

# IEEE-1394 Interface

## Extension Module for VDS Digital Cameras



### Features

- Image data transfer up to 32 MByte/s (400 Mbit/s interface)
- Up to 12 fps at 1280 x 1024 pixel with 12 bit data (maximum)
- Interface with internal frame memory for intermediate storage, e. g. for simultaneous image recording with several cameras
- Two IEEE1394 ports for connecting several cameras in series
- Up to 63 systems at one IEEE1394 bus
- Compatible to DCAM 1.3 protocol (Digital Camera Specification)
- Demo software for Windows® 98 SE, Windows® ME, Windows® 2000, Windows® XP and Windows® Vista
- Directly plugable onto nearly all digital cameras by VDS Vosskühler

With the **IEEE1394 Interface** exists an easy possibility of connecting a VDS digital camera via "FireWire" to a computer. The flexible, 6 pole cable facilitates a quick and easy cable connection up to 10 m (extendable using repeaters).

The interface can use the full bandwidth of the IEEE1394 standard with 400 Mbit/sec. Therefore you can grab up to 12 frames/sec. (maximum) at full resolution (1280 x 1024 pixels) and full grey level of 12-bit per pixel.

The internal memory of the interface for a full frame can be used for simultaneous image recording with several cameras.

The IEEE1394 interface has two IEEE1394 ports available for serial connection of several cameras.

With the compatibility to the DCAM 1.3 protocol (Digital Camera Specification) it is possible to use other image processing programs with IEEE1394-support.

You do not need a framegrabber. You only need an IEEE1394-port (also known as "FireWire") at your computer or notebook.

The interface is directly connectable to VDS cameras, e. g. the CCD-1300 series or COOL-1300 series.

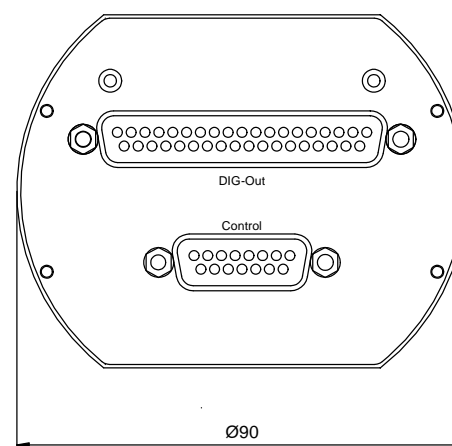
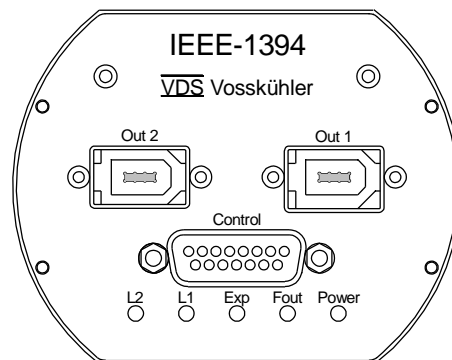
Optionally, the demo software "IEEE1394Control" for Windows® 98 SE, Windows® ME, Windows® 2000 and Windows® XP is available. With this demo program you can grab, display and save images (bmp, tiff or raw format). This demo software package also includes a TWAIN driver for easy access to the IEEE1394 interface from every TWAIN compatible application.

**IEEE-1394 In-/Output (6-pin Jack)**

Pin	Function
1	+ 12 V (optional)
2	GND (optional)
3	/TPB
4	TPB
5	/TPA
6	TPA

**Power and Control Input (15-pin D-SUB Jack)**

Pin	Function
1	+ 12 V DC
2	
3	GND
4	
5	reserved (RS232: CTS)
6	reserved (RS232: RTS)
7	reserved (RS232: RXD)
8	reserved (RS232: TXD)
9	-
10	-
11	+ ] Trigger Input (Opto-Coupler)
12	- ] Exposure Output (Opto-Coupler)
13	+ ] Exposure Output (Opto-Coupler)
14	Line Sync Output (active low)
15	Frame Sync Output (active low)



**Technical Data**

- 400 Mbit/s IEEE1394 standard
- 12 fps for 1280 (H) x 1024 (V) pixels, 12-bit
- Internal frame memory
- Compatible to DCAM 1.3 protocol
- Connectable to CCD-1300, CCD-1020, COOL-1300, CCD-2000, CCD-4000 or CCD-11000 cameras
- Two IEEE1394 ports
- Cable lengths up to 10 m (extendable with repeaters)
- Up to 63 systems at one IEEE1394 bus
- Digital input: 12-bit, RS-644 (LVDS)
- Power supply: + 12 V, approx. 0.25 A
- Ambient air temperature: 0° to 40° C
- Dimensions: Ø 90 mm x 71 mm x 37 mm
- CE standard
- Made in Germany