

## ISG-N14...

### Features

- Amplifier with modulated infrared light
- Range up to 70 m (230 ft)
- high immunity to ambient light and interference from other light barriers
- Sensitivity adjustable with potentiometer
- Relay output (changeover)
- Transmitter and receiver connections are short-circuit proof
- 11-pin DIN railmounting socket for simple installation

### Ordering Table

Supply voltage	Order code
230 V AC	ISG-N14/230VAC
115 V AC	ISG-N14/115VAC
24 V AC	ISG-N14/24VAC
24 V DC	ISG-N14/24VDC
<b>Accessories</b>	
11-pin DIN mounting socket	ISO1
Protective enclosure	PanBox 1x1
Retaining clip	RTC11

### Safety Instructions



#### Warning!

The infrared light barriers ISG-... are not safety systems and should not be used as such systems. The devices are not to be used for applications, where personal safety is dependent on their function.

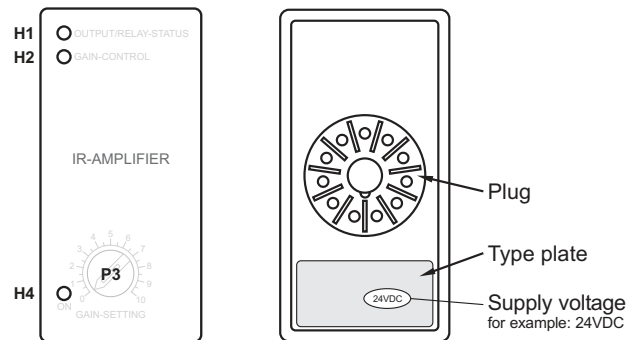
### Short Description

The 1-channel photoelectric amplifier with manual gain setting is an amplifier with an integrated analysis unit. The amplifier works with modulated infrared light, which enables a high degree of immunity to ambient light and cross talk from neighbouring photo-sensors. The manual gain setting, adjusted with a potentiometer located on the front side, enables the user to simplify the installation and work.

Infrared transmitters and receivers in different, compact and robust designs are described in the sensor heads datasheet.



### Device Overview



### Displays and operating elements

- H1 – Output status indicator (yellow)
- H2 – Sensitivity indicator (green)
- H4 – Power ON display (green)
- P3 – Gain setting

### Switching logic

Beam status	Switching mode	Output status	
		Indicator H1	Relay output
	light		
	light		

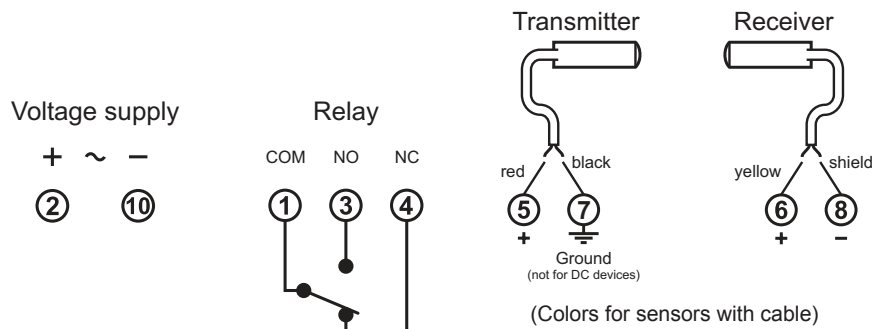
## ISG-N14...

### Technical Data (at 20 °C / 68 °F)

Supply voltage ...AC	230/115/24 V AC / ±10%	
Supply voltage ...DC	24 V DC / ±20%	
Power consumption (max.)	...AC: 4,2 VA	...DC: 2,0 W
Power loss (max.) (EN 61439)	...230VAC : 3,1 W ...115VAC : 3,0 W ...24VAC : 3,0 W	...24VDC: 2,0 W
max. Range (through beam)	Receiver IRL-...	Receiver IR-..., IRH-...
Transmitter IT-..., ITL-...	20 m (66 ft)	25 m (82 ft)
Transmitter IT-...HP, ITH-...	30 m (98 ft)	35 m (115 ft)
Transmitter ITA-...	50 m (164 ft)	70 m (230 ft)
Operating basis	modulated IR-light	
Transmit frequency (kHz)	3,5	
System power	manual	
Basic transmit level	100 %	
Switching behavior	light	
Switching delay	—	

Relay output	1 change over
Switching data (max.)	5A / 230 V AC (24 V DC)
Switching frequency (max.)	18 Hz
Transistor output	—
Alarm output	—
Test input	—
MTBF (EN/IEC 61709)	460 a (8760 h/a, 40 °C / 104 °F)
Operating temperature	-25 ... 50 °C (-13 ... 122 °F)
Storage temperature	-40 ... 80 °C (-40 ... 176 °F)
Housing material	Plastic
Housing protection	IP 40
Mounting	11-pin DIN socket
Dimensions (mm)	40 x 76,5 x 80,0

### Connection Diagram



**Caution!**

The AC-supply devices are isolated from main.  
A grounded connection on the low voltage side is required (PIN 7).

### Dimensions (in mm)

