Ratioplast
Electronics | OptoElectronics

Data sheet **RPOpto-Clamp Si-PIN Photoreceiver**

190...1100nm PIN Photoreceiver

1 General

The RPOpto-Clamp is especially suitable for applications with standard 1mm plastic fiber optical cable. Pre-mounted with a low-noise Si-PIN Photoreceiver with a spectral bandwidth from 190nm to 1100nm the RPOpto-Clamp is a good solution in measuring instruments with plastic fiber optical cable.

905EMPINKR005

905EMPINKR006

Pic. 1 RPOpto-Clamp with Photoreceiver

2 Application

Due to the good optical and mechanical features, this receiver may be used in many applications:

- Analysis systems
- Optical measuring instruments

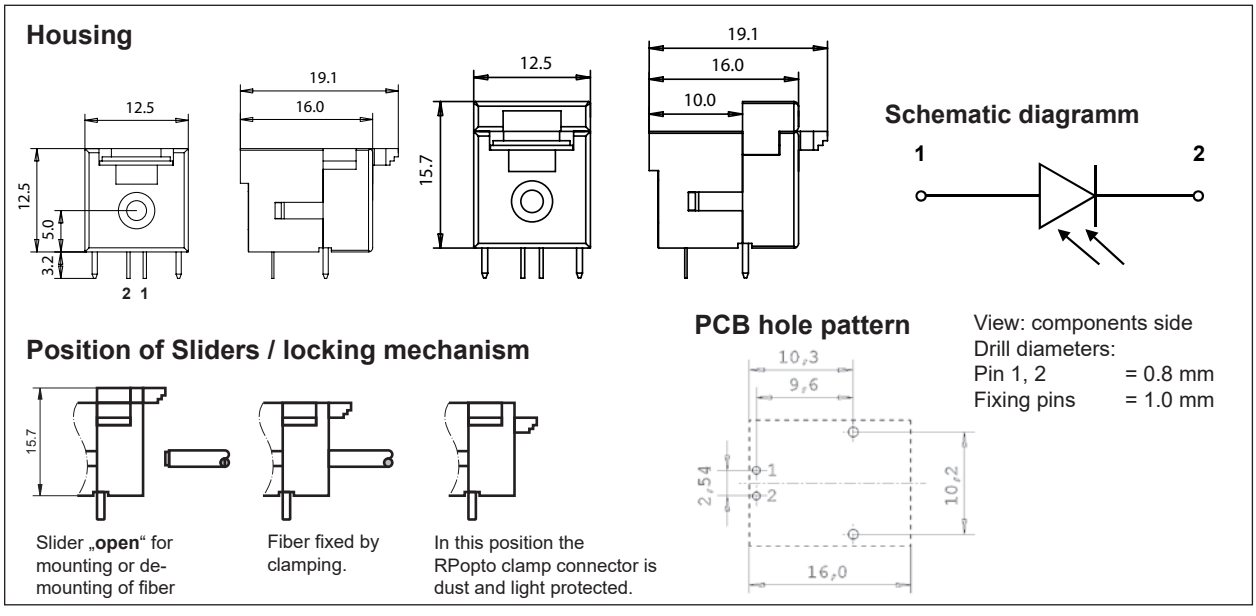
3 Ordering information

Specification	Part number
without front panel fill	905EMPINKR005
with front panel fill	905EMPINKR006

5 Features

- 190...1100nm PIN-Photoreceiver
- plugless fiber optic cable assembly
- suitable for all plastic optical fiber cables with an outside diameter of 2.2 mm and a fiber diameter of 1 mm
- fast locking mechanism (manual control)
- plastic housing
- suitable for automatic assembly
- reflow-/ wave soldering

4 Drawing



Pic. 2 Drawing

190...1100nm PIN Photoreceiver

7 Maximum ratings

Stresses beyond those listed under «Maximum Ratings» may cause permanent damage to the electronic component. The maximum ratings represent the stress limits of the electronic component. Operation of the electronic component at these values is not recommended over an extended period as this may adversely affect the reliability of the component.

Parameter	Value	Unit
Operating temperature	-20 .. +60	°C
Storage temperature	-55 .. +80	°C
Reverse voltage	5	V

8 Technical data

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Peak sensitivity wavelength	λ_{PEAK}			960		nm
Spectral bandwidth	$\Delta\lambda$		190		1100	nm
Rise / fall time	t_r t_f	R_L=1kΩ, V_R=0V		100 100		ns ns
Thermal capacitance	C_J	V_R=0V		20		pF
Photo sensitivity	S_λ	λ=960nm		0.5		A/W
NEP				5.7×10^{-15}		W/Hz
Dark current	I_D	V_R=10mV		20		pA