Technical
Information
TI 014C/07/en

Compact Chlorine System
CCE 1/CCE 3

Factory-assembled panel for simple measurement of free chlorine, pH, Redox value and temperature

Areas of application
Treatment and disinfection of:
- Drinking water
- Industrial water
- Swimming pool water
- Other process techniques

Your benefits
- A compact panel mounted system for monitoring chlorine, pH / Redox and temperature
- Pipe or hose connection using the special fitted adapters
- Flow assembly CCA 250 complete with sensors and transmitter(s) as well as various components for in- and outlet of the flow medium
  All measuring cables covered by wiring ducts, saves time-consuming cable installation on site
- Transparent dirt trap for safe filtering of contaminants in the media stream.
- Simple visual check for dirt and correct flow
- Convenient calibration and cleaning of pH / Redox electrodes can be performed in the CCA 250 assembly making electrode removal unnecessary
- Sampling cock for quick withdrawal of the measuring medium for DPD measurement during chlorine calibration
- Check valve ensures trouble-free withdrawal of sensors even under pressure
- Integrated proximity switch alerts when minimum flow rate is undershot

Measuring system
Factory-assembled and wired panel comprises installed tubing, dirt-trap, sampling cock for DPD calibration sample. Check valve and different connectors, as well as flow assembly CCA 250 for secure and user-friendly operation of chlorine or chlorine dioxide measurement.
Transmitter, sensors and sensor connection cables have to be ordered separately according to the desired components.

Quality made by
Endress+Hauser

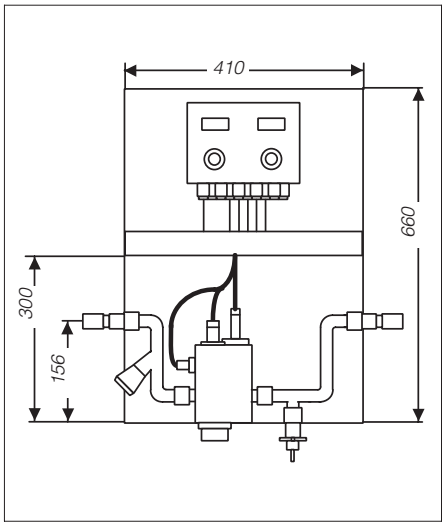
ISO 9001

Endress+Hauser

The Power of Know How

2 versions

Compact chlorine system CCE 1

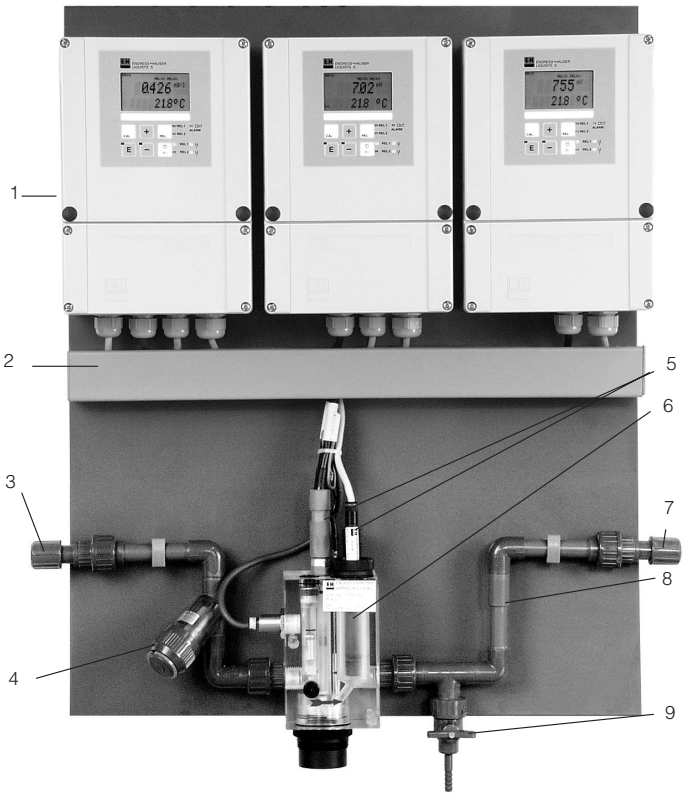


Mounting dimensions CCE 1

The compact chlorine measuring system CCE 1 can be equipped in two different ways:

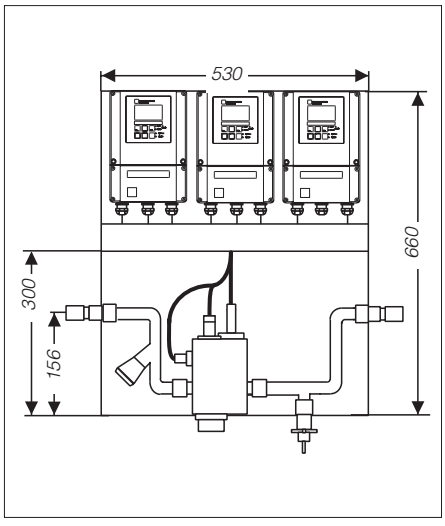
- With Liquisys M CCM 253 transmitter for measurement of chlorine content, optional pH-compensated, or measurement of chlorine dioxide for drinking water and industrial water treatment.
- With combination measuring instrument PoolPAC CCM 360 for measurement of chlorine content, pH, redox and temperature for swimming pool water treatment according to DIN 19 643 or application in hot jacuzzis.

Compact chlorine system CCE 3



1 CCM 253 (chlorine), CPM 253 (pH), CPM 253 (Redox) instruments
2 cable duct
3 inlet
4 dirt trap
5 sensors
6 CCA 250
7 drain chanel
8 check valve
9 sampling cock

Application and areas of application

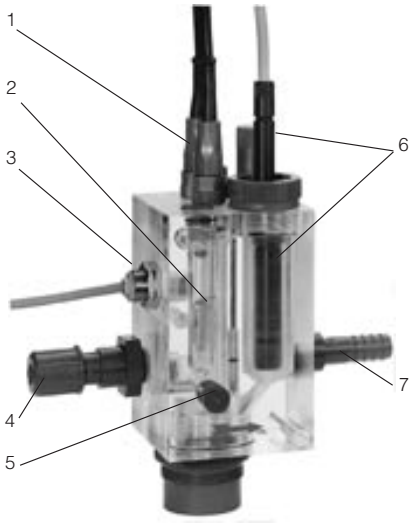


Mounting dimensions CCE 3

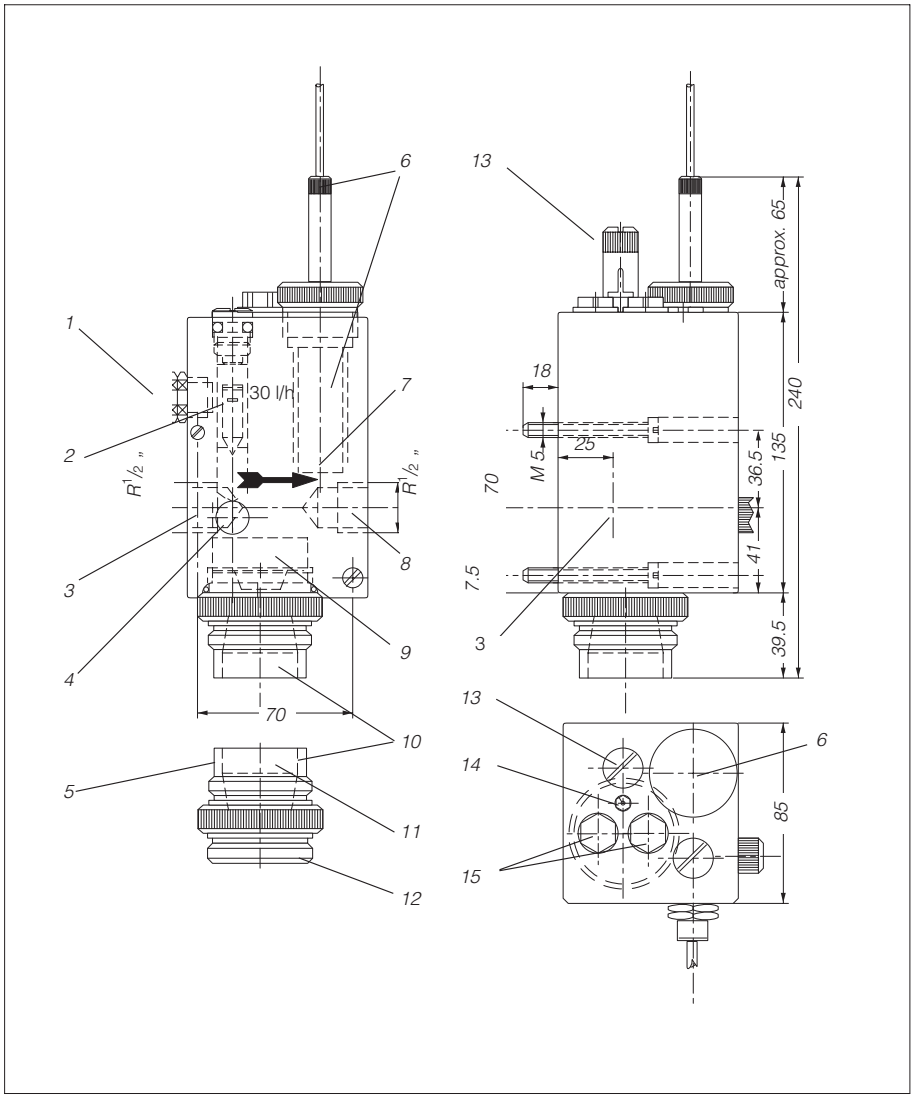
The compact chlorine measuring system CCE 3 is especially used for measurement of chlorine content (optional pH-compensated), chlorine dioxide, pH and temperature value for drinking water and industrial water treatment. It can be equipped with up to three Liquisys M transmitters, e. g. CCM 253 for chlorine, CPM 253 for pH and Redox.

Measuring value acquisition

The flow assembly CCA 250 is especially used for chlorine sensors CCS 140/CCS 141 or chlorine dioxide sensors CCS 240/CCS 241.
Two additional spaces are provided for one combined Redox and one combined pH electrode (e.g. types CPS 32-0PB2ESA and CPS 31-1EC2ESA).
The plexiglass holder contains a needle valve to regulate the medium flow, and a flow meter for visual control of minimum flow rate.
If the CCA 250 flow assembly is used in conjunction with PoolPAC CCM 360 (combination instrument for pH, Redox, chlorine and temperature) designed specifically for swimming pool water measurements or with a Liquisys M CCM 253 transmitter, an inductive proximity switch triggers a “No-Flow” alarm.
A potential equalization pin is built into the unit for pH or redox measurements. The pH or redox electrode can be calibrated in situ. The screw cap is used as a calibration cup for this purpose.



CCA 250 with inductive proximity switch
1 pH-, Redox electrode
2 Suspense flow meter for flow rate control
3 Proximity switch INS
4 Inlet
5 Needle valve
6 Chlorine sensors CCS 140 or CCS 141
7 Drain channel



Dimensioned drawing CCA 250
1 Inductive proximity switch for automatic flow control
2 Minimum flow control 30 l/h
3 Inlet
4 Needle valve for flowrate regulation < 120 l/h
5 Cup (measurement chamber) for cleaning and calibrating the pH or Redox electrode
6 Chlorine measuring cell CCS 140/141 or chlorine dioxide measuring cell CCS 240/241
7 Chlorine measurement chamber
8 Outlet
9 Measurement chamber of pH/Redox electrode
10 Cap with calibration cup
11 Cup side
12 Closing side
13 Bleeder screw
14 Connection potential matching pin PM
15 Insertation point for one pH electrode and one Redox electrode

Technical Data

Dimensions of measuring station CCE 1 (W x H)	410 x 660
Dimensions of measuring station CCE 3 (W x H)	*530 x 660*
Panel material	*PVC*
Connections	*pipe connection OD 16 or D 6/12 hose connection*
Equipped at the factory	*with CCA 250 flow assembly according to customer's order with the following units to be added:*
	e.g. with sensors CCS 140/141, or CCS 240 or CCS 241, pH and Redox electrodes CPS 31/32 and transmitters Liquisys M CCM 253, CPM 253 (pH or Redox) (maximum of 3 units) or PoolPAC CCM 360 units
Standard equipment	*connecting parts, pieces of tubing, dirt trap, sampling cock (for comparative DPD measurement), check valve, various connectors, cable duct*

Subject to modifications.

Order-code

Type		**order no.**
CCE 1	**chlorine mounting panel 1**	50041731
CCE 3	**chlorine mounting panel 2**	50041733

Supplementary documentation

☐ **Technical Information:**	**order no.**
– *Sensors for free chlorine CCS 140/141*	*50028816*
– *Sensors for chlorine dioxide CCS 240/241*	*50068514*
– *Combined measuring instrument PoolPac CCM 360*	*50028589*
– *Transmitter for free chlorine, chlorine dioxide, pH and temperature measurement Liquisys M CCM 253*	*52502336*
– *pH/Redox transmitter Liquisys M CPM 253*	*51500277*
– *Microprocessor-controlled photometer for chlorine or chlorine dioxide determination CCM 182*	*51507557*

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