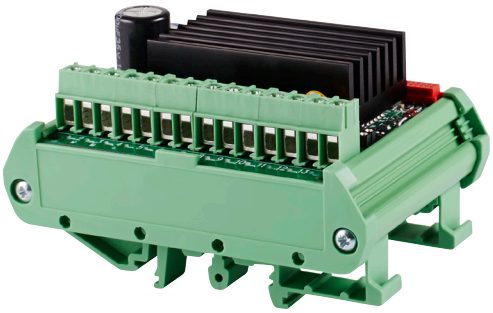
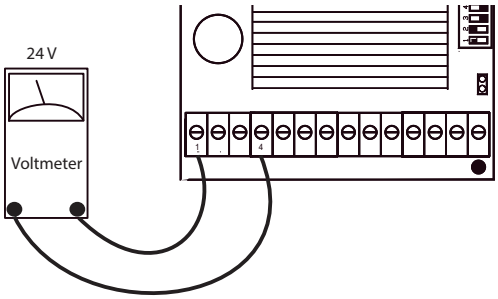
Self-help guide
TR-EM-288 SPF



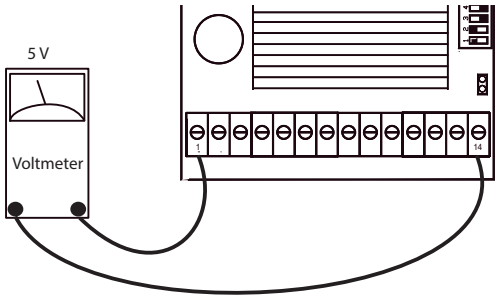
3rd
Third party product

Check of power supply to the PCB



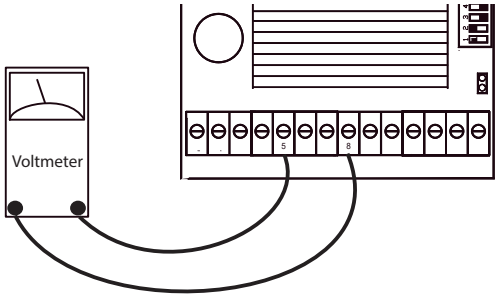
The supply must be 12/24 V DC. With the transformer TR-EM-XXX-T-230 the voltage will be 30-31 V DC.

Check the 5 volt output



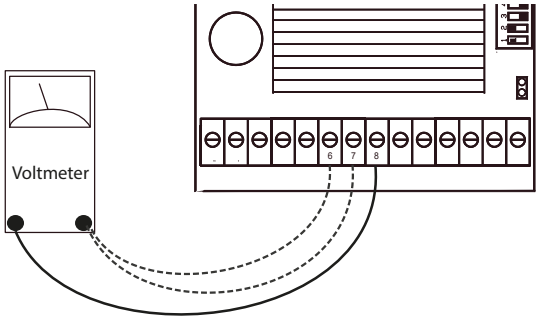
Check the internal 5 V supply to the microprocessor. The voltage must be 5 V. At lack of voltage, the PCB is defective.

Check the supply to the Hall potentiometer



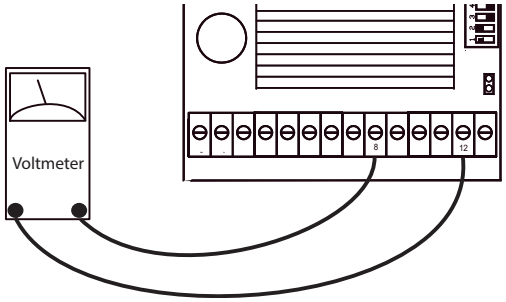
Check the supply voltage to the Hall potentiometer. Terminal 5 (+) and terminal 8 (GND).
Terminal 5 = supply voltage minus 2 V or minus 3 V, (e.g. 24 V - 2 V = 22 V) 100mA.

Measuring the signal from the actuator



Measuring of Hall signal for forward and backward running between terminal 8 and Hall Input terminals 6 and 7. Run the actuator FORWARDS/BACKWARDS and measure the pulse signal. The pulse signal is typically between 12-24 V. At lack of signal, check cables and actuator.

Measuring the control signal



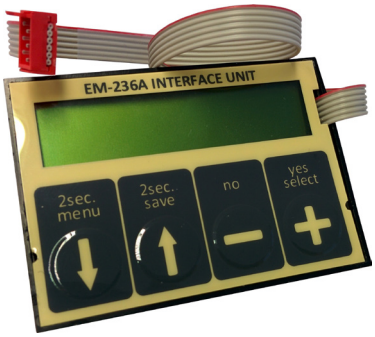
Measure between terminal 8 (GND) and terminal 12. The measuring must be between 0-5 V, 0-10 or 0-20 mA.

(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 is used.

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

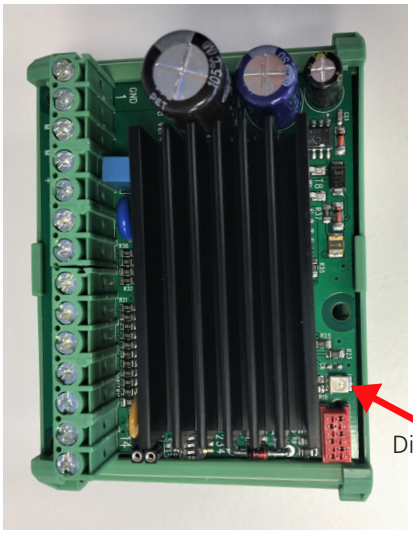
1. Shows error code	1 - 6
2. Actual current consumption:	0 - 20A = (0 - 200)
3. Target position:	0 – 100% (0 - 1000)
4. Actuator position:	0 – 100% (0 - 1000)
5. Position in number of pulses:	0 - 65535
6. Hour counter:	(max 65535 h)
7. Start counter:	(max 65535 start)
8. Start counter:	Counts when max in point 7 has been reached

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 red diode flashes. The flashes mean as follows:

Current limit reached:	1 x flash
Pulse error (Hall feedback):	2 x flashes
Disconnected due to heat:	3 x flashes
Overcurrent:	4 x flashes
Time out:	5 x flashes
Learning procedure interrupted:	6 x flashes