# **Basler Accessories**



# Technical Specification POWER-I/O CABLE HRS 6P/OPEN

Order Numbers 2200000189 2000029411

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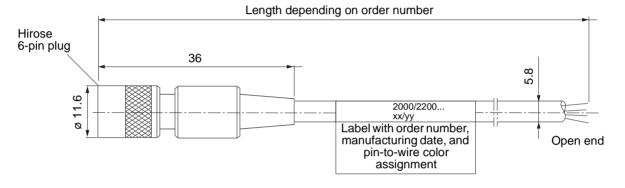
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Order Number	Description	Applicable Cameras
2200000189	Power-I/O Cable with HRS 6p connector and open end, 5 m	ace GigE (cable not recommended for use with GPIO), aviator CL (power only), runner (power only)
2000029411	Power-I/O Cable with HRS 6p connector and open end, 10 m	ace GigE (cable not recommended for use with GPIO), aviator CL (power only), runner (power only)

Table 1: Cable Type



Dimensions in mm

Fig. 1: Cable Overview



#### **CAUTION**

# Personal Injury Hazard and Risk of Damage to Camera in Case of Short Circuits

Short circuits may cause an extreme rise in temperature of the camera's housing. This may damage the camera and may also lead to personal injuries, e.g., burns if touching the housing. In the worst case, the overheating may cause a fire.

In order to prevent that, you should take additional measures to limit the current flowing through each individual wire during a short circuit. **The maximum current allowed is 2 A.** There are two ways how to do this:

- Using a fuse
- Using a limited power supply

#### **Wiring Information**

Pin Number	Wire Color	ace GigE (without GPIO)	ace GigE (with GPIO)	aviator CL runner
1	Brown	Camera Power	Camera Power	Camera Power
2	Pink	Opto-isolated IN (Line1)	Opto-isolated IN (Line1)	Camera Power
3	Green	Not connected	GPIO (Line 3)	Not connected
4	Yellow	Opto-isolated OUT (Out1)	Opto-isolated OUT	Not connected
5	Gray	Opto-isolated I/O Ground	Opto-isolated I/O Ground	Camera Power Ground
6	White	Camera Power Ground	Camera Power and GPIO Ground	Camera Power Ground

Table 2: Wiring Information

For more details, see the respective camera user's manual.

#### **Physical Specifications**

Camera-Side Connector	Hirose, 6 pin (HR10A-7P-6S)
Host-Side Connector	None, open end
Cable Cross-Section	3 x 2 x 0.14 mm <sup>2</sup> (close to AWG 26)
Cable Diameter	5.8 mm
Wire Insulation	PVC
Outer Jacket	PVC
Minimum Bending Radius	34.8 mm (6 x cable diameter), fixed installation
Maximum Bending Cycles	None (fixed installation only)
Suitable for Drag Chain Applications	No
Suitable for Robotics Applications	No

Table 3: Physical Specifications

#### **Electrical Specifications**

Maximum Operating Voltage	See camera user's manual
Test Voltage	1200 V
Wire Resistance	≤142 Ω/km

Table 4: Electrical Specifications

#### **Environmental Specifications**

Operating Temperature Range	-25–80 °C (not moving)
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Table 5: Environmental Specifications

#### **Plug Specifications**

Durability	>1000 mating cycles
Contact Resistance	max. 10 mΩ
Contact Plating	Gold
Protection Rating	IP40
Plug Insulation Material	Polyamide/PBT

Table 6: Plug Specifications

#### **General Information**

CE Conformity	Yes (includes RoHS 2)
Warranty	1 year
UL Conformity	No

Table 7: General Information



The cables are intended for use with the cameras specified in Table 1 only.

The cables are not covered by the low voltage directive.

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

## **Revision History**

Doc. ID Number	Date	Changes
DG00138301000	9 Jul 2014	Initial release of this document.
DG00138302000	15 Jul 2014	Updated electrical specifications in Table 4. Updated information regarding the low voltage directive.
DG00138303000	13 Jul 2015	Updated wiring information in Table 2.
DG00138304000	14 Apr 2016	Added note in Table 1 that cable is not recommended for use with GPIO.
DG00138305000	13 Dec 2016	Added specific information for ace GigE camera models with and without GPIO in Table 2 on page 2.
DG00138306000	29 Aug 2017	Added warning about additional short circuit protection on page 1.  Added CE conformity information in Table 7.
DG00138309000	24 Oct 2017	Added 5 m cable in Table 1.

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