THORLABS

Trigger Cables

CAB-DCU-T1, CAB-DCU-T2, CAB-DCU-T3

CAB-WFS10-T1

2018

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We aim to develop and produce the best solution for your application in the field of optical measurement technique. To help us to live up to your expectations and improve our products permanently we need your ideas and suggestions. Therefore, please let us know about possible criticism or ideas. We and our international partners are looking forward to hearing from you.

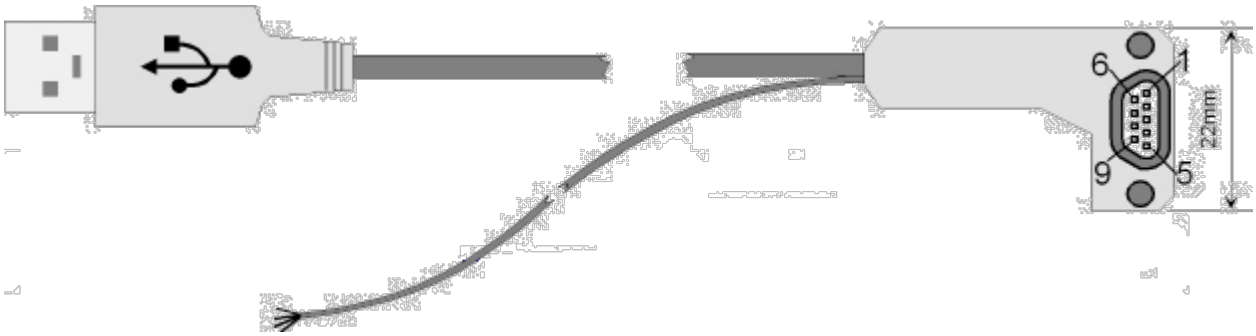
Thorlabs GmbH

1 Cable Types

CAB-xxx-Tx cables are accessories to Thorlabs DCU22xX and DCC3240X cameras, WFS150x, WFS300x and WFS10x Wavefront sensors.

1.1 CAB-DCU-T1

USB cable with cables for trigger, flash and digital I/Os



CAB-DCU-T1 (angled Micro D SUB camera connector)

Dedicated Product	DCU223x, DCU224x CCD and DCC1240x CMOS Cameras; WFS150x and WFS300x Wavefront Sensors	
Length	3 m	
Cable Type	USB cable, 28AWG/1PR and 24AWG/2C, additional cable for digital I/O, 4 wire, open wires	
Shielding	double shielded	
Connector, Camera Side	Micro D-SUB, screw lockable, 90° angled	
Connector, PC Side	Male, USB 2.0, Type A	
Color Coding	Trigger IN	white
	Trigger GND	brown
	Flash OUT	green
	Digital OUT	yellow
Weight	~ 0.1 kg	

Usage Instruction:

First remove the dust cover from the I/O port of the DCU22x camera or WFS150x / WFS300x Wavefront Sensor. Connect the cable to camera and then to the PC, to ensure that the camera is being recognized correctly.

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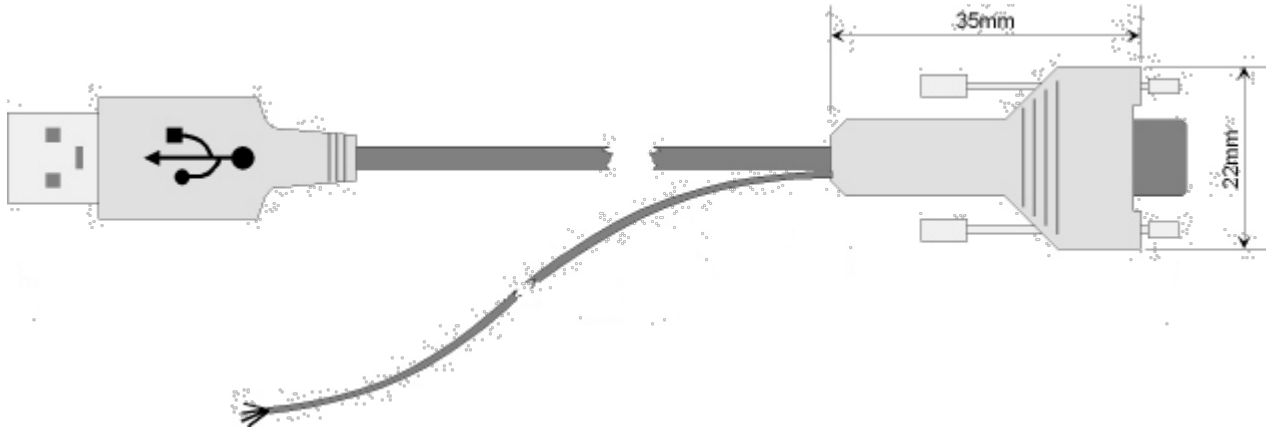
1.2 CAB-DCU-T2

USB cable with cable for Trigger Input



CAB-DCU-T2 (straight Micro D SUB camera connector)

Dedicated Product	DCU223x, DCU224x CCD and DCC1240x CMOS Cameras; WFS150x and WFS300x Wavefront Sensors	
Length	3 m	
Cable Type	USB cable, 28AWG/1PR and 24AWG/2C, additional cable for trigger input, 2 wire, open wires	
Shielding	double shielded	
Connector, Camera Side	Micro D-SUB, screw lockable, straight	
Connector, PC Side	Male, USB 2.0, Type A	
Color Coding	Trigger IN	red
	Trigger GND	black
Weight	~ 0.1 kg	

Usage Instruction:

First remove the dust cover from the I/O port of the DCU22x camera or WFS150x / WFS300x Wavefront Sensor. Connect the cable to camera and then to the PC, to ensure that the camera is being recognized correctly.

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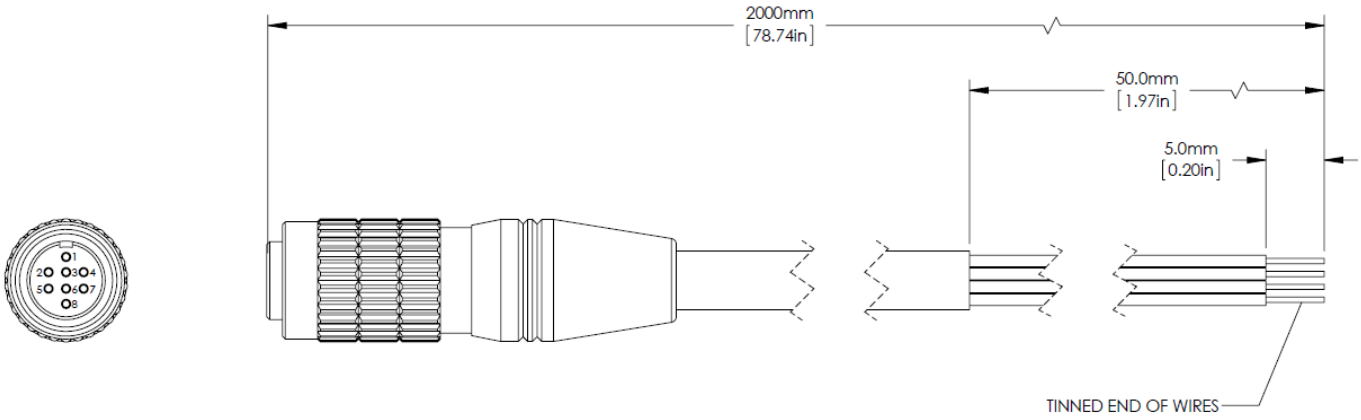
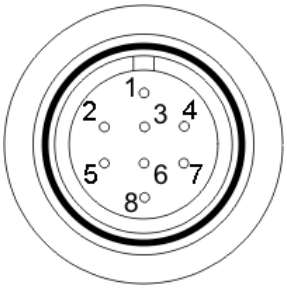
1.3 CAB-DCU-T3

Cable for trigger, flash and GPIO



CAB-DCU-T3 (HIROSE 8 pin camera connector)

Dedicated Product	DCC3240x USB 3.0 CMOS Cameras		
Length	2 m		
Cable Type	High-flexible control cable 8 x0.1mm, Ø 4.9mm		
Shielding	single shielded		
Connector, Camera Side	HIROSE HR25-7TP-8S (72)		
Connector, PC Side	open wires		
Pin Assignment and Color Coding	Pin #	Description	Cable Color
	1	Ground (GND)	gray
	2	Flash output, opto-decoupled (-)	green
	3	GPIO 1, 3.3 V LVCMOS	blue
	4	Trigger input, opto-decoupled (-)	brown
	5	Flash output, opto-decoupled (+)	yellow
	6	GPIO 2, 3.3 V LVCMOS	red
	7	Trigger input, opto-decoupled (+)	white
	8	Output supply voltage, 5 V (100 mA)	pink
Weight	< 0.1 kg		



Hirose connector female, cable tip view

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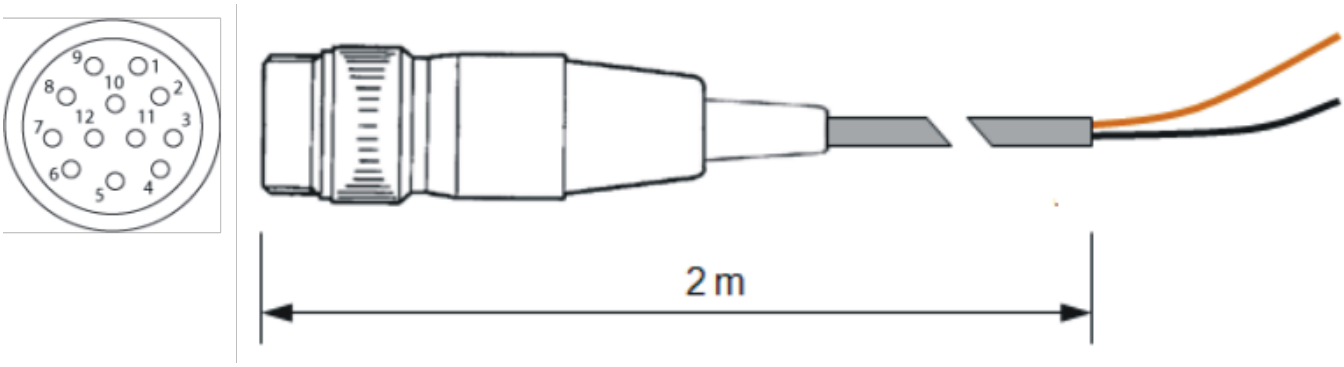
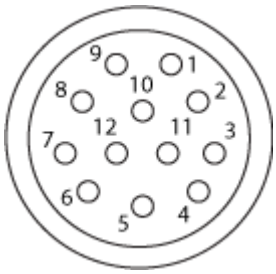
1.4 CAB-WFS10-T1

Trigger cable



CAB-WFS10-T1 (HIROSE 12 pin camera connector)

Dedicated Product	WFS10x Wavefront Sensors		
Length	2 m		
Cable Type	2-wire flexible control cable		
Shielding	none		
Connector, Camera Side	HIROSE HR25 12 pin		
Connector, PC Side	open wires		
Pin Assignment and Color Coding  *Hirose connector female, cable tip view*	Pin #	Description	Cable Color
	1 - 10	No connection	-
	11	Ground (GND)	black
	12	TTL Trigger input	brown
Weight	< 0.1 kg		

2 Warranty

Thorlabs warrants material and production of the CAB-xxx-Tx for a period of 24 months starting with the date of shipment. During this warranty period Thorlabs will see to defaults by repair or by exchange if these are entitled to warranty.

For warranty repairs or service the unit must be sent back to Thorlabs. The customer will carry the shipping costs to Thorlabs, in case of warranty repairs Thorlabs will carry the shipping costs back to the customer.

If no warranty repair is applicable the customer also has to carry the costs for back shipment.

In case of shipment from outside EU duties, taxes etc. which should arise have to be carried by the customer.

Thorlabs warrants the hard- and/or software determined by Thorlabs for this unit to operate fault-free provided that they are handled according to our requirements. However, Thorlabs does not warrant a fault free and uninterrupted operation of the unit, of the software or firmware for special applications nor this instruction manual to be error free. Thorlabs is not liable for consequential damages.

Restriction of Warranty

The warranty mentioned before does not cover errors and defects being the result of improper treatment, software or interface not supplied by us, modification, misuse or operation outside the defined ambient stated by us or unauthorized maintenance.

Further claims will not be consented to and will not be acknowledged. Thorlabs does explicitly not warrant the usability or the economical use for certain cases of application.

Thorlabs reserves the right to change this instruction manual or the technical data of the described unit at any time.

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3 Copyright and Exclusion of Reliability

Thorlabs has taken every possible care in preparing this document. We however assume no liability for the content, completeness or quality of the information contained therein. The content of this document is regularly updated and adapted to reflect the current status of the hardware and/or software. We furthermore do not guarantee that this product will function without errors, even if the stated specifications are adhered to.

Under no circumstances can we guarantee that a particular objective can be achieved with the purchase of this product.

Insofar as permitted under statutory regulations, we assume no liability for direct damage, indirect damage or damages suffered by third parties resulting from the purchase of this product. In no event shall any liability exceed the purchase price of the product.

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4 Thorlabs 'End of Life' Policy (WEEE)

As required by the WEEE (Waste Electrical and Electronic Equipment Directive) of the European Community and the corresponding national laws, Thorlabs offers all end users in the EC the possibility to return “end of life” units without incurring disposal charges.

This offer is valid for Thorlabs electrical and electronic equipment

- sold after August 13th 2005
- marked correspondingly with the crossed out “wheelie bin” logo (see figure below)
- sold to a company or institute within the EC
- currently owned by a company or institute within the EC
- still complete, not disassembled and not contaminated

As the WEEE directive applies to self contained operational electrical and electronic products, this “end of life” take back service does not refer to other Thorlabs products, such as

- pure OEM products, that means assemblies to be built into a unit by the user (e. g. OEM laser driver cards)
- components
- mechanics and optics
- left over parts of units disassembled by the user (PCB’s, housings etc.).

Waste treatment on your own responsibility

If you do not return an “end of life” unit to Thorlabs, you must hand it to a company specialized in waste recovery. Do not dispose of the unit in a litter bin or at a public waste disposal site.

WEEE Number (Germany) : DE97581288

Ecological background

It is well known that waste treatment pollutes the environment by releasing toxic products during decomposition. The aim of the European RoHS Directive is to reduce the content of toxic substances in electronic products in the future.

The intent of the WEEE Directive is to enforce the recycling of WEEE. A controlled recycling of end-of-life products will thereby avoid negative impacts on the environment.

Crossed out
"Wheelie Bin" symbol

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5 Thorlabs Worldwide Contacts

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