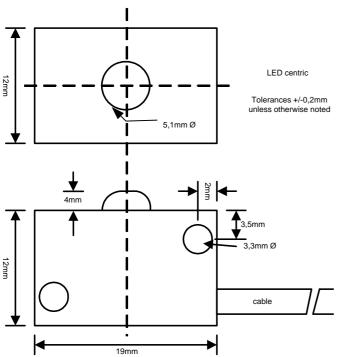


## Scharco Elektronik

Technische Dokumentation

# SGHAR12 (Transmitter)



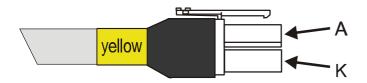
#### **Technical Data:**

reverse voltage  $U_{\mathsf{F}}$ max. 5V forward current max. 100mA  $I_{\mathsf{F}}$ max. power  $P_V$ max. 210mW -20°C...+80°C temperature range  $T_{amb}$ 940nm

wave length (peak) (max. of wave length)

Halve angel  $\pm 25^{\circ}$ 

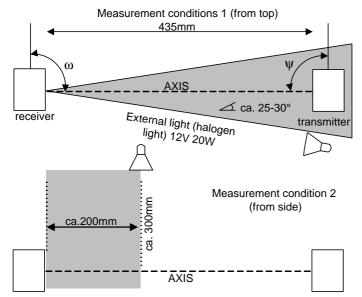
cable length 4000 ± 50mm



### Connector:

Molex 39-01-2025 connector type

colour coding yellow



### Influence of external light:

The left figures show - under typical usage conditions - the limits under which the devices (consisting of SGHAR12 transmitter, SGHAR13 receiver, working at a SGHAR8 controller) will still work correctly (→ ext. light outside grey marked area).

### alignment error:

The function is only guaranteed, if the axis alignment error of receiver and transmitter will be less than  $10^{\circ}$  ( $\psi + \omega < 10^{\circ}$ !).

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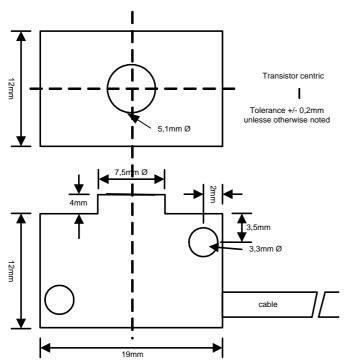
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## Scharco Elektronik

Technische Dokumentation

# SGHAR13 (Receiver)

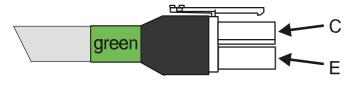


### **Technical Data:**

voltage CE  $U_{CE}$ max. 35V  $U_{\text{EC}} \\$ voltage EC max. 7V collector current  $I_{C}$ max. 50mA  $P_{tot}$ max. 200mW max. power -20°...+80°C temperature range  $T_{amb}$ wave length (peak) 870nm  $\lambda_{s max}$ 

 $\pm 25^{\circ}$ halve angel

cable length  $4000 \pm 50$ mm



### Connector:

Molex 39-01-2025 connector type colour coding green

### Influence of external light:

The left figures show - under typical usage conditions - the limits under which the devices (consisting of SGHAR12 transmitter, SGHAR13 receiver, working at a SGHAR8 controller) will still work correctly (→ ext. light outside grey marked area).

### alignment error:

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The function is only guaranteed, if the axis alignment error of receiver and transmitter will be less than  $10^{\circ}$  ( $\psi + \omega < 10^{\circ}$ !).

Mea │ <b>◆</b>	asurement conditions 1 (from top) 435mm	<b>.</b>
(i)	AXIS Ψ	-
receiver	External light (halogen light) 12V 20W	ansmitter
<b>←</b> ca.200mm	Measurement cond (from side) → (g	lition 2
	AXIS	

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