Ultra-wideband

Intelligent Proximity Alert System

IPAS SE

High Precision UWB
Precise distance measurement powered by UWB technology

Bidirectional Multi-mode Alert
Complete visual, sound, and vibration alerts for pedestrians and drivers

Customizable Alert Shaping
Optimized alert shapes based on vehicle dynamics and environmental factors

User-Friendly Setup
Plug-and-play installation with multi-platform support (PC & mobile app)

Proactive Safety Extension
Vehicle control and Infrastructure Activation based on event detection

Safety-as-a-Service
Strategic analytics and predictive insigh ts via seamless telematics



IPAS is an intelligent proximity alert system designed to prevent collisions between vehicles and pedestrians in industrial environments. Utilizing ultra-wideband (UWB) wireless communication technology, it accurately measures the distance between vehicle and pedestrian tags, providing bi-directional proximity alerts to both pedestrians and drivers. This system effectively prevents potential collision and crush accidents in workplaces.

IPAS SE considers various factors such as vehicle direction, speed, and the working environment to allow for customized configuration of danger and caution zones tailored to each industrial environment. This ensures the creation of a safer and more efficient work environment.

Pedestrian Collision Avoidance

Vehicle ↔ Pedestrian



Vehicle Collision Avoidance

Vehicle ↔ Vehicle



Crossway Collision Avoidance

Zone ↔ Vehicle

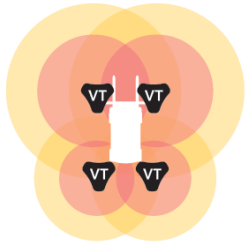


Standard Mode (S-Mode)

Single VT



Multi VTs



Caution/Danger zone settings based on the **distance** between UWB tags.
(Supporting up to 4 VTs in Multi VTs Mode)

Blind Zone Alert

Vehicle → Zone



Safety Zone

Vehicle → Zone



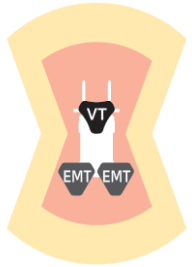
Proactive Safety Extensions

Infrastructure Activation

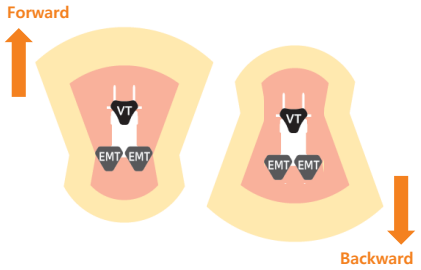


Extended Mode (E-Mode)

Static Shaping



Dynamic Shaping

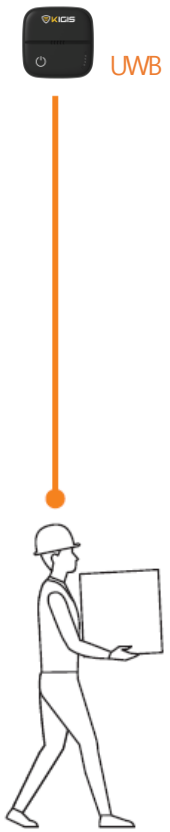


Advanced Caution/Danger zone based on **distance** and **angles**.
Highly adaptive shaping ensures optimized alerts for any environment.

Components

IPAS SE

Pedestrian Tag



Worker

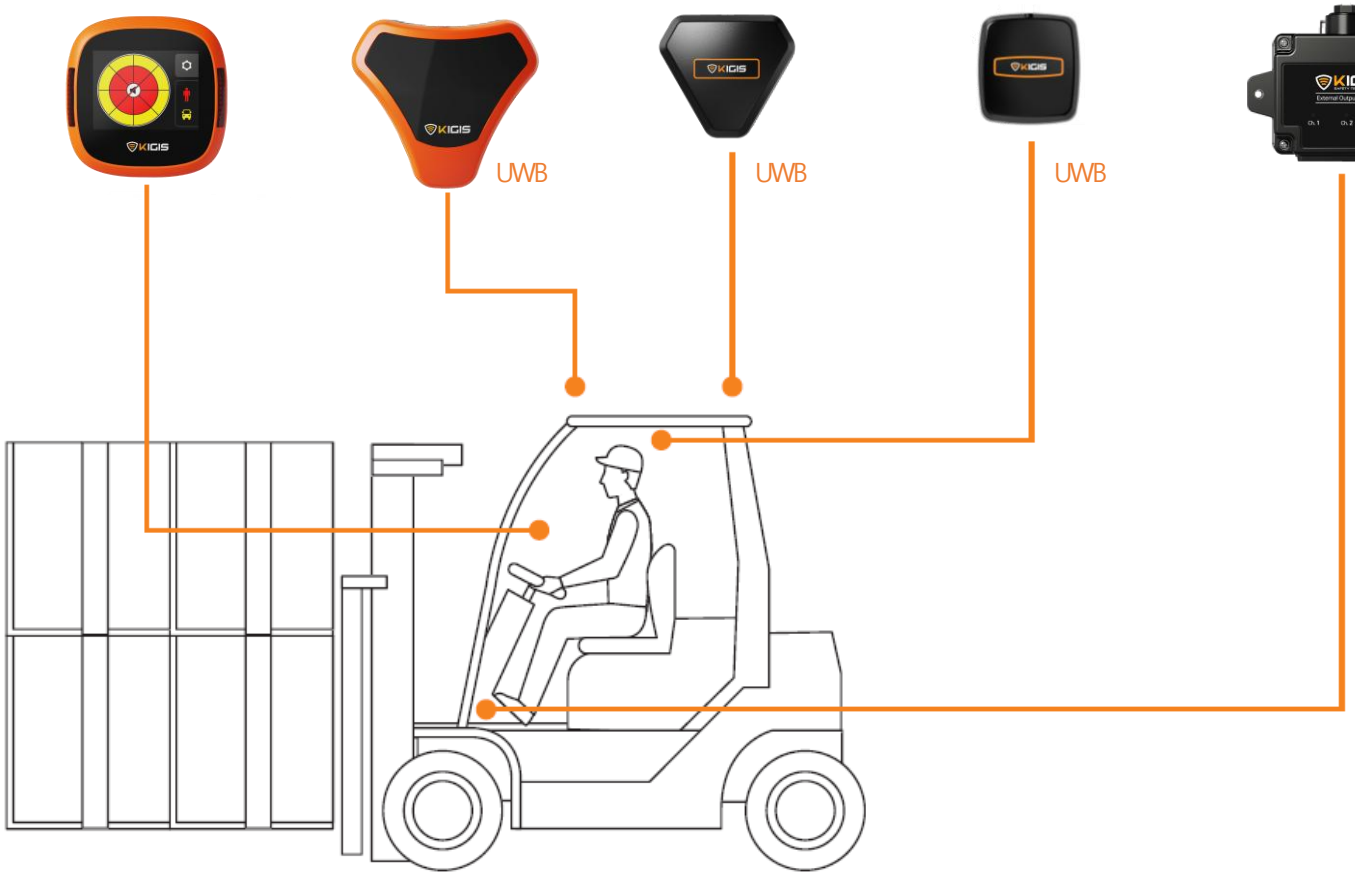
Indicator+

Vehicle Tag

E-Mode Tag

Driver Zone Tag

External Output Device



Vehicle

Zone Tag



Flashlight Zone Tag



Infrastructure



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