



### Spray Lubrication System Control Unit 463.246

**Application:**  
This control unit serves to control a spray lubrication system that follows progressive system operation.

System switch-on and off is time-dependent.

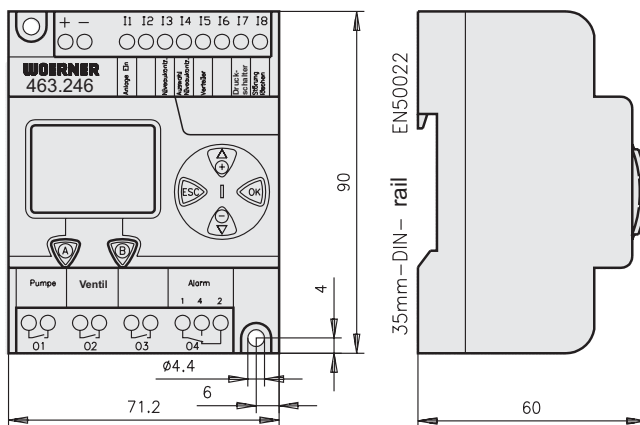
**Technical Data:**  
Power consumption: 3,5 W  
Supply voltage: 24VDC  
-15% to +20%  
(including residual ripple)  
Voltage, inputs: 24 VDC  
Inputs response time: 5msec  
Input resistance, inputs: 6,8 kR  
Temperature range: 0 ÷ 50°C  
Protection degree: IP 20  
Contact data, outputs: 250V AC at max 30 VDC; 5A  
Data protection: 10 years

**Function:**  
After control voltage switch-on, the unit is ready for operation.

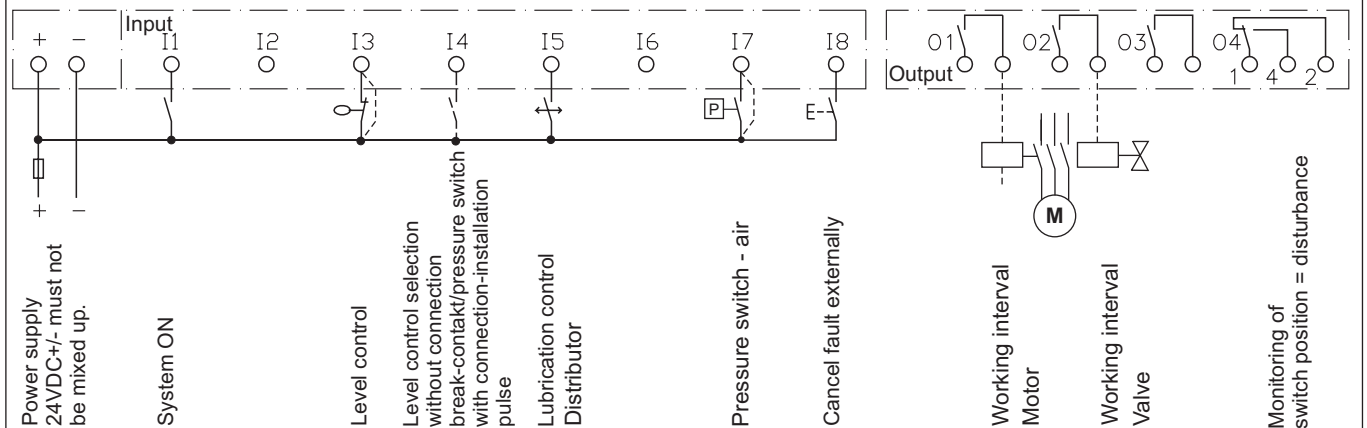
**Input I1: System ON:**  
When contact is made, internal time lapse will start to run. When contact is broken, time lapse is stopped. In the absence of such contact, terminal I1 has to be bridged with +.

- Subject to modifications -

### Dimension Drawing



### Connection diagram





**Off-Duty Interval Time ON:**

When the "system ON" contact is made, the internal "off-duty" counter counts the internally generated minute cycles up. On the display, the counter name "off-duty time" as well as its associated nominal and desired values are shown.

The desired value can be programmed in a range from 1 up to 32767 minutes.

When nominal and desired values are matching, the working interval will be triggered, with the nominal value being reset. Upon voltage disconnection, nominal and desired values are stored.

**Working Interval Time OFF:**

When the "system ON" contact is made, the internal "working time" counter counts the internally generated minute cycles up. On the display, the counter name "working time" as well as its associated nominal and desired values are shown. The desired value can be programmed in a range between 1 and 32767 minutes. When nominal and desired values are identical, the off-duty time interval will be triggered. In case of voltage switch-off, nominal and desired values are stored.

During working interval, the potential-free contacts "Q1" and "Q2" are closed. At these contacts, a motor contactor and a solenoid valve are connected. Upon termination or discontinuation of the working interval, contact "Q2" is switched off with a delay of 2 seconds, whilst contact "Q1" is switched off with no delay.

**Lubricant Checking Device Input I5:**

During working time, the lubricant checking device must put signals out. These pulses have to arrive within the preset monitoring time. If not, a fault message will be released. The fault message is stored, whilst contacts "Q1" and "Q2" will open and the alarm output switch. Upon termination or discontinuation of the working interval, lapsed monitoring time is stopped. After working interval switch-on, it will be released again. In case of voltage switch-off, nominal and desired values are stored. The desired value for the monitoring time can be programmed in a range between 1 and 32767 seconds.

**Level Checking Device Input I3:**

Depending on the connection of the I4 input, various level checking device can be evaluated. When the I4 input is not connected, ordinary level switches (break-contact at minimum level) or pressure switches (make-contact at pressure) can be used. If there is no level switch available, terminal I3 has to be bridged with +.

When the I4 input is connected (connection to +), initiators can be used that, in case of fault, provide pulses. For both types, evaluation is made during pump run and with a delay of 5 seconds only. The fault is stored, whilst contacts "Q1" and "Q2" will open and the alarm output switch.

**Air Pressure Switch Input I7:**

Compressed air is monitored by means of input I7. When air pressure is available, the pressure switch contact must be closed. Evaluation is made with a delay of 5 seconds after pump operation switch-on. The fault is stored, whilst contacts "Q1" and "Q2" will open and the alarm output switch.

**Alarm Output O4:**

Upon release, the potential-free contacts "O4/1" and "O4/4" are closed, whilst "O4/1" and "O4/2" are open. In case of fault or absence of supply voltage, reversed switching condition will be given.

**Fault Deletion:**


The faults "lubrication level at minimum" and "air at minimum" are stored. Storage can be cancelled by means of supply voltage discontinuation or actuation of the external switch "I8" or actuation of the internal switch.




**Initiators:**

At any input, initiators can also be used instead of contacts. Such initiators must be laid out for 24VDC, three-wire mode and PNP output.

**Hand-ON:**

When function is set to off-duty interval (off-duty time), the working interval (working time) can be initiated by pressing the switch. 

**Hand-OFF:**

When function is set to working interval (working time), off-duty interval (off-duty time) can be initiated by pressing the switch. 

**Information Displayed :**

**During Operation:**

- System OFF
- Off-duty time, incl. nominal and desired values.
- Working time, incl. nominal and desired values.
- Fault - Lubrication
- Fault - Level
- Fault - Air

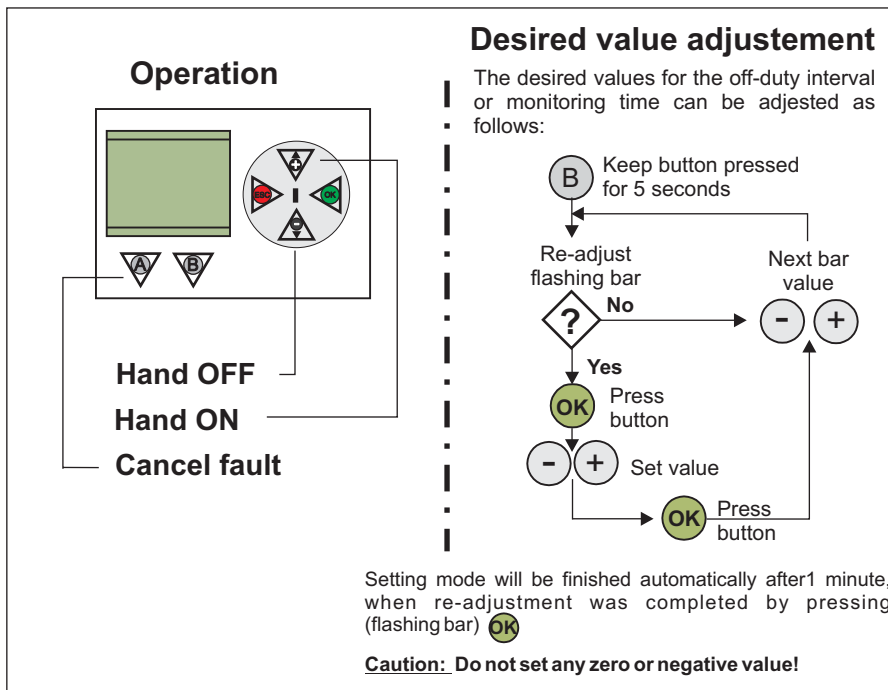
**In case of desired value readjustment:**

- Re-adjustment
- Off-duty-, working-and Monitoring time
- Desired values

**Order designation:**

Control- and monitoring unit  
24 VDC **463.246-60**  
Text display: **D**

Control and monitoring unit  
24 VDC **463.246-61**  
Text display: **GB**



- Subject to modifications -