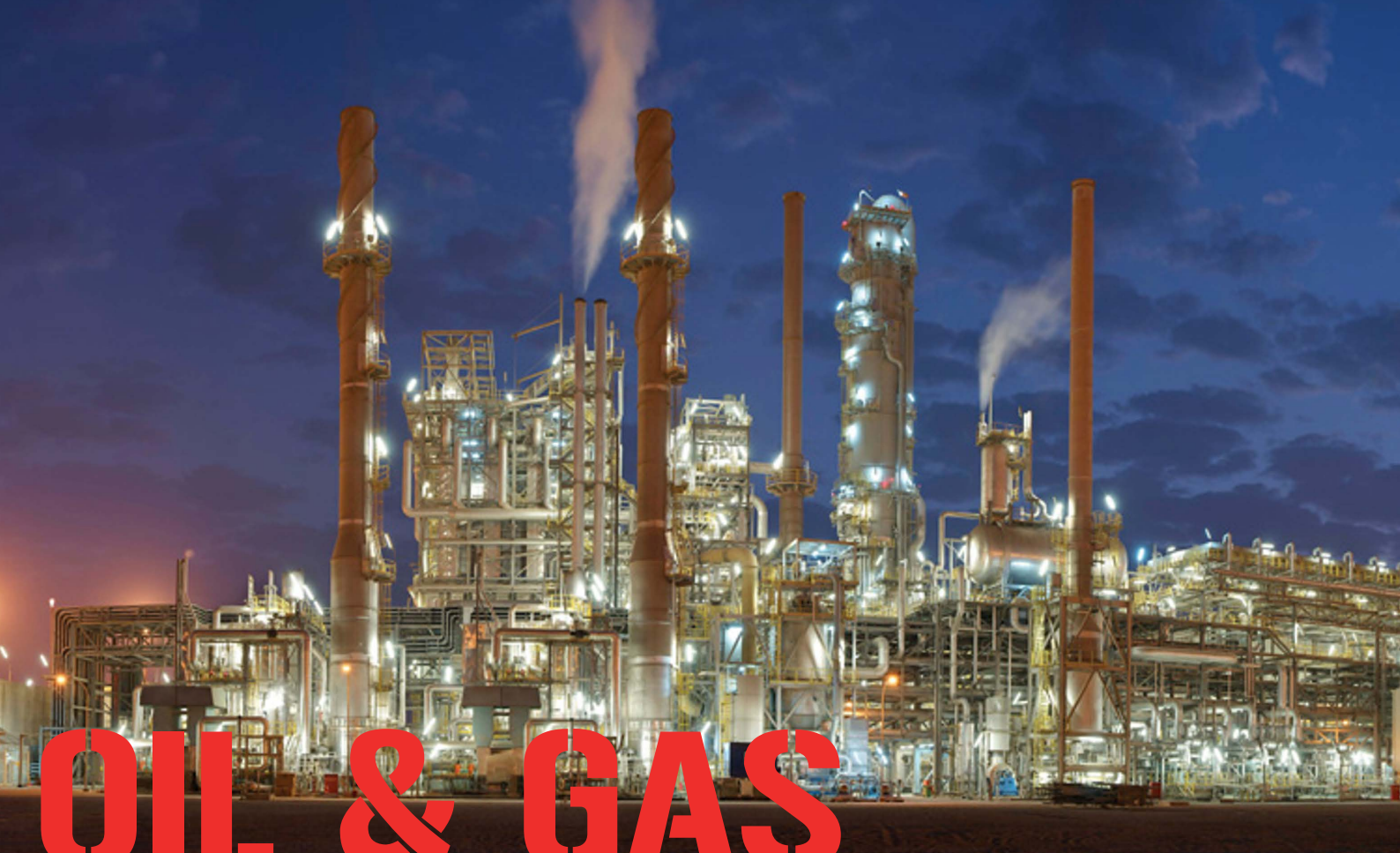


H_2S

HYDROGEN SULFIDE
PROFESSIONAL
GAS DETECTOR

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OIL & GAS INDUSTRY

The **Oil & Gas** industry is always facing the presence of a lethal gas, hydrogen sulfide (H_2S). Therefore many detection systems are set up for all workers security.

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HIGH TECH DETECTORS

NORTH EAGLES is proposing a unique personal H_2S detector miniaturized inside a watch in a world premiere. Using the latest generation of electrochemical sensor, the H_2S detector watch combines ergonomics, readability and is stamped with the Swiss Made quality label.

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SMART SECURITY DEVICE

H₂S DETECTOR & ALARM TRANSMITTER

- Electrochemical sensor
- Up to 4 years lifetime sensor and battery, replaceable
- Nominal range: 0 - 100 ppm
- Temperature range : -40°C - +50°C
- 96 db audio alarm, flash light on the dial and internal vibrator

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CRUDE BLACK



BEACON ORANGE



DERRICK STEEL



real size watches

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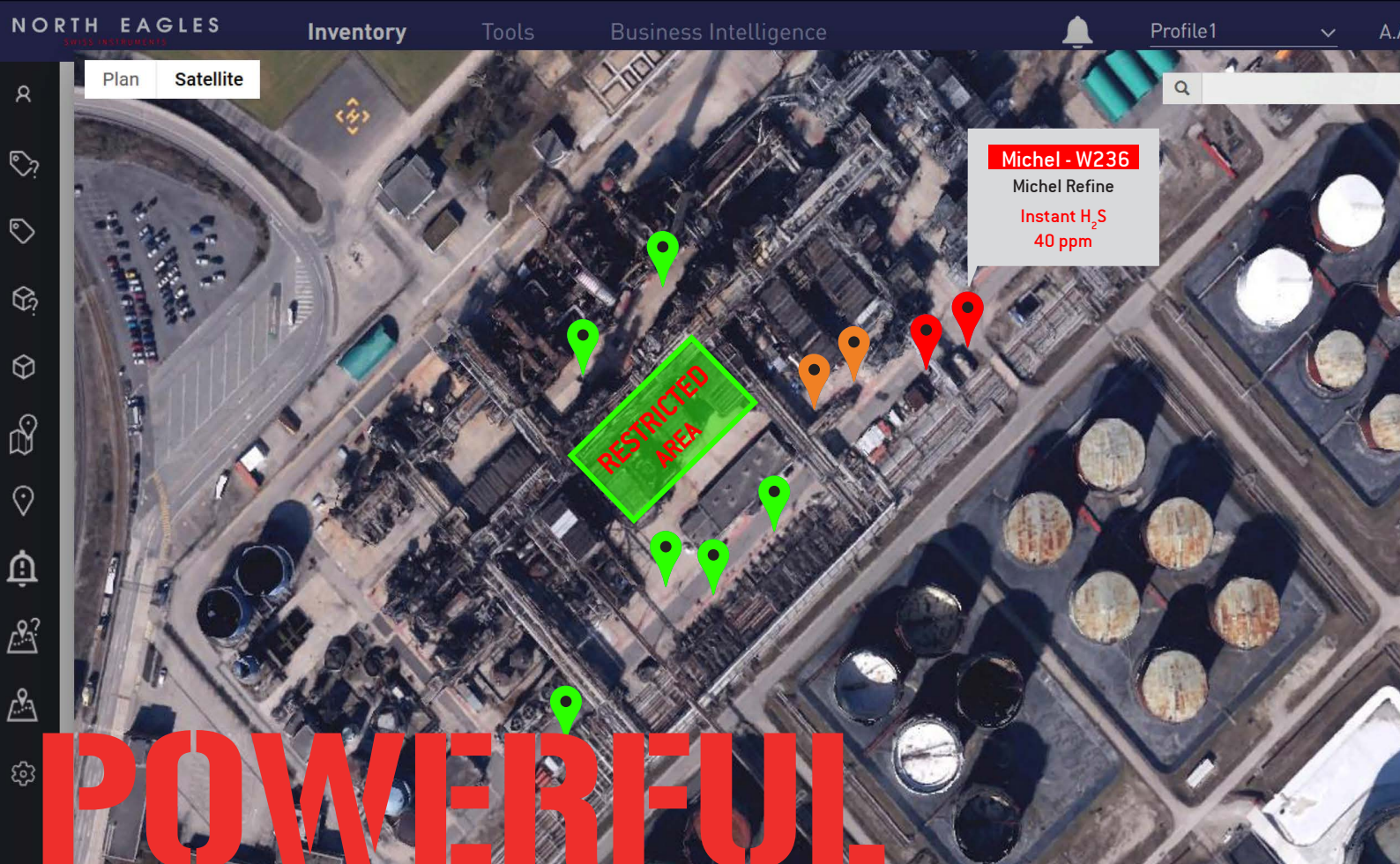
TRANSMISSION

The gas detector watch transmits the alarm, in real time, to the control room via the NORTH EALGES' SmartNetwork.

The watch is able to transmit the user's ID, his geo-location, the instant gas concentration.

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The NORTH EAGLES' Location Base Sytem (LBS) is a powerful software able to centralize, monitor and display the activity of the plant, providing a real time and a fully digitalized information.

Restricted areas monitoring is a native function of NORTH EALGES' software.

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THE NORTH EAGLES' SMART NETWORK

REAL TIME ALARM TRANSMISSION

In order to shorten the reaction time between an H_2S leak and the emergency response, the NORTH EAGLES gas detector watch connects to the NORTH EAGLES' Smart Network and transmits the alarm in real time to the control room.

VERY LONG RANGE COMMUNICATION NETWORK & LIGHT INFRASTRUCTURE

The high penetrating transmission capabilities deployed by the NORTH EAGLES' network, up to 7km in line of sight between the worker and the gateway, reduces drastically the number of access points on site. This way, the NORTH EAGLES' Smart Network infrastructure is very light and cost effective.

WORKFORCE & ASSET TRACKING

The system provides permanently a real-time geolocation of each worker, outdoor and indoor, including his elevation on a multilevel platform. On the same principle assets can be also geolocated.

RESTRICTED AREAS

Virtual restricted areas can be created on the maps of the site. An alarm will be automatically generated as soon as a unauthorized person or asset is penetrating the area.

MAN DOWN TRACKING

The watch combined with the NORTH EAGLES' badge is able to provide to the system a loss of verticality of the worker. Hard falls and soft falls can be detected.

CENTRALIZED PLATFORM

The network can be completed with different types of sensors such as: temperature, pressure, flow, light intensity, wind speed, smoke detectors, etc. In addition, all the existing sensors and detectors on site, can be connected to the NORTH EAGLES' Smart Network and monitored on the same application.



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SECURITY CERTIFICATIONS

CERTIFICATIONS

ATEX : II 1G Ex ia IIC T4 Ga

IECEX: Ex II 1G Ex ia IIC T4 Ga

UL/CSA: CL I Div 1 Gp. A, B, C, D T4
CL I ZN O, Gr. IIC T4



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UNIQUE SELLING PROPOSITIONS

1. Swiss made watch with integrated H₂S gas detector.
2. Connected watch able to transmit the alarm to the control room via a smartphone or via the NORTH EAGLES dedicated network.
3. Battery life time up to 4 years and replaceable.
4. Sensor life time up to 4 years and replaceable.

SECOND LEVEL ARGUMENTS

5. Wrist instrument, closer to the ground , therefore closer to the source of gas.
6. The loss of your watch will be instantly noticed (not the case with a clipped detector).
7. By moving the arm the worker will cover a bigger radius with its wrist than with a clipped detector.
8. Less chances to forget your detector, a watch is a real personal belonging worn every day.

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EAGLE 1 - GAS DETECTOR WATCH

SPECIFICATIONS (NON EXHAUSTIVE, TYPICAL VALUES, SUBJECT TO CUSTOMIZATION)

WATCH

Time display	2 hands and 1 disc with enhanced contrast
Control	2 pushers
Dimensions	64 x 41 x 25 mm / 2.44 x 1.61 x 0.98 in
Material	High tech polymer permanently static dissipative
Glass	Sapphire crystal, scratchproof
Weight	115 gr / 4.05 oz
Ingress protection	IP 66
Movement type	NORTH EAGLES Type GD110

BATTERY

Battery type	Li-SOCl ₂
Voltage	3,6V
Typical battery life	up to 4 years, replaceable

H₂S SENSOR

Type	Electrochemical
Lifetime	Up to 4 years in air, replaceable
Nominal range	0 - 100 ppm
Operating temperature	-40°F to +122°F/-40°C to +50°C
Relative humidity, non condensing	15% - 90%
Pressure range	Atmospheric +/- 10%

ALARMS

Audio alarm	96 db (@10cm/3.94 in) buzzer
Visual alarm	High density flashing LED
Vibrating alarm	Internal vibrator
In real time to the control room	When connected to NORTH EAGLES' Smart Network

EVENTS LOGGING

Most recent events	100 events
Continuous logging	7 days

WARRANTY

Two years from the activation, under normal operation

CERTIFICATIONS

ATEX
IECEx
UL/CSA



FCC
CE

II 1G Ex ia IIC T4 Ga
EX II 1G Ex ia IIC T4 Ga
CL I Div 1 Gp. A, B, C, D T4
CL I ZN 0, Gr. IIC T4
IC: 24014-110001 / CAN ICES-3(B)/NMB-3(B)
European Conformity
EMC Directive 2014/30/EU
RED Directive 2014/53/EU
ATEX Directive 2014/34/EU

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EAGLE DETECTION LTD

RUE DU MARCHÉ 7
2520 LA NEUVEVILLE
SWITZERLAND

T. +41 32 751 29 64
F. +41 32 751 29 35
info@northeagles.ch
www.northeagles.ch