

MAGX²

P21 Sensor Test



Step 1

Switch off the flowmeter. Open the transmitter housing.



Step 2

Disconnect the power supply and connectors from the sensor module.

Step 3

Open the sensor:

For Compact version:

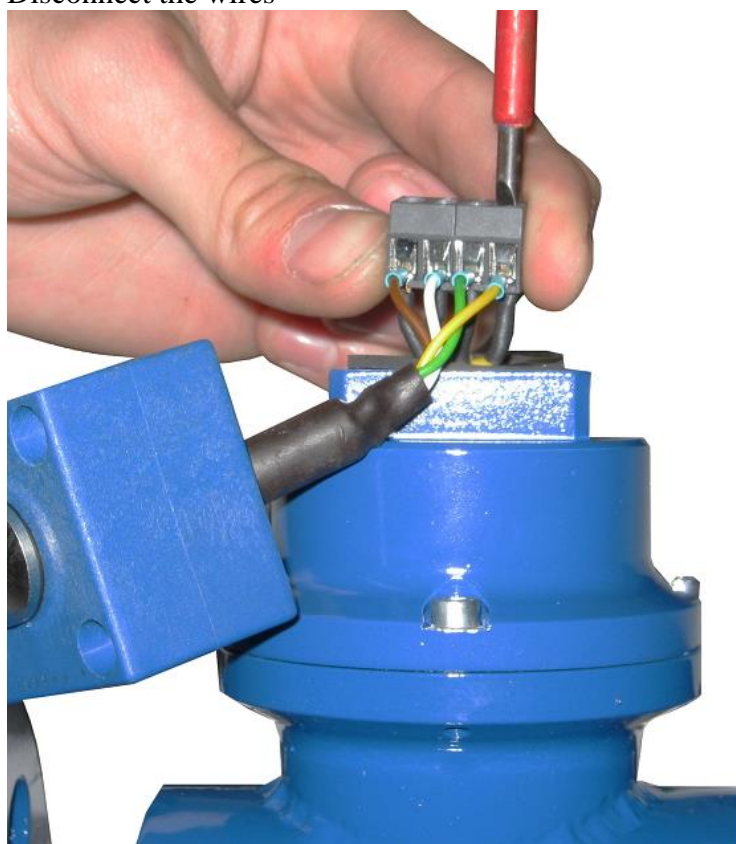
Unscrew four imbus 3mm screws



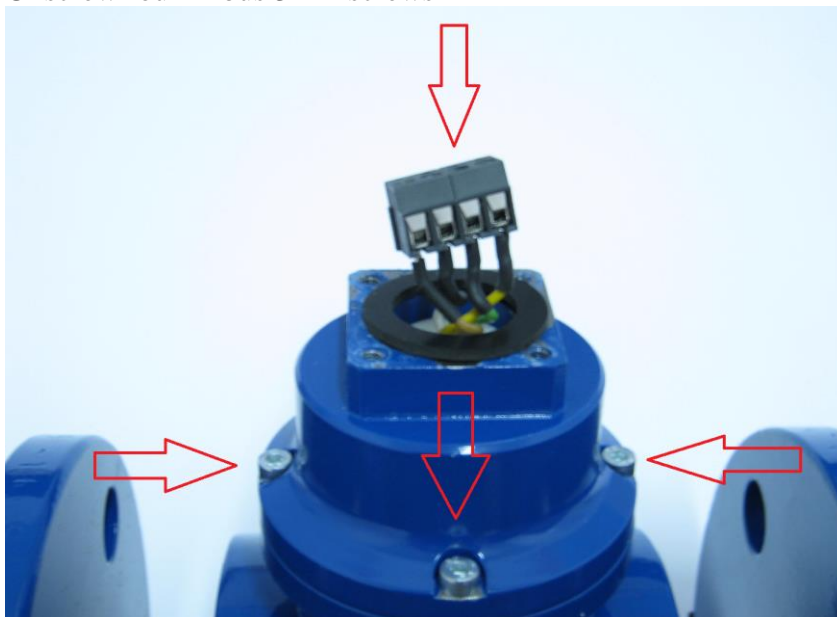
For Remote version:
Unscrew four 3mm screws



Disconnect the wires



Unscrew four imbus 3mm screws



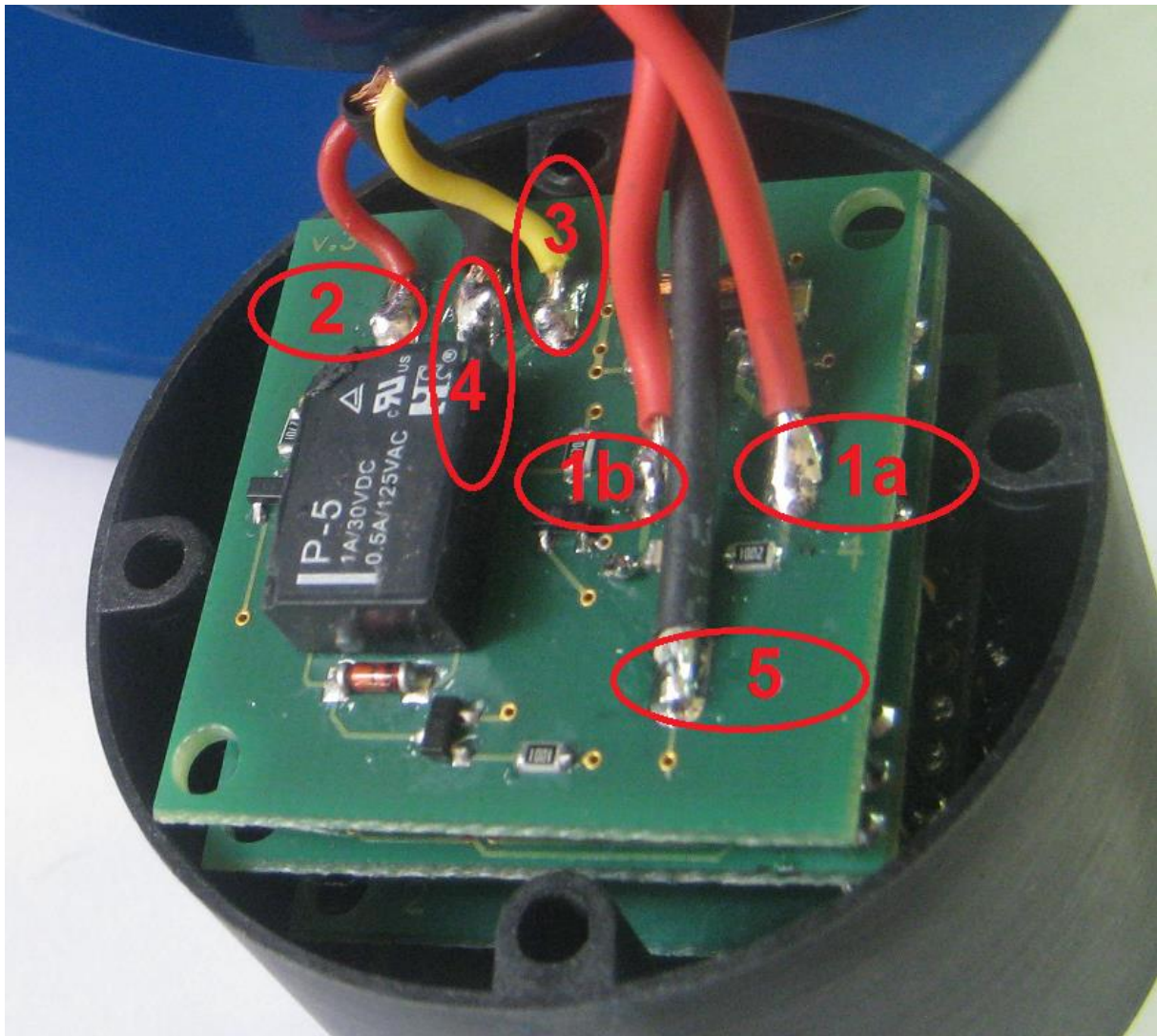
Step 4

Unscrew the 4 cross screws in sensor communication module



Step 5

Measure according to picture and following table.



- Point 1 – coils A and B
- Point 2, point 3 – electrodes EL1 and EL2
- Point 4 – earthing electrode
- Point 5 – temperature sensor

Test No:	Check resistance:	Expected Value:	Probable cause if different value:
1	- 2 x 4 (EL1 x GND) - 3 x 4 (EL2 x GND) - 2 x 3 (EL1 x EL2)	1 kΩ to 1 MΩ <i>With a full sensor tube</i> > 1 MΩ <i>With an empty sensor tube</i>	Lower value: Short-circuit on the electrode Higher value: If the value with a full sensor tube is higher, the electrode is not connected.
2	- 1A x 1B (EXCITATION)	40 to 100 Ω	Lower value: Short-circuit on the excitation coils Higher value: Disconnected or interrupted excitation.
3	- 1A x 4 - 1B x 4	> 10 MΩ	Lower value: Coils not isolated from the sensor body
5	- 4 x 5	2 kΩ \pm 300 Ω	0 or infinite: Temperature sensor shorted resp. not connected

Step 6

To assemble the flowmeter back follow the steps in reversed order. Don't forget to put back all sealings.