

# Basler Accessories



## Technical Specification

### **CABLE USB 3.0, EXTENSION, A FEMALE/A MALE, SCREW LOCKS, HYBRID**

#### **Order Numbers**

**2000036231**

**2000036232**

Document Number: DG001595

Version: 01 Language: 000 (English)

Release Date: 14 December 2015

## **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](mailto: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](mailto: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](mailto:support.asia@baslerweb.com)

[www.baslerweb.com](http://www.baslerweb.com)

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

# 1 Introduction

The USB 3.0 hybrid cable combines copper conductors and optical fibers within a single cable. The resulting advantage of this cable type is to use the benefits of optical fiber as transmission medium and to supply power to a device at the same time via the copper conductors.

## Package Contents

- USB 3.0 hybrid cable
- Auxiliary USB power cable

## Features

- Supplies power to camera (max. 900mA/5V).
- Host-side connector has a second port for connecting an auxiliary power cable.



Basler recommends that you supply auxiliary power to the connected camera by means of the auxiliary USB power cable.

- Screw locks according to USB3 Vision Standard.
- Suitable for recommended host cards available from Basler.

## Additional Information

- In order to connect the USB 3.0 hybrid cable to the camera, an additional connecting cable (1 m/3 m recommended, 5 m max.) is required (see [Fig. 2](#)).
- A direct connection to a PC main board USB 3.0 socket and to a 4-port USB 3.0 card may not be possible due to the size of the host-side connector. In this case, use a suitable short connection cable (1 m max. recommended) (see [Fig. 2](#)).

Suitable connecting cables are available from Basler.

# 2 Technical Data

Order Number	Description	Applicable Cameras
2000036231	Data cable USB 3.0, Type A female with screw lock to type A male with screw lock, hybrid cable, 10 m Socket for auxiliary power supply	ace USB 3.0, dart, pulse
2000036232	Data cable USB 3.0, Type A female with screw lock to type A male with screw lock, hybrid cable, 20 m Socket for auxiliary power supply	ace USB 3.0, dart, pulse

Table 1: Cable Types

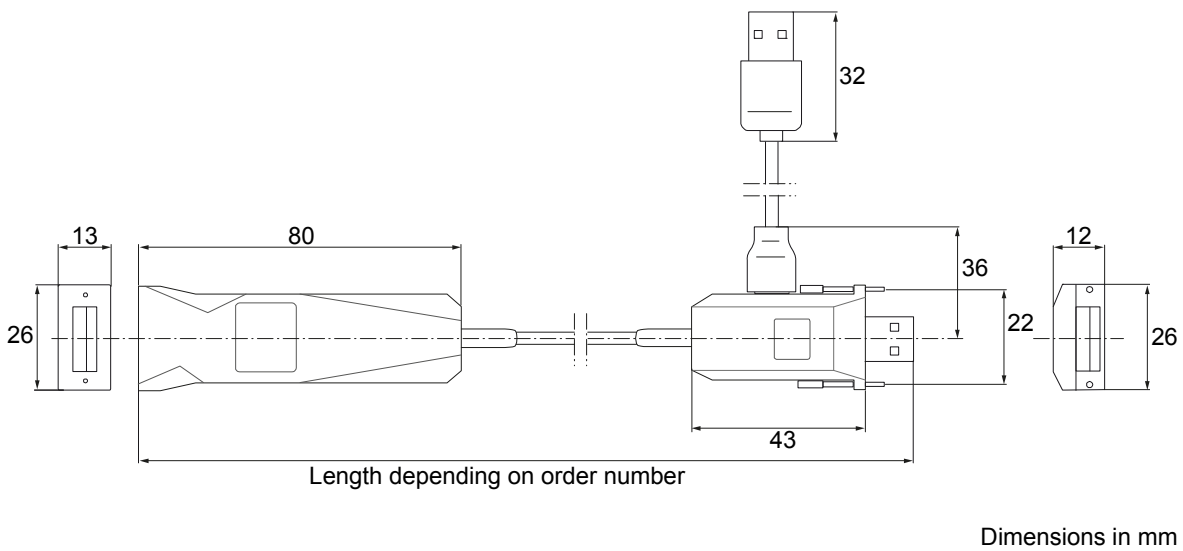


Fig. 1: Cable Overview

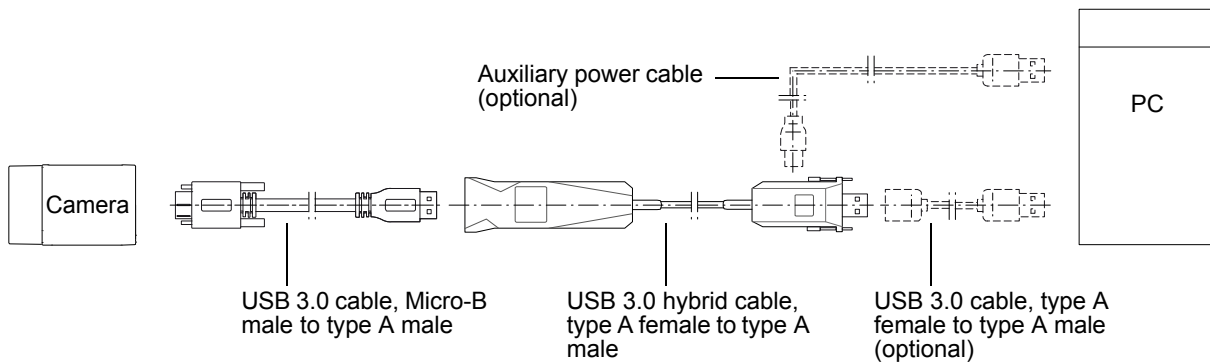


Fig. 2: Cable Connections Overview

## Transfer Rates

	2000036231	2000036232
USB 2.0	480 Mbps (reliably supported data rate 32 MB/s, max. data rate 40 MB/s)	
USB 3.0	5 Gbps (reliably supported data rate 330 MB/s, max. data rate 380 MB/s)	

Table 2: Transfer Rates

## Physical Specifications

	2000036231	2000036232
Camera-Side Connector	Standard A female with screw lock (connecting cable required)	
Host-Side Connector	Standard A male with screw lock (connecting cable may be required)	
Cable Diameter	3 mm	
Minimum Bending Radius	20 mm, fixed installation	
Minimum Number of Bending Cycles	None (fixed installation only)	
Suitable for Drag Chain Applications	No	
Suitable for Robotics Applications	No	

Table 3: Physical Specifications

## Environmental Specifications

	2000036231	2000036232
Operating Temperature	0 °C - 55 °C	

Table 4: Environmental Specifications

## General Information

	2000036231	2000036232
RoHS Compliance	Yes	
CE Conformity	Yes	
UL Conformity	Yes	
Warranty	1 year	

Table 5: General Information

**NOTICE****Excessive force can damage the cable.**

The following actions can damage the optical fibers of the cable, which would result in a breakdown in the USB 3.0 data transmission:

- putting heavy loads on the cable
- mechanical shocks or strong vibration
- external influences like scratching or hitting
- bending with less than the minimum bending radius

Handle the cable with care and keep bending to a minimum, e.g. during installation.

**NOTICE****Metal connectors can cause damage.**

The metal connectors have a certain weight. If they get loose or fall off, the optical fibers of the cable or other components within the installation can get damaged.

Secure the connectors appropriately.



The cable is intended for use with the cameras specified in [Table 1](#) only.



During operation, the connectors can get warm.

Read the camera user's manual including the safety warnings before connecting the cable to the camera. The user's manual also contains further information about pin assignments, 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](http://www.baslerweb.com).

## Revision History

Doc. ID Number	Date	Changes
DG00159501000	14 Dec 2015	Initial release of this document.