



Manufacturer Information

for users regarding software updates
(following the NAMUR recommendation 53)

1 Type of device

- Field device / signal processing device
- Monitoring- / operation system / hand held terminal etc.
- Modem / interface

Manufacturer : Endress+Hauser
 Device : Liquiline
 Type : CM442, CM444, CM448
 Previous software version : 1.03.01

How can the previous software version number be identified:

- (a) With standard HART or PROFIBUS Communication
- (b) with FieldCare/DTM
- (c) Display

2 Software

New software version : 1.04.00

Description of the modification in comparison with the predecessor version:

Liquiline CM44 - New Features/Availabilities:

- Integrated 24 VDC extension power supply for Liquiline CM444/CM448
- New extension module: 2x digital input & 2x digital output (“DIO”) featuring:
 - Input: Measuring range switch for conductivity
 - Input: External Hold
 - Input: triggering of a cleaning cycle via an external signal
 - Input: PID-controller enable/disable e.g. via CCA250-Proximity switch
 - Input: usable as “analog input” for Pulse Frequency Modulated (PFM) input signals
 - Output: static, usable comparable to a relay, e.g. for signalizing diagnostic states, limit switches, etc.
 - Output: dynamic, usable comparable to a wearless “analog output” with Pulse Frequency Modulated (PFM) signals (e.g. for dosing pump control)
 - Status of Relays, digital inputs and digital outputs can be displayed also in user definable measurements screens
 - Key lock (by long pressing the Navigator) with optional password protection
 - The printing of the device configuration via FieldCare is optimized
 - PID-Controller: now supports also disturbance feed forward control allowing e.g. flow proportional dosing via 0/4..20mA, digital fieldbus or the new digital inputs.
 - Mathematics: pH out of conductivity value is now also calculable basing on LiOH (according the new “VBG Powertech group guideline” for the power & energy industry)

Liquiline CM44 - Enhancements & Improvements:

- Offset Icon - Harmonization across all parameters to not display the offset icon anymore



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- Note: Offset Icon will only be displayed at pH and ORP
 - Human Machine Interface (HMI): Translation of all new menu items (including the items of the release 3a) into all available languages

ISE: New Features, Enhancements & Improvements

- Re-arranged and simplified calibration menu implemented
- Calibration of any two parameters in one sequence is possible (except pH/temperature)
- Slot numbers in the menus are replaced by parameter name
- A user defined ISE type can be chosen
- At the end of the standard addition the concentration of the original sample is displayed.

pH/ ORP: New Features, Enhancements & Improvements

- Support of CPSx6 combined pH/ORP electrodes
- Icon for automatic, manual or medium compensation (ATC/ MTC/ MED) same as with conductivity are available

Conductivity: New Features, Enhancements & Improvements

- The raw value in resistivity mode at the unit “ μS ” is available with three decimal places
- Extension of ISO Temperature compensation table by “Water ISO7888 (20°C)”
- Integration of new & enhancing existing concentration tables

Dissolved Oxygen: New Features, Enhancements & Improvements

- All units now available with three decimal places (e.g. 0.003 mg/l)
- A warning message for zero current now also for negative values (before: just+1nA, now: +/-1nA)
- After successful calibration the new slope and in addition the used calibration pressure value is now shown. User can now cross check if the calibration pressure of the extended setup/calibration setting is used.

Turbidity, Nitrate, SAC: New Features, Enhancements & Improvements

- Turbidity: auto ranging can be switched on or off. In the Off-mode, the units mg/l or g/l or % can be chosen. In the On-mode, the system selects the units mg/l or g/l automatically.
- Turbidity, SAC, Nitrate: A Dataset can be saved also after editing its name
- Turbidity, SAC, Nitrate: When copying datasets, it is now indicated what will be used as source and as target.
- Turbidity, SAC, Nitrate: Values for Offsets can now be entered for a wide range. The range is not defined anymore by the sensor.

3 Compatibility

Is the operating tool compatible with the installed device software?

- Yes
 No, description:

Remark: The PROFIBUS-GSD file is fully compatible.
 For device configuration a new EDD file or a new DTM are necessary.



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The PROFIBUS DTM is schedule for the next FieldCare lib update July 2013.
The PROFIBUS PDM DD is scheduled for July 2013.
Newly delivered devices can be downgraded to 1.03.xx for integration into customer's PROFIBUS asset management systems. With the later update in July to the current version 1.04.xx the parameter configuration will stay unchanged.

The HART DD and the HART DTM are fully compatible.

Is a software update generally recommended?

Yes, reason:

The software update can be performed by means of ...

- SD card

No, reason:

Update only necessary if functional enhancements are desired

4 Instruction manual

Is a new instruction manual necessary due to the modification of the software?

- Yes
 No

Which manual corresponds to the new software:

Device	Communication options	Manual	Marking
CM442/444/448	All	BA00444CEN.pdf	Liquiline Commissioning
		BA00445CEN.pdf	Liquiline Maintenance & Diagnostics
		BA00450CEN.pdf	Liquiline Operation & Setting
		BA00451CEN.pdf	Liquiline Calibration

The new instruction manuals can be referred in Internet:

<http://www.endress.com> - area „DOWNLOAD“
- declaration of the device and kind of manual

5 Price

Change in price of device in comparison with the predecessor version?

- Yes, new list price and update costs (without installation) are enclosed
 No