

Digital transmitter of visible light intensity

Field of application and characteristics

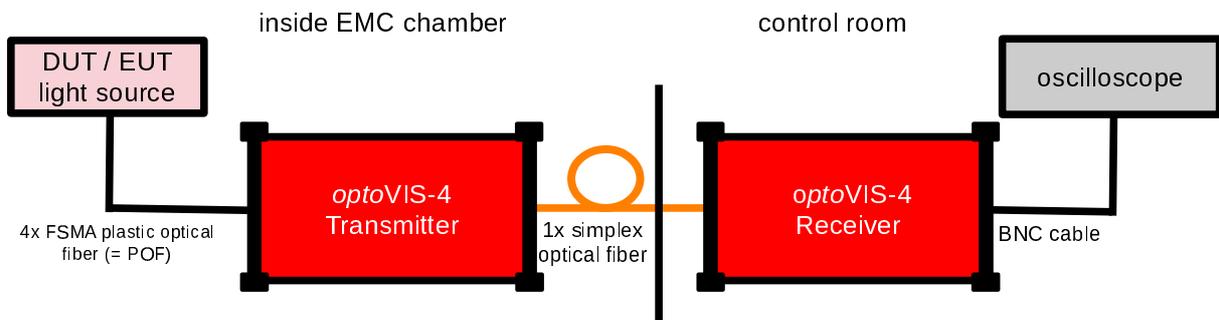
The *optoVIS-4* system is used for the digital optical transmission of visible light intensity which is converted to an electrical output signal. The picture on the right shows the version with chromated, i.e. conductive housings. The standard housing is anodized in red.

With this setup the correct light output and flickering of different lighting solutions in the industrial and automotive sector can be evaluated.



The system consists of two battery supplied transceivers connected to each other with an optical fiber. With the optical transmission and the shielded case, the system is well equipped for EMI and EME tests with automotive standards such as CISPR 25 class 5.

Application



Technical data

Channels:	4 channels
Analog bandwidth:	up to 4 kHz (cutoff frequency)
Sensitivity:	selectable, high and low gain setting available for each channel (dip switch)
Data direction:	unidirectional
Input (transmitter):	4x FSMA via plastic optical fiber (= POF) attached to the light source
Output connector (receiver):	BNC
	0 - 15 V, max. 10 mA (measure with high impedance hardware)
Output (receiver):	tested outputs: "Hi beam" output of car front light results in approx. max. 7.5 V receiver out in transmitter "low gain" setting "turn light" indicator of car front light results in approx. 5 V receiver out in transmitter "high gain" setting gain settings can be adjusted at mk during production in case test hardware is supplied

Power supply:	integrated batteries 4 Ah, consisting of 5x NiMH cells, 6 V operating time with fully charged batteries: approx. 13 h operating time can be extended with an external battery pack
Charging connector:	push-pull 12 mm PP12 or Binder 712. Push-pull 9 mm PP9 on request
Housing:	anodized aluminum case 118 mm x 80 mm x 50 mm
Weight:	approx. 760 g
Optical connector:	1x FSMA / simplex multimode fiber 62.5/125 μ m, 850 nm

Scope of delivery

- 1x *optoVIS-4* Transmitter
- 1x *optoVIS-4* Receiver
- 1x 20 m simplex multimode optical fiber (OM1) FSMA/FSMA
- 4x 2 m simplex plastic optical fiber (POF) 980/1000 μ m FSMA/open end (to transmit the EUT/DUT light)
- 2x charger for the integrated batteries, AC plug types available: A(US), C(EU), G(UK) and I(AUS)

Accessories and options

Optical fiber - types:	FSMA, ST, FC, LC, E2000 (combinations possible), 62.5/125 μ m or 50 μ m
Optical fiber - lengths:	0.5 m \rightarrow 100 m
Optical fiber - feedthrough:	FSMA/FSMA, ST/FSMA, ST/ST, FC/FC
Optical fiber - cleaning:	Fiber optic cleaning set
Optical fiber - protective caps:	protective cap/cover for male FSMA optical fibers captive cap/cover for male FSMA optical fibers (connected to the cable => does not get lost)
Optical connector - protective caps:	Protective cap/cover of FSMA optical input/output of mk devices captive cap/cover of FSMA optical input/output of mk devices
External battery pack BP60:	for run time enhancement of the device in the EMC chamber 4 Ah or 10 Ah (additional high capacity charger needed) PS75-5m (suitable charger for Binder 712 devices) PS75-5m PP12 (suitable charger for push pull 12mm devices)
Power supply:	for constantly powering the device in the control room (does not charge the device) AC plug types available: A(US), C(EU), G(UK) and I(AUS)