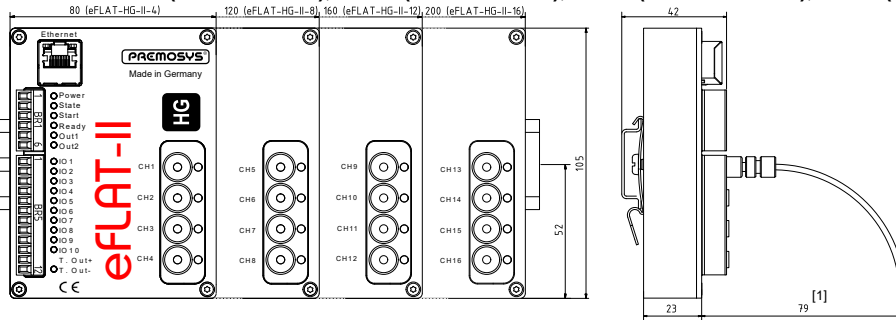


# Datasheet eFLAT-HG-II

Flexible Light Analyzer and Test System 4/8/12/16-Channel  
 Article-No.: 50799 (eFLAT-HG-II-4), 50800 (eFLAT-HG-II-8), 50801 (eFLAT-HG-II-12), 50802 (eFLAT-HG-II-16)



Tolerance of Measure: Unless otherwise noted in drawing, tolerances are specified with ±0.1 and dimensions are specified in mm.



## Safety and Warning Instructions

The system is not designed and constructed for use as a safety-critical component in systems and machines in general, nor for particular use in medical applications. Use is not permitted in these areas. Assembly, installation and maintenance are to be performed by trained personnel only.

## Pin Assignment Terminal Strip BR1

Pin assignment of the terminal strip BR1.

- 1 Power supply 12 V to 27 V DC
- 2 Power supply 0 V
- 3 Input for hardware handshake signal Start
- 4 Output for hardware handshake signal Ready
- 5, 6 Output Out1 and Out2, binary coded result of the measurement

## Pin Assignment Terminal Strip BR5

Pin assignment of the terminal strip BR5.

- 1 to 10 Input IO1, IO2, IO3, IO4, IO5, IO6, IO7, IO8, IO9 and IO10 for product selection
- 11, 12 Output T.Out+ and T.Out-, Trigger

## Pin Assignment Ethernet Interface

Pin assignment of the ethernet interface.

- 1 TD+
- 2 TD-
- 3 RD+
- 4 internally connected to 5
- 5 internally connected to 4
- 6 RD-
- 7 internally connected to 8
- 8 internally connected to 7

Note: Pins 4/5 and 7/8 are not used for data transfer and are internally provided with terminating resistors.

## Technical Data

Channels	4, 8, 12 or 16
Power supply	12 V to 27 V DC, max. 450 mA at 12 V (eFLAT-HG-II-4), max. 610 mA at 12 V (eFLAT-HG-II-8), max. 770 mA at 12 V (eFLAT-HG-II-12), max. 930 mA at 12 V (eFLAT-HG-II-16)
Spectral range	380 nm to 780 nm
Output	XYZ, CIE 1931 xy, CCT, λdom
Integration time	1 ms, 2 ms, 4 ms, 8 ms, 16 ms, 32 ms, 64 ms, 128 ms, 256 ms, 512 ms, 1024 ms
Resolution	5 gain steps a 16 Bit
Products	up to 1024 binary coded via 10 inputs
Accuracy <sup>[2]</sup>	White LED color coordinates x,y ± 0.0015 relative intensity ± 2 % resolution CCT 1 K
	Monochrome LED λdom < ± 4 nm resolution λdom 1 nm color coordinates x,y ± 0.0005
Repeatability	0.7 to 600,000 Lux <sup>[3]</sup>
Sensitivity	approx. 80 ms + longest integration time used (regardless of the number of channels used)
Measurement time (with data transfer)	Start, IO1 to IO10
Inputs	Signal voltage On Signal voltage Off
Outputs	Ready, Out1, Out2
Type	high side switches (PNP), not potential-free
Signal voltage On	> power supply - 3 V
Current	max. 100 mA per output, max. 400 mA in total
Interface	Fast Ethernet RJ45
Communication protocol	proprietary UDP/IP
Parameterization	via ethernet interface
Triggering	optionally via ethernet interface or IO interface
Coupling measuring object	fiber optic with F-SMA connection
Fuse protection	internal electronic, self-resetting
Material case	aluminum coated
IP Code	IP20
Operating temperature	10 °C to 50 °C
Operating humidity	35 % to 85 % relative humidity
Storage temperature	-10 °C to 60 °C
Weight	approx. 390 g (eFLAT-HG-II-4), approx. 540 g (eFLAT-HG-II-8), approx. 730 g (eFLAT-HG-II-12), approx. 870 g (eFLAT-HG-II-16)

Datasheet eFLAT-HG-II - Version 2.5 • 2021-03 - Subject to change.

[1]: with plastic fiber optic (Ø 1 mm)  
 [2]: when using the adjustment for white respectively monochrome LEDs  
 [3]: when using plastic fiber optic PR-LL-K1-SMA-500 (Ø 1 mm) with diffuser LWL-A-D-12,5 (Ø 12 mm)