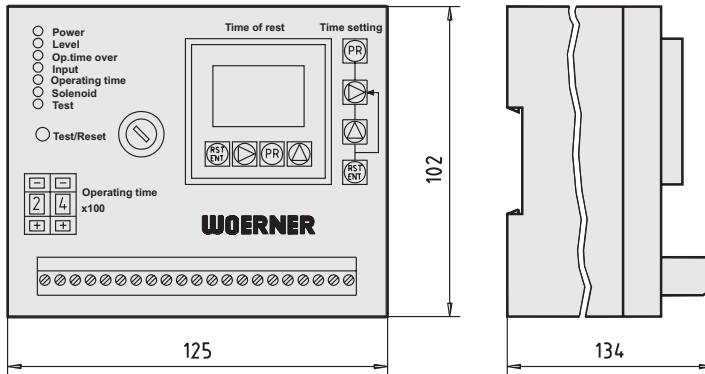


### Insert/Cabinet Mounted Unit



### Control Unit for Splash Circulator System ESA-A

- Time Span 0,1 ÷ 999,9 Hrs Zero volta-ge proof
- Maximum of 4 Lubricators
- Unit can be mounted in a control box or wall mounted on site.

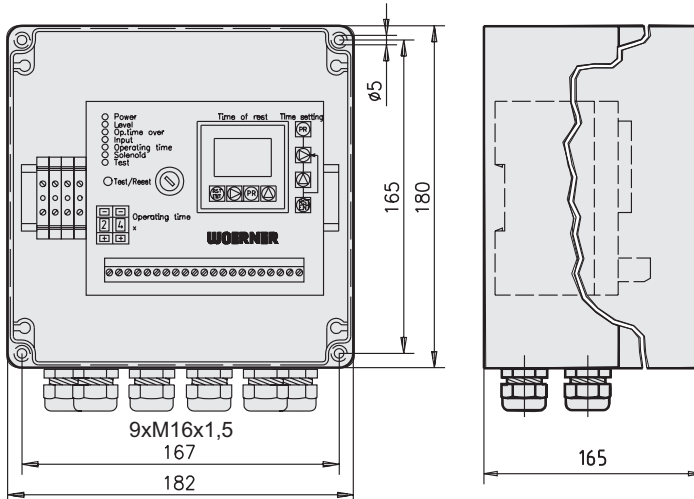
#### Application:

This control unit serves controls a maximum of 4 jet lubricators, SAB Series. The lubricators are switched on depending on time and switched off after counting the pulses. During operating time they are actuated by an initiator. Lubricant level, Operating time and input signals are controlled.

#### Construction:

The equipment ist designed to be inserted into a control box or inside a plastic housing for mounting at the site location. The electrical wiring isto be suitably clamped.

### Surface Mounted



#### Technical Data:

Power consumption without magnet: ca. 6VA  
 Connection voltage: 115; 230 VAC  
 24 VDC  
 +10; -15%  
 Magnet voltage  $\triangleq$  Connection voltage  
 Initiator voltage: 24 VDC  
 Count rate max.: 250 l/min  
 Temperature range: -10 ÷ +50 °C  
 Contact data max.:  
 Magnet actuation: 250 VUC  
 16 A  
 16 A bei 24 VDC  
 250 VUC  
 Alarm output: 4 A bei AC  
 2 A bei 24VDC  
 0,4 A bei 230VDC  
 Housing: Surface mounted  
 Material: Polycarbonat  
 transparent lid  
 Protection type: IP66  
 Temperature stability: -35 ÷ +80 °C  
 Cable glands: 9xM16x1,5

### Order designation:

Control Unit **ESA-A** / **0** / **0** / **0**

Counting Range	Voltage	Housing
1 ÷ 99 <input type="text" value="1"/>	<input type="text" value="24VDC"/>	without <input type="radio"/>
10 ÷ 990 <input type="text" value="10"/>	<input type="text" value="115VAC"/>	with <input type="radio"/>
100 ÷ 9900 <input type="text" value="100"/>	<input type="text" value="230VAC"/>	
1000 ÷ 99000 <input type="text" value="1000"/>		

#### Condition for switching unit on:

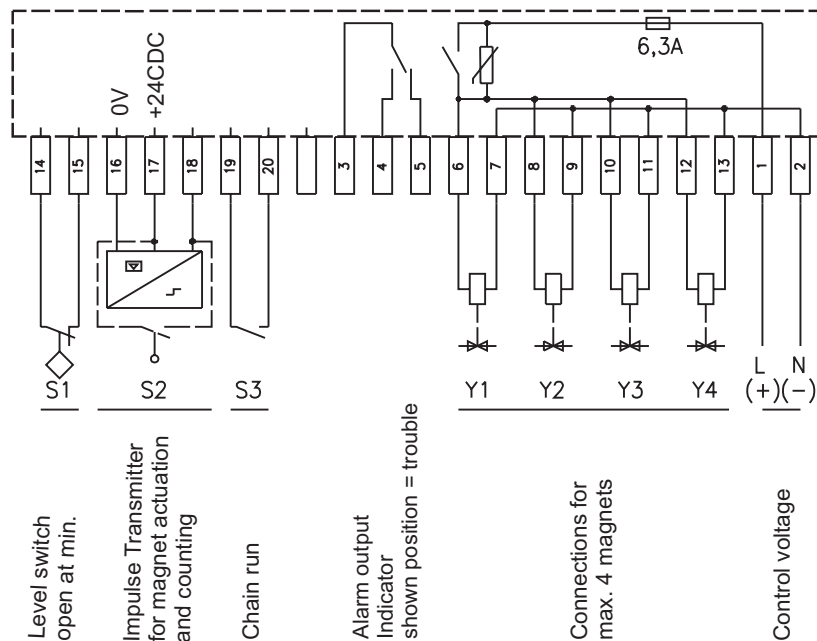
#### Control voltage

By switching on the control voltage the unit is ready for operation. The LED "power" illuminates.

#### Chain running

On terminal 19/20 a potential free contact is required. The contact is open chain stand still and closed when chain is running. This-Temperaturbestü signal activates the internal functions. In case such contact is not available terminal 19/20 needs to be bridged.

Wiring Connection Diagram



#### Setting the rest time

The rest time is determined by an electronic time relay with digital indicator. The interval runs down when control voltage is connected and the contact "Chain Running" (19/20) is closed. After rest time is finished the operating cycle starts. During operating time the time relay remains set, until the operating time is finished.

The required rest time interval can be adjusted from 0,1 Hrs. to 999,9 Hrs. .

The programmed set point is indicated at the lower indicator, the real-time is indicated in the middle large indicator.

#### Programming:

The time of rest can be altered as follows:

1. Press button PR
2. Press symbol ➤ for required position
3. Press symbol ▲ for required number
4. With arrow ➤ select next number  
Repeat above steps until all numbers are adjusted
5. Press Enter button to confirm settings.

All functions remain stored, in event of power failure, for period of 10 years.

#### Stop requirements:

##### Initiator switching

The chain pins are detected by an initiator. A 24V initiator with PNP output must be used. During the operating time the initiator signals are counted and this signals actuated the jet lubricators.

##### Magnet actuation

A maximum of 4 lubricators can be connected to this control unit. The initiator switching actuated the magnets. The actuation time internally is limited to 200msec. The magnet output is 6,30A limited.

##### Counter Adjustment

The operating time will be ended by an internal counter, which can be set by 2 decade switches and internally via a multiplier x1, x10, x100 oder x1000.

##### Monitoring period:

###### Level

The level in the container can be checked. The level switch is connected to terminal 14/15. In case of level LOW the contact opens, the LED "Level" illuminates, the magnet actuation is switched off and the alarm relay switches.

#### Shut-off monitoring

Inside the unit there is (parallel to the operating time counter) a monitoring counter. This counter is set to 80 pulses. In case there is no switch off initiated by the work counter then the unit will be switched off after 80 pulses and the LED "Operating time over" will illuminate - the alarm relay will switch.

#### Input signal Monitoring

The signal "Chain operational" is connected with the initiator signals. There has to be at least one signal change within 10 minutes. In case that does not happen the LED "Input" illuminates and the alarm signal switches.

#### Test functions:

##### Test

During the interval rest time and the chain running a test function can be activated. Press Test switch, and the lubricators will start independent of the initiator signals. The test will stop automatically after 80 pulses.

##### LED - Test

Press Test switch and all LED's not normally illuminated, will illuminate.

##### Cancel failure

Cancellation of error indications - press Test switch.

#### LED - indications

- LED Power** - comes on with control voltage
- LED level** - on - when oil level is low
- LED Operating time over** - on if error in shut-off monitoring
- LED Input** - on if error in input signals monitoring
- LED Operating time** - on during operating time
- LED Solenoid** - on when magnets actuation
- LED Test** - on during TEST phase

#### Alarm output

Through a potential-free alarm contact the fault can be externally processed further on. In case of release a relay will be activated. When there is a fault, the relay will be idle. The alarm contact applies to terminals 3,4 and 5. Upon release the contact at terminal 3/4 will be closed, at 3/5 opened.