



RealWear Navigator Z1 - ATEX-certified data goggles for potentially explosive atmospheres



Smart glasses for potentially explosive atmospheres such as in the oil and gas industry

The Navigator Z1 is certified for ATEX Zone 1 and other international standards such as IECEx and NEC500



Can be combined with safety helmets, safety caps as well as safety glasses and weighs only 383 g

The ergonomic design ensures a high level of wearing comfort over longer periods of use.



Integrated thermal imaging camera for simple inspections

The thermal imaging camera allows thermal images to be analysed in real time. This is particularly useful for inspecting machines, pipes or systems in order to recognise potential problems at an early stage.



Ready for all current and future applications with 5G, Wi-Fi 6 and AI chip

The fast data connections enable smooth exchange in real time, ideal for remote support and complex industrial applications.



Voice control with up to 95 dB ambient noise

RealWear Navigator Z1



Enables precise and trouble-free operation in all working environments.

Features

Display: HD (1280 x 720 px), 24° field of view

Audio: 4 microphones, 94 dB loudspeaker

Voice control: 18 languages

Camera: 48 MP, image stabilization, LED light

Protection: ATEX Zone 1 and CSA C1/D1, IP66, drop-proof up to 2 meters

Battery: 6 - 8 hours, replaceable without interruption

Connectivity: Wi-Fi, Bluetooth

Additional features: GPS, eCompass, 3-axis acceleration, gyroscope, fingerprint sensor

Operating system: Android 12

Processor: Qualcomm QCS6490

Memory: 128 GB internal memory / 8 GB RAM

Operating temperature: -20 - 55 °C

Weight: 383 g

Optional accessories

Helmet clips

Head straps

LTE / 4G modem

Chargers

Bags and cases

Thermal camera

Core platform and functions

Operating System	Android 12 (AOSP) + WearHF® hands-free interface
Chipset	Qualcomm® QCS6490
Memory	128 GB Internal Storage / 8 GB RAM
Included Applications	Document Navigator, Camera with Barcode Reader, Audio Recorder, Video Recorder, Webpage Viewer, Cloud Sync, Media Player, Calculator, Pedometer, Timer
Languages Supported	Chinese (Cantonese, Mandarin-Simplified and Traditional), Czech, Danish, Dutch, English (American, Australian, British, Indian), French, German, Indonesian, Italian, Japanese, Korean, Norwegian, Polish, Portuguese, Russian, Spanish, Thai, Turkish

Connectivity and sensors

Bluetooth	Bluetooth Low Energy 5.2
Wi-Fi	Wi-Fi 6 (802.11ax) and Wi-Fi 6E (6 GHz)
GPS and Location	GPS, GLONASS, NavIC, BeiDou, Galileo, QZSS, and SBAS
IMU	9-DOF (3-axis accelerometer, magnetometer, and gyroscope), software enhanced stabilization

Battery

Capacity	2550 mAh Li-Ion; removable and rechargeable (Outside of Zone 1)
Battery Life	Full shift with typical use

Physical characteristics

Weight	383g
Ruggedization	Intrinsically Safe (ATEX Zone 1 and CSA C1/D1), 2 meter drop tested, IP66, MIL-STD-810H
Dedicated keys	Power key, application specific action key
Ports	3.5mm audio, 1 USB-C for data and charging
Boom arm	Adjusts six ways for all head sizes, left or right eye compatible, display flips out of way when not in use
Operating Temperature	-4° F to +131° F / -20° C to +55° C

Display

Type	24° field-of-view, 24-bit color LCoS, 0.35 inch diagonal, outdoor visible
Resolution	HD (1280x720)

Audio

Microphones	4 digital microphones with active noise cancellation
Speaker	Accurate voice recognition even in 100 dBA of typical industrial noise

Multimedia

Camera	48 MP Sensor, PDAF with LED flashlight, modular (removable outside of Zone 1)
Video	Up to 1080p @ 60fps, >6X zoom in HD, video stabilization. codecs: VP8, VP9, H.264, H.265 HEVC

Accessories

Included	Intrinsically Safe inline safety box charging cable, works with most RealWear Navigator accessories including mounting solutions, Intrinsically Safe hearing protection, replacement clips, and more. Single Battery Charger and Thermal Camera Charger are planned future accessories. Not all accessories are rated for IS zones.
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