

PoE-Splitter

User Manual

Version 3

BECOM Systems GmbH
Gutheil-Schoder-Gasse 17
1230 Wien
AUSTRIA

office.systems@becom-group.com

systems.becom-group.com

PoE-Splitter – User Manual

Publication date: March 25, 2021

Subject to change without notice. Errors excepted.

This document is protected by copyright. All rights reserved. No part of this document may be reproduced or transmitted for any purpose in any form or by any means, electronically or mechanically, without expressly written permission by BECOM Systems.

Windows is a registered trademark of Microsoft.

Table of Contents

1	General Information	5
1.1	Symbols Used	5
1.2	Safety instructions	6
1.3	Electrical connection.....	6
2	Mechanical Installation	7
2.1	Front view	7
2.2	Top view	7
2.3	Mounting.....	7
2.3.1	Top Hat Rail Mount.....	8
2.3.2	Wall mount	8
3	Connecting the Device	9
3.1.1	Connecting the Camera using a dedicated Camera Cable from BECOM Systems.....	10
4	Technical Information	11
4.1	PoE.....	11
4.2	Operating Conditions	11
4.3	Product Anomalies	11
5	Trouble Shooting.....	12
5.1.1	Troubleshooting List.....	12
5.1.2	Support	12
6	Ordering Information.....	13
7	Document Revision History.....	14
A	List of Figures and Tables	15

© BECOM Systems GmbH 2021

All Rights Reserved.

The information herein is given to describe certain components and shall not be considered as a guarantee of characteristics.

Terms of delivery and rights of technical change reserved.

We hereby disclaim any warranties, including but not limited to warranties of non-infringement, regarding circuits, descriptions and charts stated herein.

BECOM Systems makes and you receive no warranties or conditions, express, implied, statutory or in any communication with you. BECOM Systems specifically disclaims any implied warranty of merchantability or fitness for a particular purpose.

BECOM Systems takes no liability for any damages and errors causing of the usage of this board. The user of this board is responsible by himself for the functionality of his application. He is allowed to use the board only if he has the qualification. More information is found in the General Terms and Conditions (AGB).

Information

For further information on technology, delivery terms and conditions and prices please contact BECOM Systems www.becom-group.com

1 General Information

This guide applies to the PoE-Splitter from BECOM Systems. Follow this guide chapter by chapter to set up and understand your product. If a section of this document only applies to certain camera parts, this is indicated at the beginning of the respective section.

The document applies to product V1.0.x

1.1 Symbols Used

This guide makes use of a few symbols and conventions:



Warning

Indicates a situation which, if not avoided, could result in minor or moderate injury and/or property damage or damage to the device.



Caution

Indicates a situation which, if not avoided, may result in minor damage to the device, in malfunction of the device or in data loss.



Note

Notes provide information on special issues related to the device or provide information that will make operation of the device easier.

Procedures



A procedure always starts with a headline



1. The number indicates the step number of a certain procedure you are expected to follow.

Steps are numbered sequentially.

This sign ➤ indicates an expected result of your action.



References

This symbol ➡ indicates a cross reference to a different chapter of this manual or to an external document.

1.2 Safety instructions



Important

This manual is part of the device and contains information and illustrations about the correct handling of the device and must be read before installation or use. Observe the operating instructions. Non-observance of the instructions, operation which is not in accordance with use as prescribed below, wrong installation or handling can affect the safety of people and machinery.

The installation and connection must comply with the applicable national and international standards. Responsibility lies with the person installing the unit.

1.3 Electrical connection



Note

The unit must be connected by a qualified electrician.

Device of protection class III (PC III).

The electric supply must only be made via PELV circuits.

The device must only be powered by a limited energy source ($\leq 30\text{ V}$; $\leq 8\text{ A}$; $\leq 100\text{ VA}$).

Disconnect power before connecting the unit.

All dimensions are in mm, tolerance +/-0,5mm.

Technical drawing of the rear panel of the device. The panel is dark gray and features four mounting screws at the corners. On the left side, there are two RJ45 ports labeled "Amphenol". To the right of these ports are four small circular indicators. Further right is a green terminal block with two screws. The overall width of the panel is 140,5 mm, and the height is 30 mm. The distance between the two RJ45 ports is 108,5 mm.

Technical drawing of the front view of the device. The drawing shows a dark gray rectangular unit with a central panel and side panels. Dimensions are indicated by arrows and numbers:

- Overall width: 118
- Overall height: 91
- Distance from the left edge to the center of the mounting nut: 5,5
- Distance from the center of the mounting nut to the right edge: 83
- Distance from the left edge to the center of the mounting nut: 76,5
- Distance from the center of the mounting nut to the right edge: 41,5

Labels with red arrows pointing to the mounting features:

- Nut for Wall Mounting (pointing to the left side)
- Top Hat Rail Mount (optional) (pointing to the top edge)
- Nut for Wall Mounting (pointing to the right side)

There are two mounting possibilities

2.3.1 Top Hat Rail Mount

The Rail mount can be used to mount the device on a top hat rail according to IEC/EN 60715.

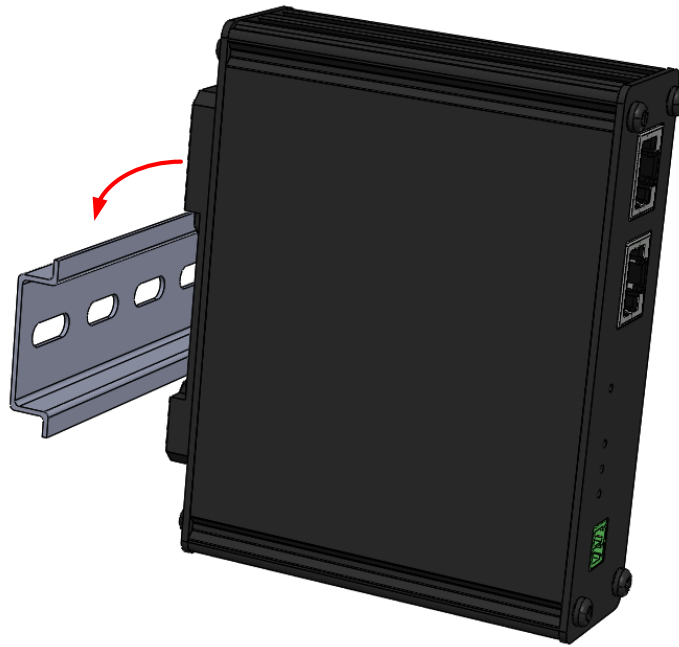


Figure 2-3: Hat rail mount

2.3.2 Wall mount

Two nuts in the housing can be used for wall mounting the device. Please refer to Figure 2-2 to see the dimensions and positions of the nuts.

3 Connecting the Device

The following figure shows the interfaces and status LEDs of the device.

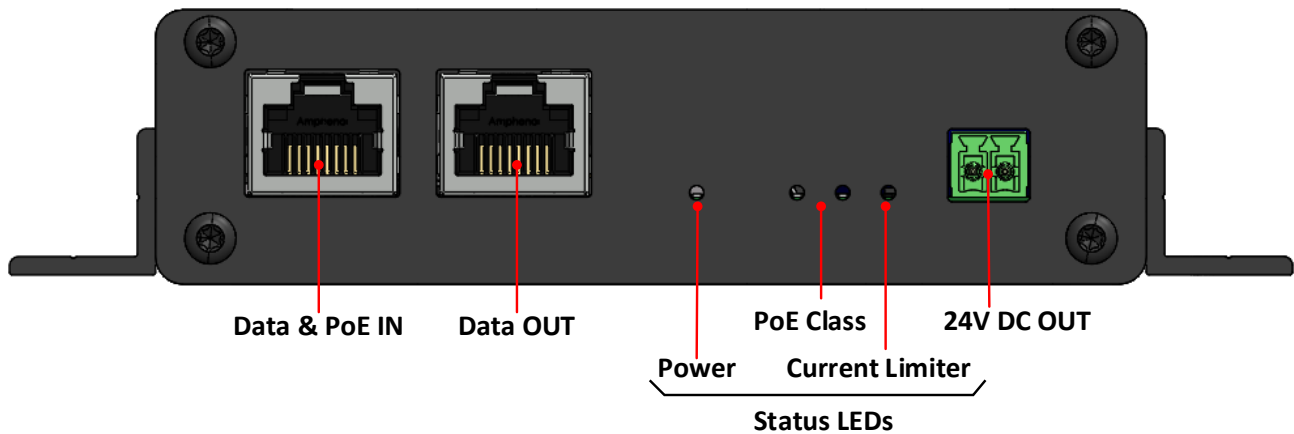


Figure 3-1: Connectors and LEDs

Connector description:

Connector	Description
Data & PoE IN	Connect this to your PoE switch or injector with a CAT5e or higher category patch cable.
Data OUT	Connect this to your camera with a CAT5e or higher category patch cable or connect it with the RJ45 plug of your dedicated camera cable from BECOM systems.
24V DC OUT	Connect this header to the power supply cable of your camera. Refer to Figure 3-2 for the pin description or connect it to the dedicated wires of your camera cable from BECOM Systems using an appropriate mating part. <u>Mating part suggestion:</u> 691361100002 from Würth Electronics or similar part

Table 3-1: Connector Description

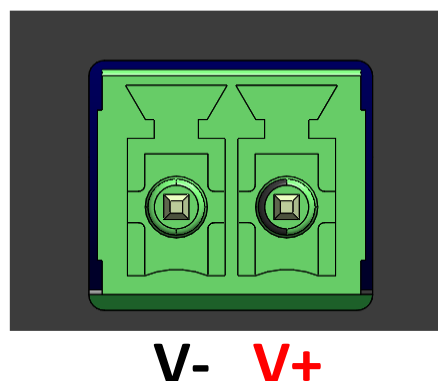


Figure 3-2: Pin description of the camera power supply connector (24V DC OUT)

3.1.1 Connecting the Camera using a dedicated Camera Cable from BECOM Systems

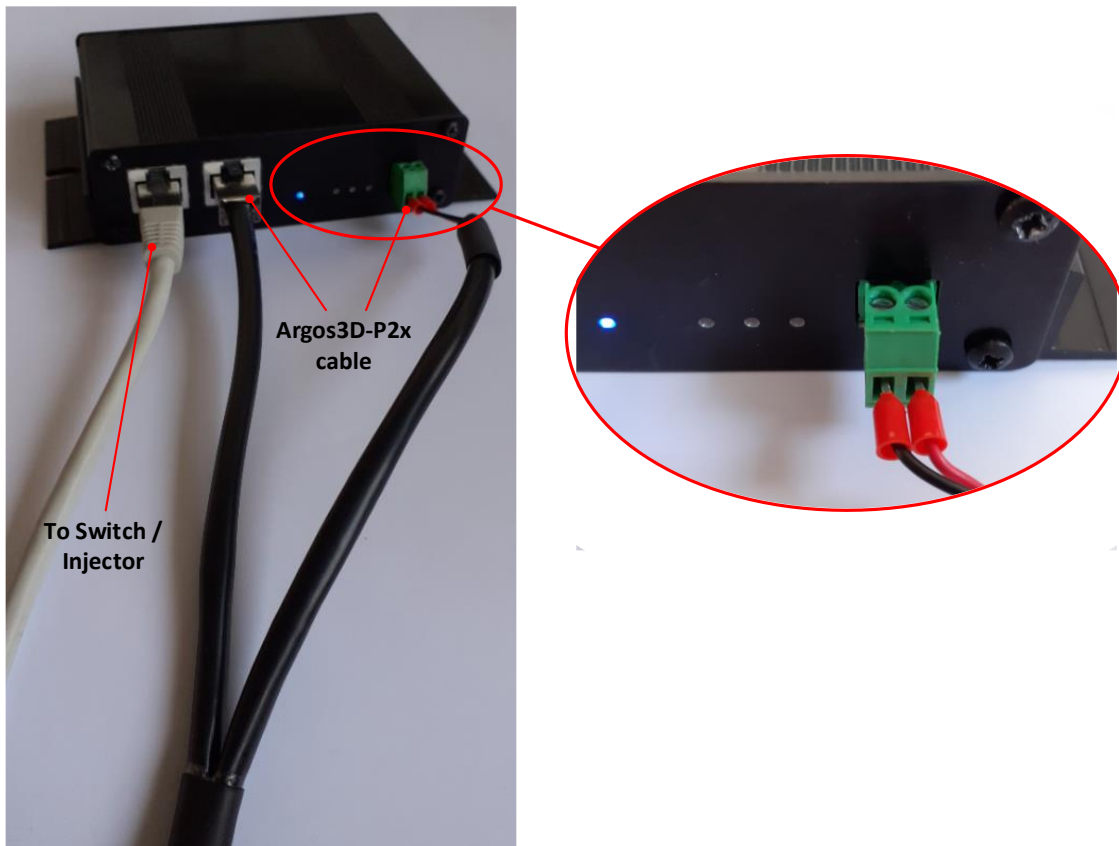


Figure 3-3: Example for connecting an Argos3D-P2xx camera to the PoE-Splitter

4 Technical Information

4.1 PoE

The device supports PoE Plus (802.3at)

4.2 Operating Conditions

Symbol	Parameter	Min	Typical	Max	Unit
I_{AVG}	Average input current		Note 1)		A
I_{PK}	Peak input current		Note 2)		A
T_{op}	Operating temperature	-40		+85	°C
T_{st}	Storage temperature	-40		+105	°C

Table 4-1: Operating Conditions



Note 1)

Depends on the power consumption of the connected camera.

Note 2)

Depends on the connected camera device. The drawn peak current should not exceed the limit as defined in 802.3 for the negotiated PoE class.

4.3 Product Anomalies

Applies to	Date	Description
V1.0.0	14.09.2020	No anomalies reported yet

Table 4-2: Product anomalies

5 Trouble Shooting

5.1.1 Troubleshooting List

Problem description	Possible reason	Measures
The power LED is not lightning	The PoE-Splitter is not well powered.	Please check the connection to the PoE switch or injector. Check if your switch or injector is powered correctly.
The "Current Limiter" LED is always flashing	This is an intended behavior. The PoE-Splitter limits the current to the allowed current based on the negotiated PoE class.	No measures are necessary.

Table 5-1: Troubleshooting list

5.1.2 Support

General support for products can be found at BECOM Systems' support site

Support Link

 support.systems.becom-group.com

For further questions please contact our support team at support.systems@becom-group.com.

6 Ordering Information

Product Ordering Number	Product	Description
150-3078-1	PoE-Splitter	Basic device with different mounting options

Table 6-1: Ordering information

7 Document Revision History

Version	Date	Document Revision
1	14.09.2020	Initial draft
2	03.12.2020	Figures added
3	25.03.2020	Typos corrected

Table 7-1: Document revision history

A List of Figures and Tables

Figures

Figure 2-1: Front view dimensions	7
Figure 2-2: Top view dimensions	7
Figure 2-3: Hat rail mount	8
Figure 3-1: Connectors and LEDs	9
Figure 3-2: Pin description of the camera power supply connector (24V DC OUT)	9
Figure 3-3: Example for connecting an Argos3D-P2xx camera to the PoE-Splitter	10

Tables

Table 3-1: Connector Description	9
Table 4-1: Operating Conditions	11
Table 4-2: Product anomalies	11
Table 5-1: Troubleshooting list	12
Table 6-1: Ordering information	13
Table 7-1: Document revision history	14