

# P1AP digital manometer calibration manual

For firmware version 4.x - IoT



## Calibration of manometers (P1AP)

Enter the "Calibration" section using the display of the manometer.

The default password is set to "1111". Press enter.

With up and down buttons select the desired calibration value to set:

- Minimum = calibration of the minimal range value
- Maximum = calibration of maximum range value
- Offset = set the manometer offset
- Default = set the calibration as done during manufacture
- Autozero = set the Autozero function ON or OFF - see below for more information

Offset: Use this function when you are only able to calibrate one point in the whole measured range - for example "0" by closing the valve on the measured piping, setting the offset for achieving reading of "0". All the measurements in range will then be offset by this Offset value.

### Setting the minimum and maximum value

Setting the minimum value:

- Connect the manometer to the known precision source of the minimum pressure this manometer is physically able to measure (see label).
- Go to calibration menu: Calibration -> Minimum

- Using the up and down arrows select the current real known reference pressure value
- Confirm the selection by pressing Enter

Setting the maximum value:

To set the maximum value connect the manometer to the source of known reference maximum pressure range and repeat the same process as for minimum value, but select Calibration -> Maximum menu item instead.

Please note, that each individual manometer is, additionally to this calibration, internally calibrated to compensate for temperature changes and non-linearity during manufacture. Also note, that each user of the measurement equipment might have different requirements as to how often and what procedure must be taken to calibrate the equipment to desired accuracy levels. Please consult datasheet to make informed decision on how often to calibrate the sensor.

## Description of Autozero function

"Autozero" function serves for ignoring very small pressure changes at pressure close to 0 on the display. It is often undesirable to show values on the display, which are very close to zero, especially when the resolution of the measurement on the display exceeds the manometer accuracy. For example if the manometer measurement accuracy is 0.25% the Autozero value shall be set to 0.2% to ignore changes in pressure close to zero, which are smaller than equipment accuracy. This avoids ambiguity in readings smaller than precision of equipment (but only for values very close to zero).

It is highly advisable to temporarily switch off this function before calibration.

## Additional support

For additional support please contact your distributor or manufacturer directly via [www.moirelabs.com](http://www.moirelabs.com)

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