



Level



Pressure



Flow



Temperature



Liquid
Analysis



Registration



Systems
Components



Services



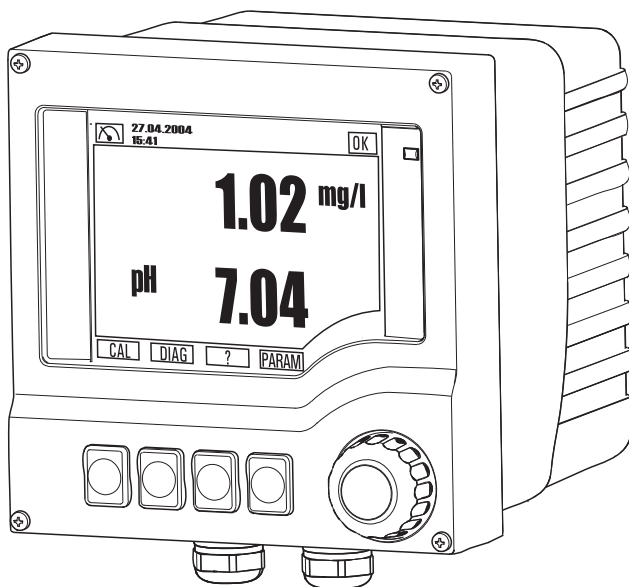
Solutions

Operating Instructions

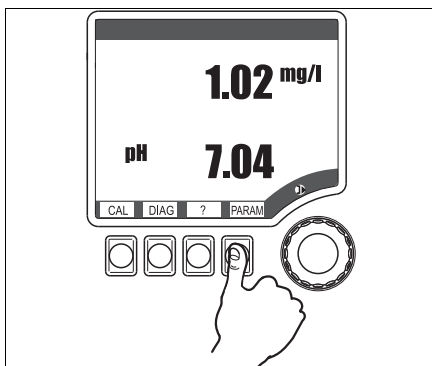
Liquiline M CM330

Four-wire transmitter for two-channel measurement of pH value and disinfection parameters with digital sensors

Part 2: Operation

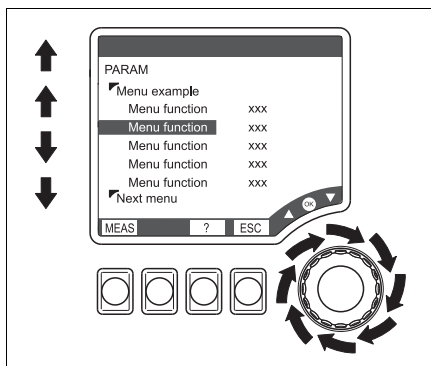


Operating concept



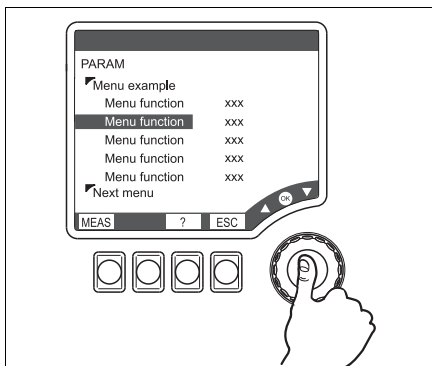
a0007005

Fig. 1: Press soft key: select menu directly



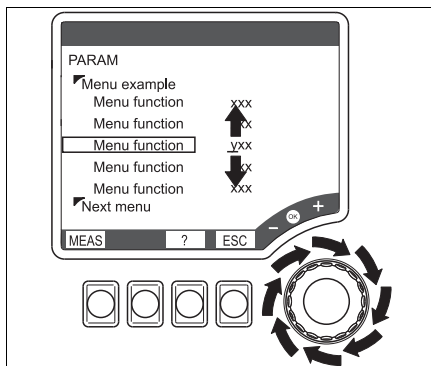
a0003809-en

Fig. 2: Turn navigator: move cursor in the menu



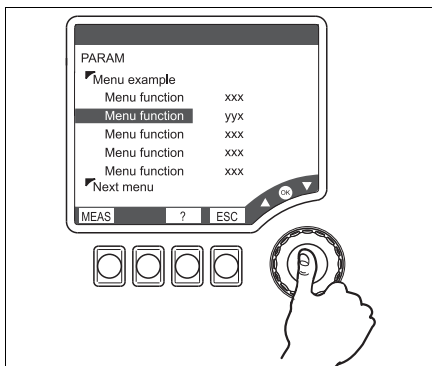
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Fig. 3: Press navigator: select a function



a0003811-en

Fig. 4: Turn navigator: change value



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Fig. 5: Press navigator: select new value

Operating concept

1. You select a menu directly by pressing the soft key in question.
2. You move the cursor in the menu by turning the navigator.
3. Press the navigator and select the desired function.
4. Change the value by turning the navigator.
5. Press the navigator to accept the new value.

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1 Display

1.1 Overview

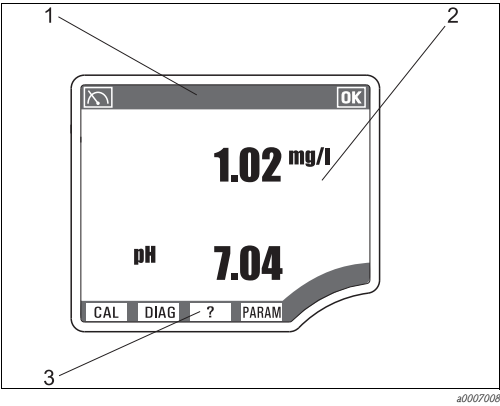


Fig. 6: Local display (measuring mode)

- 1 Status line
- 2 Display and setting field
- 3 Assignment of the soft keys

1.2 Status messages

	Symbol for the measuring menu (MEAS)
	Device status is OK. No alarms or warnings are present.
	Service warning. Maintenance is recommended. The device is operational; the reliability of the measured value may be restricted.
	Alarm that points to an error. The device is no longer operational or the measured value is no longer reliable.
	Measured value display in the status line if a menu other than MEAS is launched. The main measured values for channel 1 and channel 2 are displayed.
	Hold is set to "ON", the measured value is "frozen".
	Symbol for the simulation mode
	Symbol for the calibration type "Sample calibration" The sample is taken, laboratory analysis is running. The device is waiting for input.

2 Notes on software description

2.1 Types of setting

- Display fields
 - You can only read the values, not change them.
- Selection fields
 - You receive a list with options.
 - You select one of these options.
- Input fields
 - There are value ranges with upper and lower range limits that depend on the measured variable configured and its units.
 - There are also menu functions where you can enter arbitrary text. The number of characters is then limited.
 - Set a value with the navigator:
 - Turn** to increase/reduce a value/letter/special character
 - Press** to confirm or to enter the next character for arbitrary text.

2.2 Editing tables

You can set some software functions using a table:

- The number of columns depends on the menu function that is set via the table.
- You can add lines ("Insert") or delete lines ("Del").
- The maximum number of lines also depends on the menu function in question.
- You can press "Esc" at any time to exit the table and stop entering information.
- If the values entered result in a valid table, you receive the message "Table is valid" and the options:
 - Save table
 - Continue edit table
 - Discard table
- If the values entered are invalid, an error message is output with the options:
 - Continue edit table
 - Discard table

3 Measure (MEAS)



Note!

In the measuring menu, you can switch between four different types of display. To do so, simply press the enter button of the navigator.

Function name of local operation (Display)

- Meas
 - Main values channel 1 + channel 2
 - Main value channel 1 and temperature
 - Main value channel 2
 - All measured values
 - DI value
 - pH value
 - Temperature
 - Sensor current
 - Current output 1
 - Current output 2

4 Specifying the parameters (PARAM)

4.1 Menu structure, top hierarchy level

- PARAM
 - Sensor DI
 - Sensor pH
 - Current output
 - General settings
 - Display

4.2 Sensor DI

4.2.1 Menu structure

Function name of display (local operation)

- PARAM
 - Sensor DI
 - Measured value
 - Concentration (*Measured value="Concentration"*)
 - Damping

Function name of display (local operation)

- Compensation pH
 - Switch
 - Mode
 - Preset pH (*Mode="Fixed value"*)
- Sensor pol. voltage
 - Switch
 - Adjust (*Switch="off"*)
 - Clean timer (*Switch="off"*)
 - Switch
 - Pol. voltg.
 - Repetition rate
 - Power on time
 - Hangover time
- Temp. compensation
- Medium Temperature
(*Temp. compensation="Man. comp."*)
- Sensordiagnosis
 - Diagnosis limits
 - Slope DI
 - Upper alarm value
 - Upper warning value
 - Lower warning value
 - Lower alarm value
 - Zero pnt. DI
 - Upper alarm value
 - Upper warning value
 - Lower warning value
 - Lower alarm value

4.2.2 Configuration options

Function	Options	Info
Measured value	Options ■ concentration ■ nA Factory setting concentration	The measured value can be displayed as concentration of the disinfection reagent or as sensor current.
Concentration	Options ■ mg/l ■ µg/l ■ ppm ■ ppb Factory setting mg/l	

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