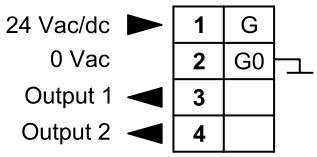
COMMISSIONING

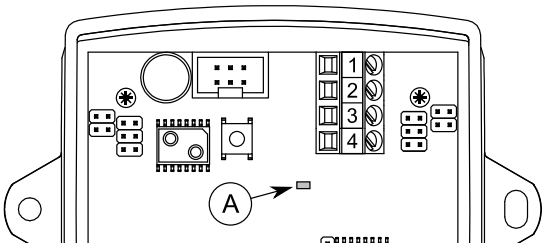
Wiring

Caution

Device wiring and commissioning can only be carried out by qualified professionals. Always make the wirings while the power is switched off.



Power light

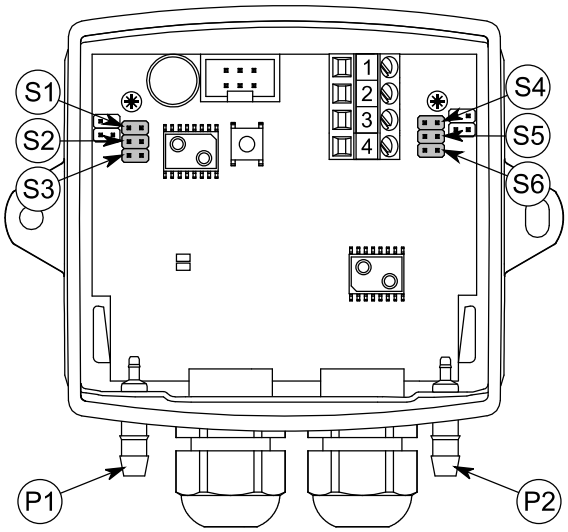


A. Power light

The power light is on when the supply power is connected.

Selecting the measuring range

The measuring range can be selected with jumpers. The jumpers S1…S3 are for the P1 pressure measurement and the jumpers S4…S6 are for the P2 pressure measurement.



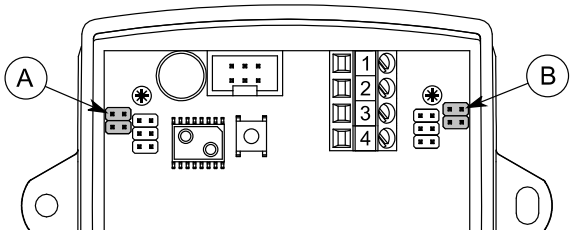
	±100	0…100	0…200	0…500	0…1000	0…1500	0…2000	0…2500 *)
S1 / S4	▫▫	■	▫▫	■	▫▫	■	▫▫	■
S2 / S5	▫▫	▫▫	■	■	▫▫	▫▫	■	■
S3 / S6	▫▫	▫▫	▫▫	▫▫	■	■	■	■

*) Factory setting. The 0…2500 Pa range is also used for the custom range setting.

The custom range is 0…2500 Pa as a default. The range can be changed by using ML-SER tool.

Configuring the outputs

The output connectors 3 and 4 can be configured separately to be either 0...10 Vdc or 4…20 mA outputs. The factory setting is 0…10 V output for both connectors.



A. Output 1 configuration jumpers
B. Output 2 configuration jumpers

Output configuration

Output	0…10 Vdc	4…20 mA
Jumper configuration		

OPERATING AFTER A POWER FAILURE

All device settings remain over the power failure.

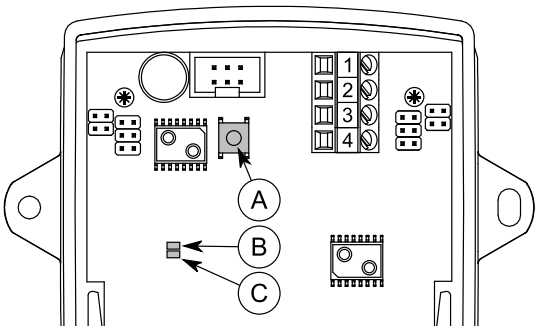
ZERO POINT CALIBRATION

The purpose of the zero point calibration is to remove the possible long term drift.

The recommended zero point calibration interval is one year.

1. Unplug the pressure connections.
2. Press the zeroing button (over 4 seconds) until the indicator lights light up.

   The lights light up in turns and are illuminated approximately for a second.



A. Zeroing button
B. P2 zeroing indicator light
C. P1 zeroing indicator light

3. Reconnect the pressure connections.

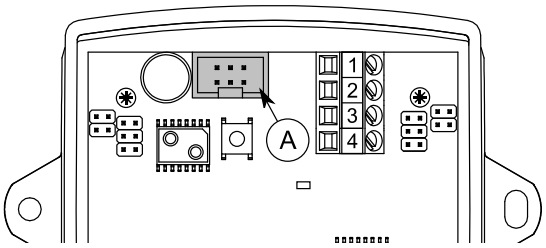
NOTE: To achieve the best measurement accuracy, it is recommended to calibrate the zero point after two hours of powering the transmitter.

ML-SER TOOL

With the ML-SER tool you can change the device settings, like controller settings for example.

Connecting ML-SER tool to the device

1. Remove the cover.
2. Disconnect the display cable if the device is equipped with display.
3. Connect the ML-SER cable to the display connector.



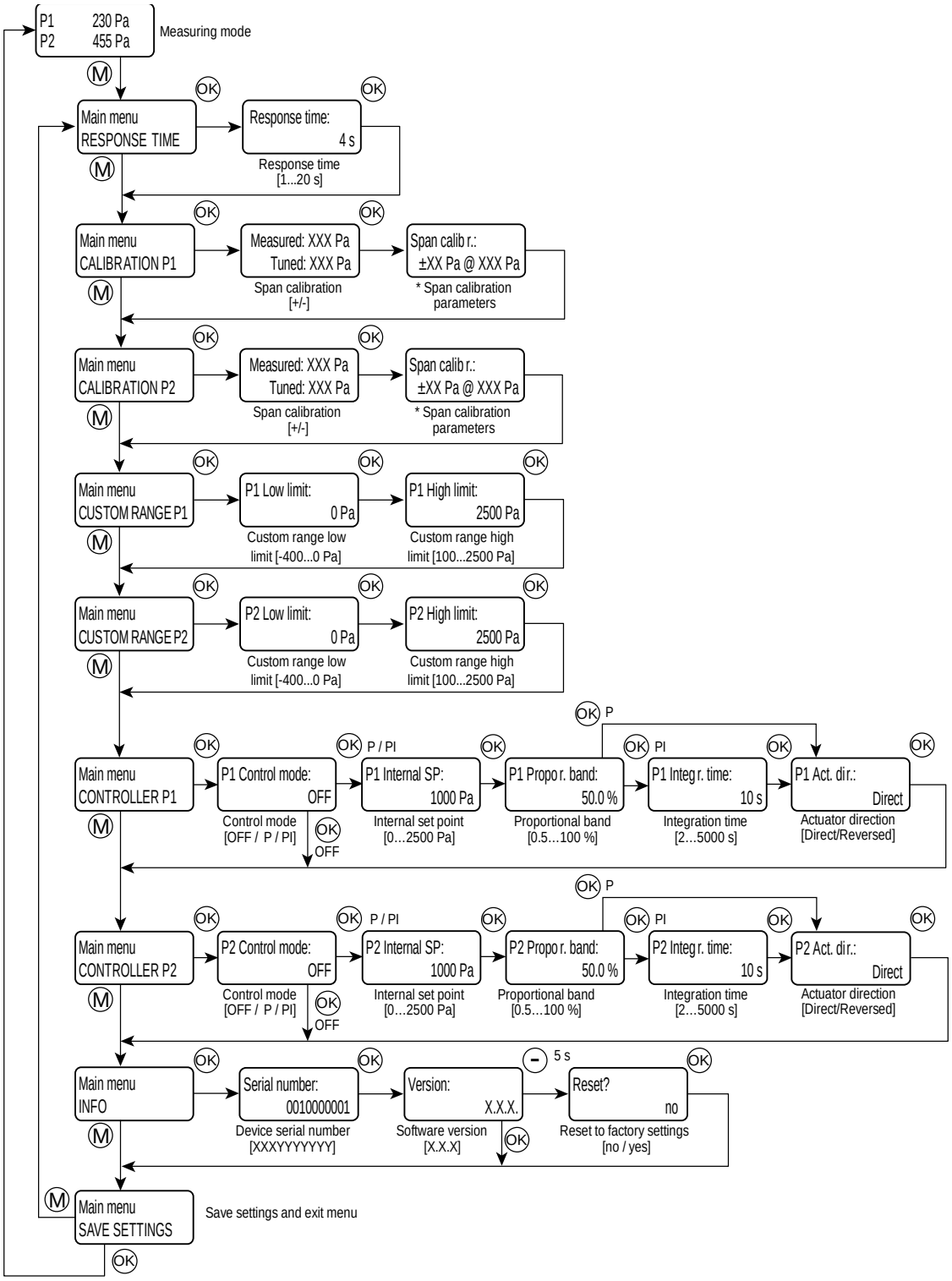
A. Display connector

When the ML-SER is successfully connected, the pressure measurement values are displayed on the ML-SER tool display. The connecting can take few seconds.

ML-SER menu

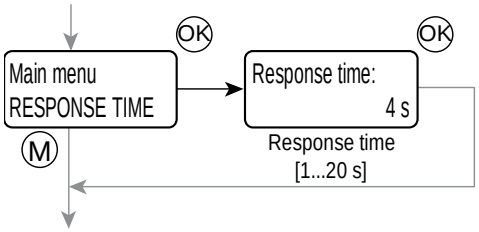
The device settings can be changed by using ML-SER tool. You can proceed in the menu by pressing the M and OK buttons. The values can be changed with the ”+” and ”-” buttons. The value is accepted with the OK button. The following menu structure contains the factory settings.

The controller function and analogue outputs are disabled when entering the menu. In addition, the analogue outputs maintain the same voltage, as they were before entering the menu.



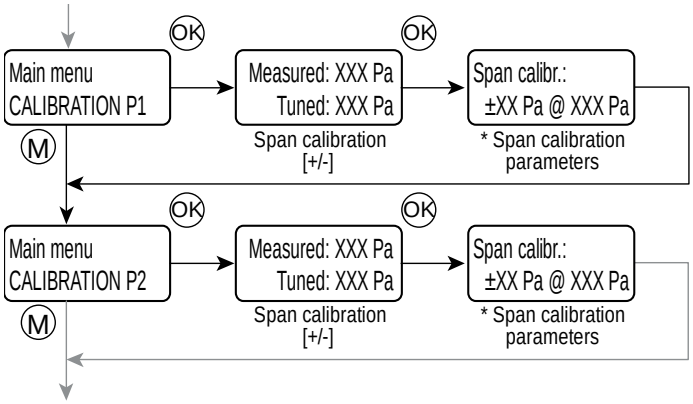
* Span calibration parameters are displayed for two seconds before returning to the main menu.

Response time menu



The measurement response time can be changed through the RESPONSE TIME menu. The response time (T_{63}) is common for both pressure measurements.

Calibration menus



* Span calibration parameters are displayed for two seconds before returning to the main menu.

The CALIBRATION menus are for pressure measurement span calibration. To calibrate, you need to know the pressure measurement deviation at a single pressure.

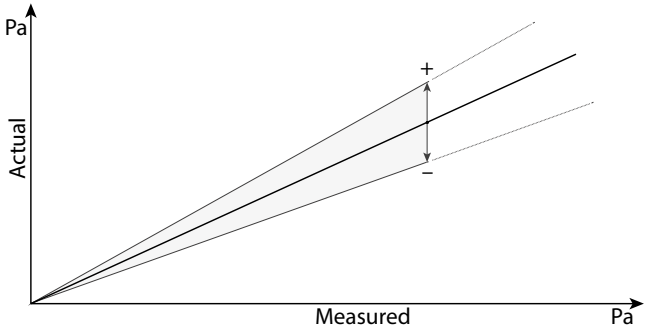
You need the following equipment for the calibration.

- ML-SER tool.
- A reference pressure meter.
- A stable pressure source (calibration pressure must be at least 275 Pa).
- Hoses for pressure connections.

Calibration

1. Connect the transmitter and the reference pressure meter to the same pressure source.
2. Connect the ML-SER to the transmitter.
3. Navigate to the calibration menu.
4. Read the pressure values from the ML-SER tool and the reference pressure meter.
5. Press + and – buttons on the ML-SER tool to adjust the transmitter pressure measurement to same value as the reference.

   The measurement can be tuned ±25 Pa.

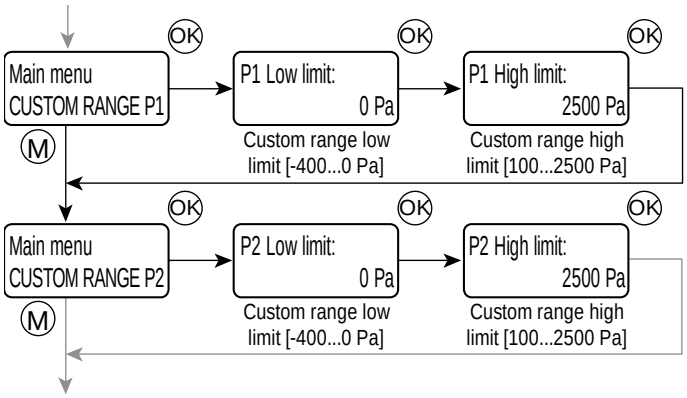


For example if you adjust +5 Pa at 1000 Pa, the device will now read 1005 Pa at that pressure. Correspondingly reading is corrected +10 Pa at 2000 Pa.

6. Press OK to save the span calibration.

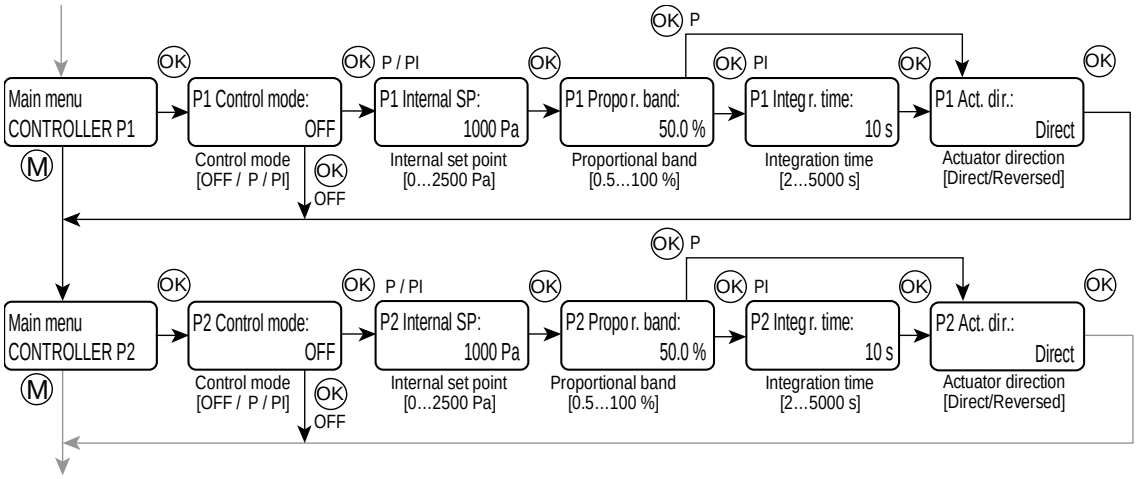
   The calibration parameter values are displayed for two seconds before returning to the menu. If the parameters are not changed, “Not in use” is displayed instead of the calibration parameters.

Custom range menus



The CUSTOM RANGE menus are for setting the custom pressure range limits. The custom range is in use when all the pressure range selection jumpers are placed.

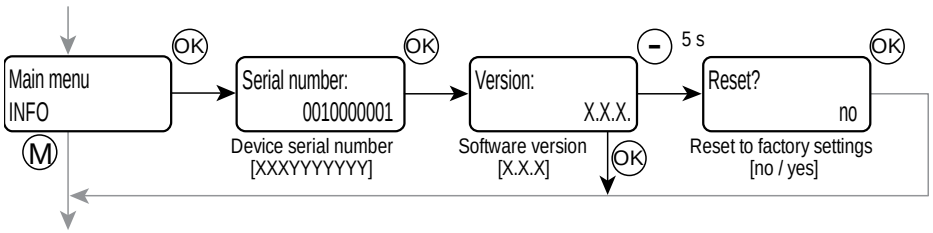
Controller menus



The both controller settings can be changed separately through the CONTROLLER menus.

NOTE: The controller proportional band is 0.5…100 % from the selected pressure range.

Info menu



The INFO menu can be used for checking the serial number and software version, and resetting to the factory settings.

Resetting to the factory settings

1. Press the “-“ button for five seconds in the Software version display.
2. Change the resetting dialog answer to “yes”.
3. Press OK button.

   The factory settings are now reset.