

# E.C.S

## EDGE COMPUTING SENSOR EMBEDDED SMART SENSOR

ECS is a solution that can be installed in hazardous areas, consisting of fixed sensors with embedded artificial intelligence (Edge-Computing). These smart sensors detect and analyse risk situations in real time. The combination of image processing and artificial intelligence can drastically reduce detection failures and false positives.



### Security

At the cutting edge of technology, the ECS offers flexibility and the best security thanks to its various embedded applications.



### Independent

ECS does not need to be connected to the 4G network (cloud), detection, processing and signalling are built-in.



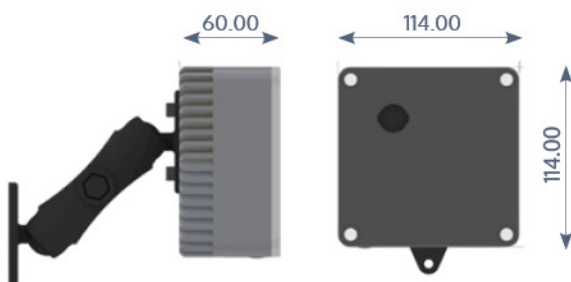
### Innovative

The only solution currently available with built-in Artificial Intelligence for the protection of people and property.



### Efficient

Improved safety, security, quality and productivity on all types of sites (industrial, transport, urban environment, etc.)



## PRINCIPLE OF OPERATION OF OUR SOLUTION

- Edge-Computing (embedded AI)
- Multi-sensor solution (cameras, radar external, etc.)
- Very high detection rate due to its use of dedicated databases
- Proven reliability through the use of specific filters
- Can be installed on sensitive sites and in industrial environments (optional IP 54 housing)
- Quick and easy system configuration
- Complies with image rights with our solution embedded in the sensor
- Fan less architecture for optimal reliability

## CONNECTION, MOUNTING

- Small housing footprint
- Compact size 114 x 114 x 60 mm
- Innovative universal and secure mounting compatible with Ram-Mounts® (More than 500 mounting options)
- Low power use

## ECS CHARACTERISTICS

Relay outputs	
Number of relays	2
Relay type	SPST (normally open)
Maximum switching voltage	AC : 125 V @ 0.3 A – DC : 24 V @ 1A
Dielectric strength between input/output	1.000 VRMS
Contact resistance	100 mOhm max
Typical triggering time	1.1 ms
Max triggering time	5 ms
Typical opening time	0.4 ms
Max opening time	5 ms
Relay status LED on the front panel	Yes
Electrical life at nominal load	1 x 10 <sup>5</sup> cycles @ 1 A, 24 VDC
Mechanical life	5 x 10 <sup>6</sup> cycles

Isolated inputs	
Number of inputs	2
Input voltage	12 - 24 VDC, non-polarised
Input resistance	1 k $\Omega$ @ 0.33 W
Dielectric strength between input/output	5.000 VRMS

Supply voltage	
DC 12V/24V/48V (optionally 230 VAC)	

Power draw	
<ul style="list-style-type: none"> <li>• Typical : 16 W</li> <li>• Peak power draw : 25 W</li> </ul>	

General characteristics	
<ul style="list-style-type: none"> <li>• Power connector: Würth Elektronik 691361300002</li> <li>• Terminal cable section: 18 to 24 (AWG) ; 1,28 to 0.205 (mm<sup>2</sup>)</li> <li>• Input/output connector: Würth Elektronik 691381000008</li> <li>• Terminal cable section: 16 to 24 (AWG) ; 1,31 to 0.205 (mm<sup>2</sup>)</li> <li>• Weight: 950 g</li> <li>• Dimensions: 114 mm x 114 mm x 60 mm</li> </ul>	

Due to changes in standards and equipment, the characteristics given in the texts and images in this document are only binding after confirmation by our services.



**YUMAIN SAS**  
14H rue Pierre de Coubertin  
F - 21000 Dijon  
Tel : 03.80.37.17.95

RCS Dijon 534 620 968  
Share capital € 285.119

## POSSIBLE APPLICATIONS



**Prevention of pedestrian/vehicle collisions on industrial sites** (Forklifts, nacelles, construction equipment)



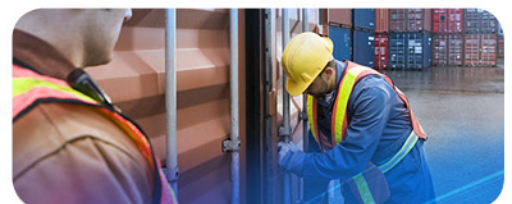
**Automatic analysis and extraction of surveillance images**



**Sécurisation et délimitation des zones de dangers** (Docks: loading / unloading area, dangerous intersections)



**Intrusion detection**



**Wearing of PPE** (Detection of helmet not wearing in a defined area)



**YUMAIN**  
Sensing & Predictive AI

[www.yumain.fr](http://www.yumain.fr)