
heliDriver D3C

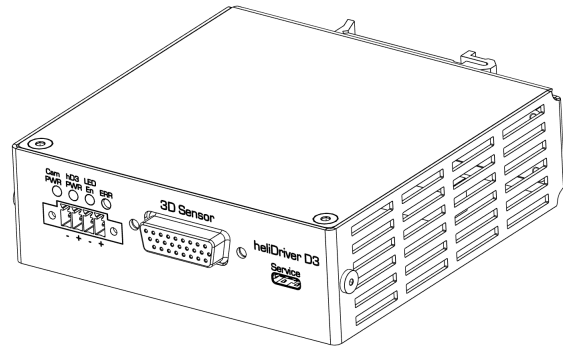
Heliotis AG

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- power supply
 - illumination driver
- for 4th generation
Heliotis devices (heliInspect™ H8, heliCam™ C4)



1 Features

- Current driver for device internal light source
- Power supply routing and protection

2 Applications

- Interface electronics
- Status and synchronization control data exchange in automated industrial landscapes

3 Approvals, Standards

- RoHS
- REACH

4 Description

The heliDriver™ D3C is an interfacing device used in combination with gen4 Heliotis devices (heliInspect™ H8, heliCam™ C4). It provides power connections and protection circuits and houses the LED current driver for the light source used in the measurement system. This version of the D3 has no extension slots modules. An advanced version of the D3 with extension slots for up to 2 I/O modules and a fieldbus module is also available (heliDriver™ D3C) but not covered in this document. The article number can be found in the [Ordering Information](#) section.

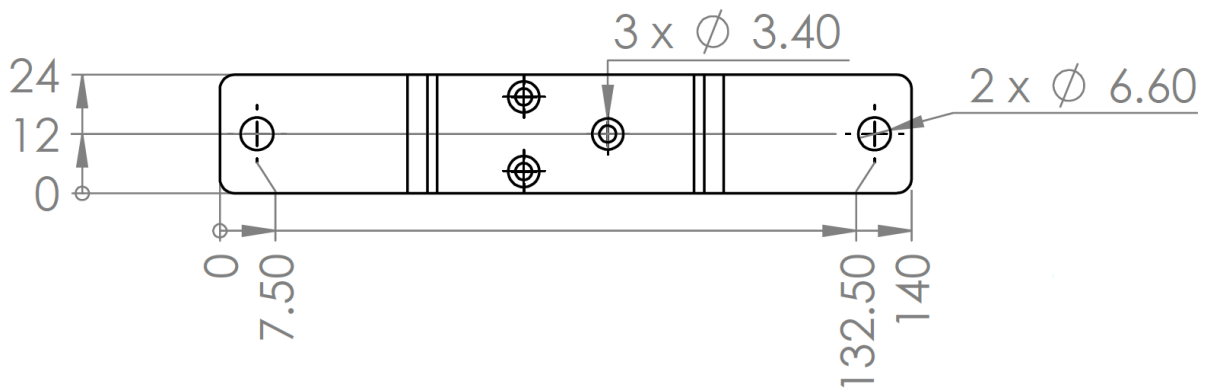


Fig. 5.2: Alternative mounting plate (included in delivery)

5.2 Mechanical Data

Specification	Value	Unit
Housing material	AISI 304 stainless steel	
Weight	520	g
Degree of protection	IP30	

5.3 Electrical Characteristics

Specification	Value	Unit
Supply voltage	24 (+/-10%)	VDC
Max power consumption (with H8 connected)	36	W
Protection class	III	
Protection type	EN 60529: 2000-09	

6 Device Specifications

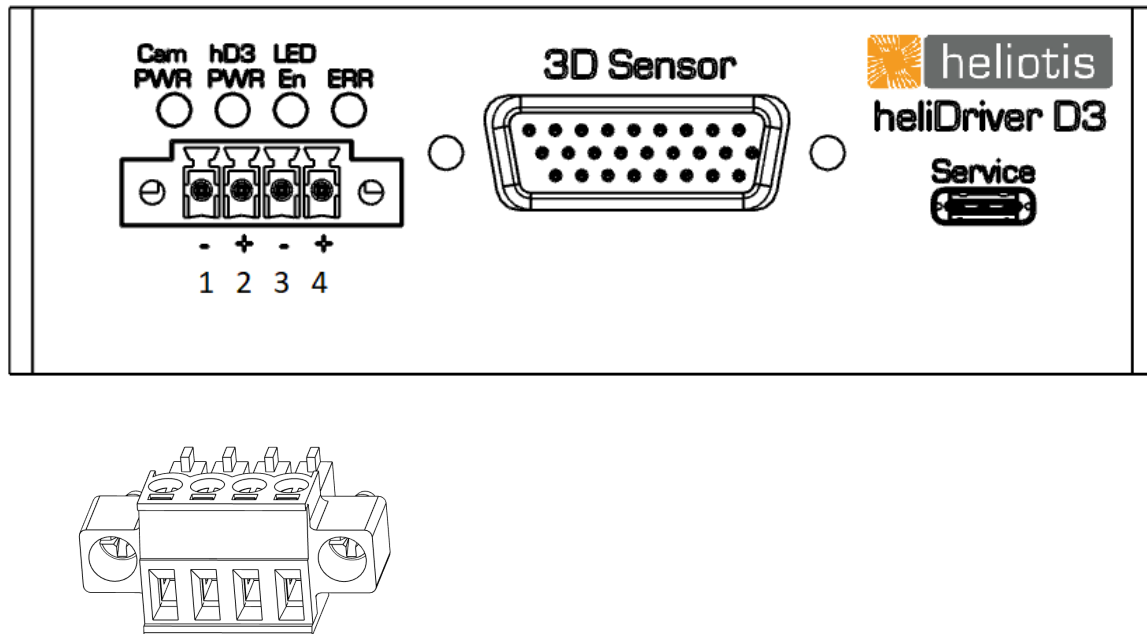









Fig. 6.1: power connector counterpart

The front side of the heliDriver™ D3 provides connections for the power supply of the D3 itself and the measurement head or camera connected to it. The gen4 device is connected to the heliDriver via the “3D Sensor” D-Sub connector. Additionally there is a USB-C “Service” port on the front panel. This connector is normally not used and serves mostly as a debugging interface. The four LEDs above the power connector give some visual status feedback during operation.

6.1 Pin assignment [power connector]

Pin #	Terminal designation	Description
1	GND	Camera GND (isolated from chassis, body and shield)
2	VDD	Camera supply 24V (internal 4A fuse)
3	UserGND	Camera User GND and heliDriver D3 GND (connected to chassis and shield)
4	UserVDD	Camera User supply and heliDriver D3 supply 24V (internal 5A fuse)

6.2 LED status indicators

Designation	LED colour	Status details
Cam PWR	 Yellow (blinking)	heliDriver is booting
	 Yellow	Camera is powered but not detected
	 Green	Connection with camera is established
hd3 PWR	 Red	Undervoltage on UserVDD supply
	 Green	All on-board supplies within nominal range
LED En	 Green	LED current driver enabled
ERR	 Red	Fault (error description software readable: device feature HeliDriverStatus) (Will also be red during D3 reboot after a power cycle. Turns off when Cam PWR LED stops flickering.)

7 Ordering Information

Description	Type number (TN)	Article number (AN)
Compact version of the heliDriver D3 without extension slots	D3C.0	40 81 00

8 Worldwide Support

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9 Document History

Version	Date	Changes	Responsible
1.0.0	30-11-2021	Initial version	cg
1.1.0	21-02-2024	Adopted new Heliotis style Added ordering information	sb