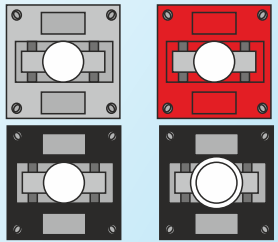
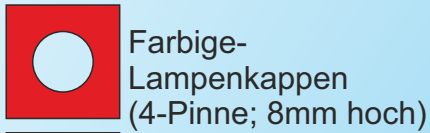


Lampe



Ältere Version: Schraub-Lampe
Neuere: Stecklampe
Neuste: LED

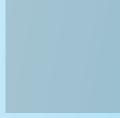
Lampe /
Linsenlampe



Farbige-
Lampenkappen
(4-Pinne; 8mm hoch)



Lochkappen



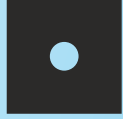
klar



8mm



6mm



4mm

Achtung bei
Linsenlampen!
Wärme!

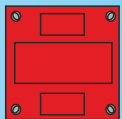


2,5mm



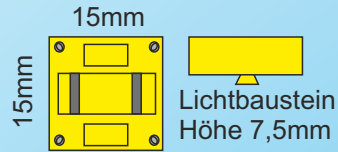
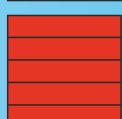
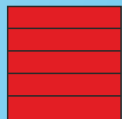
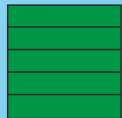
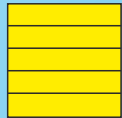
1mm

Fassung ohne
Anschlüsse



LED /
Farbige LED

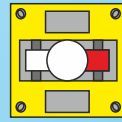
Rastkappen



Lichtbaustein
Höhe 7,5mm

Fototransistor SFH 309

$I_c = 15mA$
 $V_{CE} = 35V$

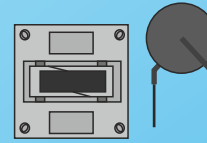


Rot = +Plus

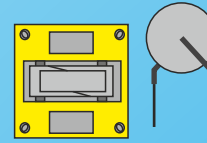
Kann analog und digital
eingesetzt werden (Lichtstärke/
Lichtschranke (schalten))

Temperatur- sensor NTC

NTC $R_{25} = 68k, 60k, 25k,$
 $2k, 1,5k, 500$

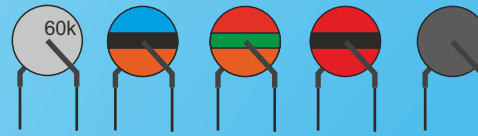


NTC $R_{25} = 1,5k$

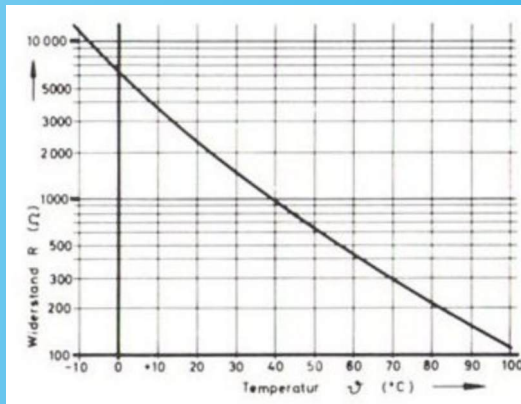


Neue Bauform

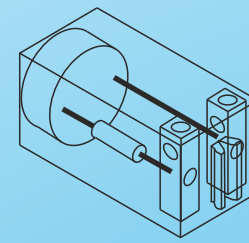
Teilw. ohne Sockel
/ Lichtbaustein



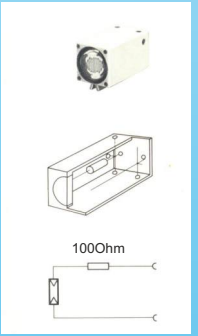
$R_{25} = 60k$ $60k$ $25k$ $2k$ $1,5k$



NTC-Kurve aus Hobby4 (2k)



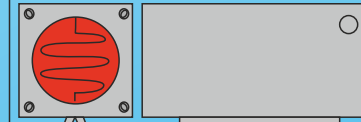
Schutzwiderstand
bei Kurzschluss
100 Ohm



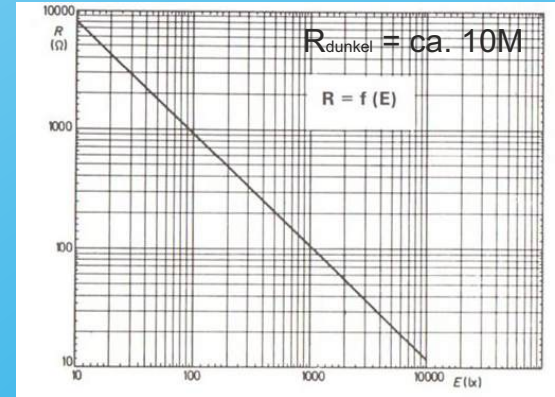
Fotowiderstand

Bauteil:
T9011/
LDR03

Alte
Bauform
 $R = 4k, 2k, 1k, 500, 300, 120$

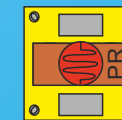


Widerstand bei 50 Lux
1...3 kOhm
Dunkelwiderstand 1MOhm
Verlustleistung 20mW
(Einzelliste 1978)

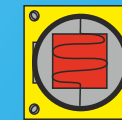


$R_{dunkel} = ca. 10M$

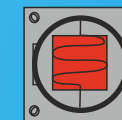
$R = f(E)$



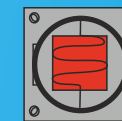
LDR 03 $R_{10} = 3-11k$
Neue Bauform $R_{100} = 1,2k$
-ohne- $600nm$
Schutzwiderstand



$R = ca. 120$



$R = ca. 120$



$R = ca. 300$
 $R = ca. 500$