

LEDset current setting resistors

- Plastic-encased and robust resistors for adjusting the LED driver current output
- Compact size to fit inside strain reliefs
- Basic isolated
- Rated power of 0.6 W with 1 % tolerance
- Helvar LED-Iset resistors are adjusted to follow the LEDset current/resistance settings values
- Pre-adjusted resistor values for the most common currents
- Suitable only for LED-Iset or LEDset drivers

0.6 W, 1 %



Helvar LED-Iset current setting resistors are high-quality plastic-encased resistors. They enable the simple adjustment of output current in LED drivers supporting LEDset / LED-Iset current setting by resistors.

LED-Iset resistor models

Resistor	Order code	Label text	Current*	Resistance
LED-Iset resistor 150mA	T90150	150	150 mA	33 200 Ω
LED-Iset resistor 175mA	T90175	175	175 mA	28 700 Ω
LED-Iset resistor 200mA	T90200	200	200 mA	24 900 Ω
LED-Iset resistor 225mA	T90225	225	225 mA	22 100 Ω
LED-Iset resistor 250mA	T90250	250	250 mA	20 000 Ω
LED-Iset resistor 275mA	T90275	275	275 mA	18 200 Ω
LED-Iset resistor 300mA	T90300	300	300 mA	16 500 Ω
LED-Iset resistor 325mA	T90325	325	325 mA	15 400 Ω
LED-Iset resistor 350mA	T90350	350	350 mA	14 300 Ω
LED-Iset resistor 375mA	T90375	375	375 mA	13 300 Ω
LED-Iset resistor 400mA	T90400	400	400 mA	12 400 Ω
LED-Iset resistor 425 mA	T90425	425	425 mA	11 800 Ω
LED-Iset resistor 450mA	T90450	450	450 mA	11 000 Ω
LED-Iset resistor 475 mA	T90475	475	475 mA	10 500 Ω
LED-Iset resistor 500mA	T90500	500	500 mA	10 000 Ω
LED-Iset resistor 550mA	T90550	550	550 mA	9090 Ω
LED-Iset resistor 600mA	T90600	600	600 mA	8250 Ω
LED-Iset resistor 650mA	T90650	650	650 mA	7680 Ω
LED-Iset resistor 700mA	T90700	700	700 mA	7150 Ω
LED-Iset resistor 750mA	T90750	750	750 mA	6650 Ω

Resistor	Order code	Label text	Current*	Resistance
LED-Iset resistor 800mA	T90800	800	800 mA	6200 Ω
LED-Iset resistor 850mA	T90850	850	850 mA	5900 Ω
LED-Iset resistor 900mA	T90900	900	900 mA	5600 Ω
LED-Iset resistor 950mA	T90950	950	950 mA	5230 Ω
LED-Iset resistor 1000mA	T91000	1000	1000 mA	4990 Ω
LED-Iset resistor 1050mA	T91050	1050	1050 mA	4750 Ω
LED-Iset resistor 1100mA	T91100	1100	1100 mA	4530 Ω
LED-Iset resistor 1150mA	T91150	1150	1150 mA	4320 Ω
LED-Iset resistor 1200mA	T91200	1200	1200 mA	4120 Ω
LED-Iset resistor 1250mA	T91250	1250	1250 mA	4020 Ω
LED-Iset resistor 1300mA	T91300	1300	1300 mA	3830 Ω
LED-Iset resistor 1350mA	T91350	1350	1350 mA	3740 Ω
LED-Iset resistor 1500mA	T91500	1500	1500 mA	3320 Ω
LED-Iset resistor 1600mA	T91600	1600	1600 mA	3090 Ω
LED-Iset resistor 1700mA	T91700	1700	1700 mA	2940 Ω
LED-Iset resistor 1800mA	T91800	1800	1800 mA	2800 Ω
LED-Iset resistor 1900mA	T91900	1900	1900 mA	2610 Ω
LED-Iset resistor 2000mA	T92000	2000	2000 mA	2490 Ω
LED-Iset resistor MAX	T90000	MAX	Max current	0 Ω

* Output current tolerance $\pm 2.2\%$ + driver current tolerance

Plastic casing specifications

Material	Polyamide 66 resin
Glow-wire flammability test (GWFI) passed at	850 °C (IEC 60695-2-12)

Resistor specifications

Resistance tolerance	± 1 %
Rated power	0.6 W
Working voltage up to	350 VAC/VDC

Insulation

Basic insulated

Operating & Storage Conditions

Operating temperature range	-20...+60 °C
Storage temperature range	-20...+80 °C

Do not store in wet or humid environment!

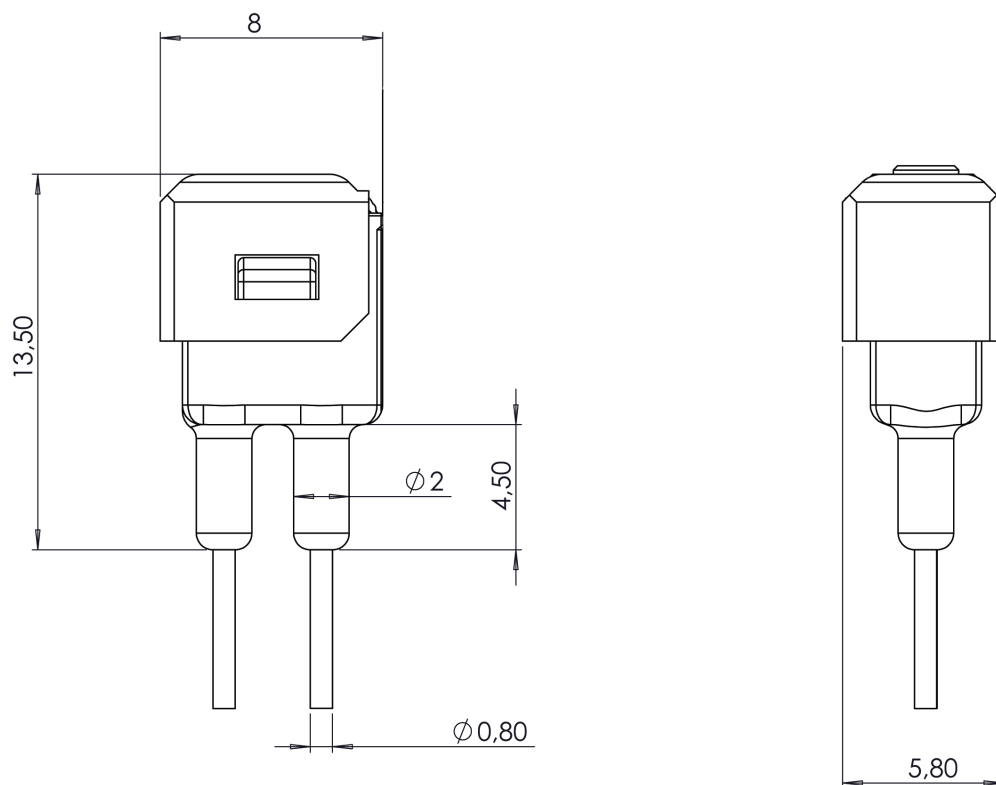
Resistor/current relation

In LED-Iset / LEDset drivers following LEDset-specified current/resistance values, the resistance for desired output current can be calculated from the formula

$$R [\Omega] = (5 [V] / I_{out} [A]) * 1000.$$

It is possible to achieve the same output current with pre-adjusted Helvar LED-Iset resistor or then with normal resistor with the specified resistance (including Helvar Iset resistors).

Dimensions



LED-Iset current setting resistors are suited for built-in usage in drivers inside luminaires as well as independent use with suitable drivers installed with strain reliefs. In order to have safe and reliable operation, the LED luminaires will need to comply with the relevant standards and regulations (e.g. IEC/EN 60598-1). The luminaire manufacturer is responsible for the correct choice and installation of the Iset resistors resulting in a specific current, according to the application and product datasheets. Operating conditions of the LED-Iset resistors may never exceed the specifications as per the product datasheet.

Installation & operation

Maximum temperatures:

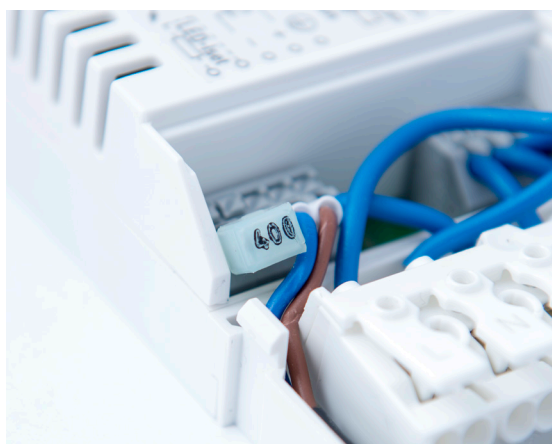
- Reliable operation and lifetime is only guaranteed if the maximum operating temperature is not exceeded under the conditions of use.

Installation considerations

- The LED-Iset current setting resistors are intended to be used with LED drivers to adjust the desired output current.
- Always connect the current setting resistors only into the terminals marked with LED-Iset / LEDset / GNDset on the LED driver label. Push the LED-Iset resistors as far into the connectors as they fit.
- If the driver has multiple current output terminals and LED-Iset resistor is used at the same time for current adjustment, please connect the load to the right output terminal dedicated for LED-Iset current-setting functionality.

Conformity & standards

Compliant with relevant EU directives	
RoHS/REACH compliant	



Resistor selection considerations

- Before selecting the right resistor, always take into account if the LED driver follows LEDset-specified current/resistor values or Iset values.
- If using a resistor value beyond the current range of the LED driver, the output current will be automatically adjusted to the minimum value or maximum value (depending if the resistor-adjusted current would be below or above the specified range).