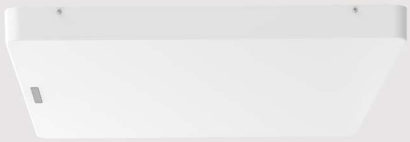
keonn Retail RFID Systems

AdvanSafe-300 ™

Overhead RFID loss prevention system



Keonn Technologies S.L.

Tel: +34 931 814 477
info@keonn.com

Barcelona
London
Los Angeles

AdvanSafe-300™
Overhead RFID loss prevention system





Video

Benefits:

- All in one solution: Loss-prevention solution & product detection
- Ultra fast detection
- Improved store aesthetics, by having a store entrance free from obstacles
- Shrinkage reduction
- False alarms reduction with its beam steering technology
- Direction of movement: alarm triggered only when items are leaving the store
- Provides data to detect which products suffer more theft attempts
- Continuous detection area
- One primary unit can be connected to a secondary unit, which reduces costs
- Different LED colors available
- Easy integration with assisted checkouts and self-checkout systems
- Together with AdvanPay and AdvanGo, provides a complete RFID payment + loss prevention solution

Applications:

- Loss prevention at retail stores
- Loss prevention at warehouses

Product overview

AdvanSafe-300 is the only loss prevention system in the market that combines **RFID detection** (beam steering) with a **millimeter wave sensor** (AdvanView). This combination delivers enhanced performance, smarter detection, and more reliable protection:

- Detects the tagged items passing through the entrance, verifying if those items have been purchased, and triggers an acoustic and/or visual alarm if any item has not been purchased
- Differentiates which tagged items are static and which are moving, which reduces false alarms
- Detects if a person is crossing the entrance, which avoids false alarms created by signal reflections or by people getting close to the entrance without crossing it
- Obtains direction of movement, making sure that alarms are only triggered when a person is leaving the store
- Detects which tagged items leave the store, providing valuable information for store analytics

AdvanSafe can use **multiple configurations** for checking if a tagged item has been paid:

- Checks the EAS bit of NXP chips or Impinj Gen2x Protected Mode
- Checks if the EPC code includes a pre-defined pattern that signals that the product has or not been paid
- Checks against the POS database if the product has been purchased
- Checks against AdvanCloud EAS module if the product has been purchased
- Checks bulk theft: trigger an alarm if a certain number of tags are read in a certain time period (e.g. a few seconds)

AdvanSafe uses **primary units** and **secondary units**:

- The primary unit has an integrated reader, antenna, controller, acoustic alarm and visual alarm
- The secondary unit comprises antenna and visual alarm

One secondary unit can be connected up to one primary unit. This reduces costs for stores with wide entrances.

AdvanSafe has several 5V 100mA GPOs and a Relay.

AdvanSafe works with any hard and soft Gen2 RFID UHF tags.
The tag chip and inlay chosen should provide a reading distance longer than the height at which AdvanSafe-300 will be installed in all tag orientations.

AdvanSafe can be ordered in 4 models:

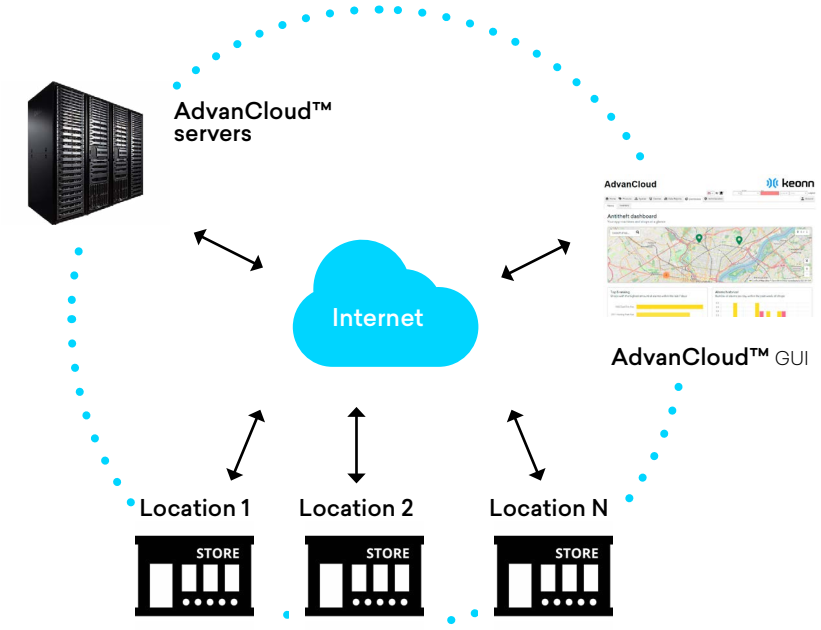
- Suspended wires mount
- Ceiling mount
- Flush installation
- Pole mount

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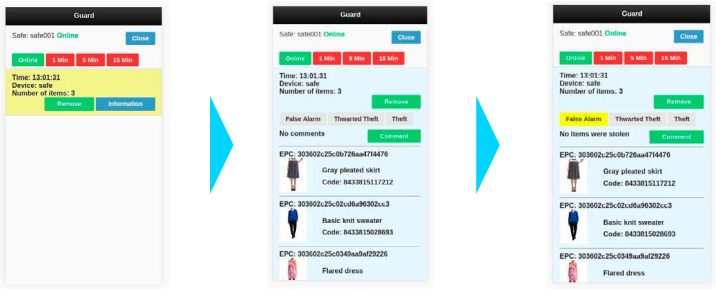
Connection to AdvanCloud

AdvanSafe can be optionally connected to AdvanCloud cloud-based software platform.



The products that trigger an alarm can be shown on a **smartphone** managed by store staff or security staff, in order to:

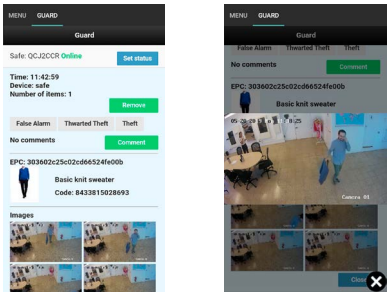
- Thwart theft attempts
- Register the event: false alarm, thwarted theft, theft



This information can then be analyzed for **business intelligence** purposes:

- Theft attempts by day and time of day
- Products that suffer more theft attempts
- Stores with more theft activity
- ...

Optionally, AdvanSafe can be connected to a camera and send images of the person passing by when the alarm is triggered, to any smartphone.

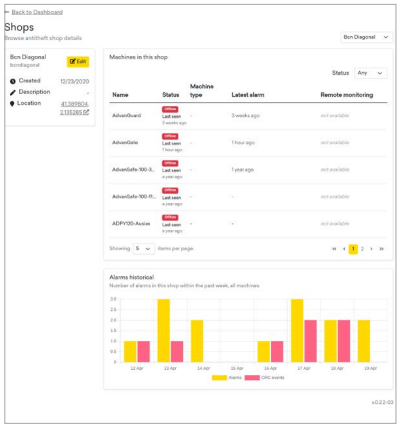


AdvanSafe-300™
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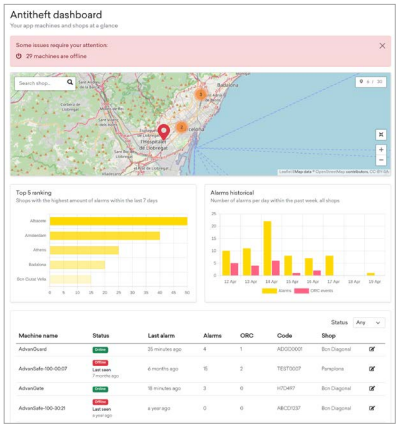


Anti-theft dashboard

If AdvanSafe is connected to AdvanCloud, the status of AdvanSafe as well as the alarms triggered can be monitored through the AdvanCloud loss-prevention dashboard.

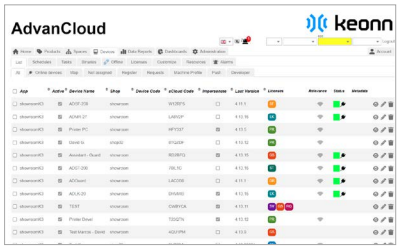


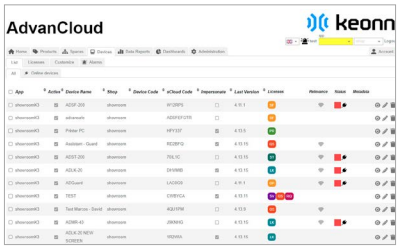
The alarms historical by shops are shown on the dashboard with details of machine status.



The dashboard will show your active systems on the map, providing alarm information.

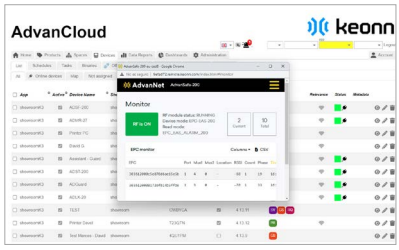
Device remote management





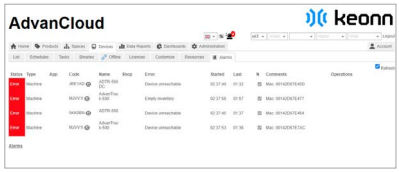
List of devices (online/offline)

Check if devices connected to AdvanCloud are online (green) or offline (red).



Remote Acces to AdvanNet (Keonn RFID readers)

Acces remotely to AdvanNet from AdvanCloud for managing Keonn RFID readers.



Check device health status

Monitor the active device's health with detailed diagnostics of errors.

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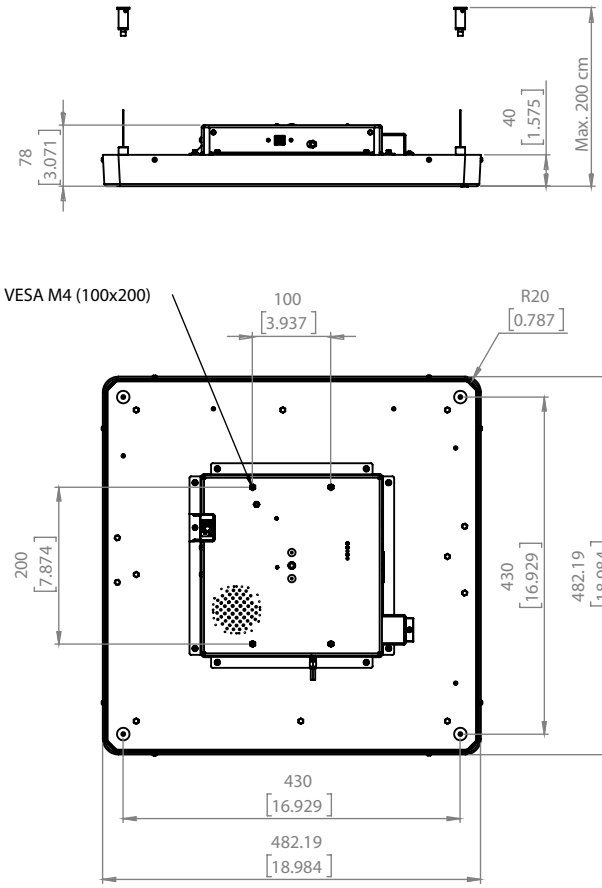


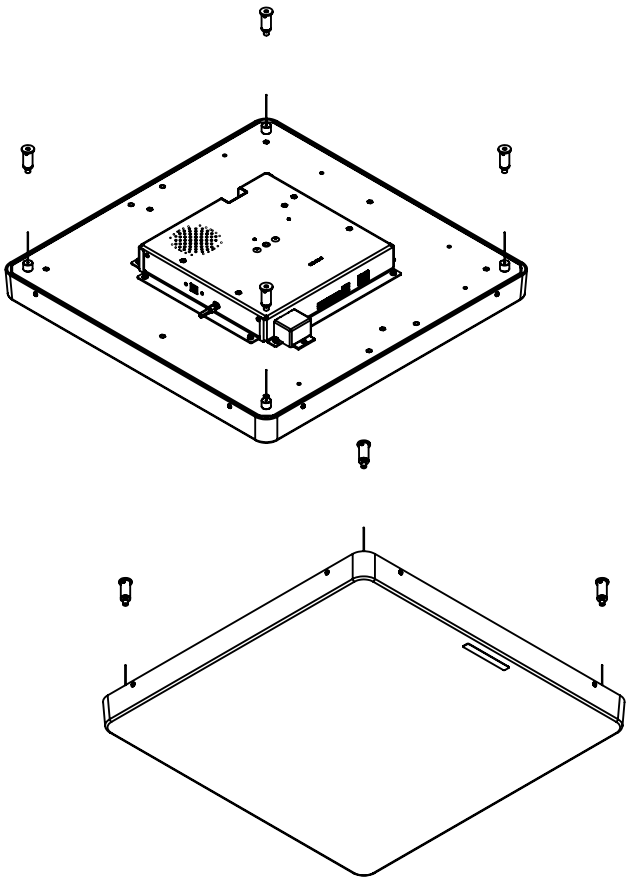
Technical Specifications

Operating Frequency	FCC (NA, SA) (902 - 928) MHz ETSI (EU, IN) (865.6 - 867.6) MHz ETSI UPPER (915 - 921) MHz MIC (KR) (910 - 914) MHz SRRC-MII (P.R.China) (920.125 – 924.875) MHz (1) Australia (AU) (920.750 – 925.250) MHz New Zealand (NZ) (922.250 – 927.250) MHz Israel (IS) (915.0 - 917.0) MHz (2) Japan (JP) (916.8 - 920.8) MHz (3) Brazil (902 – 907.5) MHz (915 – 928) MHz by using channel selection Chile (916 – 928) MHz by using channel selection Peru (916 – 928) MHz by using channel selection Taiwan (922 – 928) MHz by using channel selection Open Region (4) (865 – 869) MHz and (902 – 928) MHz (by using channel selection) (5)
Detection Height	2.5 - 3 m (recommended) Maximum: 3.5 m (Use maximum height with caution. Read distance depends highly on tag model and products being used)
Radiation pattern	Multiple beam
Beam width	90° / 40° (surrounding widths of all beams)
Polarization	Circular
Alarm Light	Light Emitting Diode (LED)
Alarm Audio	Signal Buzzer
Relay output	Dry contact output 24 VDC / 0.5 A / Resistive load
Alarm function Preset	System gives audio and light alarm by detection of any of the EAS supported modes
Power supply	Power over Ethernet
Energy Consumption	< 14 W max., < 3 W idle
Reader Power	Maximum 31,5 dBm (may be limited to conform to country or area regulations) Recommended max. 30 dBm
Radiated power	2 W ERP, 3.2 W EIRP
Interface	Ethernet and USB
Transponder Protocol Standard	EPC Class1 Gen2 / Gen2x
Operating System	Linux
Temperature range	-20°C to +55°C
Dimensions	Suspension mount 482 mm x 482 mm x 78 mm (19in x 19in x 3.1 in) Ceiling mount 482 mm x 482 mm x 92 mm (19in x 19in x 3.6 in) Flush installation 482 mm x 482 mm x 92 mm (19in x 19in x 3.6 in)
Weight	Suspension mount Primary unit: 3.7 Kg (8.2 lb) - Secondary unit: 3.4 Kg (7.5 lb) Ceiling mount Primary unit: 4.2 Kg (9.3 lb) - Secondary unit: 3.9Kg (8.6 lb) Flush installation Primary unit: 4.8 Kg (10.6 lb) - Secondary unit: 4.5Kg (9.9 lb)
Material Housing	Co-extruded ABS acrylic
Color	Off white Black Custom based on volume
Human exposure	EN 50364
EMC	EN 301 489, EN 300 220
Air Interface (EU)	EN 302 208 v1.2

(1) RF conducted power is limited to 30 dBm.
(2) Open channel specified applies to ETSI/FCC versions.
(3) Band is defined as a carrier sub-set from FCC. There is no specific Surface Acoustic Wave (SAW) filter for the band. Given the maximum conducted power there shouldn't be problems with local regulation.

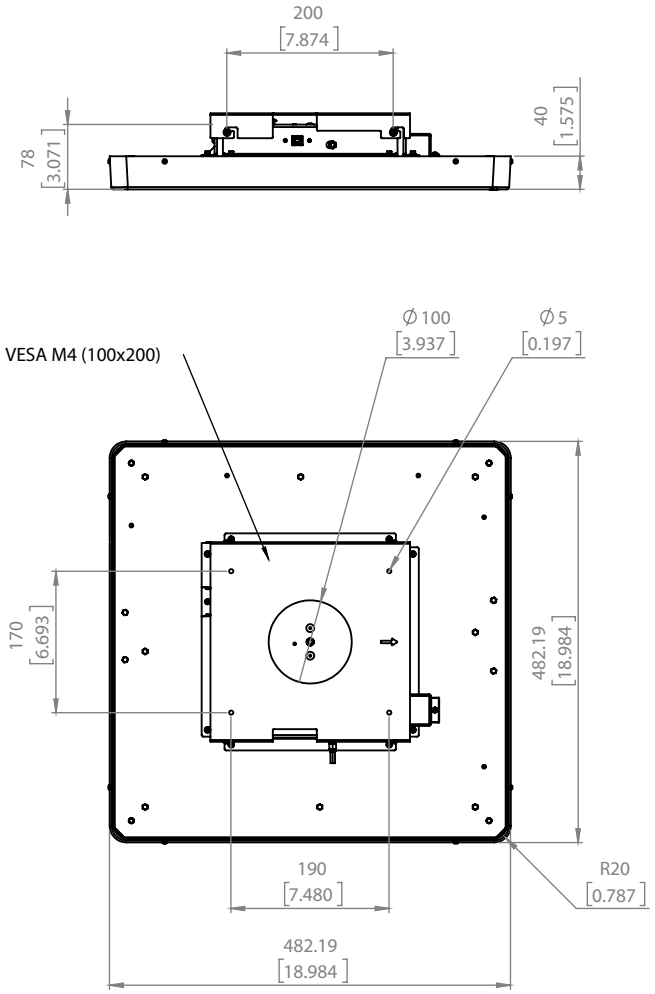
Mechanical specifications of the model with suspended wires

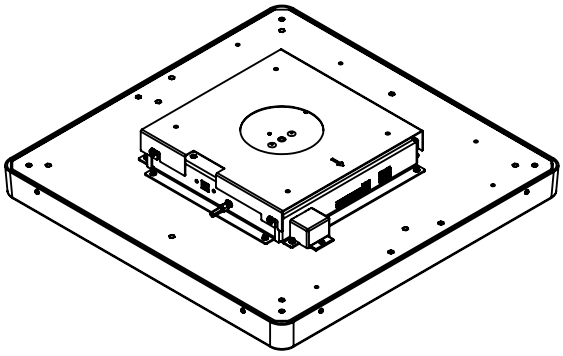


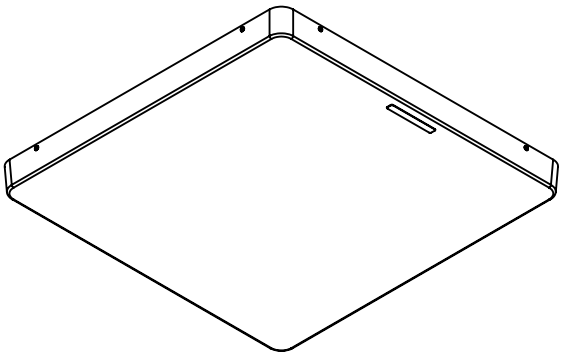


Units in millimeters and [inches]

Mechanical specifications of the model ceiling mount

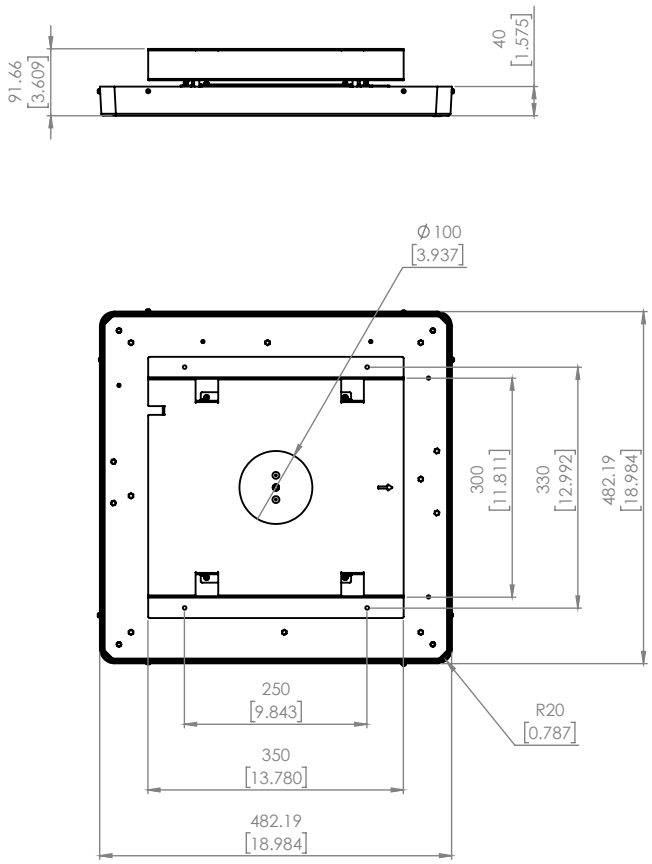


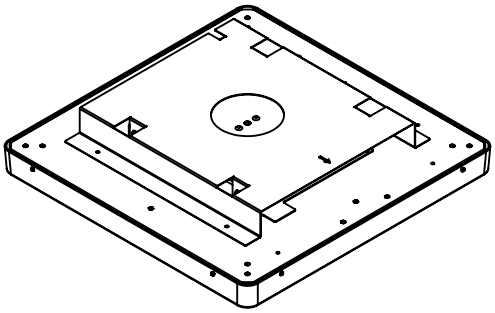


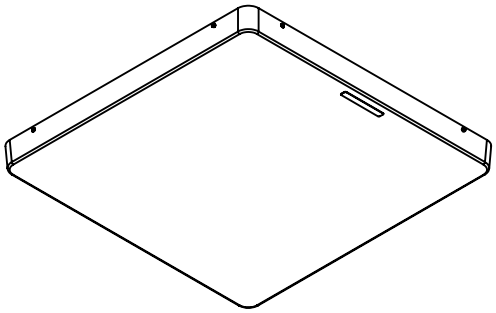


Units in millimeters and [inches]

Mechanical specifications of the flush installation







Units in millimeters and [inches]

Product codes for ordering

ADSF	-	O	T	M	-	FF	-	MMM	
									O = overhead
		O							Overhead
									T = type
			M						Primary
			S						Secondary
									M = mount
				C					Ceiling mount (attached to the ceiling or suspended with a pole, pole not included)
				F					Flush installation
				S					Suspended with metallic wires (included)
									FF = frequency band
						LB			Lower Band (865,6 MHz - 867,6 MHz)
						UB			Upper Band (902,0 MHz - 928,0 Mhz)
									MMM = model
								300	Model number

Examples:

ADSF-OMS-UB-300:

- AdvanSafe
- Overhead
- Primary unit
- Suspension mount
- Upper band
- Model 300

ADSF-OSC-LB-300:

- AdvanSafe
- Overhead
- Secondary unit
- Ceiling mount
- Lower Band
- Model 300

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Keonn Technologies S.L.

Tel: +34 931 814 477
info@keonn.com

Barcelona
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