

Basler Power-I/O PLC+ Cable, HRS 12p/open, P

Power-I/O cable for PLC with HRS 12-pin connector and open end.



Introduction

The Power-I/O-PLC+ cables with Hirose 12-pin connector and open end feature an integrated PLC+ electronic board.

The key feature of this board is that it is able to adjust input voltage levels coming from PLC devices (up to 24 V) to the TTL voltage levels required by the camera (0 to 5 V). The table below contrasts these different voltage levels.

In addition, the PLC+ electronic board protects the power supply of the camera as well as the input and output lines of the camera against the following:

- Reverse polarity
- Turn-on voltage spikes
- Positive or negative overvoltage spikes

The cables also offer protection of the signal transmission as well as the power supply against EMI and ESD. This is achieved by means of twisted pair cables in which each pair of wires carries just one signal: one wire carries the signal itself and the other is the signal's own return conductor.

Camera I/O Signal Voltage	PLC+ Cable Input Voltage	Description
Max. 24 VDC	Max. 24 VDC + 10 %	Operating voltage limit.
0–1.4 VDC	0–8.4 VDC	Voltage indicates a logical 0.
> 1.4–2.2 VDC	> 8.4–10.4 VDC	Logical state is undefined.
> 2.2 VDC	> 10.4 VDC	Voltage indicates a logical 1.

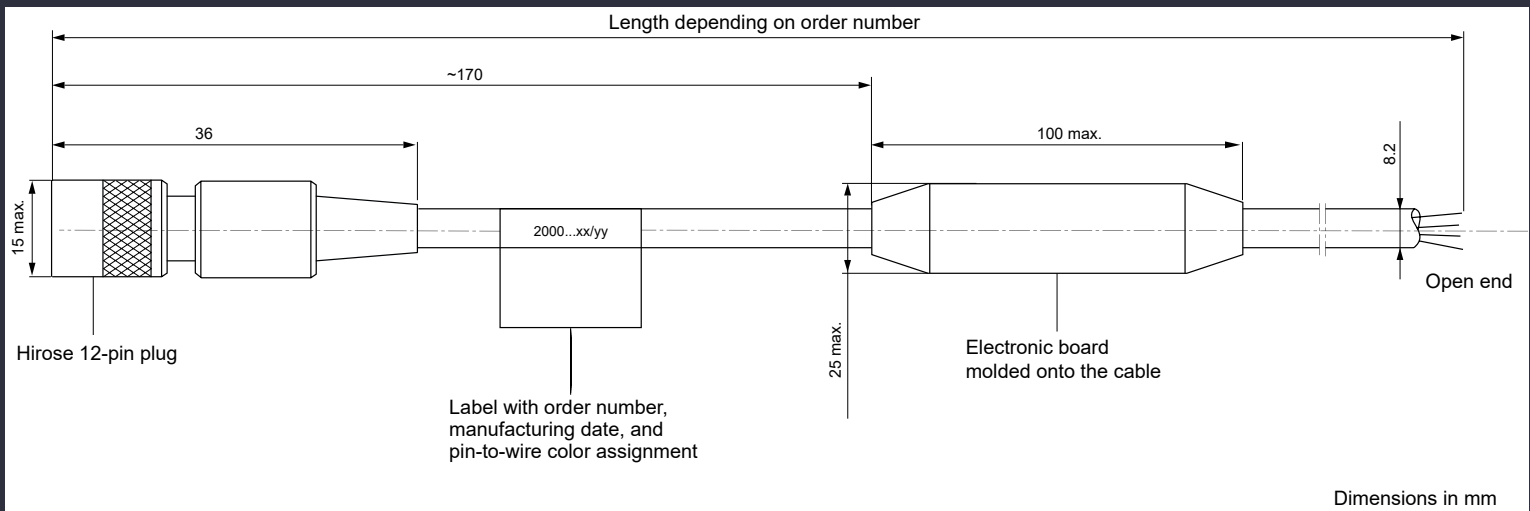
Technical Data

The cable is suitable for the following camera models:

- aviator GigE
- aviator CL (I/O only)
- pilot GigE
- scout GigE

Order Number	Cable Length
2000034085	10 m

Cable Drawing



Wiring Information

Pin Number	Wire Color	aviator CL	aviator GigE pilot GigE scout GigE
1	White		Camera Ground
2	Green		Camera Ground
3	Pink	Opto In 1	Opto In 1
(5)	Gray	Opto In 1 Ground	Opto In 1 Ground
4	Red	Opto In 2	Opto In 2
(5)	Blue	Opto In 2 Ground	Opto In 2 Ground
6	Violet	Opto Out 1	Opto Out 1

Pin Number	Wire Color	aviator CL	aviator GigE pilot GigE scout GigE
(10)	Black	Opto Out 1 VCC	Opto Out 1 VCC
7	Red/Blue		Opto Out 2
(10)	Gray/Pink		Opto Out 2 VCC
8	Brown		Camera VCC
9	Yellow		Camera VCC
(10)	White/Green		Opto Out 3 VCC
11	Brown/Green		Opto Out 3
(10)	White/Yellow		Opto Out 4 VCC
12	Yellow/Brown		Opto Out 4

Info

(x) means that the wire is connected internally to pin x.

Physical Specifications

Camera-side Connector	Hirose 6 pin [HR10A-7P-6S (73)]
Host-side Connector	None, open end
Cable Cross-section	8 x 2 x 0.14 mm ² (close to AWG 26)
Cable Diameter	8.2 mm
Wire Insulation	PVC
Outer Jacket	PVC
Minimum Bending Radius	49.2 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
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Electrical Specifications

Nominal Operating Voltage	See camera documentation for the power requirements of your camera.
Maximum Operating Voltage	See camera documentation for the power requirements of your camera.
Wire Resistance	$\leq 142 \Omega/\text{km}$

Environmental Specifications

Operating Temperature Range	-25–80 °C, not moving

Plug Specifications

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

General Information

RoHS Compliance	Yes
CE Conformity	Yes
UL Conformity	No
Warranty	1 year

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](#).