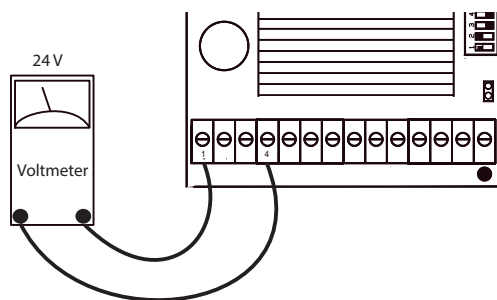


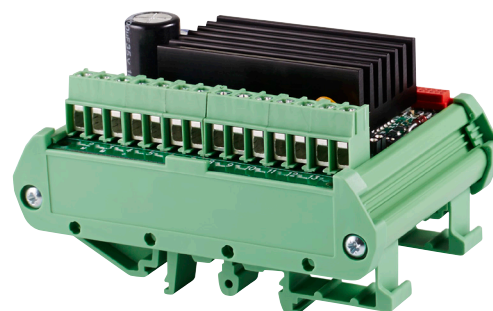
# Self-help guide

## TR-EM-288 SAF

### Check of the power supply to the PCB

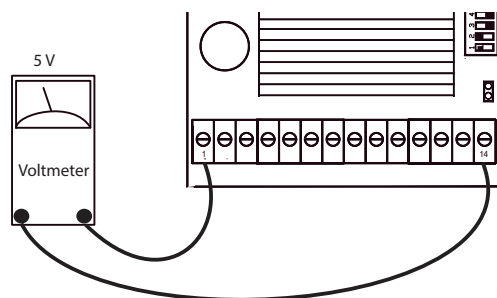


The supply must be 12/24 V DC. With the transformer TR-EM-XXX-T-230 the voltage will be 30-31 V DC.



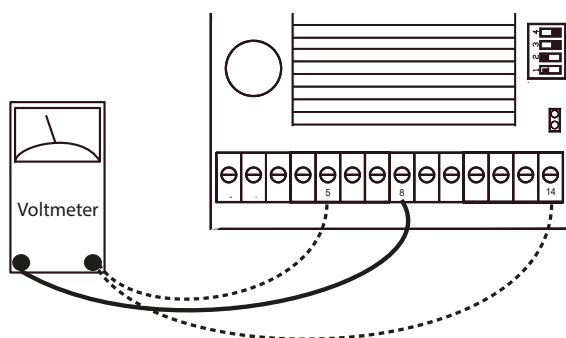
Third party product

### Check the 5 volt output



Check the internal 5 V supply to the microprocessor. The voltage must be 5 V. At lack of voltage, the PCB is defective.

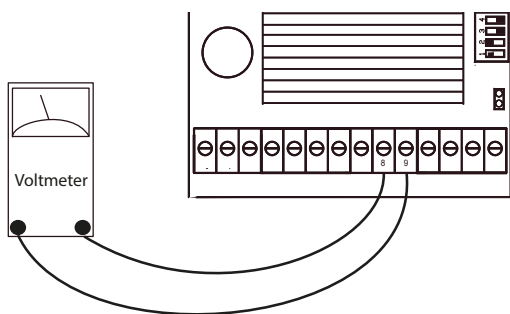
### Check the supply for the potentiometer



Measuring the supply voltage to the potentiometer. Terminal 8 and terminal 14 = 5.5 V.

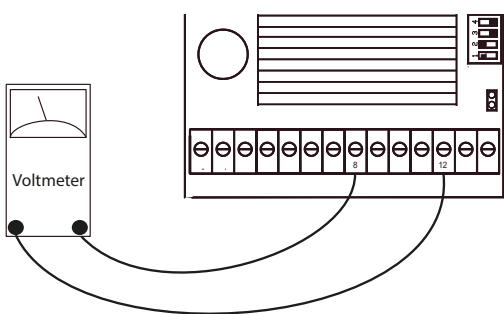
Measuring the supply voltage to the Hall potentiometer. Terminal 5 and terminal 8 = 12-32 V DC.

### Measuring the signal from the actuator to the control



Measure the actuator feedback between terminal 8 and 9. At lack of feedback, check cables for errors or replace the actuator.

### Measuring the control signal



Measure between terminal 8 (GND) and terminal 12. The measurement must be between 0-10 or 0-20 mA.

(Remember to install a resistance if mA is used, and to set the DIP 1 - see Quick guide for further information).

The control now compares the control signal with the feedback from the actuator and runs forward/backward until the 2 values are the same.

If the stroke length is limited or other parameters are changed, the comparison will be different.

### Readout of actual values



For readout of the actual values, the TR-EM-236 programming unit must be used.

Press "Monitor values" and select the value that must be read out:

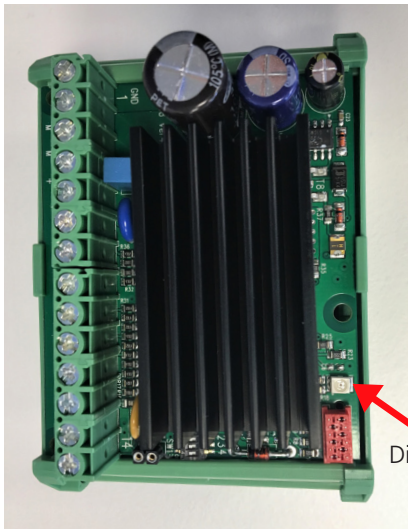
- |                                    |                     |
|------------------------------------|---------------------|
| 1. Shows error code:               | 1, 2, 3 or 4        |
| 2. Actual current consumption:     | 0 - 20A = (0 - 200) |
| 3. Control signal (terminal 12):   | 0 - 100% (0 - 1000) |
| 4. Actuator feedback (terminal 9): | 0 - 100% (0 - 1000) |
| 5. Hour counter:                   | (max 65535 h)       |
| 6. Start counter:                  | (max 65535 start)   |
| 7. Start counter per 10,000 start: | (max 65535)         |

Go to parameter 3 and compare the value in the control signal with parameter 4 (feedback). The values must be the same (+/- 2%)

If the system is unstable, adjust parameter 17 to a higher value.

If the actuator runs past the requested position, adjust parameter 18 to a higher value.

## Readout of errors at the red diode



At errors the read diode flashes. The flashes mean as follows:

Current limit reached:	1 x flash
Timeout:	2 x flashes
Disconnected due to heat:	3 x flashes
Overvoltage:	4 x flashes