

Operating hours counter with maintenance signal

Task

“easy” is required to count and monitor the operating hours of a general electrical device (E1). The electrical device is switched on and off with switch S1. An indicator light (H1) shows the operation of a device. From a defined number of operating hours (default setting: 240 hours) the indicator light (H2) starts to flash in order to indicate that maintenance is due.

The device is switched off, indicator light H1 goes out and indicator light H2 is lit permanently if the maximum number of operating hours for maintenance has been reached (default setting: 250 hours).

Once maintenance has been completed, pushbutton S2 must be pressed to acknowledge the maintenance signal and reset the operating hours counter (condition S1 OFF). The device can then be switched on again via switch S1.

Wiring

1. Inputs:

- I1 Switch S1 (device E1 ON / OFF)
- I2 Pushbutton S2 (acknowledge maintenance)

2. Outputs:

- Q1 Device E1
- Q2 Indicator light H1 (device E1 in operation)
- Q3 Indicator light H2 (maintenance of device E1)

3. Parameters:

- O1 Operating hours up to maintenance signal
- O2 Maximum operating hours up to switch off
- T1 Flash pulse for indicator light H2