

Signal lamps with integrated LED - 10 mm



Technical Data

General information

Form of lens	see order block
Colour of lens	see order block
Diameter of collar	12.5 mm

Dimensions

Overall height	see order block
Mounting depth	30.5 mm
Mounting hole	10 mm

Mechanical design

Mounting	pressing into hole
Terminals	quick connector 2.8 x 0.8 mm
Lamp socket	no
Lamp	see order block

Electrical characteristics

Operating voltage U_B	see order block
Integrated currency resistor	see order block
Forward voltage U_F at 25 °C	at 20 mA forward current 2.4 V
Reverse voltage U_R at 25 °C	3 V
Forward current, I_F	see order block
Reverse current I_R at 25 °C	100 µA
Power dissipation P_{tot} at 25 °C	max. 120 mW
Light intensity	see order block
Protecting diode	see order block

Other specifications

Degree of protection from front side	IP40
Weight	2.44 g

Operating voltage U_B DC voltage from 6 - 28 V

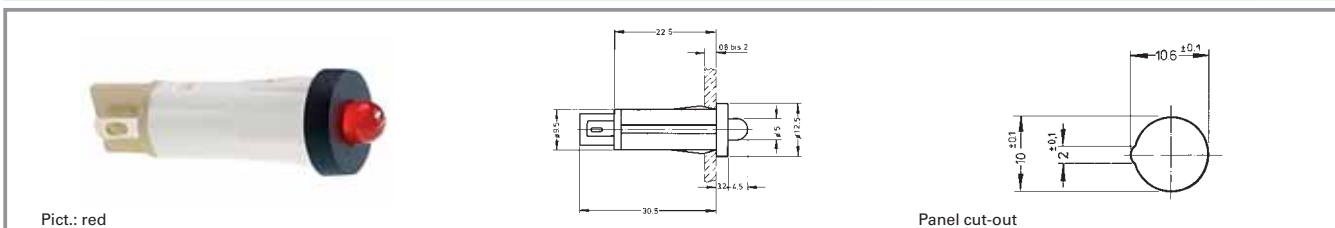
A suitable series resistor is installed in the unit; the version without resistor must be fitted with an external one. A version with an additional protective diode is available to protect the LED against any voltage peaks.

External resistor: $R_V = (U_B - U_F) : I_F$

Recommended ratings of external resistors:

- for 6 - 7 V = 330 Ω 0.25 W
- for 12 - 16 V = 680 Ω 0.5 W
- for 24 - 28 V = 1500 Ω 1 W

Signal lamps with integrated LED - 10 mm, protruding LED



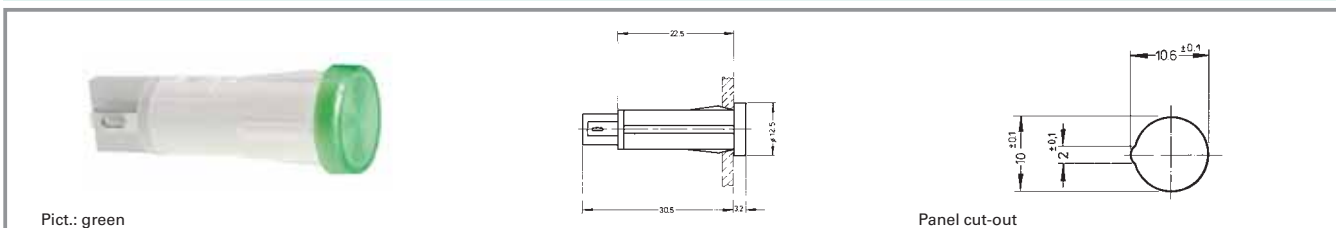
Integrated curreny resistor	Protecting diode	Operating voltage U_B	Forward current, I_F	Colour of lens	Light intensity	Order no.
no	yes	according to series resistor 6 - 28 V	max. 20 mA	red	1000 mcd	1.69.525.051/0000
no	yes	according to series resistor 6 - 28 V	max. 20 mA	green	1000 mcd	1.69.525.056/0000
no	yes	according to series resistor 6 - 28 V	max. 20 mA	yellow	200 mcd	1.69.525.061/0000
no	no	according to series resistor 6 - 28 V	max. 20 mA	red	200 mcd	1.69.525.001/0000
no	no	according to series resistor 6 - 28 V	max. 20 mA	green	1000 mcd	1.69.525.006/0000
no	no	according to series resistor 6 - 28 V	max. 20 mA	yellow	200 mcd	1.69.525.011/0000
yes	yes	24 - 28 V	15 - 20 mA	red	200 mcd	1.69.525.054/0000
yes	yes	24 - 28 V	13 - 18.5 mA	green	1000 mcd	1.69.525.059/0000
yes	yes	24 - 28 V	13 - 18.5 mA	yellow	200 mcd	1.69.525.064/0000
yes	no	24 - 28 V	15 - 20 mA	red	200 mcd	1.69.525.004/0000
yes	no	24 - 28 V	13 - 18.5 mA	green	1000 mcd	1.69.525.009/0000
yes	no	24 - 28 V	13 - 18.5 mA	yellow	200 mcd	1.69.525.014/0000

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integr.
LED

Signal lamps with integrated LED - 10 mm, round lens



Integrated current resistor	Protecting diode	Operating voltage U_B	Forward current, I_F	Colour of lens	Light intensity	Order no.
yes	yes	24 - 28 V	15 - 20 mA	red	200 mcd	1.69.525.255/1300
yes	yes	24 - 28 V	13 - 18.5 mA	green	1000 mcd	1.69.525.260/1500
yes	yes	24 - 28 V	13 - 18.5 mA	yellow	200 mcd	1.69.525.265/1400
yes	yes	24 - 28 V	-	blue	300 mcd	1.69.525.266/1600
yes	yes	24 - 28 V	-	white	400 mcd	1.69.525.271/1000
yes	no	24 - 28 V	15 - 20 mA	red	200 mcd	1.69.525.205/1300
yes	no	24 - 28 V	13 - 18.5 mA	green	1000 mcd	1.69.525.210/1500
yes	no	24 - 28 V	13 - 18.5 mA	yellow	200 mcd	1.69.525.215/1400
yes	no	24 - 28 V	-	blue	300 mcd	1.69.525.216/1600
yes	no	24 - 28 V	-	white	400 mcd	1.69.525.221/1000

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Other voltages on request.