ATEX Zone 1 smartwatch

The IS-SW1.1 is an ATEX/IECEx-certified smartwatch with all safety-relevant functions for Zones 1/21. The smartwatch can be paired with i.safe MOBILE devices via Bluetooth and functions as a complementary hands-free wrist display. The IS SW1.1 can emulate various RFID smartcards for access control systems and simultaneously monitor the user's vital signs pulse and oxygen saturation.

With the IS-SW1.1 industrial smartwatch, it is now possible to use a "personal device" established in everyday life in the designated ATEX/IECEx Zones 1/21 of the oil & gas, chemical and pharmaceutical industries. The smartwatch, developed by the i.safe MOBILE R&D team in Germany, displays all important messages, hazard messages and measured values directly on the user's wrist.

Since a smartphone no longer has to be picked up to read short messages, this feature represents a decisive contribution to employee safety. Furthermore, in an emergency situation, it is possible to make an emergency call directly via the SOS button of the smartwatch on the wrist (connected to the emergency app of the smartphone) – the employee in distress can be located via GPS. The monitoring of the vital functions pulse and oxygen saturation additionally complement the safety concept. Coupled with a push-to-talk-enabled smartphone, users can employ the smartwatch as a remote PTT button. This means that all safety-relevant functions are available via the smartwatch on the employee's wrist.

The RFID chip integrated in the smartwatch can not only read various RFID tags, but also emulate different contactless chip cards (e.g. MIFARE) – the watch can thus be used in a highly flexible manner. With the reading function, RFID tags attached to machines or sensors, for example, can be read and then the associated measured values can be shown directly on the display of the clock. Due to the possibility of RFID card emulation, the watch is

Image: i.safe MOBILE

suited for commercially available access control, time recording and payment function systems such as those based on MIFARE. ∎

https://www.isafe-mobile.com/en/ products/products-zone-1/21/is-sw11

Ex-proof robot inspection solution now available

Image: ANYbotics

ANYbotics' scalable robotic inspection solution for the oil & gas and chemical industries, ANYmal X, is now available to the industry. Participants in the ANYmal X Early Adopter Program (EAP) have been employing the ANYmal X inspection solution for several months. Asset operators beyond the EAP can now order ANYmal X and include Ex-proof, autonomous and mobile robots in their inspection and operational planning.

Compared to tracked and wheeled robots, legged robots can provide the mobility and autonomy required to navigate the intricate and complex multi-level structures of oil & gas and chemical facilities, including industrial stairs and confined spaces. ANYmal X is powered by AI-based locomotion, navigation, and inspection intelligence, which allows it to conduct automated inspections in complex environments.

The EAP has enabled end-users to implement the ANYmal X inspection solution at their Ex-rated facilities. One of these is energy company PETRONAS which partnered with ANYbotics on ANYmal X in 2019. The PETRONAS ANYmal X roll-out program has included upstream platforms, terminals, and downstream plants. ANYmal X is currently on deployment at a PETRONAS offshore platform in Malaysia, focusing on integration to existing workflow and scale-up.

The first deliveries of ANYmal X units to selected customers will commence in mid-2023. With over 500 ANYmal X units already reserved by its EAP participants, ANYbotics has already implemented a program through its global manufacturing partner network, to scale production output to meet future demand. ∎

https://www.anybotics.com/anymal-ex