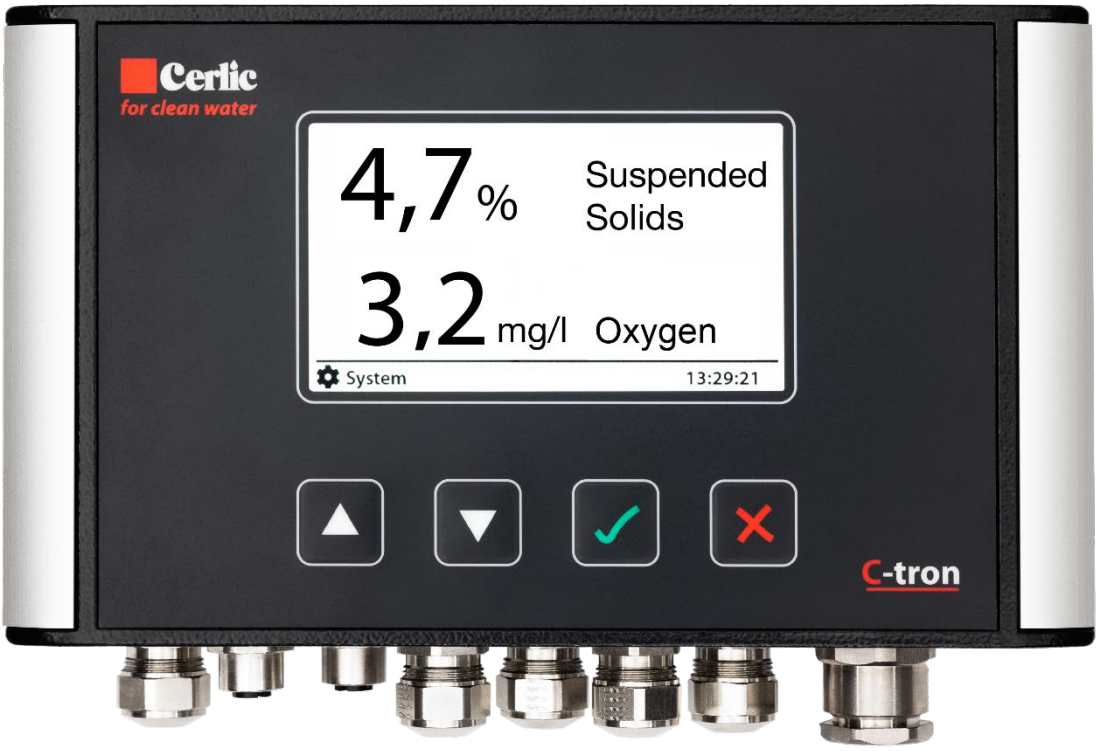


C-tron Manual
English

1. General information

It is important to read the entire manual before putting the instrument into operation in order not to damage the instrument or connected devices. In case of incorrect use and incorrect connection of the instrument, the lifetime of the instrument may be limited and warranties may expire.

The C-tron is a central unit for making measurement in liquids simple and with the option of sending measurement data and alarms to superior systems. The C-tron is easily connected to various sensors that can measure fiber and particle concentration, susphalt, oxygen content, pH value, redox potential and flow in municipal and industrial treatment plants as well as for emission control.

2. Safety information

It is important that only authorized and trained personnel use the equipment. Remember to follow local safety procedures when taking samples at and in pools.

Within the EC, it is not permitted to throw away electrical and electronic waste in the garbage. Electrical and electronic waste can contain hazardous substances and must therefore be sorted and left for recycling. The products in question are marked with crossed out dustbin as below. It is important that everyone cooperates to ensure a high level of recycling of electrical and electronic waste. If this waste is not recycled according to regulations (EU Directive 2002/96/EC), both the environment and health can be endangered.

3. Functions

C-tron is a measuring computer that simultaneously measures different sensor values from several sensors and presents these values on a built-in display and sends measurement data to higher-level systems. It is possible to program the C-tron so that alarms are displayed when sensors have exceeded or fallen below limit values.

4. Unpacking

The unit has been tested and inspected by the manufacturer before delivery and must be in perfect condition. When unpacking, the contents must be checked so that they agree with the order and packing slip. If damage is discovered, the report must be made immediately to the carrier and to Cerlic. Once Cerlic has approved the damage, the device can be returned to Cerlic. The

device is packed in protective packaging and, as far as possible, the packaging should be saved for storage of devices and when returning.

5. Mounting

The C-tron can be mounted on a mounting plate that is attached to a wall or directly to a railing. It is possible to mount extra mounting plates for peripheral equipment, for example junction boxes, solenoid valves, cables and hoses.

 **For outdoor assembly, the assembly plate must be used for weather protection.**

6. Electrical connection

 Electrical connection of the unit may only be done by trained personnel. The unit is connected to the supply voltage with a three-wire cable that must be approved for the voltage and current to which it is connected. We recommend that the supply voltage be connected via an external switch.

7. Transducer connections

Sensors to the C-tron are connected via signal cables from the sensors. If necessary, the length of the signal cables can be extended with an extra cable. It is possible to connect several sensors with a Y connection or a junction box in a star connection.

8. Analog outputs

The C-tron has four mA outputs that can transfer measured values to SCADA, DCS or other systems. The outputs are configured in the system menu on the C-tron. Each sensor requires its own output, which can be digital or analog. We recommend using shielded twisted pair cable with a conductor area of at least 0.5 mm^2 (AWG24) when connecting the mA outputs to another system. ATTENTION! The shield in twisted pair cable must be connected to earth, otherwise disturbances may occur in external monitoring systems.

9. RS-485 connection

An RS-485 port can be used to transfer measured values or for tests. The serial port communicates with 19200 baud 8N1, for more information contact Cerlic.

10. Ethernet connection

An RJ-45 port is available for connection to networks, for more information see the Ethernet section or contact Cerlic.

11. Relay outputs

There are two built-in relay outputs that can be configured for alarm and/or flush function. The relays are normally open and close when activated. Maximum load on relay is 250V AC, 6A.

12. Switching on automatic cleaning

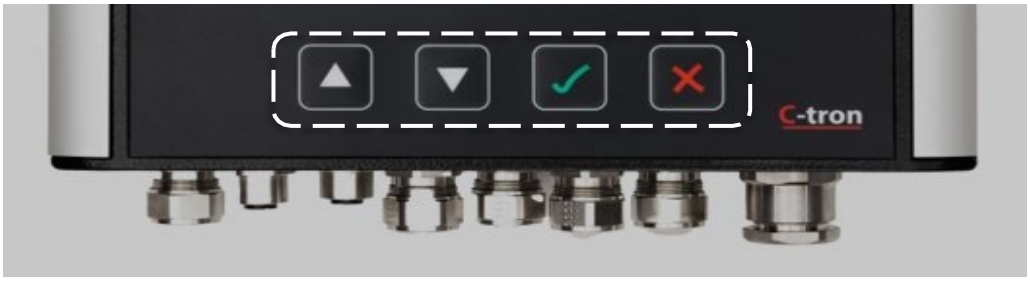
The sensors that have a built-in cleaning function can be controlled from the relay output. It is possible to program how often cleaning should take place and how long flushing should take place. See the section on relays.

Base unit.

Metric or US. It is possible to choose to present Metric or US measurement values on the display. The quantities are mg/l, g/l, %, mV and pH. For temperature can choose between Celsius, Fahrenheit or Kelvin. The selection of quantities is linked to the individual sensors, while the language, time and date are at the unit level.

13. Operator interface

The C-tron has a clear display that shows measurement values from sensors and is also used to add sensors and set various parameters. Below the display there are four buttons used for configuring sensors, setting alarm levels and more.



The four buttons have the following function.

▼ Move the cursor up one step or increase the value by one step.

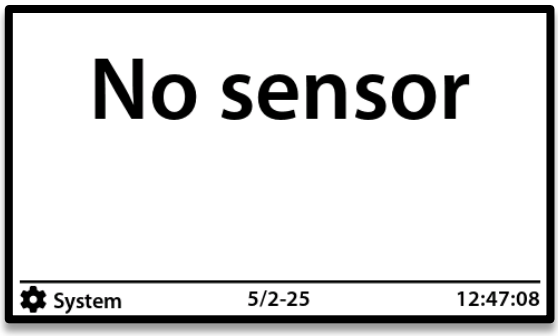
▲ Move the cursor down one step or decrease the value by one step.

✓ Confirm selection or go one step further in the menu tree.

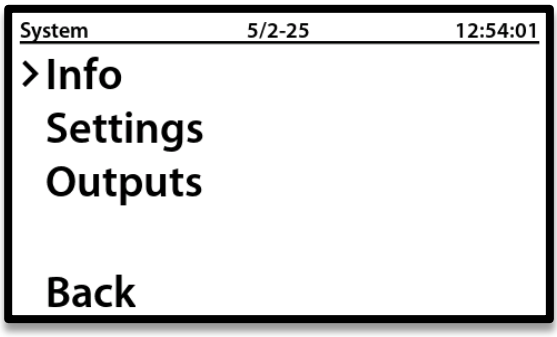
✗ Deny selection or go back one step in the menu tree.

14. System menu

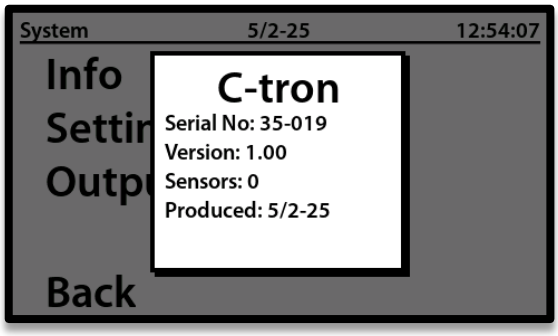
To open the system menu on the C-tron, press ▼ until the arrow is on System lower left corner, then tap ✔



Then tap on ✔ to get to Info.



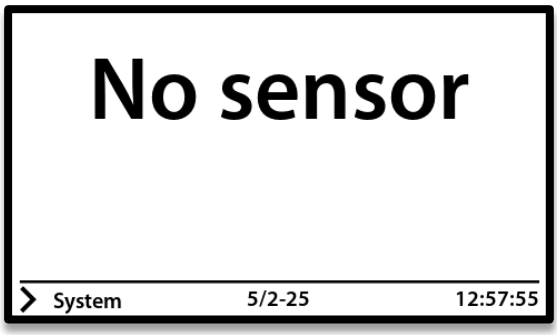
When the C-tron is manufactured, basic information is saved in the device even if the device is taken out of service. The most important settings are as follows:



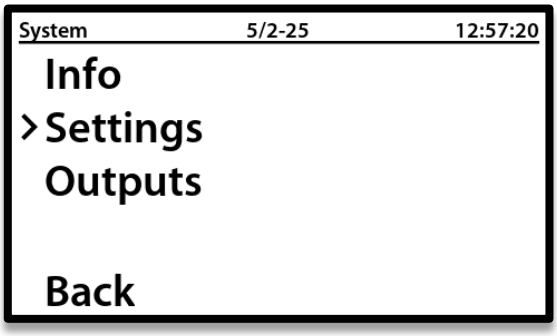
Serial number.
C-tron device serial number.
Version.
Software version in the C-tron device.
Sensors.
Number of sensors connected
Year of manufacture.
Date of manufacture of the C-tron device.

Language.

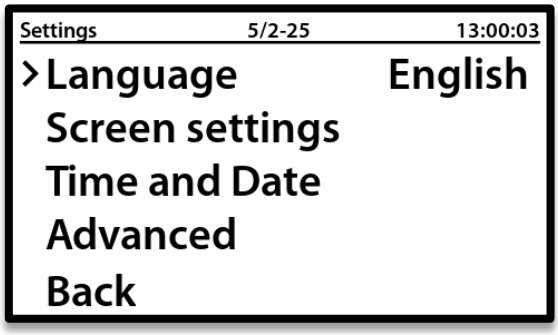
The selected language is changed through the system menu. Press on ▼ until the arrow is on System lower left corner



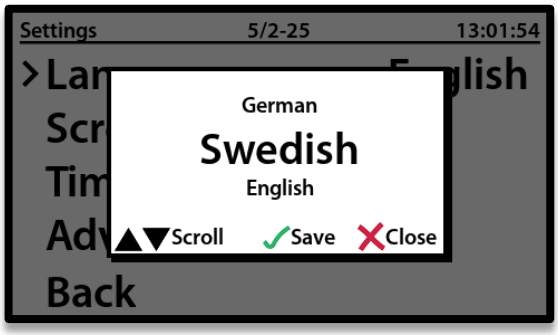
Then tap on ✔ and then on ▼ to get to settings.



Then tap on ✔ to select language



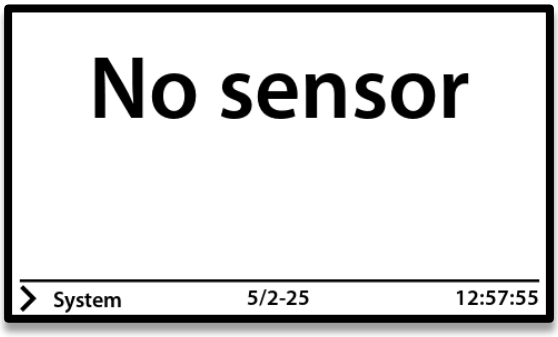
Step along ▲ ▼ buttons to the desired language and confirm the selection by pressing ✔ or on to close.



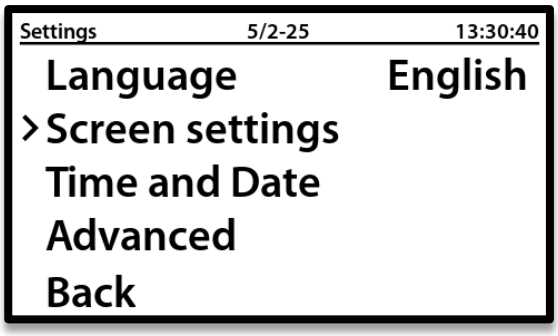
Screen

There are a number of analog and digital outputs on the C-tron to transmit measurement signals to the higher-level control system as well as flushing via the built-in relays. Press on ▼ until the arrow is on System lower left corner. Confirm the selection by pressing ✔.

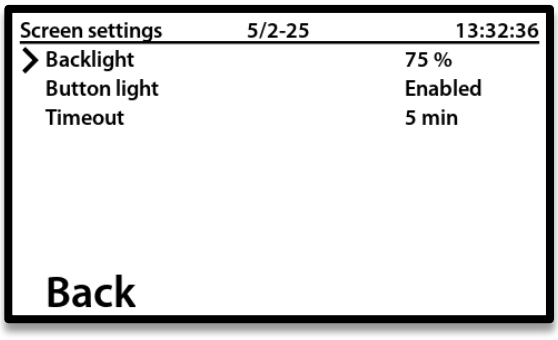
Screen selections are made by pressing ▼ until the arrow is on System lower left corner.



Then tap on ✔ and then on ▼ to get to settings.



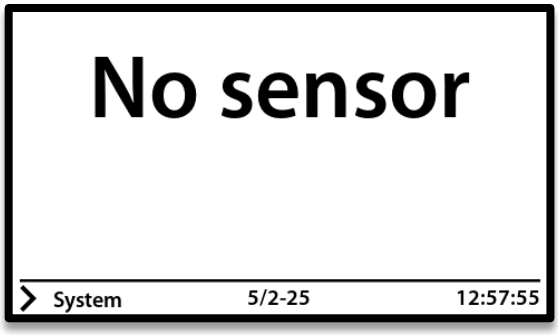
Then tap on ✔ to select screen settings



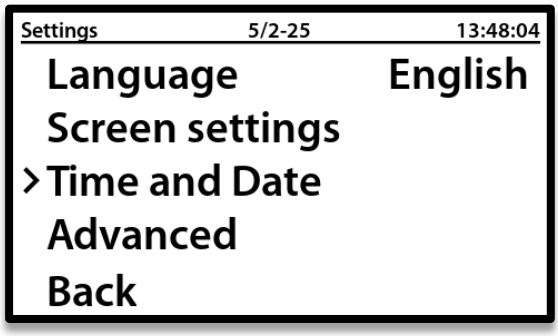
Step along ▲▼ buttons and select by pressing ✔. Confirm the selection by pressing ✔ or on ✖ to close.

Time.

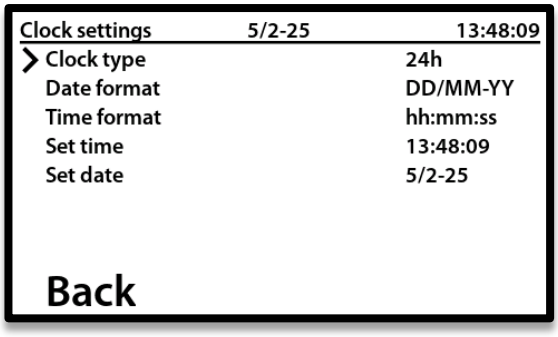
The C-tron has a built-in clock that is adjusted on delivery but can be adjusted if needed. To adjust the clock start by going to the system menu, this is done most easily by pressing ▼ until the arrow is on System lower left corner



Then tap ✔ and then to ▼ settings. Then select Time and date by stepping with the button.



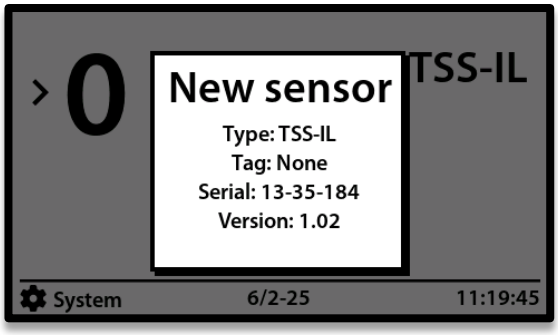
Confirm the selection by pressing ✔ .



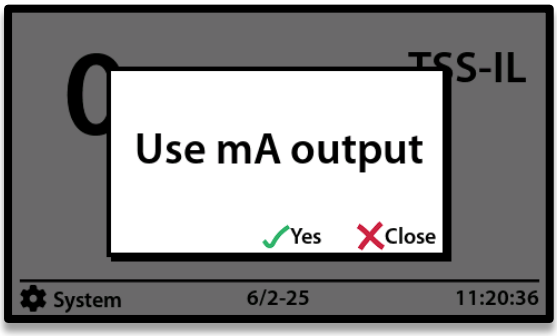
Then select the parameter to be changed by stepping with the buttons and confirm with ✔ .

15. Installation menu

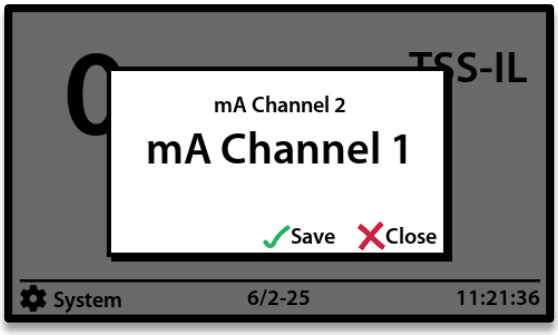
It is easy to install new sensors to the C-tron. To install a sensor, start by connecting the new sensor to the C-tron. After that, a pop-up window will appear.



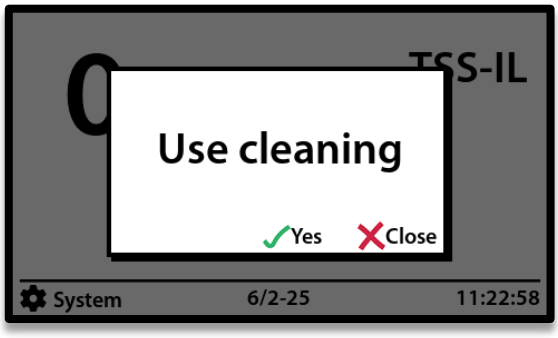
Then select New Sensor, confirm the selection by pressing ✔ .



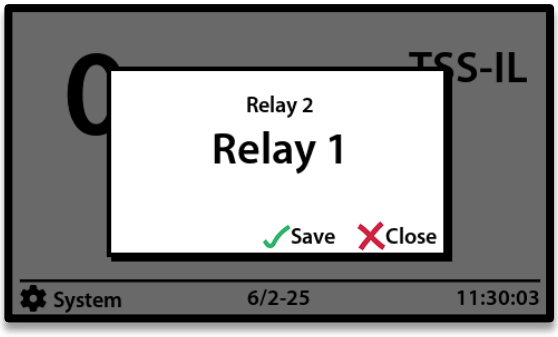
Then select to use mA output by confirm with ✔ or on ✖ to close.



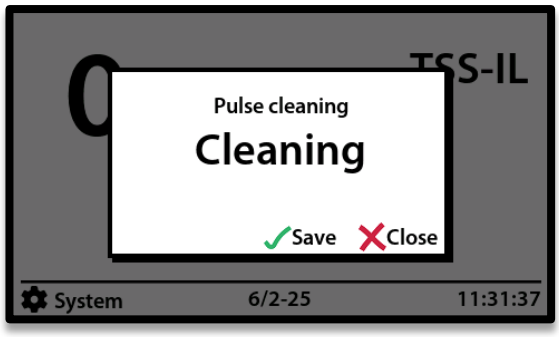
Then select which mA output should be used by pressing with ▲ ▼ buttons for the correct mA channel is selected, confirm with ✔ or on ✖ to close.



Then select to use cleaning by confirm with ✔ or on ✖ to close.



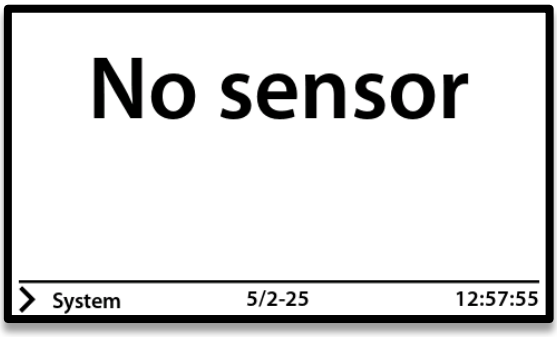
Then select the relay to use, confirm with ✔ or on ✖ to close.



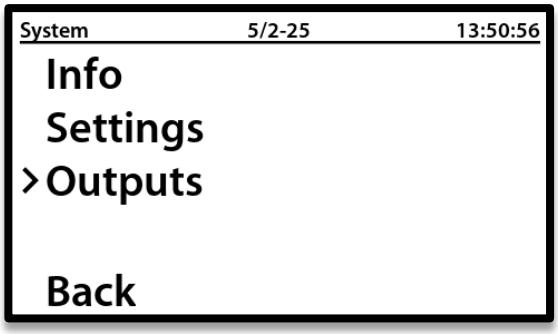
Then select pulse or cleaning to use, confirm with ✔ or on ✖ to close.

Outputs

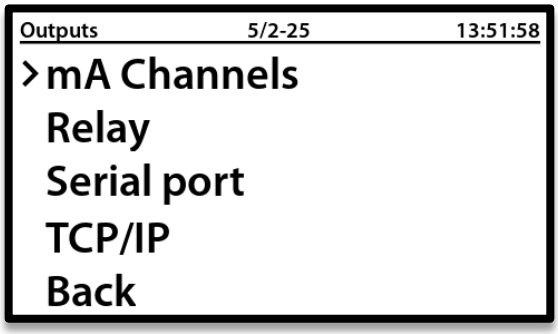
There are a number of analog and digital outputs on the C-tron to transmit measurement signals to the higher-level control system as well as flushing via the built-in relays. Press on ▼ until the arrow is on System lower left corner. Confirm the selection by pressing ✔.



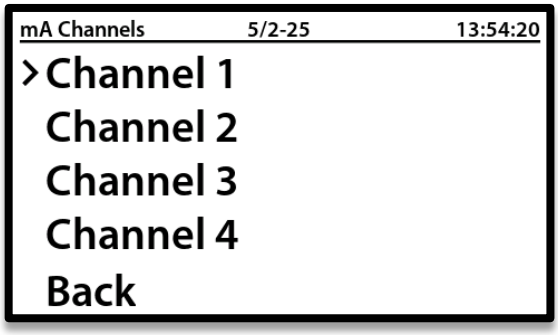
Then step by pressing ▼ to Outputs and confirm with ✔.



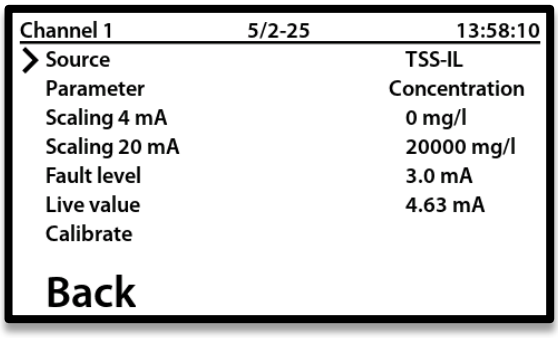
Select mA channels by pressing ✔.



Select channel 1 by pressing ✔.

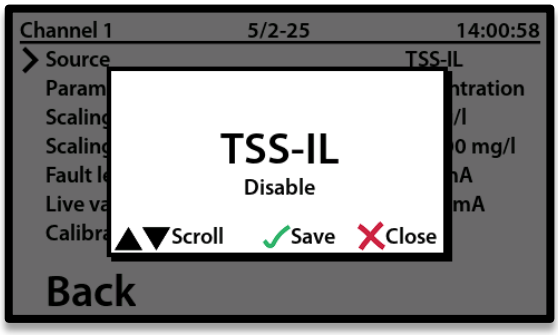


In this menu you can select the source for mA output 1. Default is sensor i connected to mA output 1. Sensor 2 connected to mA output 2, etc. Press on ✔ to select new



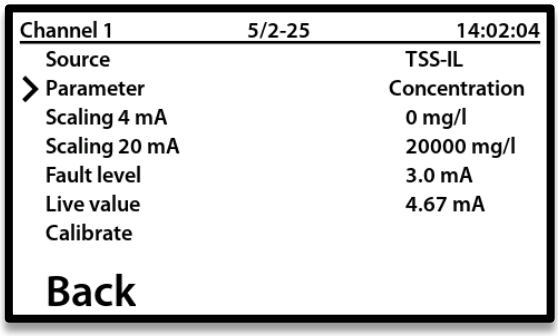
source.

In this menu, you can choose to either change the source sensor to channel 1 or deactivate it. Press on ✔ to save or on ✖ to close.

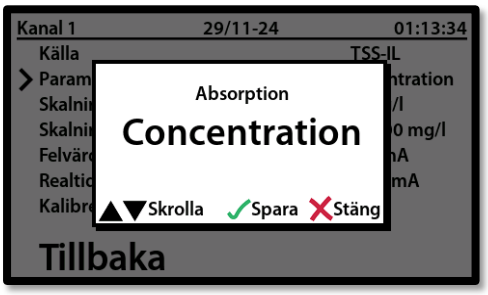


Parameter

By parameter is meant the value that is connected to and that is sent on analog or digitally. In this example, the value is sent via mA on output 1. The options vary with different donors. The example below concerns a TSS meter. Press on ✔ to open the menu

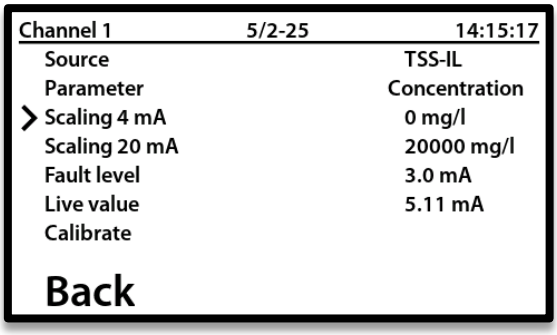


By parameter is meant the value to which the sensor is connected and which is sent on analog or digitally. In this example, the value is sent via mA on output 1. The options vary with sensor type. In this example, you can choose Concertration, Absorption, ADC Raw, Stray light, Light intensity and Water temperature. Most of the parameters except main parameter and temperature are used for troubleshooting and support. Press on ✔ to save or on ✖ to close.

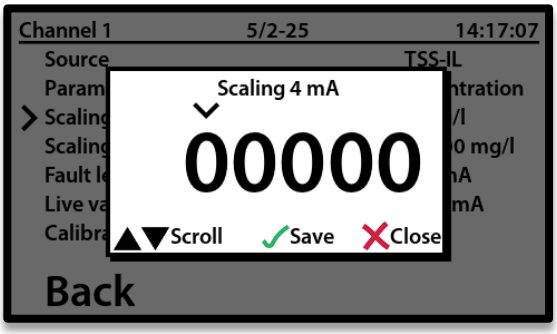


Scaling 4 mA

With this parameter you set the scale by entering the value for mg/l which corresponds to 4 mA. In this example, the value is sent via mA on output 1. The options vary with different donors. The example below applies to a TSS meter where 0mg/l corresponds to 4mA. Press on ✔ to open the menu.

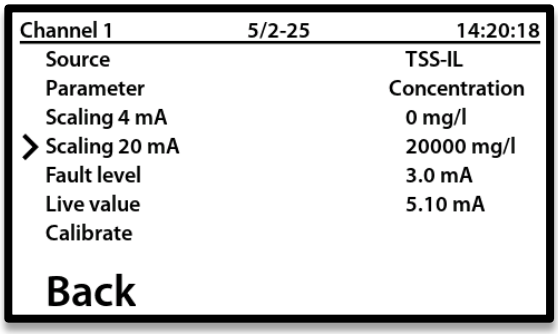


Step along ▲▼ buttons and enter the desired value, typically 0000. Confirm the selection by pressing ✔ or on ✖ to close.

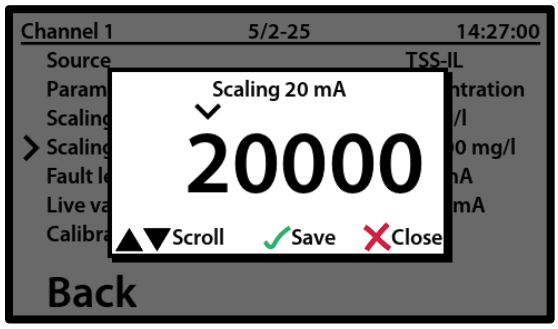


Scaling 20 mA

With parameter you set the scale by entering the value for mg/l which corresponds to 20 mA. In this example, the value is sent via mA on output 1. The options vary with different donors. The example below concerns a TSS meter. Press on ✔ to open the menu.

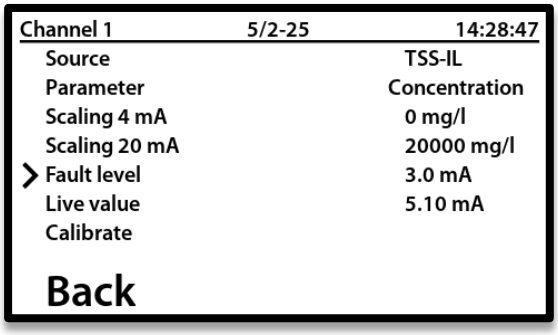


Step along buttons and enter the desired value, for a TSS-IL it is typically 20000mg/l. Confirm the selection by pressing or on to close.



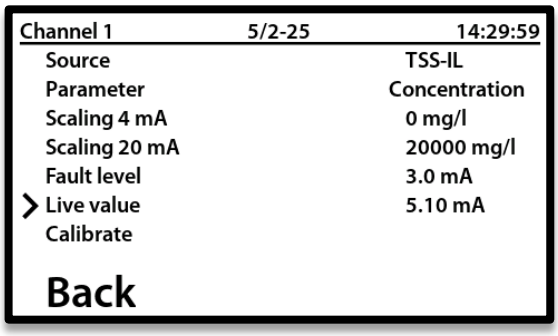
Error value

With this parameter you set the signal level for the mA channel when an error has occurred. Press on to open the menu. This is indicated by the mA signal being lowered to 3mAI this example. Confirm the selection by pressing or on to close.



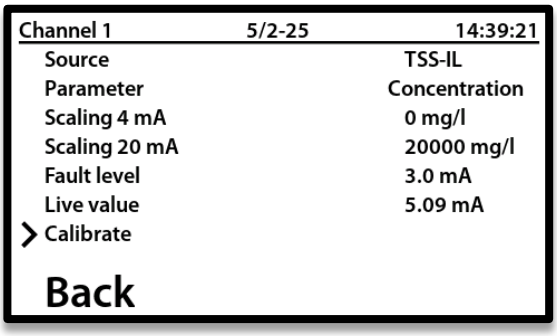
Real time value

With this parameter, the signal level of the mA channel is displayed in real time.

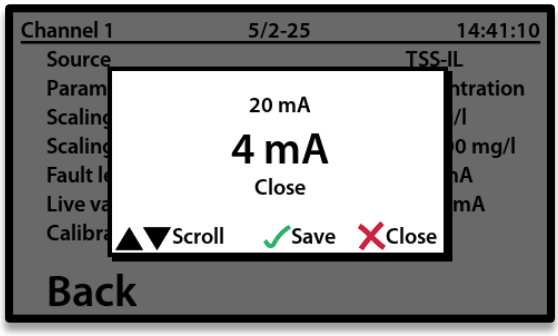


Calibrate mA

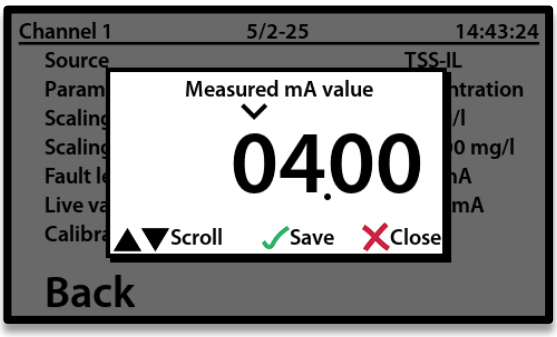
In this menu you can calibrate the signal levels for the mA channels. This is normally only done at the time of production. Press on ✔ to open the menu.



In this menu you can choose to calibrate the 4mA level and the 20mA signal level. Confirm the selection by pressing ✔ or on ✘ to close.

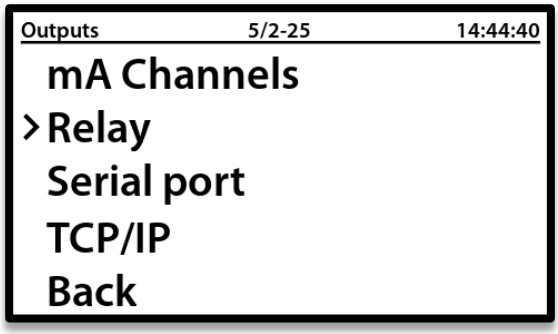


Connect a measuring instrument to the mA output of the C-tron and set the measured value to 4mA or 20mA respectively. The C-tron then adjusts the signal levels automatically. Confirm the selection by pressing ✔ or on ✖ to close.

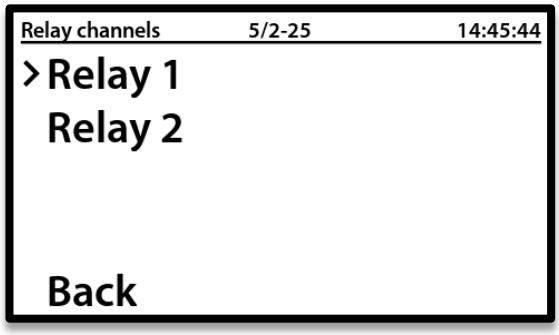


Relay

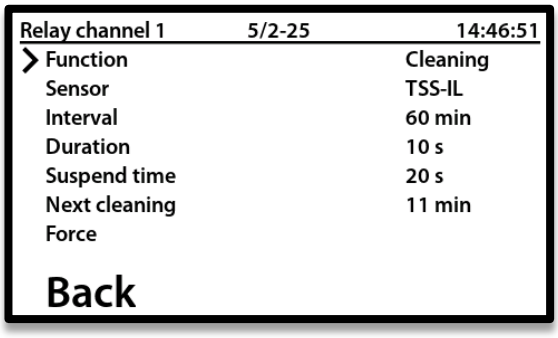
With this parameter, you set which relay should control the cleaning flush or alarm connected to the sensor. Flushing gives one pulse on the relay, while brush cleaning gives 5 pulses in succession for TSS-ST and TSS-LC sensors with removal cleaning. Press on ✔ to open the menu.



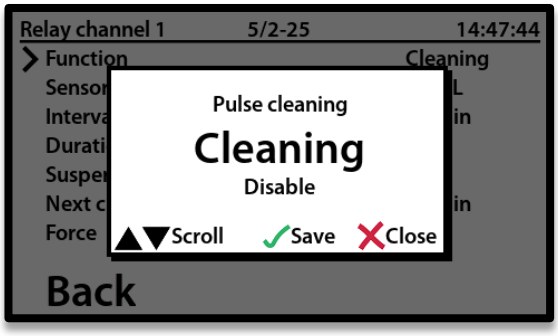
With this parameter, you set which relay should control the cleaning flush of the sensor. Press on ✔ to open the menu.



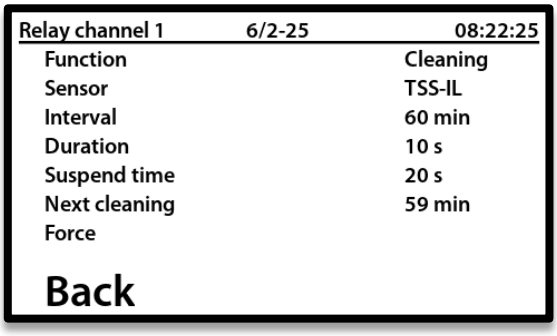
With this function, you can activate the relay that will control the cleaning flush of the sensor. Press on ✔ to activate.



When the parameter is activated, the relay can control the purge of the sensor. Press on ✔ to open the menu. Step ▲ along ▼ buttons to the desired function, confirm the selection by pressing ✔ or on ✖ to close.

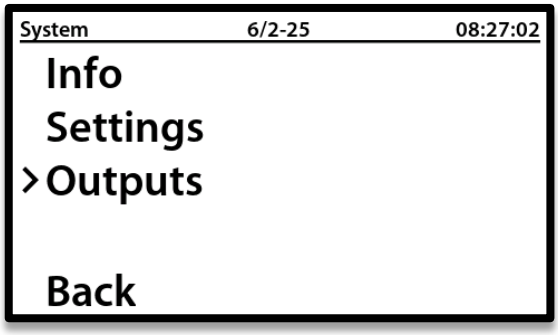


When the cleaning is activated, the following menu opens below. Step along ▲▼ buttons to the desired function, confirm the selection by pressing ✔ or on ✖ to close.

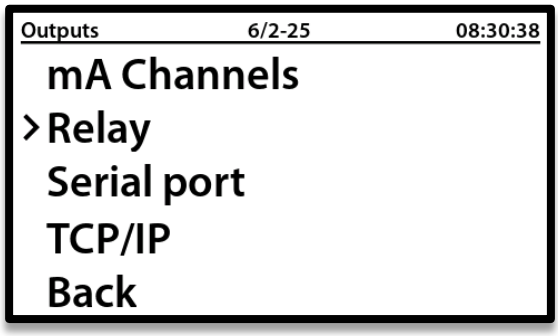


Alarm

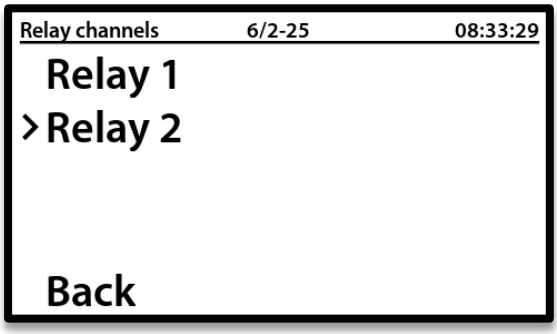
With this parameter, you set which relay should control the cleaning flush or alarm connected to the sensor. Press on ✔ and step down with ▼, open the System menu with ✔ and step to Outputs, press ✔.



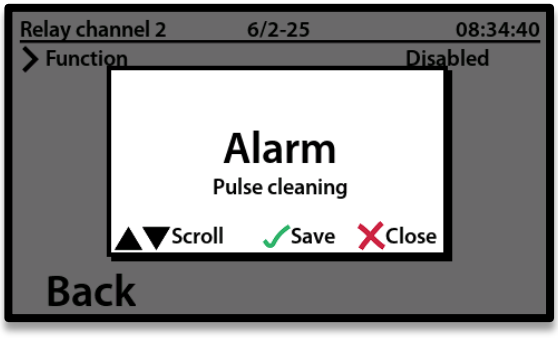
Step along ▲ ▼ buttons to the relay, confirm the selection by pressing ✔ or on ✖ to close.



Step along ▲ ▼ buttons to the desired relay, confirm the selection by pressing ✔ .

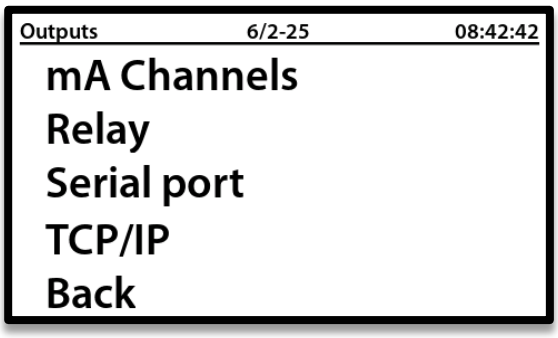


Step along ▲ ▼ buttons to the desired function like Alarm, confirm the selection by pressing .

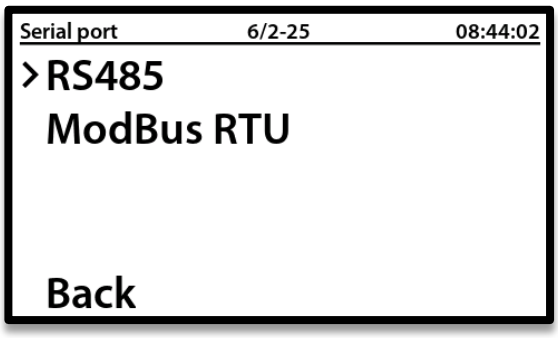


Serial port

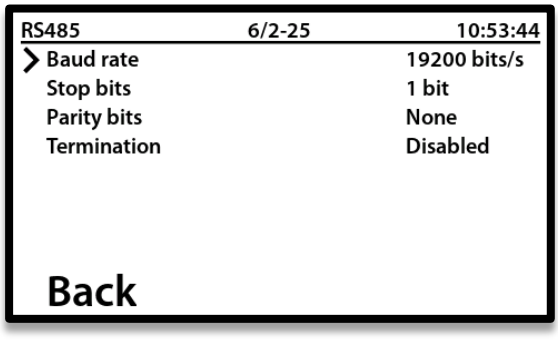
With this parameter you set the settings for the serial port. Press on ✔ and step down with ▼, open the System menu with ✔ and step to Outputs, press ✔ to open the menu. Step down with ▼ to Serieport and press ✔.



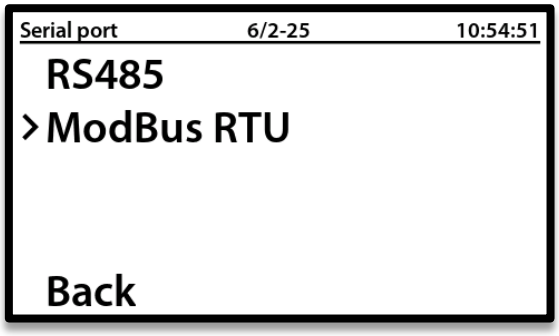
There is support for two different serial ports on the C-tron. Partly a standard RS485 and a ModBus RTU. Press on ✔ to open the menu for RS 485.



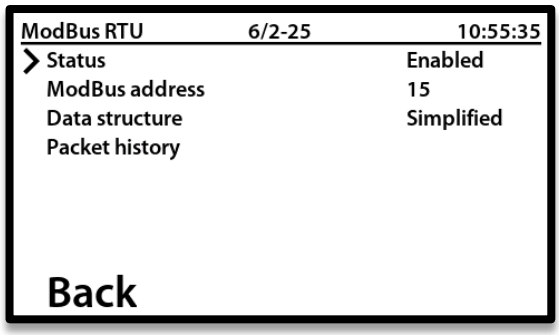
Step along ▲▼ buttons to the desired function and set the desired value, confirm the selection by pressing ✔ or on ✖ to close.



Then step by pressing ▼ to the ModBus RTU and confirm with ✔.

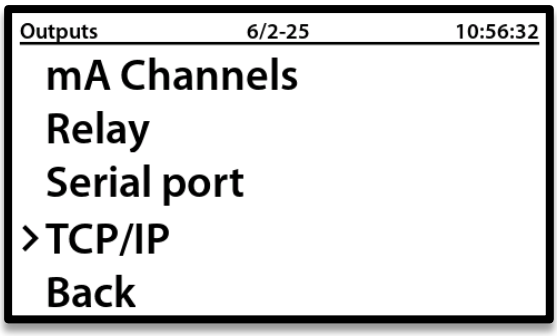


Step along ▲▼ buttons to the desired function and set the desired value, confirm the selection by pressing ✔ or on ✖ to close.

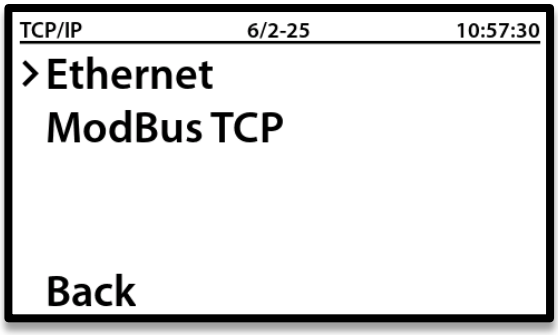


TCP/IP

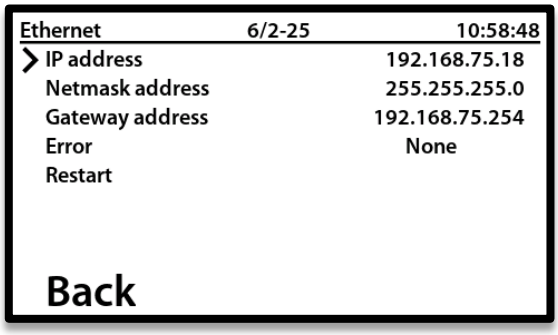
With this parameter you set the settings for the TCP/IP port. Press on ✔ to open the menu.



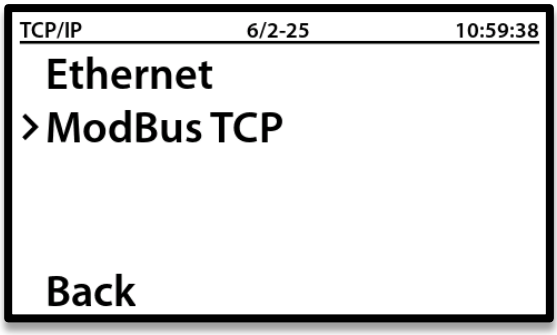
There is support for two different TCP/IP ports on the C-tron, Ethernet and a ModBus TCP. Press on ✔ to open the menu to Ethernet.



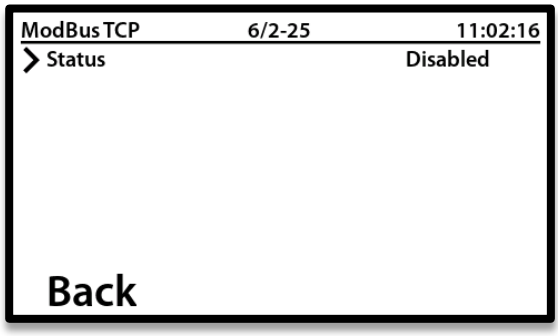
Step along ▲▼ buttons to the desired function and set the desired value, confirm the selection by pressing ✔ or Back to close.



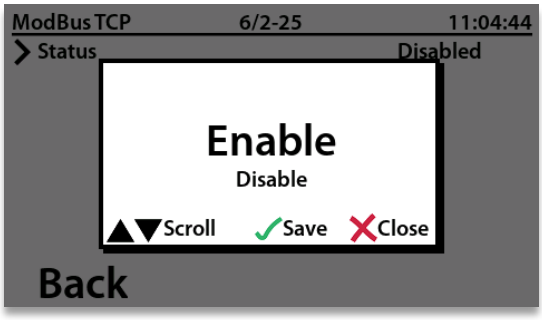
Step along ▼ buttons to ModBus TCP and the selection by pressing ✔ .



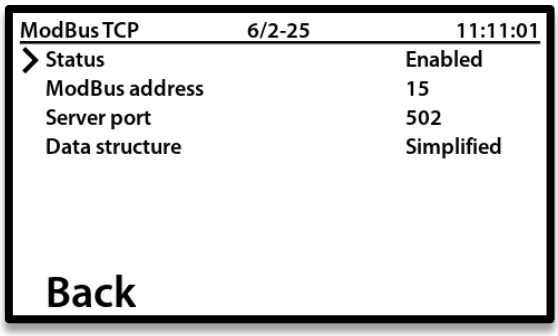
With this parameter you can activate ModBus TCP. Press ✔ to open the menu.



Activate it by pressing ✔ to save or on ✘ to close.

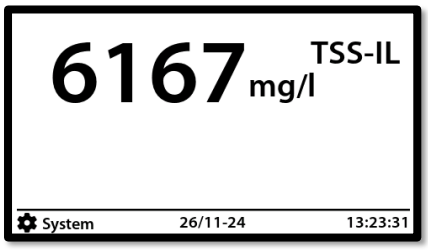


Step along buttons to the desired function and set the desired value, confirm the selection by pressing or Back to close.



Operation

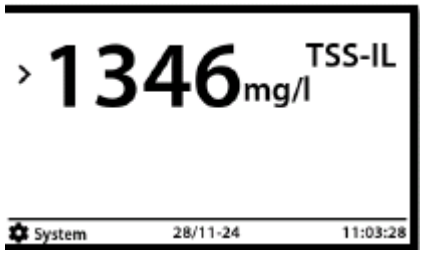
When a sensor is installed and ready for operation, it appears on the screen and starts measuring immediately. All instruments have a factory calibration that typically shows within +- 10% of the actual value. Depending on which sensor is installed, the calibration procedure differs slightly and is described in the sensor manuals.



If there is no free space in the instrument, one must be created by uninstalling a sensor. If there are occupied places but which do not have a sensor connected, the place is displayed as --- Lost.

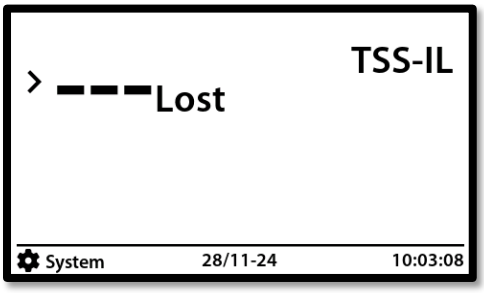
Donor settings

There are the following individual settings to be made at sensor level. Go to the sensor to be configured by pressing ▼ until the arrow is on the correct sensor. Confirm the selection by pressing ✔ .

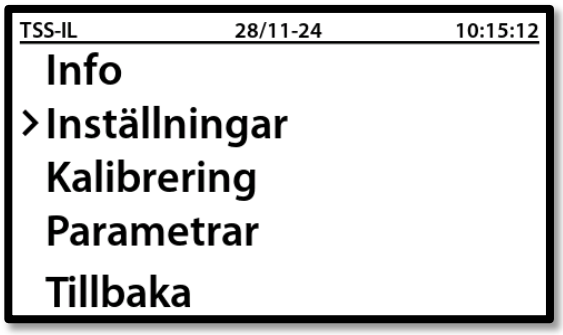


Go to settings by pressing ▼ until the arrow is on settings. Confirm the selection by pressing ✔ .

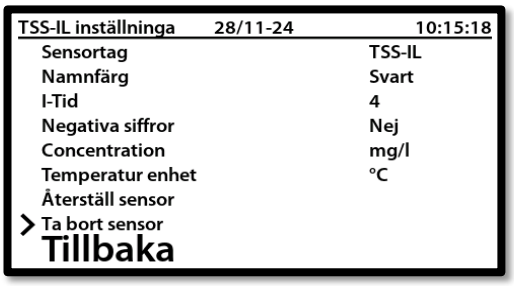
To uninstall a sensor, start by going to the sensor menu, this is done by pressing ▼ until the arrow is on the sensor location to be installed. Confirm the selection by pressing ✔ .



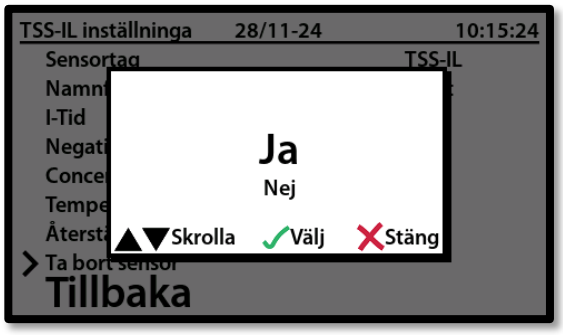
Go to settings by pressing ▼ until the arrow points to settings. Confirm the selection by pressing ✔ .



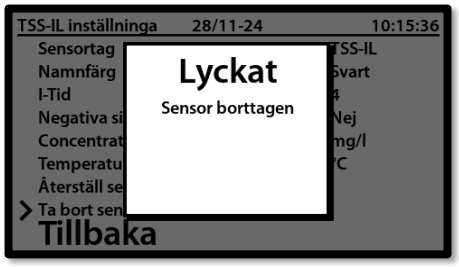
Go to “Remove sensor” by pressing ▼ until the arrow points to Remove the sensor. Confirm the selection by pressing ✔ .



Select "Yes" by pressing ▲ to "Yes" is in focus. Confirm the selection by pressing ✔ or on ✖ to close.

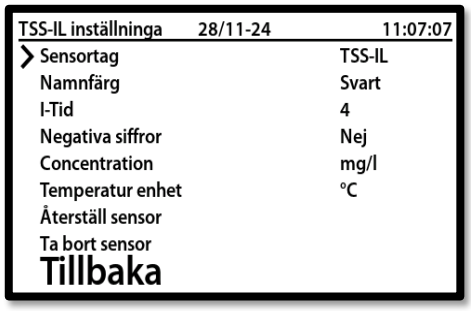


When the sensor is removed, the message "Success" is displayed for 5 seconds and then the C-tron returns to the home screen.

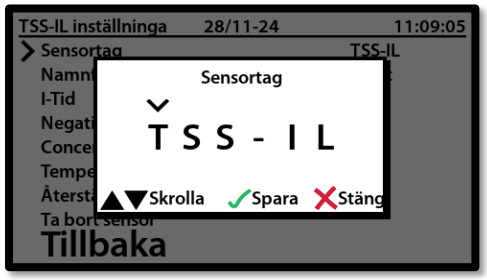


Sensor tag

Go to Sensor tag by confirming the selection by pressing ✔ .

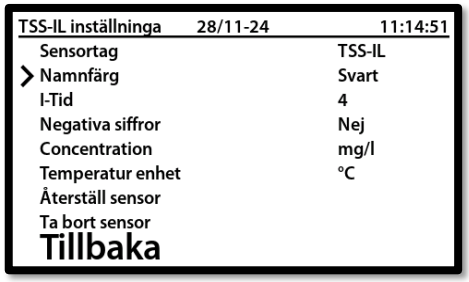


By stepping along ▲▼ buttons, you can freely name the sensor individually. Move the cursor tag by pressing ✔ to the next position or on ✖ to close.

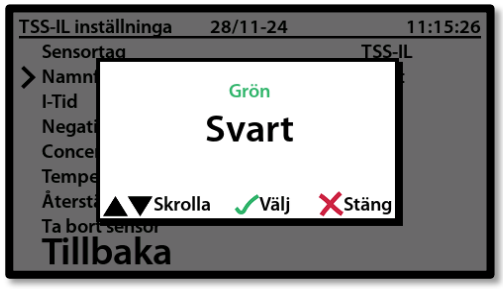


Sensor color

It is also possible to adapt the color of the text to each donor, the colors available are, black, green, blue, yellow and purple. Go to Sensor tag by stepping along the buttons. Confirm the selection by pressing .

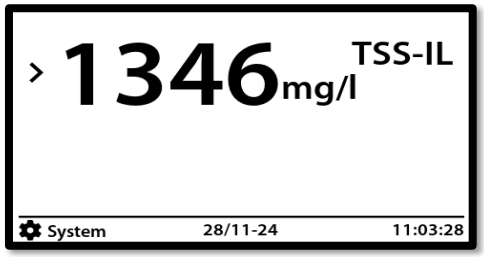


Step along the buttons until the correct color. Confirm the selection by pressing or on to close.

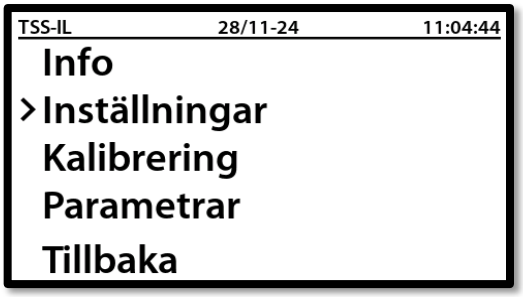


I time

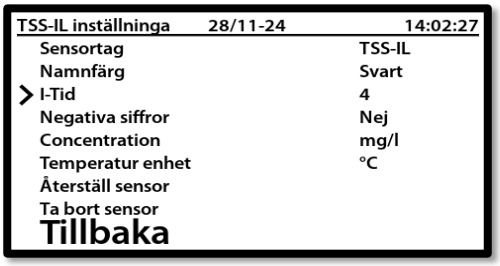
The I-time is the integration time for measurement data from the sensor to the C-tron. Go to the sensor to be configured by pressing until the arrow is on the correct sensor. Confirm the selection by pressing .



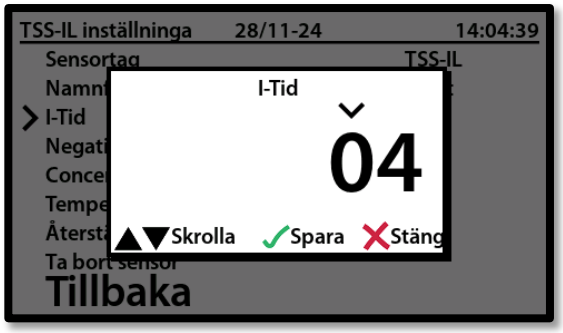
Go to settings by pressing ▼ until the arrow points to settings. Confirm the selection by pressing ✔ .



Go to I time by pressing ▼ until the arrow is on I time. Confirm the selection by pressing ✔ .

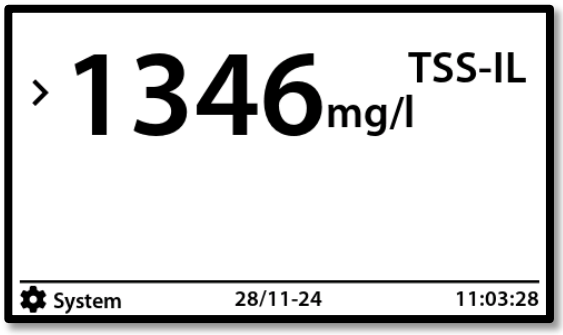


Step along ▲▼ the buttons until the correct I time. Confirm the selection by pressing ✔ or on ✘ to close.

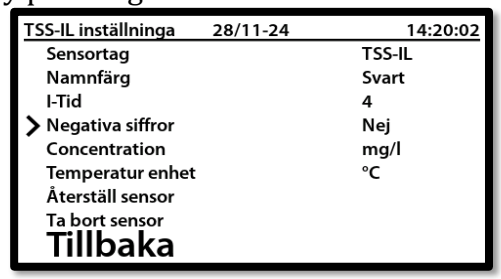


Negative values

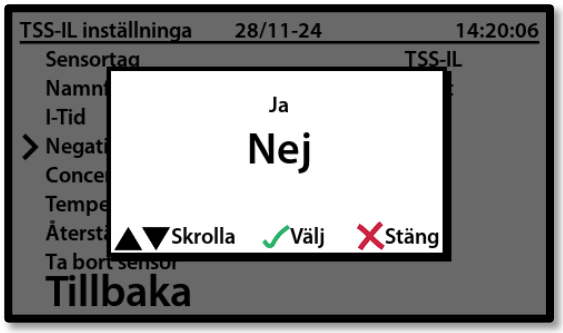
Negative numbers are an opportunity to show negative values from the sensors on the C-tron. For measurements where "0" has an offset for process engineering reasons, or an incorrect calibration, a "-" is displayed before the measured value. Go to the sensor to be configured by pressing ▼ until the arrow is on the right sensor. Confirm the selection by pressing ✔ .



Go to Negative numbers by pressing ▼ until the arrow points to Negative numbers. Confirm the selection by pressing ✔ .

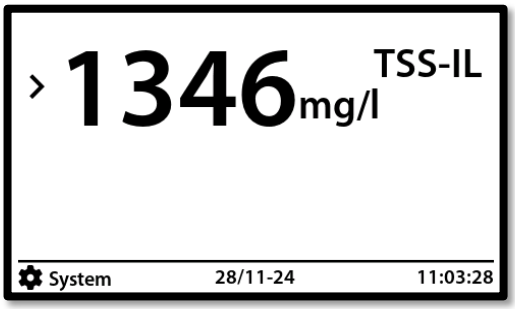


Step along ▲▼ buttons and select yes or no. Confirm the selection by pressing ✔ or on ✖ to close.

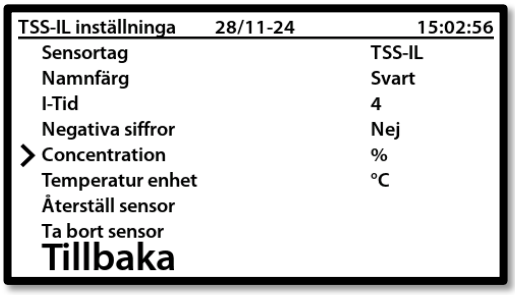


Concentration

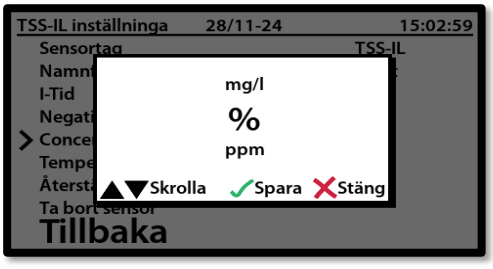
These are the values from the sensors displayed on the C-tron. The values vary with the type of sensor and can be chosen between g/l, mg/l, % and ppm. Each instrument installed is preset to the typical unit for that particular measurement parameter. Go to the sensor to be configured by pressing ▼ until the arrow is on the correct sensor. Confirm the selection by pressing ✔ .



Go to Concentration numbers by pressing ▼ until the arrow points to Negative numbers. Confirm the selection by pressing ✔ .

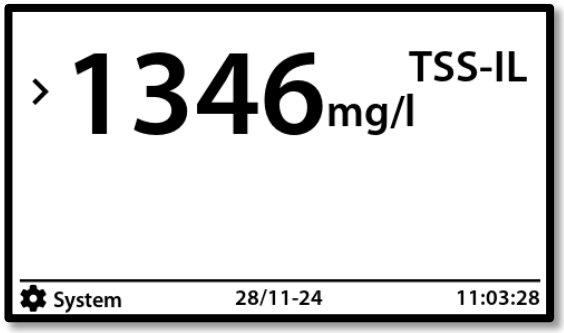


Step along ▲▼ buttons and select a new unit to be shown on the display for the selected sensor. Confirm the selection by pressing ✔ or on ✘ to close.

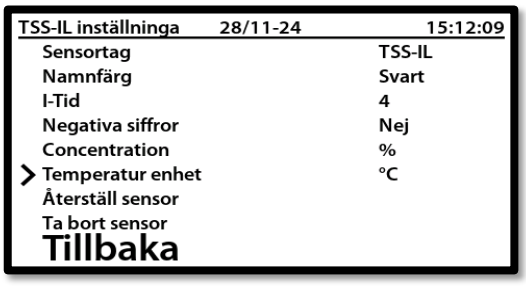


Temperature

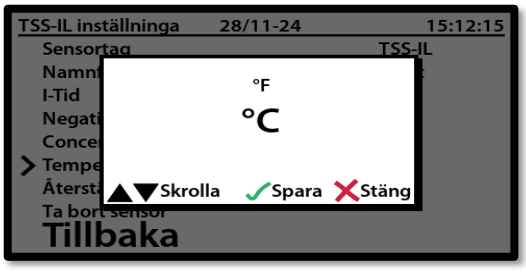
This is the temperature showing from the selected sensors in the C-tron. Each instrument installed is preset to the typical unit for that particular measurement parameter. Go to the sensor to be configured by pressing ▼ until the arrow is on the correct sensor.
Confirm the selection by pressing ✔ .



Go to Temperature Unit by pressing until the arrow points to Temperature Unit.
Confirm the selection by pressing ✔ .

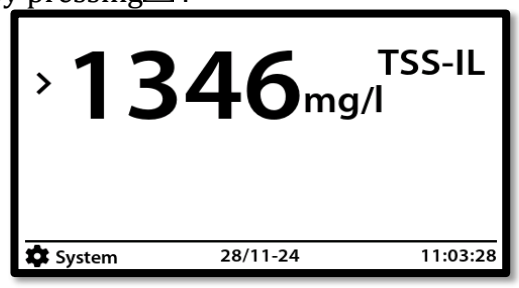


Step along ▲▼ buttons the temperature unit to be displayed. Confirm the selection by pressing ✔ or on ✖ to close.

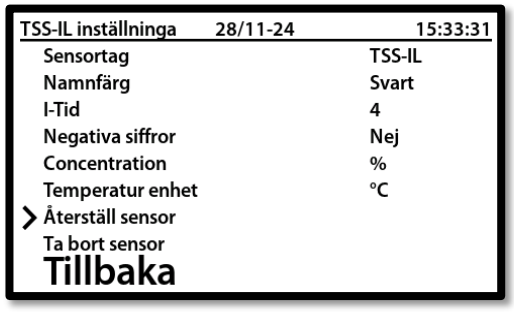


Reset sensor

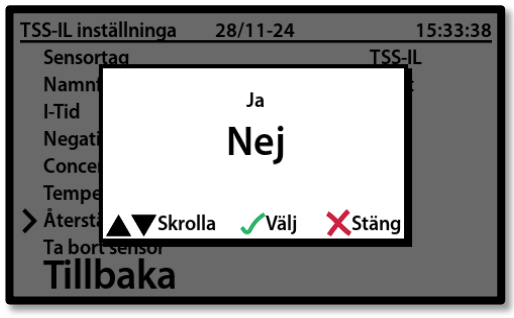
Reset sensor is an option to reset the sensor to factory settings. Go to the sensor to be configured by pressing ▼ until the arrow is on the correct sensor.
Confirm the selection by pressing ✔ .



Go to Reset Sensor by pressing ▼ until the arrow points to Reset sensor. Confirm the selection by pressing ✔ .

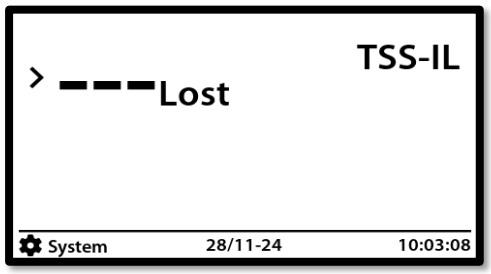


Step along ▲▼ buttons and select yes or no. Confirm the selection by pressing ✔ or on ✖ to close.

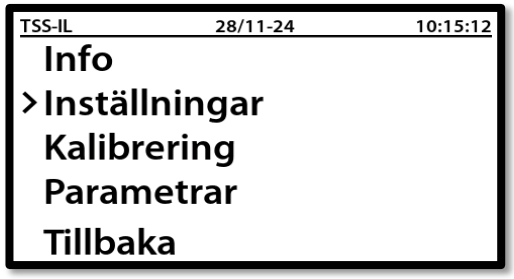


Remove tendons

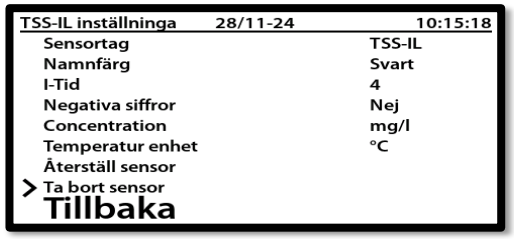
To uninstall a sensor, start by going to the sensor menu, this is done by pressing🔽 until the arrow is on the sensor location to be installed. Confirm the selection by pressing✔ .



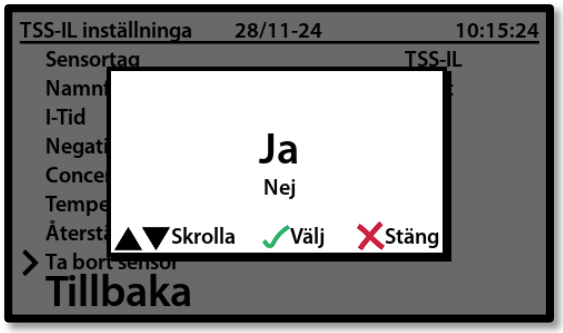
Go to settings by pressing🔽 until the arrow points to settings. Confirm the selection by pressing✔ .



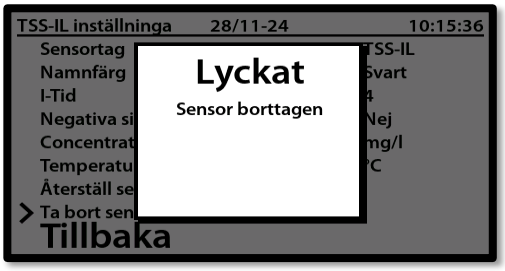
Go to “Remove sensor” by pressing🔽 until the arrow points to Remove the sensor. Confirm the selection by pressing✔ .



Select "Yes" by pressing ▲ to "Yes" is in focus. Confirm the selection by pressing ✓ or on ✗ to close.

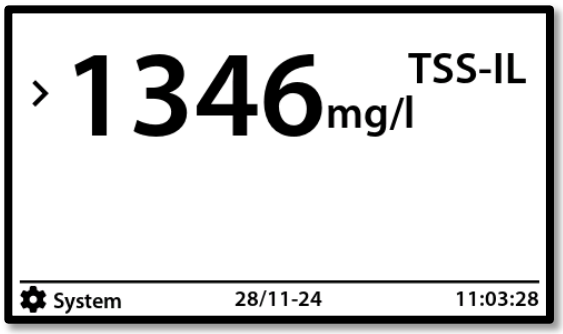


When the sensor is removed, the message "Success" is displayed for 5 seconds and then the C-tron returns to the home screen.



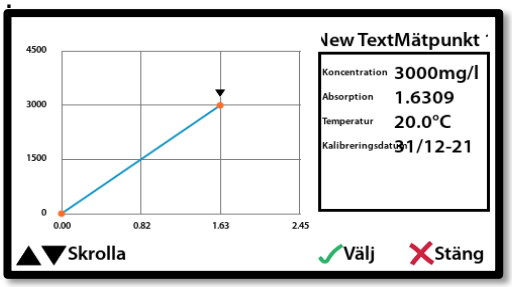
Calibration

The calibration routine varies with the type of measurement parameter, but the main principle is the same for all sensors. Each instrument installed is preset to the typical unit for that particular measurement parameter. For TSS meters, the starting point is a water sample that is "0" and a sludge sample that, in factory calibration, is 3000mg/l. After start-up, a lab sample is taken and the concentration value on the sensor is updated. Typically, only sample point 1 is updated during a calibration. The zero calibration in water is only updated when necessary. Go to the sensor to be configured by pressing ▼ until the arrow is on the correct sensor. Confirm the selection by pressing ✓ .



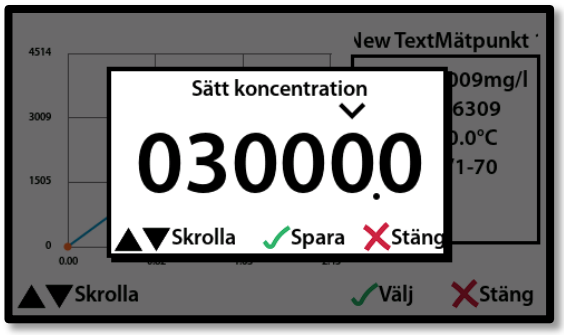
Go to settings by pressing ▼ until the arrow points to Calibration. Confirm the selection by pressing ✔ .

Step along ▲▼ buttons and select the calibration point to be updated. Confirm the selection by pressing ✔ .



Step along ▲▼ buttons and select the calibration point to be updated. Confirm the selection by pressing ✔ .

Step along buttons and enter the lab result from the sample point to be updated. Confirm the selection by pressing or on to close.



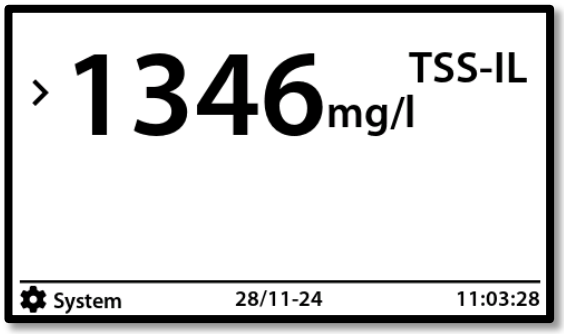
If the sample point is to be saved, confirm the selection by pressing or to close.

For a multi-point calibration, step with the button and take another point 3. Confirm selection by pressing or to close.

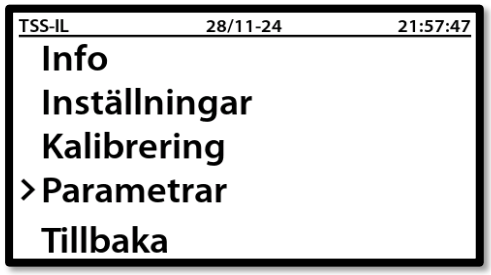
Choose with the buttons and enter the lab result if it is known at the time of the test. Otherwise well unknown concentration and update the concentration after response from the lab. Confirm the selection by pressing or on to close.

Parameters

There are two different parameters available. In part, the real-time data shows all the measurement values that are available in each sensor. Partly, trend data that shows measured value over time. You can choose scaling of 1h, 3h, 6, 12 and 24h. Go to the sensor to be displayed by pressing ▼ until the arrow is on the correct sensor. Confirm the selection by pressing ✔ .

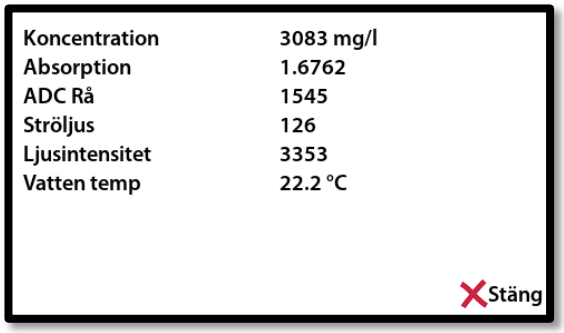


Go to Parameters by pressing until the ▼ row points to Parameters. Confirm the selection by pressing ✔ .



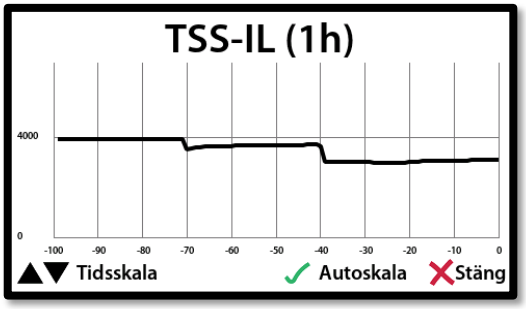
Select Real-time data by pressing ✔ . For Trend graph, see next page.

In the Real-time data menu, you can see the measurement values that are available in the current instrument.



Go back to Parameters by pressing and scrolling until the arrow is on Tree Graph. Confirm the selection by pressing or on to close.

In the Trend graph you see historical data over time, step with the buttons to select time intervals 1h, 3h, 6h, 12h or 24h that are available for the current instrument. Press on for autoscale or on to close.



20. Assembly of the C-tron.

The C-tron can be mounted on a mounting plate, wall or railing.
When mounting outdoors, the mounting plate must be used as weather protection.

21. Electrical connection of the C-tron.

Connecting the C-tron may only be done by authorized personnel.

Supply voltage is connected with an approved three-wire. There are two different models of the C-tron that connect to AC (85 – 260VAC) or the DC model that connects to 24VDC.

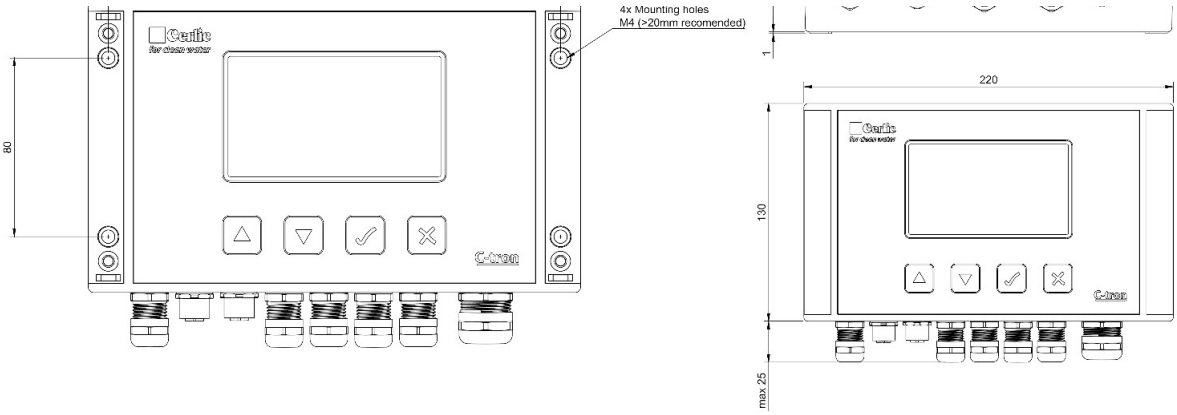
22. Accessories that can be ordered

Mounting plate	Article number 1030 5532
Mounting plate large	Article number 1030 5851
Solenoid valve 230 V, max 6 bar.	Article number 1170 5516A
Solenoid valve 120 V, max 6 bar.	Article number 1170 5516B
Solenoid valve 12 V DC, max 6 bar.	Article number 1170 5516C
Signal cable 1.5 m.	Article number 2080 5752
Signal cable 10 m.	Article number 2080 5510
Signal cable 30 m.	Article number 2085 0727
Junction box for 2 sensors	Article number 1150 5748
Junction box for 4 sensors	Article number 1150 5785

23. Technical data central unit

Manufacturer	Cerlic Controls AB
Designation	C-tron
Dimensions	According to the figure below
Protection class	IP65 (Nema 4X)
Weight	1.5 kg
Supply voltage	85 – 250 V AC, 50 – 60 Hz 12 – 30 V DC
Fuse	1 A slow 5*20
mm Power consumption	20 Watt, AC 20 Watts, DC
Working temperature	(-20) – (+55) °C
Storage temperature	0 – 60 °C
Output signals	4 pieces (4 – 20mA) current outputs for a maximum load of 450 ohms, galvanically isolated.
Relay outputs	2 closing contacts (NO) maximum load 6A, 250V AC
Digital outputs	ModBus RTU & Modbus TCP/IP

24. Measure



25. Declaration of Conformity

Title	EMC test of C-tron, CTX, PHX and REX
Test object	C-tron, CTX, PHX and REX
Report no.	623-20240-10-R0
Test period	20 December 2023 to 22 January 2024
Client	Cerlic Controls AB Mälarvägen 3 141 71 Segeltorp Sweden
Contact person	Joey Strandnes E-mail: joey.strandnes@cerlic.se
Client observer	Joey Strandnes
Manufacturer	Cerlic Controls AB
Specifications	EN IEC 61000-6-2:2019, EN IEC 61000-6-4:2019
Results	With modifications implemented, the test object was found to be in compliance with the specifications, as listed in Section 1.
Test personnel	Carlos Bernardo Garcia , Jari Jantunen, Birgitta Isaksson
Date	29 February 2024
Project Manager	Birgitta Isaksson DELTA
Responsible	Lars Johnsson. Head of quality DELTA

Cerlic

Cerlic för renare vatten

EG-försäkran om överensstämmelse med lågspännings- EMC och maskindirektiven.

Cerlic Controls AB försäkrar härmed att utrustningen:

- **Centralenhet BB1/BB2 med en eller flera av följande givare:**
  CTX, ITX, ITX-IL, O2X DUO, pHX, ReX, AMX, CBX samt FLX
- **Multiserien; Multifix, MultiTracker med givare Solido, Blanko och Oxyduo**

överensstämmer med kraven i:

- Maskindirektivet: 2006/42/EG (i de fall CBX ingår i utrustningen)
- Lågspänningsdirektivet: 2014/35/EU
- EMC direktivet: 2014/30/EU

Följande harmoniserade standarder har följts:

För lågspänningsdirektivet:

- SS-EN-60950 1 Utg 2:2006 Utrustning för informationsbehandling. - Säkerhet - Del 1: Allmänna fordringar
- SS-EN 61010-1 Utg 3:2010 Elektrisk utrustning för mätning, styrning och för laboratorieändamål – Säkerhet – Del 1: Allmänna fordringar

För EMC-direktivet:

- SS-EN 61000-6-2 Utg 3:2005 Elektromagnetisk kompatibilitet del 6-2: Generella fordringar – Immunitet hos utrustning i industrimiljö
- SS-EN 61000-6-4 Utg 2:2007 Elektromagnetisk kompatibilitet del 6-4: Generella fordringar – Emission från utrustning i industrimiljö

Allmän beskrivning av utrustningen:

Utrustning avsedd för mätning och registrering av olika parametrar i avloppsreningsverk. Utrustningen består av en centralenhet (BB1/BB2, Multifix och MultiTracker) till vilken man kopplar önskade mätgivare. Endast givare från Cerlic Controls AB får kopplas till centralenheten.

Kungens Kurva maj 2017

Chris Engström
VD