# **Basler Accessories**



# **Technical Specification USB 3.0 HUB**

Order Number 2000036234

Document Number: DG001678

Version: 03 Language: 000 (English)

Release Date: 23 July 2017



## **Contacting Basler Support Worldwide**

## **Europe, Middle East, Africa**

Basler AG An der Strusbek 60–62 22926 Ahrensburg Germany

Tel. +49 4102 463 515 Fax +49 4102 463 599

support.europe@baslerweb.com

## **The Americas**

Basler, Inc. 855 Springdale Drive, Suite 203 Exton, PA 19341 USA

Tel. +1 610 280 0171 Fax +1 610 280 7608

support.usa@baslerweb.com

#### **Asia-Pacific**

Basler Asia Pte. Ltd. 35 Marsiling Industrial Estate Road 3 #05–06 Singapore 739257

Tel. +65 6367 1355 Fax +65 6367 1255

support.asia@baslerweb.com

www.baslerweb.com

All material in this publication is subject to change without notice and is copyright Basler AG.

Order Number	Description	Applicable Cameras
2000036234	USB 3.0 Hub	ace USB 3.0, dart USB 3.0, pulse

Table 1: Hub Type

## **Key Features**

- USB 3.0-compliant (TID# 330000037)
- USB 2.0 full speed at upstream and downstream ports supported
- USB hub with 1 USB 3.0 upstream and 4 USB 3.0 downstream ports
- Maximum data rate (USB 3.0) up to 380 MBps at upstream port
- No special driver requirements, suitable for all operating systems
- Over-current detection at downstream ports
- Compliant with USB Battery Charging 1.2 specification
- Upstream cable (2 m) included



If the upstream port is connected to an USB 2.0 port, USB 3.0 connectivity is disabled on the downstream ports.



The maximum achievable upstream data rate largely depends on the quality and type of the host system and connection. Under certain conditions, it may therefore not be possible to achieve the maximum data rate.

## Overview

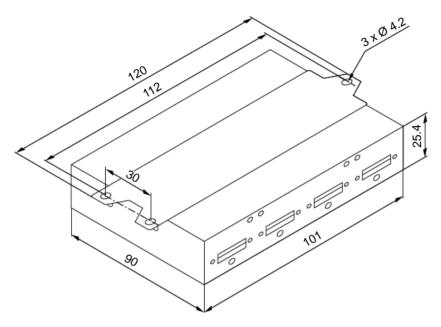


Fig. 1: Hub Dimensions (in mm)

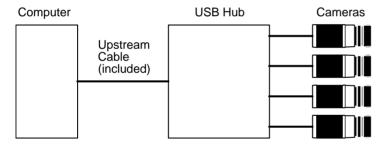


Fig. 2: Connection Overview

## **Physical Specifications**

DC Input Connector	MINI COMBICON
Upstream Port Connector	1 x Type B female
Downstream Port Connector	4 x Type A female
Dimensions	25.4 mm x 90.0 mm x 120.0 mm

Table 2: Physical Specifications

## **Electrical Specifications**

Power Input	12 - 24 VDC (max. 8 A)
Over-Current Detection	Yes (at downstream ports)
Self-start up after power on	Yes

Table 3: Electrical Specifications

A suitable power supply is available from Basler AG. Please contact your Basler sales representative.

## **Environmental Specifications**

Operating Temperature	5–60 °C	
Operating Humidity	10-70 %, relative, non-condensing	
Storage Temperature	0–70 °C	
Storage Humidity	10-70 %, relative, non-condensing	

Table 4: Environmental Specifications

#### **Status LEDs**



Power Supply Input Status LED

Fig. 3: Front of the Hub

- SuperSpeed status LED
  - On = Hub in SuperSpeed mode
  - Off = Hub not in SuperSpeed mode
- Hi-Speed status LED
  - On = Hub in Hi-Speed mode
  - Off = Hub in low/full speed mode



Port Bus Power LEDs

Fig. 4: Rear of the Hub

- Downstream port bus-power LEDs (one LED for each port)
  - On = Power supply to camera active
  - Off = No power supply to camera active

#### **Transfer Rates**

The following table lists the maximum upstream data rates (in MBps) that can be achieved using this hub.

	1 Camera	2 Cameras		3 Cameras		4 Cameras	
		Symmetric	Asymmetric*	Symmetric	Asymmetric	Symmetric	Asymmetric
All Cameras Except acA2040- 90u* and acA2000- 165-u*	380	340	170	330	120	320	100
acA2040- 90u* and acA2000- 165-u*	360	320	120	300	100	80	not recom- mended

Table 5: Max. Upstream Data Rate (in MBps)

Symmetric = same camera model, same data rate

Asymmetric = same camera model, different data rates

OR

different camera models, different data rates

Asymmetric\* = max. data rate of one camera. No other camera can achieve a

higher data rate.

## **Assembly Information**

Multiple hubs can be arranged side-by-side and connected to each other using suitable fastening materials (not included).



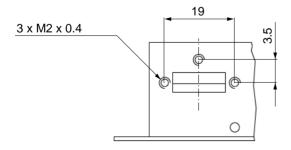
Fig. 5: Side-by-side Assembly



The mounting bracket is attached to the housing of the hub as shown in Figure 5 using four screws. If required, its position can be rotated by 180 °.

## **Locking Screw Positions (Downstream)**

Note that the locking screw positions are not USB3 Vision-compliant. See Figure 6 for details.



Dimensions in mm

Fig. 6: Locking Screw Positions

#### **General Information**

Conformity	CE (includes RoHS), FCC, VCCI, REACH
Warranty	1 year

Table 6: General Information



This hub is intended for use with the cameras specified in Table 1 only.

Read the camera user's manual including the safety warnings before connecting the hub to the camera. The user's manual also contains further information about power requirements as well as comprehensive information about installing and using the camera.

You can download the user's manual and related documents for your camera free of charge from the Basler website: www.baslerweb.com

## **Revision History**

Doc. ID Number	Date	Changes
DG00167801000	14 Apr 2016	Initial release of this document.
DG00167802000	20 Oct 2016	Added note on page 6 that mounting bracket can be rotated by 180 °.
DG00167803000	23 Jul 2017	Added environmental specifications in Table 4 on page 3.