

Product description

Optical receiver OD005P (in text – receiver) is intended to convert signals from optical to electrical. Device is equipped with Optical Level Control and optical input power indicator as well as bidirectional output test point to simplify measurement, adjustment and troubleshooting.

OD005P receiver is powered from the mains 230 V~.

Device is intended for indoor use only.

Safety instructions

Installation of the receiver must be done according IEC60728-11 and national safety standards.

Any repairs must be done by a skilled personnel.

The OD005P is powered from mains 230 V~. The voltage is dangerous to life.

To ensure safe operation of the receivers follow these instructions:

Do not remove the cover of the power supply section, without disconnecting the unit from the mains supply.

Do not plug the receiver into the mains supply if the power cord or plug are damaged.

Do not plug the receiver into the mains supply until all cables have been connected correctly.

The mains socket must be easily accessible.

Receiver shall not be exposed to dripping or splashing water.

Avoid placing the receiver next to central heating components and in areas of high humidity.

If the receiver has been kept in cold conditions for a long time, keep it in a warm room no less than 2 hours before plugging into the mains.

Do not insert any objects into ventilation openings.

The ventilation should not be impeded by covering the ventilation openings with items, such as newspapers, table-cloths, curtains.

Mount the receiver in vertical position with RF connections underneath. Mount in locations where children not likely to be present. Shields of cables must be connected to main potential equalization bus.

From top, front and bottom of installed receiver must be at least 10 cm free space.

An optical connector after disconnection emits optical radiation.

Avoid looking directly into beam, laser light can cause eye injuries and result in permanent loss of vision.



This product complies with the relevant clauses of the European Directive 2002/96/EC. The unit must be recycled or discarded according to applicable local and national regulations.



Equipment intended for indoor usage only.



Equipment is double insulated from the mains, with functional earthing.



Functional earthing. Connect to the main potential equalization.

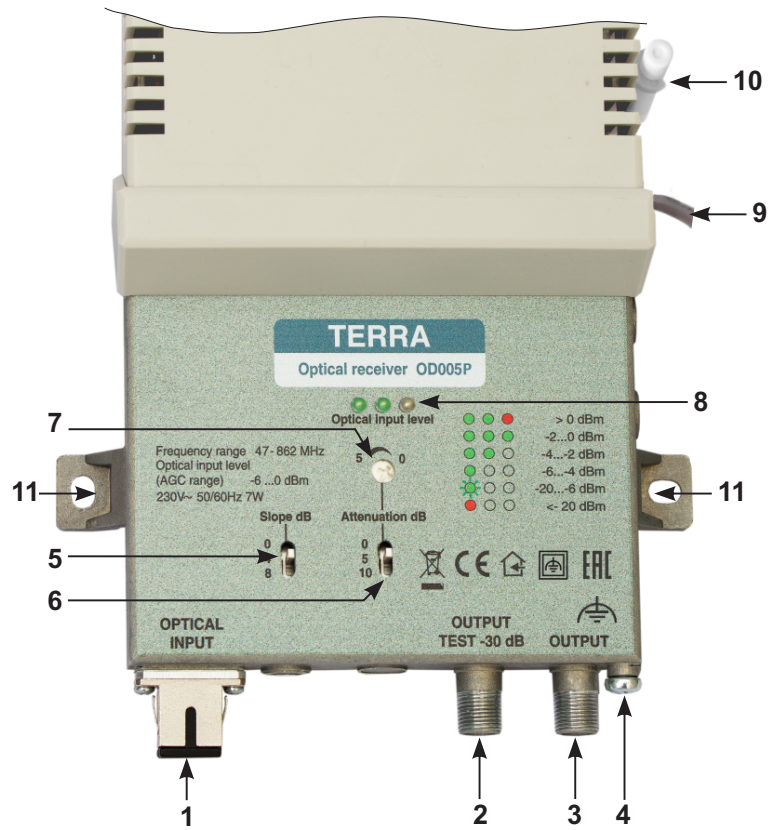


This product is in accordance to following norms of EU: EMC norm EN50083-2, safety norm EN IEC62368-1 and RoHS norm EN50581.



This product is in accordance with Custom Union Technical Regulations: "Electromagnetic compatibility of technical equipment" CU TR 020/2011, "On safety of low-voltage equipment" CU TR 004/2011.

External view



1. **OUTPUT INPUT** - optical input SC/APC
2. **OUTPUT TEST-30 dB** - RF output signal test point (F socket)
3. **OUTPUT** - RF signal output connector (F socket)
4. Functional grounding clamp
5. 0 / 4 / 8 dB slope switch
6. 0 / 5 / 10 dB gain switch
7. 5 dB fine tuning gain regulator
8. 3 LED optical input power indicator
9. Power cord
10. Screwdriver
11. Mounting supports

INSTALLATION INSTRUCTIONS

Read the product description and safety instruction first.

The receiver should be mounted vertically with cable RF output underneath in order to ensure good ventilation conditions.

The receiver must be fixed with steel screws Ø 4-5 mm. The screws are not included in a package.

Fiber installation should be done very carefully. Bending radius of fibers must be not less 25 mm. All optical connectors and adaptors should be cleaned before connecting them.

Plug the receiver into the mains after all cables have been connected correctly.

Technical characteristics

Optical input	optical wave length	1100-1600 nm
	optical input level (AGC range)	-6 ...0 dBm
	optical return loss	> 40 dB
	noise current density	≤ 6.5 pA/√Hz
RF output	frequency range	47-862 MHz
	impedance	75 Ω
	return loss	≥ 14 dB at 40 MHz-1.5 dB/octave
	frequency response	± 0.75 dB
	output level (AGC controlled, 4.9% OMI)	106 dBμV
	output level (CTB, EN60728-3)*	107 dBμV (42 ch.)
	output level (CSO, EN60728-3)*	107 dBμV (42 ch.)
	interstage attenuator	0-15 dB
	interstage equalizer	0/4/8 dB
	loss in test point	-30 ± 0.7 dB
Supply voltage limit values		198-250 V~ 50/60 Hz
Consumption		7 W
Operating temperature range		-20° ÷ + 50° C
Dimensions/Weight (packed)		135x180x52 mm/0.7 kg

* output level (CTB, CSO) is measured with 8 dB interstage equalizer

Operating and adjusting

Optical level control (OLC) is active at optical input power -6 .. 0 dBm. The output level remains constant (adjusted by user using discrete 0/5/10 dB switch and fine tuned with 0 .. 5 dB regulator) while optical input power fluctuates in range of -6 .. 0 dBm.

The receiver owns optical input power indicator formed from 3 LED. Note the table below for detailed description.

Indication			OLC	Optical input power
Left LED	Middle LED	Right LED		
Glowing red	Not glowing	Not glowing	OFF	< 20 dBm or optical signal is missing
Blinking green	Not glowing	Not glowing	OFF	- 20 .. - 6 dBm
Glowing green	Not glowing	Not glowing	ON	- 6 .. - 4 dBm
Glowing green	Glowing green	Not glowing	ON	- 4 .. - 2 dBm
Glowing green	Glowing green	Glowing green	ON	- 2 .. 0 dBm
Glowing green	Glowing green	Glowing red	OFF	> 0 dBm

Structure diagram

