



- **Autonomous Passenger Counting System**
- **Stereoscopic Vision Technology**
- **Lightweight and Robust**
- **EN50155 and Automotive**
- **Daisy Chainable**
- **Ethernet or PoE 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 DynaPCN 10-20 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** - The DynaPCN 10-20 can be interfaced with one or more PCN-1001 in order to precisely count people passing through wide doorways

**Easy to Integrate** - The DynaPCN 10-20 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 DynaPCN 10-20 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 DynaPCN 10-20 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.

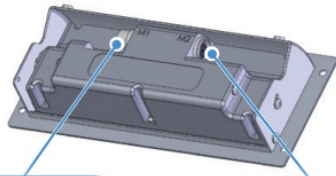
Data transfer is made via an Ethernet interface. The onboard insulated digital I/O interfaces can be used to directly communicate with intelligent doors or flow control systems, guaranteeing optimal functionality at all times: for example, stop counting when the doors are closed.

The DynaPCN 10-20 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.

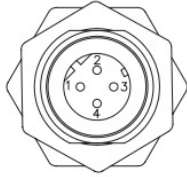
Ordering code: DYPCN-10-20-XX

| XX                    |                | -00   | -01   |
|-----------------------|----------------|---|---|
| <b>COUNTING</b>       | Technology     | Stereoscopic Image Capturing  |   |
|                       | Accuracy       | 98%   |   |
|                       | Precision      | 99%   |   |
| <b>I/O INTERFACES</b> | Ethernet       | 1x 10/100Mbps   | 1x 10/100Mbps PoE Ethernet  |
|                       | USB            | 1x USB 1.1 Client (Service Panel) - Type B Mini   |   |
|                       | Serial         | 1x RS-485 for Daisy Chain (on 12pin Female Circular Connector)  |   |
|                       | Digital I/O    | 2x Insulated Digital Input, 1x Insulated Digital Output - on 12pin Female Circular Connectors   |   |
| <b>OTHER</b>          | LEDs           | 1x Power (Green), 1x System Status (Amber)  |   |
|                       | Buttons        | 1x Reset (Service Panel)  |   |
| <b>POWER</b>          | Input          | 9 - 36VDC   | Power Over Ethernet IEEE 802.3at Mode A (4 wires) Class 0 Compliant |
|                       | Consumption    | Max Power Consumption: 3.2W with Infrared Illuminators OFF, 7.8W with Infrared Illuminators 100% ON (Ethernet Version) – 3.5W with Infrared Illuminators OFF, 8.0W with Infrared Illuminators 100% ON (PoE Version)                                   |   |
| <b>ENVIRONMENT</b>    | Operating Temp | EN50155 Class T1 (Factory Option: EN50155 Class TX)   |   |
| <b>CERTIFICATIONS</b> | Compliance     | Automotive E24: ECE ONU Reg.10 (in PoE Version: Designed to Meet) – Fire Protection: EN45545 EMC Emissions: EN50155 / EN50121 / EN55011 – 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   |   |

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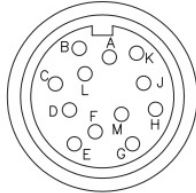


M1



|   |         |
|---|---------|
| 1 | ETH_TX+ |
| 2 | ETH_RX+ |
| 3 | ETH_TX- |
| 4 | ETH_RX- |

M2



|   |                   |                         |
|---|-------------------|-------------------------|
| A | POWER_IN+         | Reserved in PoE version |
| B | POWER_IN-         | Reserved in PoE version |
| 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 | Digital IN1 +     |                         |
| M | Digital IN1 -     |                         |

Service Panel

