



8020036

# V91-AP/N • V91-BP/N V91-FP/N (-00/-01/-10/-11)

max. frequency response: **V91A:** 10kHz  
**V91B:** 500Hz  
**V91F:** 3kHz

functional principle: **V91A:** non-pulsed  
**V91B/V91F:** pulsed

power supply indicator: LED green (STAB)  
function indicator: LED yellow

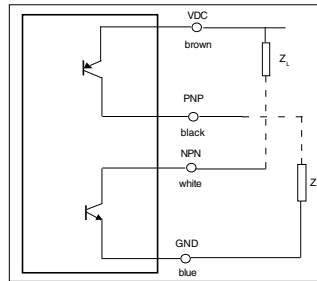
operating voltage: 10 ... 30 VDC (max.)  
output current: 100mA

current consumption: **V91A:** 45mA / 45mA  
(Ø / peak)  
**V91B:** 45mA / 200mA  
**V91F:** 45mA / 120mA

weight: 55g  
casing material: ABS  
operating temperature: -10°C ... +55°C  
protection class: IP65

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## Wiring and Connection



### Sensor

standard: male M8, 3pins  
1 + emitter  
4 GND/shielding  
3 + receiver



options -10/-11: female, 4pins  
1 + emitter  
2 GND/shielding  
3 GND/shielding  
4 + receiver



### In-/Output

option -00 (standard) PVC-cable, 4wires, 2m

-10  
brown -VDC  
white NPN-signal output  
blue - GND  
black PNP-signal output

options -01/-11: cable M8, 4pins

1 (brown) + VDC  
2 (white) NPN-signal output  
3 (blue) - GND  
4 (black) PNP-signal output



## Attention!

Connect amplifier to 10-30 VDC only!

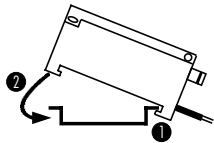
Do not lay amplifier cable parallel to a power line!

If the green LED does not shine, then the signal is unstable.

## Caution!

Sensor and amplifier are only authorized to detect objects. Do not use amplifier and sensor for personnel safety applications!

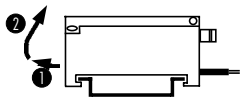
## Assembly



Put device onto DIN rail clip as shown. Then, connect sensor cable.

## Disassembly

First unplug sensor cable connector. Then take amplifier off the DIN rail clip as shown.



## Light-On/Dark-On Switching

Choose the output logic by shifting the L on / D on switch.

### light-on:

the signal output switches to „on“ when light reaches the receiver

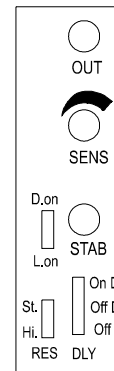
### dark-on:

the signal output switches to „on“ when light beam is interrupted

## Function Indicator

The green LED indicates a stable signal.

The yellow LED indicates the state of the output (on/off).



## Sensitivity Setting

The range of sensitivity may be selected either in standard (St.) or high-resolution mode (Hi.) by shifting the RES switch. In high-resolution mode the maximum sensing distance reduces to approximately 33% of the standard specified value (please refer to sensor datasheet).

## Setting of Pulse Stretching Function

The DLY switch can set pulse duration of 50ms. You can select between On Delay (On D) and Off Delay (Off D).

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