dimensions	**9 x 30 x 64.5mm**	
plastic fiber optics	through-beam sensor	**up to 14m**
	dif. reflection sensor	**up to 230mm**

- ✓ **4-digit double-display for threshold (green) and current measurand (red)**
- ✓ **teach-in button and remote-teach input for fully automatic teaching**
- ✓ **3 different teach-in possibilities**
- ✓ **multi-timer function**
- ✓ **copy function for transmitting the settings from device to device**
- ✓ **transmitting LED adjustable in 4 frequency levels**
- ✓ **easy setting of the manifold functions**
- ✓ **mutual crosstalk suppression for up to 4 amplifiers**
- ✓ **LED indicator for switching output**
- ✓ **connection with 4-pin M8-connector**
- ✓ **compact design for mounting on top hat rail**

amplifiers for plastic fiber optics threshold and measurand display

description

Article **OL100370** is an amplifier for fiber optics made of plastic fibers. It does not only offer the usual standard functions, but also a number of useful special functions. In spite of the range of related adjustment options, focus is on simple operability. Setting is intuitive, with the aid of 3 buttons. Teaching takes place at the push of a button or externally via the remote-teach function.

The intensity of the transmitter LED can be reduced at the push of a button. As such, without working in saturated mode, heavily reflective and highly transparent material can be measured without any problems.

The device has an ECO mode for saving energy and a key lock function for preventing unauthorized operation.

The amplifier is best suited for operation with our wide range of fiber optics made of plastic fibers. The mounting hole for the transmitter and receiver line has a diameter of 2.2mm and can be conveniently adapted to a smaller diameter using our reduction sleeves.

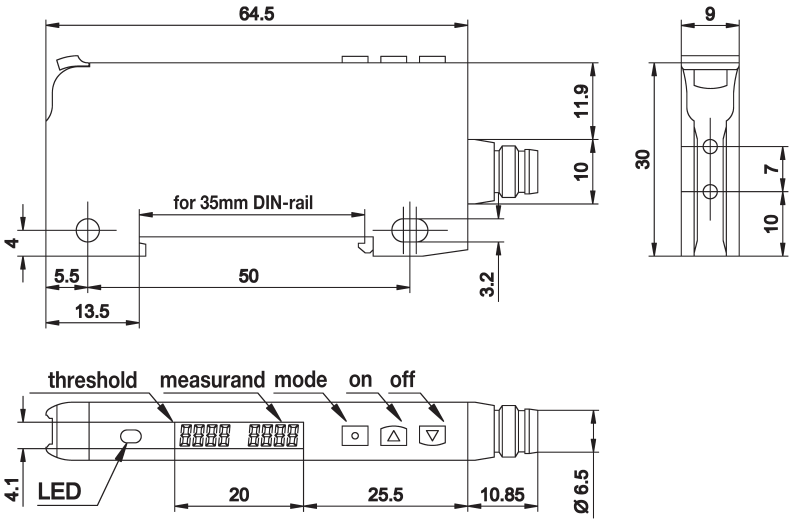
The device has very compact dimensions, is only 9mm wide and is simply snapped onto an appropriate standard top hat rail, designed in accordance with DIN EN 60715 TH35 (formerly DIN EN 50022).

In the application of several sensors and an extremely high requirement in terms of accurate sensitivity adjustment, the fiber optic amplifier is especially suited to production processes which have to be changed on a frequent basis.

application examples

- detection of contrast marks and metal pins
- foil width recognition
- recognition of the smallest of components
- object recognition on robot arms and conveyor belts

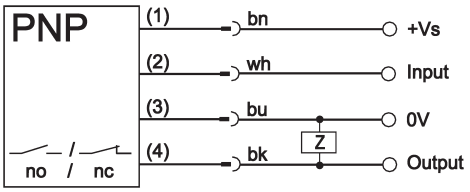
article-no.	**OL100370**
output	**pnp, no / nc programmable**

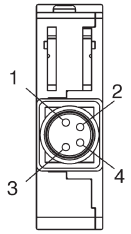


TECHNICAL DATA

operating range	through-beam sensor: up to 14m, depends on used fiber optics
sensing range	dif. reflection sensor: up to 230mm, depends on used fiber optics
output signal	pnp, no / nc programmable
operating voltage	12 … 24V DC ±10%
current consumption (w/o load)	≤ 30mA
output current (max. load)	100mA
voltage drop (max. load)	1.5V DC
response time	250µs / 450µs / 500µs / 600µs depending on adjusted modulation frequency (level 1 … 4)
transmitting element (pulsed)	LED, red light
wavelength	632nm
input (signal level)	high-level: 4 … 24V DC / low-level: 0 … 0.6V DC (or open)
input resistance	approx. 10kΩ
display (signal)	orange LED
display (preset value)	adjusted threshold: 4-digit LED display, green (display)
display (actual value)	actual measurand: 4-digit LED display, red (display)
sensitivity adjustment	teach-in: two-stage / directly / fully automatic
on/off delay	programmable
interference suppression	crosstalk suppression: by the 4 different modulation frequencies (level 1 … 4)
short-circuit protection	+
reverse polarity protection	+
dimensions	9x30x64.5mm
housing material	polycarbonate (fiber closure: PBT)
shock resistance	10G (in all directions, 5 times each)
vibration resistance	10 … 150Hz, 0.75mm amplitude (in all directions, 2 hours each)
operating temperature	-10 … +55°C (apart) / -10 … +45°C (several devices directly adjacent)
degree of protection (EN 60529)	IP40
connection	M8-connector, 4-pin
connection accessories	e.g. **VK200375**
mounting accessories	see separate list

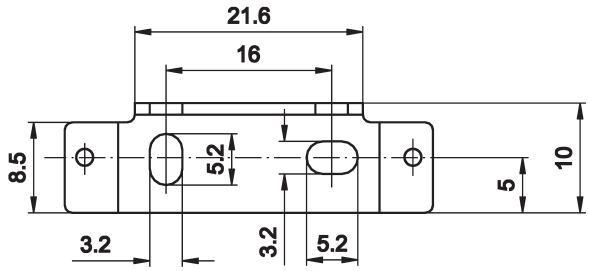
connection

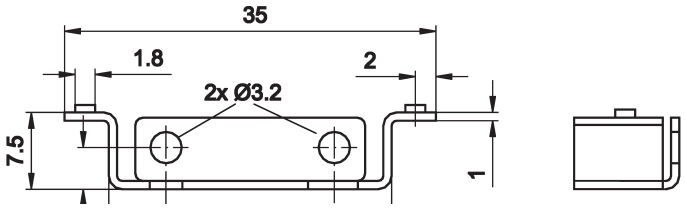




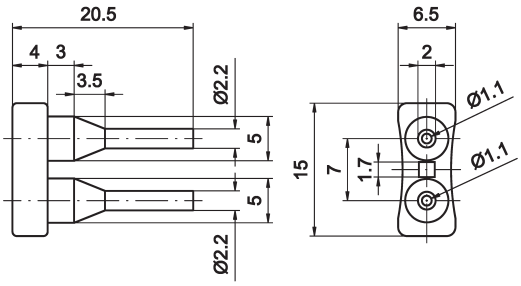
wire colors: bn = brown (1), wh = white (2), bu = blue (3), bk = black (4)

DIN-rail AL000015

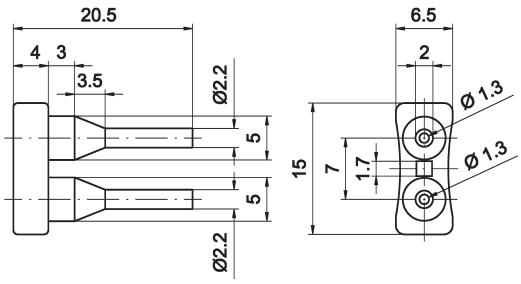




reduction sleeve AL000016



reduction sleeve AL000027



ACCESSORIES

article-no.	description	material
AL000015	DIN-rail / vertical and lateral mounting	chrome-plated steel
AL000016	reduction sleeve 2.2/1.1	plastic
AL000027	reduction sleeve 2.2/1.3	plastic

This data sheet contains the standard versions only. Kindly request the availability of other output- and connection versions.

We will be pleased to supply the matching cable socket for your devices with connector. Please refer to the list in catalog chapter „accessories“ under „cable sockets ipf -*SENSORFLEX®*“ or search our website for „VK“.

Warning: Never use these devices in applications where the safety of a person depends on their functionality.

This data sheet as well as your personal contact can be found at www.ipf-electronic.com

NOTES

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