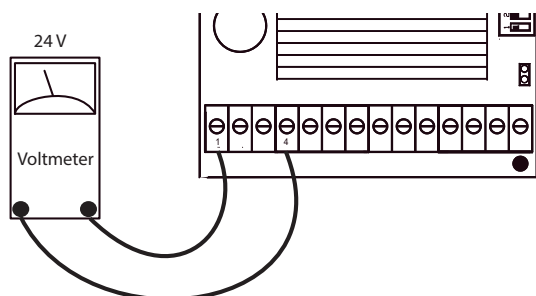


# Self-help guide

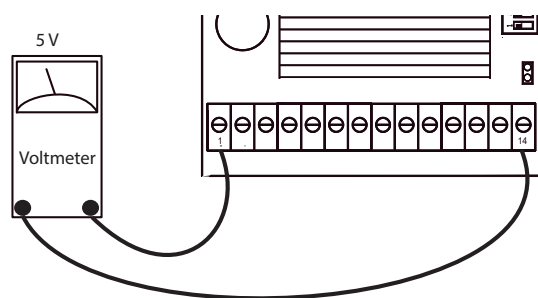
## TR-EM-288

### Check of power supply to the PCB



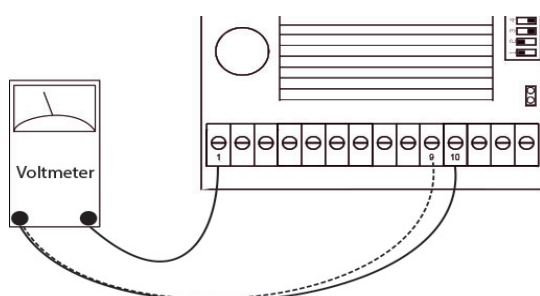
The supply must be 12/24 V DC. With the transformer TR-EM-XXX-T-230 the voltage will be 30-31 V DC.

### Check the 5 volt output

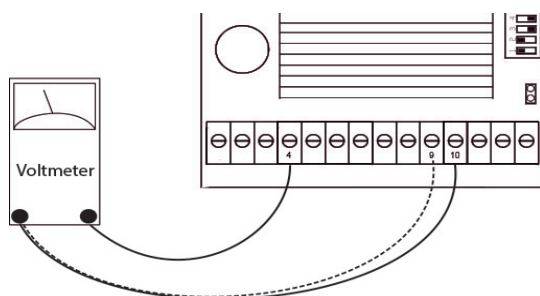


Check the internal 5 V supply to the microprocessor. The voltage must be 5 V. At lack of voltage, the PCB is defective.

### Check the control signal (hand control)



Check the control signal - positive (PNP).  
Check that there is a signal between 5 – 32 V.



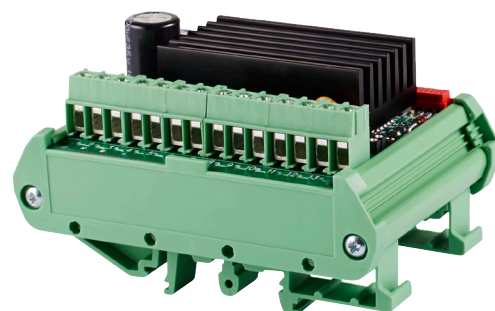
Check the control signal - negative (NPN).  
Check that there is a signal between 5 - 32 V.

NOTE!

Parameter 3 must be set at the requested control signal:

0 = Input PNP

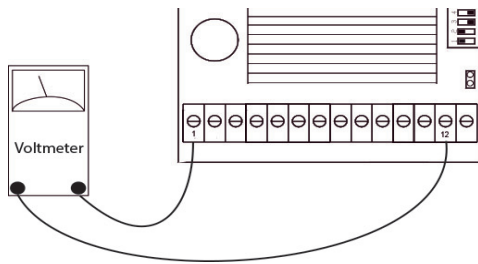
1 = Input NPN



3<sup>rd</sup>

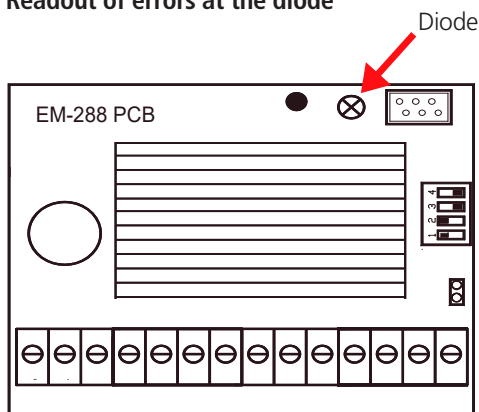
Third party product

## Check of Speed 2 Input



The Speed 2 input can be switched between a digital and an analogue signal by setting a value in parameter 5. If set at "0" the control uses an analogue signal (0-5 V with DIP 1 = OFF and 0-10 V signal with DIP 1 = ON).

## Readout of errors at the diode



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

Current connected:	One flash
Current limit reached:	Diode lights up
Disconnection of overcurrent:	Fast flashing
Disconnection of zero current:	Long flash – short timeout...
Overvoltage:	4 x flashes - interruption...
Superheating:	Short flash - long timeout...
Timeout:	3 x flashes + long flash...
Error input:	2 x short flashes + 1 x long flash...

## Readout of actual values



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

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

1. Current, actuator: 0-20A = (0-200)
2. PWM level (%): 0-100% = (0-100)
3. Hour counter: Shows operational hours (max 65535 h)
4. Start counter: Shows number of starts (max 65535)
5. Help counter: Help counter for the start counter