



- **Autonomous Passenger Counting System**
- **Stereoscopic Vision Technology**
- **Lightweight and Robust**
- **EN50155 and Automotive**
- **Daisy Chainable**
- **RS-485 Interface**
- **Easy to Install**

## Features

**Stereoscopic Cameras** - Stereoscopic vision technology enables an accurate people bidirectional count, ideal for real-time optimization of resources and services

**Reliable Operation** - A built-in infrared illumination system allows a precise counting in any type of lighting condition

**Lightweight and Robust** - Extended operating temperature range, IP65 ingress protection, and sealed magnesium enclosure allow the PCN-1001 to work in a wide range of climatic conditions

**EN50155 and Automotive** - Certified for Rolling Stock and Automotive applications, where consistent performance and reliability are a must

**Daisy Chainable** - Two or more PCN-1001 can be interfaced together in order to precise count people passing through wide doorways

**Easy to Integrate** - The PCN 1001 can be used stand-alone or in conjunction with an IoT Edge Gateway, that enables data transmission to different Cloud platforms

**Easy to Install** - The installation is easy and unobtrusive thanks to its flush mountable and compact design, adaptable to different roofs and door structures; moreover a user-friendly configuration software allows a quick and easy setup

## Description

The PCN-1001 (DynaPCN 10-01-00) is a compact, low power, autonomous device based on non-contact stereoscopic vision technology. It has been specifically designed for passenger counting above the doorways in buses and trains; it can also be used to count people as they enter or leave buildings or any area with restricted access.

Stereoscopic cameras capture images of the area below the device. Thanks to the integrated high luminosity infrared LED indicators it can operate in any type of lighting condition. The extended temperature range capabilities allow integrators to use the device in a wide range of climatic conditions.

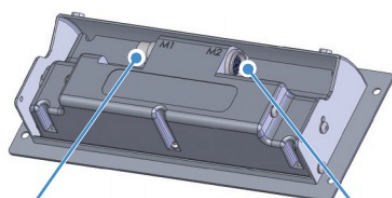
The PCN-1001 analyses the height, shape and direction of any object passing the field of view; if the object is recognized as a person entering or leaving, the incoming and outgoing counters are incremented accordingly, along with time and date information.

Data transfer is made via a RS-485 interface. The onboard insulated digital I/O interfaces can be used to directly communicate with intelligent doors or flow control systems, guaranteeing optimal functionality at all times: for example, stop counting when the doors are closed.

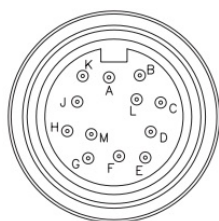
The PCN-1001 can be easily mounted in the ceiling space above a doorway becoming almost invisible. The angle of the optical panel can be adjusted from 0° to 45°; allowing it to be placed in an ideal position even if the mounting surface is not horizontal.

## Specifications

|                       |                |  |
|-----------------------|----------------|--|
| <b>COUNTING</b>       | Technology     | Stereoscopic Image Capturing   |
|                       | Accuracy       | 98%  |
|                       | Precision      | 99%  |
| <b>I/O INTERFACES</b> | USB            | 1x USB 1.1 Client (Service Panel) - Type B Mini  |
|                       | Serial         | 1x RS-485 (on 12pin Circular Connector), 1x RS-485 for Daisy Chain (on 12pin Female Circular Connector)  |
|                       | Digital I/O    | 2x Insulated Digital Input, 2x Insulated Digital Output - on 12pin Circular Connectors   |
| <b>OTHER</b>          | LEDs           | 1x Power (Green), 1x System Status (Amber)   |
|                       | Buttons        | 1x Reset (Service Panel)   |
| <b>POWER</b>          | Input          | 9 - 36VDC  |
|                       | Consumption    | Max Power Consumption: 3.2W with Infrared Illuminators OFF, 7.8W with Infrared Illuminators 100% ON  |
| <b>ENVIRONMENT</b>    | Operating Temp | EN50155 Class T1 (Factory Option: EN50155 Class TX)  |
| <b>CERTIFICATIONS</b> | Compliance     | Automotive E24: ECE ONU Reg.10 – Fire Protection: EN45545 – EMC Emissions: EN50155 / EN50121 / EN50011 – EMC Immunity: EN50155 / EN50121 / EN61000 – Environmental: EN50155 – Vibrations & Shocks: EN50155 / EN61373 |
|                       | Ingress        | IP65   |
| <b>MECHANICAL</b>     | Enclosure      | Sealed Magnesium Alloy Enclosure   |
|                       | Dimensions     | FRAME: 100x230x3mm (Height x Width x Thickness) – REQUIRED CUT-OUT: from 82x209x42mm (Height x Width x Depth, frame at 0°) to 82x209x70mm (Height x Width x Depth, frame at 45°)                                     |
|                       | Weight         | 0.6Kg  |

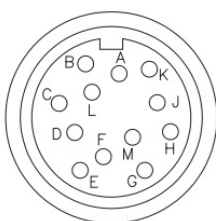


M1

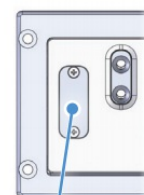


|   |                   |
|---|-------------------|
| A | POWER_IN+         |
| B | POWER_IN-         |
| C | Digital IN 1+     |
| D | Digital IN 1-     |
| E | Digital OUT 1 V+  |
| F | Digital OUT 1     |
| G | Digital OUT 1 GND |
| H | RS485_1 GND       |
| J | RS485_1 +         |
| K | RS485_1 -         |
| L | Reserved          |
| M | Reserved          |

M2



|   |                   |
|---|-------------------|
| A | Reserved          |
| B | Reserved          |
| C | Digital OUT 2 V+  |
| D | Digital OUT 2     |
| E | Digital IN 2+     |
| F | Digital IN 2-     |
| G | Digital OUT 2 GND |
| H | RS485_WG GND      |
| J | RS485_WG +        |
| K | RS485_WG -        |
| L | Reserved          |
| M | Reserved          |



Service Panel

