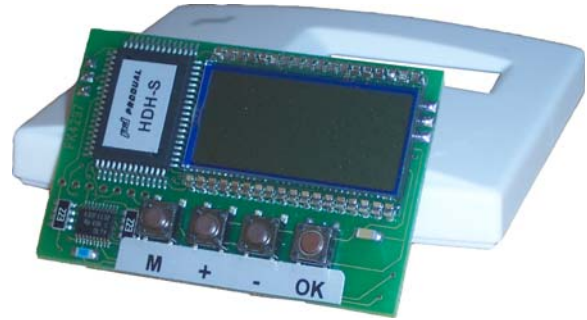


## HDH/HDK-C Controller Option / Calibration Tool for HDH / HDK CO2 Transmitters

HDH-C and HDK-C are designed to provide control functionality for the HDH room CO2 and HDK duct CO2 transmitters.

In normal operating conditions the HDH and HDK do not require calibration due to ingenious auto-calibration routines. However if the units are installed to environments that have significantly different base CO2 levels, then HDH/HDK-C calibration tool can be used for resetting the base CO2 levels.

HDH-C can also be used to set the Modbus addresses for the HDH-M Modbus RTU RS-485 CO2 transmitters. The HDH-C allows adjustment of the Modbus addresses and baud rate.



Model Type	Model	Description
	<b>HDH-C</b>	Controller Option Card / Calibration Tool for the HDH CO2 Transmitters. Configuration tool for the HDH-M Modbus CO2 Transmitter Modbus Settings.
	<b>HDK-C</b>	Controller Option Card / Calibration Tool for the HDK CO2 Transmitters.
<b>Technical Data</b>	Power supply	Via pins from the CO2 Transmitter
	Display	LCD Display for Configuration Data
	Enclosure	Fits into the HDH Enclosure

<b>Connections (on the HDH/HDK Transmitter)</b>	1 - G	24Vac/dc power supply
	2 - G0	0V common
	3 - AO1	CO2 output: 0..10Vdc = 0..2000ppm CO <sub>2</sub>
	4 - AO2	Temperature output: HDH/HDK 0...10Vdc = 0...50°C HDU 0...10Vdc = 0...50°C
	5 - AO3	Control output: 0...10Vdc (HDH-RH-C, HDH-C, HDK-C) Rh% Output (HDH-RH)

**Functions** HDH-C can be used for a number of different purposes

- 1.measurements calibration
- 2.controller configuration
3. Modbus network addressing (for HDH-M)

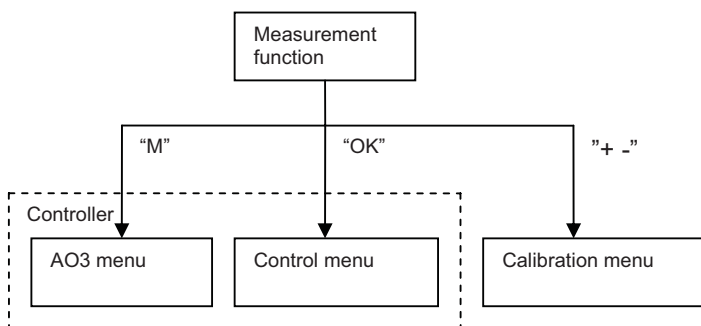
**User Interface**



**Installation**

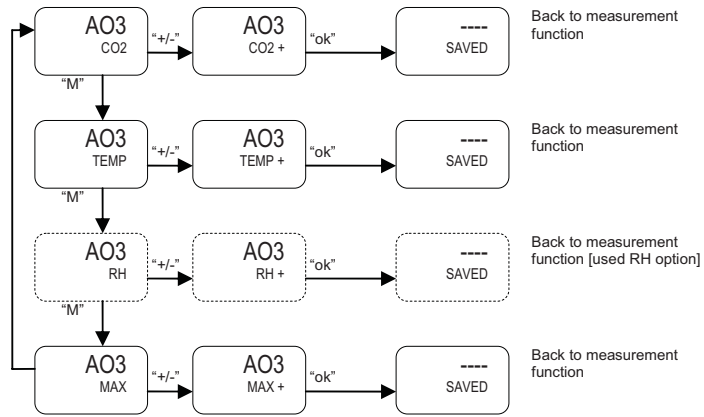
- 1.Find a mounting place for CO2 transmitter. Switch the cables (See connections). NOTE! AO3 is humidity (%RH) or control output.
- 2.CO2 transmitters warm up time is 10 minutes. The display begin to alternate CO2,, temperature (and humidity: option) .
- 3.Control values (default) :
  - 700...1100 ppm CO2 (min. difference 50 ppm)
  - 21...23°C (min. difference 2°C)
  - 0...100%RH (min. difference 5%RH)

**Main Menu**



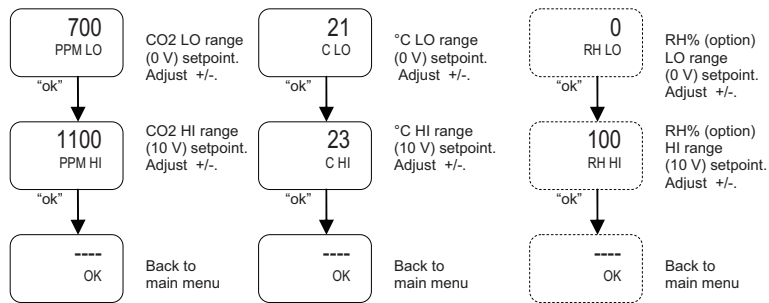
**Controller - Selecting Control Output**

It is possible to select CO2, temperature, humidity (option) or MAX for control output. MAX is controlling according the biggest measurement value. By pushing 4 s. "M"-button opens controller menu. Menu goes forward with "M"-button. Accept the right measurement for the control with "+"-button and next "OK"-button.



Proportional value is selected by pushing first "S1"-button and next "OK"-button to adjust "LO" value with "+" and "-" button. Then similarly "HI"-value by pushing "OK"-button. The values can be accepted by pushing "OK" or waiting for 5 sec.

CONTROL MENU



Calibration and Modbus Configuration Menu

To get the calibration menu push "+" and "-" buttons 3 sec. at the same time. Every unit is possible to calibrate (CO2 and temperature are defaults).

CALIBRATION / MODBUS CONFIGURATION MENU

Back to measurement function by pushing "M"-button 3s. or after 1 min.

