



# IPAS

## INTELLIGENT PROXIMITY ALERT SYSTEM

IPAS is designed to reduce the risk of collision between pedestrians and moving vehicles in your workplace.

The system uses the cutting-edge RF technology to precisely measure the distance between vehicles and pedestrians and provides a highly reliable collision warning.



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# IPAS INSTALLATION · CONCEPT MAP



## CROSSWAY ZT (ZONE TAG)

- Detects approaching vehicles
- Offers audible alarm and LED signs
- Projects spot light onto the floor
- Installed at multi-way intersection (Ceiling Mounted)



## FLASHLIGHT ZT (ZONE TAG)

- Detects approaching vehicles
- Offers audible and visual alarm to surrounding workers
- Installed in various places



## PT (PEDESTRIAN TAG)

- Detects approaching vehicles and provides proximity alert to pedestrians
- Configurable and rechargeable



## VT (VEHICLE TAG) / INDICATOR

- Provides proximity detection among pedestrians and vehicles
- [Indicator]**
- Offers audible and visual alarm
- Provides distance/volume setting
- Installed on dashboard inside the driver's cabin

# IPAS OPERATION DIAGRAM





## IPAS VT (VEHICLE TAG)



Installed on top of vehicle, Vehicle Tag detects Pedestrian Tag and Zone Tag based on UWB (Ultra Wide Band) Technology.

- **Installation** : Exterior
- **Interaction** : PT, ZT, VT
- **Alarm** : Voice Alert via Indicator



Specification	VT (Vehicle Tag)
Power	12/24Vdc Input (9/32Vdc)
Current Consumption	300mA
Interface	CAN Bus 2.0
Dimension / Weight	177.8×84.1×86mm / 444g
Mount Type	Magnet Mount
Frequency	3993.6MHz
Bandwidth	499.2MHz
Operation Temp / Storage Temp	-30 ~ 85°C / -40 ~ 85°C
Enclosure	IP65



Order NO. PAS-K01-1100

## IPAS INDICATOR



Installed inside the cabin, Indicator provides voice alert when Vehicle Tag detects other tags. This device is applicable for configuration of warning range and volume level.

- **Installation** : Interior (Connected with VT)
- **Range** : Configurable up to 10m (Caution/Danger Area of Vehicle Tag)
- **Alarm** : Pedestrian Caution Range - Repeating "Watch Out"  
 Pedestrian Danger Range - Repeating "Danger"  
 Vehicle Caution Range - Repeating "Watch Out"  
 Vehicle Danger Range - Repeating "Danger"



Specification	Indicator
Power	12/24Vdc Input (9/32Vdc)
Current Consumption	500mA
Interface	CAN Bus 2.0
Sound Level / @	92dB / 0.1m
Dimension / Weight	93×130.5×47.5mm (Bracket Include) / 207g
Mount Type	Screw Fix (or Adhesive Tape)
Operation Temp / Storage Temp	-30 ~ 85°C / -40 ~ 85°C
Enclosure	IP65



Order NO. PAS-K01-3001 (English) / PAS-K01-3002 (Spanish)

## IPAS PT (PEDESTRIAN TAG)



When people enter Caution/Danger Range, Pedestrian Tag makes vibration and sound alarm. This device is configurable and rechargeable.

- **Installation** : Carried by people (Helmet Holder / Armband)
- **Interaction** : VT
- **Alarm** : Caution Range - "Beep-Beep" sound, Vibration  
 Danger Range - "Weeoo Weeoo", Vibration  
 Low Battery - "Beebeep Beebeep" 5 times every 10 minutes



Specification	PT (Pedestrian Tag)
Sound Level / @	87dB / 0.1m
Battery	Li-Polymer 950mA
Operation Voltage	3.7V
Charge Interface	Micro USB Type-B (5V/1A)
Charging Current	0.85mA
Charging Time / Operatoin Hour	About 1h 30m / 6 days (8 hours/day)
Dimension / Weight	40×72×19.5mm / 58.5g
Mount Type	Helmet Clip, Arm Band
Frequency	3993.6MHz
Bandwidth	499.2MHz
Operation Temp / Storage Temp	-20 ~ 55°C / -20 ~ 55°C
Enclosure	Waterproof

Order NO. PAS-K01-0100



## IPAS CROSSWAY ZT (ZONE TAG)



When multiple vehicles are entering intersection simultaneously, Crossway Zone Tag makes voice alert and projects spot light onto the floor by detecting Vehicle Tag.

- **Installation** : Attached on the ceiling of the intersection
- **Interaction** : VT
- **Alarm** : No Vehicle - ○ Sign Marked  
 1 Vehicle - ▽ Sign Marked, LED Spot(Flashing), "A vehicle is approaching. Watch Out"  
 +2 Vehicles - ✕ Sign Marked, LED Spot(Flashing), "Another vehicle is approaching. Watch Out"



Specification	Crossway ZT (Zone Tag)
Power	110/220Vac (90~264Vac)
Dimension / Weight	380×380×281.5mm / 5,500g
LED Spot Color	● Red / ● Blue
Mount Type	Wire (Indoor Only)
Frequency	3993.6MHz
Bandwidth	499.2MHz
Operation Temp / Storage Temp	-30 ~ 85°C / -40 ~ 85°C



Order NO. PAS-K01-5001 (● English) / PAS-K01-5002 (● Spanish)  
 PAS-K01-5101 (● English) / PAS-K01-5102 (● Spanish)

## IPAS FLASHLIGHT ZT (ZONE TAG)



Installed at vulnerable area to collision, Flashlight Zone Tag provides audible and visual alert to adjacent workers.

- **Installation** : Vulnerable Area
- **Interaction** : VT
- **Range** : 5 ~ 30m (5m Span)
- **Alarm** : Default - "Beeeeeep—", Flash Speaker (Optional) - Repeating "Watch Out"



Specification	ZT (Zone Tag)
Power	110/220Vac (90~264Vac)
Current Consumption	500mA
Interface	CAN Bus 2.0
Sound Level / @	88dB / 1m
Dimension / Weight	122.7×140.6×111.5mm / 483.5g
Color	● Red / ● Amber
Mount Type	Magnet Mount
Frequency	3993.6MHz
Bandwidth	499.2MHz
Operation Temp / Storage Temp	-30 ~ 85°C / -40 ~ 85°C
Enclosure	IP65



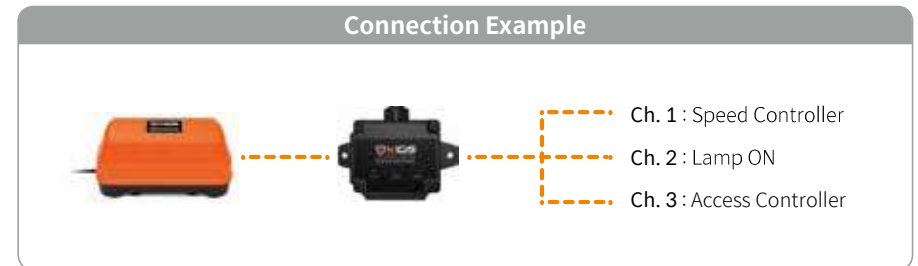
Order NO. PAS-K01-4201 (● English) / PAS-K01-4202 (● Spanish)  
 PAS-K01-4301 (● English) / PAS-K01-4302 (● Spanish)

## IPAS EOD (EXTERNAL OUTPUT DEVICE)



EOD (External Output Device) is an intermediate device which allows additional devices to operate according to IPAS warning signal.

EOD can be used with various devices such as speed controller, lamp, alarm and etc.



Specification	EOD (External Output Device)
Power	12/24Vdc Input
Current Consumption	100mA
Interface	CAN Bus 2.0
Maximum Load Voltage	32V
Maximum Load Current	5A
Dimension / Weight	131×95.6×38mm / 203g
Mount Type	Screw Fix
Operation Temp / Storage Temp	-30 ~ 85°C / -40 ~ 85°C



Order NO. PAS-K01-7400