

Technical notes regarding arc detection



Content

Thyristor output on D0100..... 3
Sense adjustment on D0100 4
 STEP 1 4
 STEP 2 5
 Rule of thumb..... 6

Thyristor output on D0100

The thyristor output on D0100 only function correctly if the trip coil minimum has power consumption on 50mA.

If that isn't possible the problem can be solved by using a resistor, connected in parallel with the trip coil.

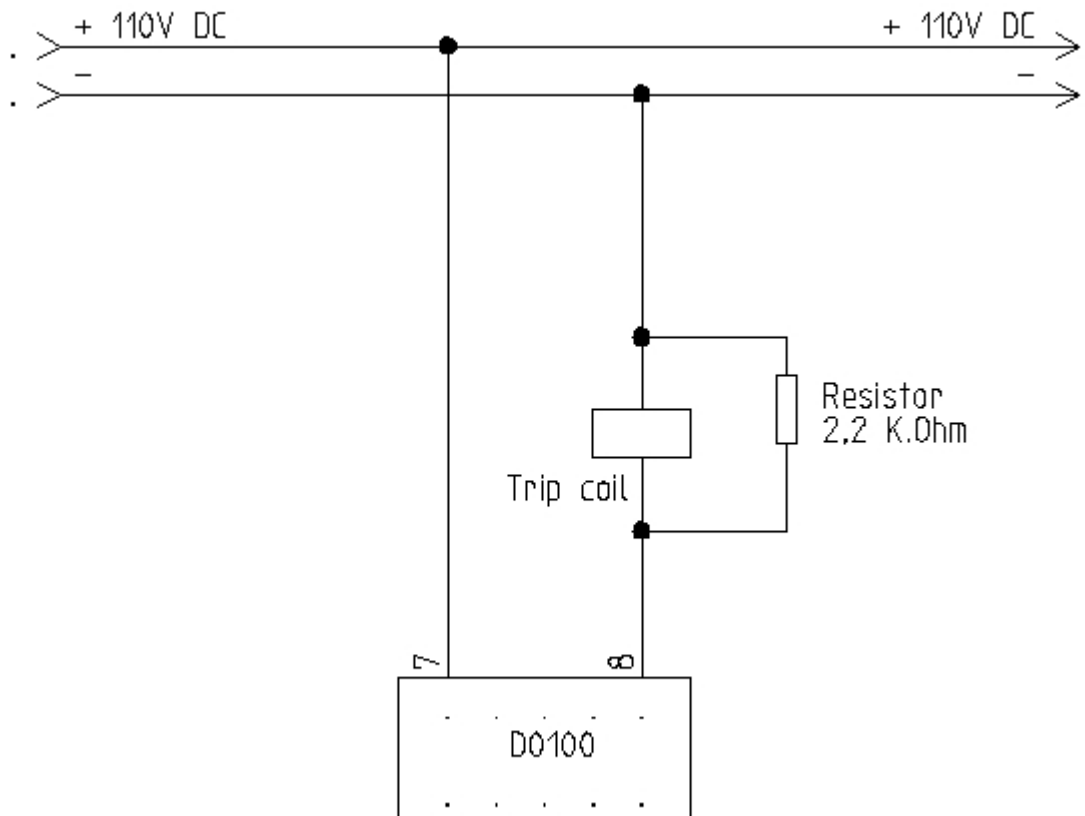
When power consumption should be 50mA, and the current voltage is 110, then the size of the resistor should be 2200 Ohm. Calculate the resistor size by using Ohm's law:

$$R = \frac{U}{I}$$

R: Resistor size

U: Voltage

I: Consumption



Sense adjustment on D0100

Ambient light level is too high. Factory setting of sensitivity must be changed.

STEP 1

Measure the total detector current by connecting an amp-meter between the red wire of the cable and terminal 1 of the relay. Refer to figure 1 below.

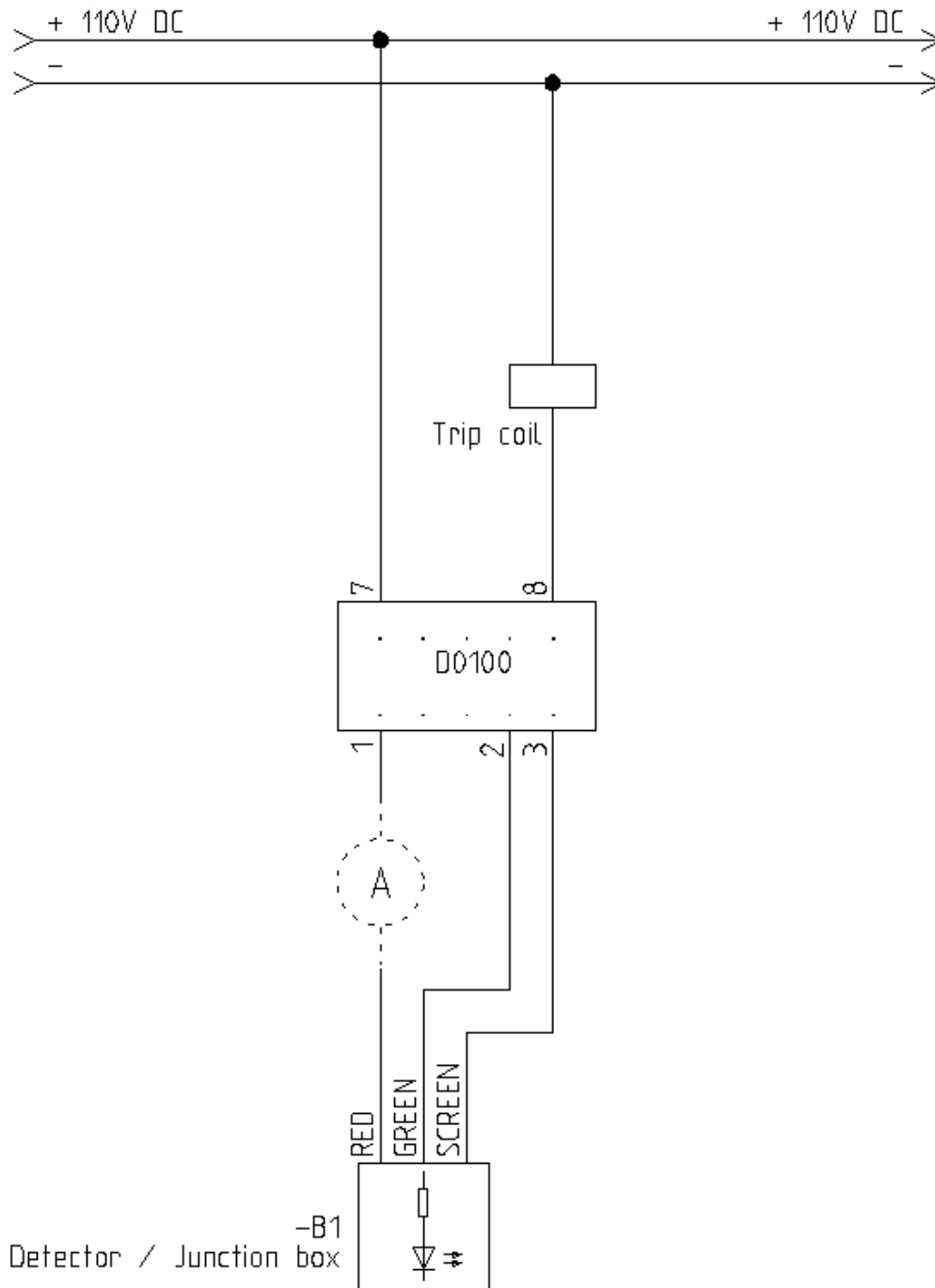


Figure 1 Current measurement. Please note the current value.

STEP 2

Disconnect the cable completely and place the amp-meter between terminals 1 and 2 of the relay, as shown in figure 2.

If the factory setting has not been changed the reading should be 6mA.

By the adjustment knob "SENS ADJ.", on the front of the relay, adjust the current to 3mA higher than the measured value in step 1.

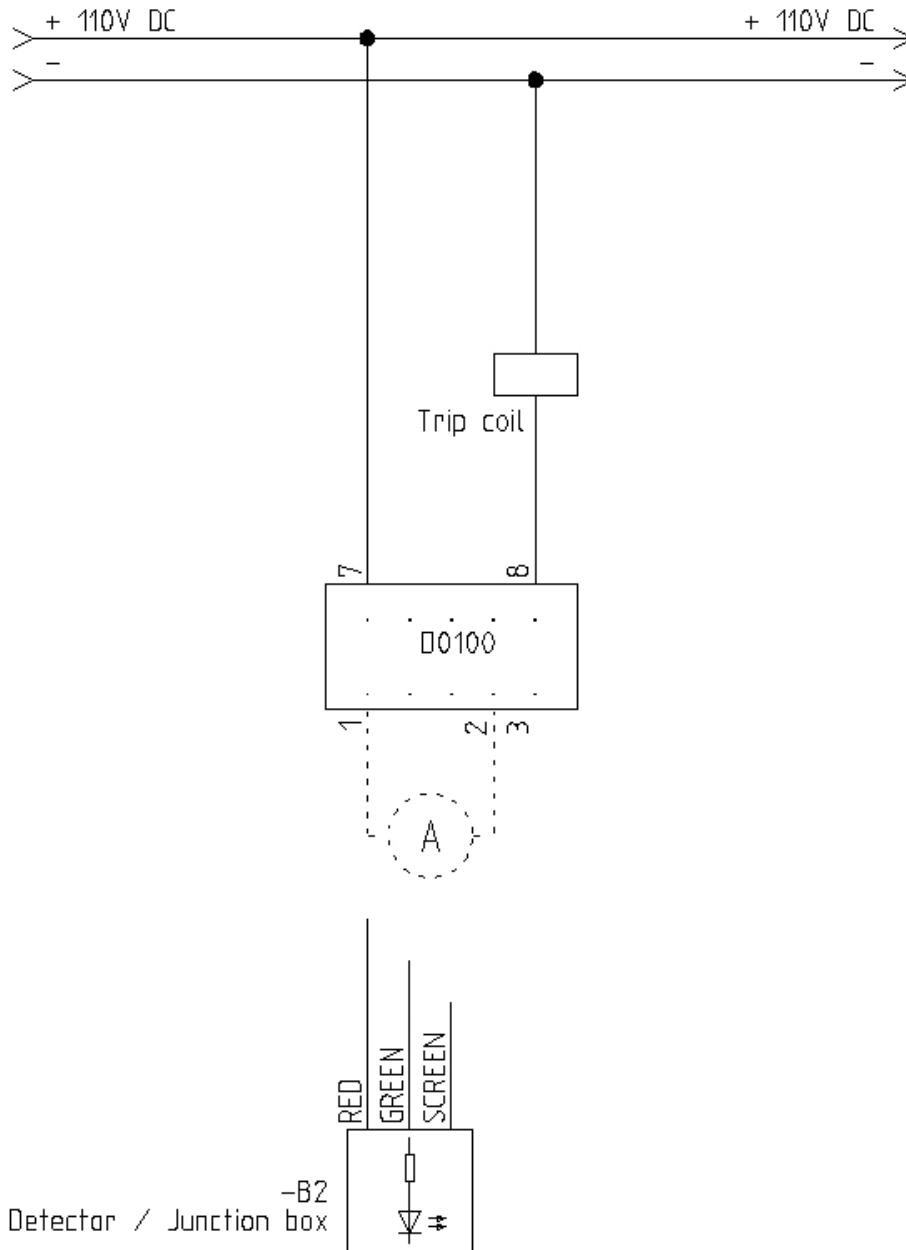


Figure 2. Sense adjustment.

NOTE: Remember to connect the cable again after adjustment.

Rule of thumb

6mA. is equivalent to 12.000 Lux.

If the sensors are too sensitive SELCO in general recommend adjusting the relay current to 8-9 mA.