



## CALIBRATION PROCEDURES FOR THE MEASURING SYSTEM "LOAD CELL/PRESSURE TRANSDUCER WITH EL525 OR EL521"

This calibration procedure applies to not amplified transducers, when connected to the conditioners series EL.

- 1) It has to be provided to the measuring system a warm up time of about 30 minutes, in order to stabilize in temperature the load cell and the electronic.
- 2) With the signal outputs of the EL525 or EL521 connected to a voltmeter, set with the zero potentiometer the output signal, in order to read a voltage value near the zero.
- 3) By a short circuit of the yellow wire (calibration) with the green wire (signal) it has to be introduced the calibration circuit of the transducer.
- 4) By using the gain potentiometer, it has to be set the calibration value of the transducer, referred to the full scale output signal, that for the EL525 will be 5V and for the EL521 will be 10V.

The calibration value of the transducer is deducted on the calibration certificate, under the label "Calibration equivalent load" and is referred to the full scale output of the conditioning board in the following way.

Example: Load cell connected to EL521  
Having a calibration equivalent load of 68,91 Kg., for a load cell Mod. 546QD, 110 Kg. full scale, the "X" value referred to 10V full-scale output will be:

$$110 \text{ Kg.} : 10 \text{ V} = 68,91 \text{ Kg.} : X$$

$$X = \frac{10 \times 68,91}{110} = 6,264 \text{ V}$$

It has to be used the most significative digits of the considered values.

- 5) It has to be excluded the calibration circuit by disconnecting the short circuit made previously at the point 3.
- 6) If needed the operations at points 3,4 and 5 might be done again, in order to obtain exactly the desired values of zero and calibration.

It is good practice, at the end of the calibration phase of the measuring system, to fix the gain regulation obtained, in order to avoid casual possible changes of the calibration value.

## INTERCONNESSIONI ELETTRICHE MOD. EL-525 ED EL-521

PIN	EL-525	EL-521	TRANSDUCER CABLE	OUTPUT CABLE
1	+ Power supply to the transducer	+ Power supply to the transducer	Red	
2	- Signal Output from the transducer	- Signal Output from the transducer	White	
3	+ Signal Output from the transducer	+ Signal Output from the transducer	Green	
4	- Power Supply to the transducer	- Power Supply to the transducer	Black	
5	Conditioned Signal output $0 \div \pm 5\text{ V}$	Conditioned Signal output $0 \div \pm 10\text{ V}$		White
6	Common Signal	Common Signal		Green *
7	+ VDC ( $10.5 \div 28\text{ V}$ )	+ VDC ( $18 \div 28\text{ V}$ )		Red
8	Common Power Supply	Common Power Supply		Black *

T = Earth

NOTE: \* = For not insulated version it can be used black wire only as common between power supply and signal

