

**DESCRIPTION OF SYSTEM "ER 3100"**

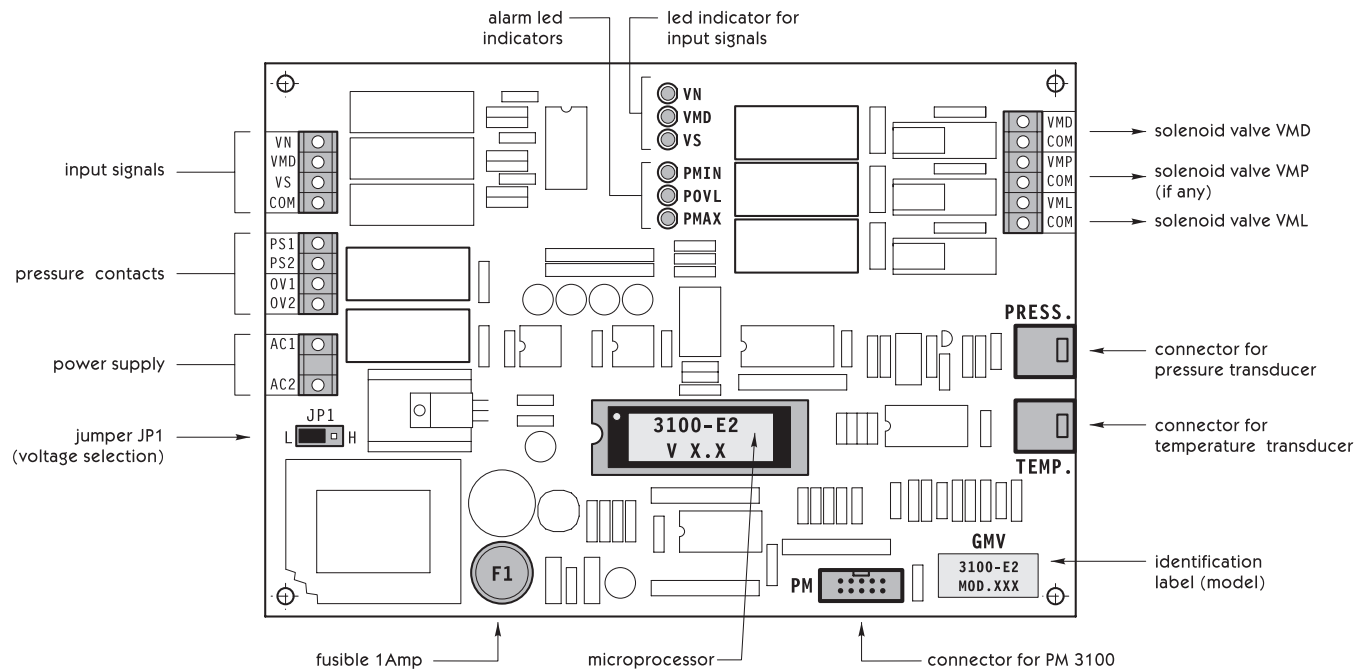
The electronic system "ER 3100" for GMV valve 3010, includes the electronic board "ER3100-E2", the pressure transducer "3100 PT", the temperature transducer and the programming unit "3100 PM" (this unit can be used to set several "ER3100-E2" electronic boards).

By computing the signals received from the probes (pressure transducer and temperature transducer), the system "ER 3100" allows to keep the levelling travel quite constant by changing of temperature and pressure. In this way it is possible to reduce the total travel time and increase the traffic capability of the lift.

The electronic board could be placed directly on the power unit (our suggestion) or into the control panel.

**TECHNICAL SPECIFICATION:**

Maximum static pressure (full load)	45 bar		
Minimum static pressure (empty car)	12 bar		
Oil temperature	10 ÷ 70 °C		
Maximum car speed	1,00 m/s		
Minimum distance between two floors	oil temp.	car speed	distance
	10 70°C	≤ 0,63 m/s	2,0 m
	< 15°C	≤ 1,00 m/s	2,8 m
≥ 15°C	2,0 m		
Minimum distance between floor contact and deceleration contact	≤ 0,63 m/s		1,10 m
	≤ 1,00 m/s		1,60 m

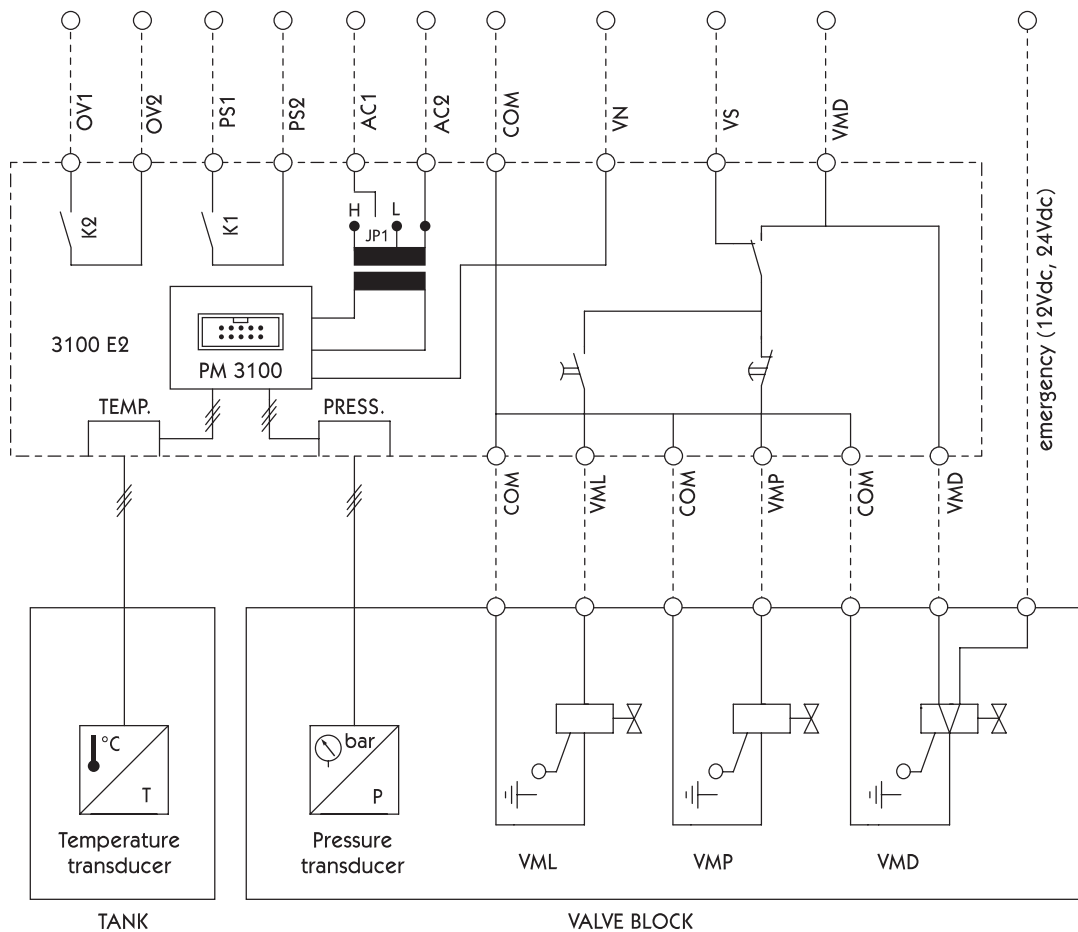


## CONNECTION OF THE ELECTRONIC BOARD

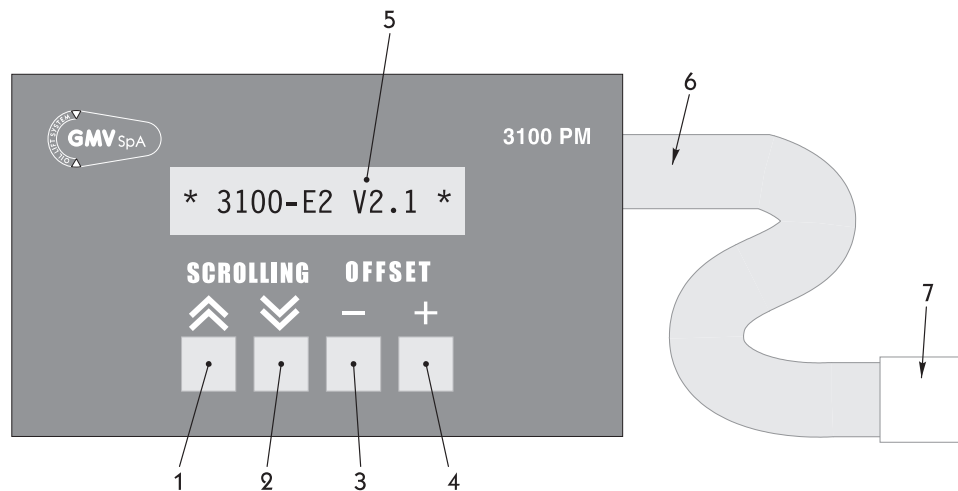
- Check that the model of electronic board corresponds to the supplying voltage of the solenoid valves (see identification label) and check the correct position of the jumper **JP1**.
- IMPORTANT!!!** The supplying voltage of the electronic board must be in alternate current (V~ +10/-15%). If the supplying voltage of the solenoid valves is in direct current, the power supply for the electronic board has to be taken before the rectifier into the control panel.

Solenoids supplying voltage	Model	JP1 setting
24 Vdc	024	fixed
48 Vdc	048	L
60 Vdc	048	H
80 Vdc	080	L
90 Vdc	080	H
110 Vdc	115	fixed
110 Vac	115	fixed
180 Vdc	180	fixed
230 Vac	180	fixed

- Connect the electronic board to the control panel as shown below.



## **INSTRUCTION FOR PROGRAMMING UNIT "3100 PM"**



- Connect the plug (7) of the unit 3100 PM to the connector indicated with PM on the electronic board.  
**WARNING:** To avoid disturbs during the setting, keep the cable (6) away from the motor power supply cables.
- The display turns on and shows the electronic board type and the software version.
- To shift the parameters up press button (2), to shift the parameters down press button (1). The following table shows the parameters and the related setting instructions exactly how they are given when pressing the button (2).
- Press the button (4) to increase the parameter setting, press the button (3) to decrease the parameter setting.
- To save the parameters setting shift to the next or previous parameter pressing button (1) or (2)

## **SETTING INSTRUCTIONS**

<b>PARAMETER</b>	<b>SETTING</b>
* 3100-E2 VX.X * (read only)	3100-E2 = type of electronic board VX.X = software version (actually released: V0, V1, V2.1)
t=XX°C P=XX:Xbar (read only)	Display shows pressure and oil temperature. If the temperature value is blinking the temperature is out of range for a correct setting. Oil temperature must be between 25 and 35°C.
<b>P.min. : 8 bar</b> 0 ÷ 70 bar	Minimum pressure setting. Suggested setting: 5 bar.
<b>P.ovl. : Vs - 10 bar</b> 0 ÷ 70 bar	Full load pressure setting. Suggested setting: 1,08 x max static pressure. <b>WARNING!!!</b> <b>This parameter has to be set even if the contact OV1-OV2 is not used.</b>
<b>P.max. : Vs</b> 0 ÷ 70 bar	Overpressure setting. Suggested setting: 1,40 x max static pressure.



PARAMETER	SETTING
<b>VML Enabled : OFF</b>	If OFF, it disables electronic driving of the valve. The pressure controls P.min, P.max and P.ovl remain active.
<b>SCC offset : 100</b> 0 = 0" 255 = 4"	Setting of the delay between motor start and VMP energizing. Set 0 if this delay is already given by the controller or the motor starting is direct. If a 2CH system is used (device type 3) the delay must be longer than the star phase of the motor. Example: $\lambda$ = star phase = 1,5 sec $\lambda/\Delta$ = switching time = 0,2 sec SCC OFFSET $\geq$ 110 (about 1,7 sec)
<b>Up Offset : 20</b> 0 ÷ 255	Setting of speed change (up deceleration). By increasing this setting, the space in levelling speed is reduced. Vice-versa, by decreasing this setting the space in levelling speed increases.
<b>Dw Offset : 20</b> 0 ÷ 255	Setting of speed change (down deceleration). By increasing this setting, the space in levelling speed is reduced. Vice-versa, by decreasing this setting the space in levelling speed increases.