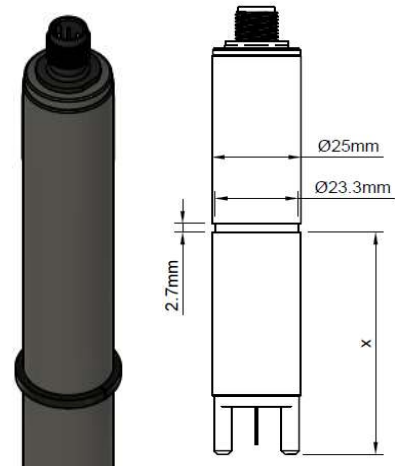
	<h1>TARAeasy®</h1> <h1>CCF1.0</h1>	
Indicator	Free chlorine, pH dependent	
Application	Swimming pool and drinking water The pH value must be constant.	
Chlorination agents	Inorganic chlorine compounds: NaOCl (=sodium hypochlorite), Ca(OCl) <sub>2</sub> , chlorine gas	
Measuring system	Amperometric 3-electrode system with integrated electronics	
Electronic	Analog version:    - voltage output - not galvanically isolated electronics - analog internal data processing - output signal: analog (analog-out/analog)  Digital version:    - electronic is completely galvanically isolated - digital internal data processing - output signal:    analog (analog-out/digital) 	

	<h1>TARAeasy® CCF1.0</h1>	
Response time	T <sub>90</sub> : approx. 20 sec.	
Zero point adjustment	Not necessary	
Calibration	At the device, by analytical determination DPD-1 method	
Cross sensitivities	ClO <sub>2</sub> : is also measured O <sub>3</sub> : is also measured	
Interference	<ul style="list-style-type: none"> <li>– Iodine/bromine lead to a shift of the zero point</li> <li>– Strong changes in the CO<sub>2</sub> concentration (dissolved) have an influence on the sensor signal</li> </ul>	
Absence of disinfectant	Prolonged absence of chlorine does not cause any problems.	
Connection	5-pin M12, flange plug	
max. length of sensor cable (depending on internal signal processing)	analog	< 30 m
	digital	> 30 m are permissible Maximum cable length depends on application
Protection class	IP68	
Material	PVC-U	
Dimensions	Diameter: Length: mV version Modbus version 4-20 mA version	approx. 25 mm approx. 131 mm (analog signal processing) approx.. 179 mm (digital signal processing) approx. 179 mm approx. 131 mm
Transport	+5 ... +50 °C	
Storage	Can be stored dry for an unlimited period at +5 ... +40 °C	
Maintenance	Regularly control of the measurement signal	
	EMC tested RoHS compliant	

**Option 1:  
Retaining ring**


- When operating with pressures >0.5 bar in TARAflow® FLC
- Dimensions retaining ring 29 x 23.4 x 2.5 mm, slitted, PETP
- Different positions for groove selectable (on request)

X	1	=	65 mm
	2	=	82 mm
	3	=	98 mm
	4	=	102 mm
	5	=	107 mm



## Technical Data

### 1. CCF1.0 (analog output, analog internal signal processing)

	Measuring range	Resolution	Output Output resistance	Nominal slope (at pH 7.2)	Voltage supply	Galvanic isolation required in the measuring device/controller **	Connection	Option 1 Retaining ring
	in ppm	in ppm		in mV/ppm				Positions
CCF1.0N	0.05...10.00 *	0.01	0...-2000 mV 1 kΩ	-100	±5 - ±15 VDC 10 mA	yes	5-pole M12 plug-on flange  Function of wires: PIN1: measuring signal PIN2: +U PIN3: -U PIN4: signal GND PIN5: n. c.	1


\* concentration tested and approved up to 10 ppm

\*\* for further information see brochure 'Technical information // galvanic isolation' (in the download area of our website [www.reiss-gmbh.com](http://www.reiss-gmbh.com))

(Subject to technical changes!)

2. CCF1.0 (analog output, digital internal signal processing)

analog-out / digital

	Measuring range	Resolution	Output Output resistance	Nominal slope (at pH 7.2)	Power supply	Galvanic isolation required in the measuring device/controller **	Connection	Option 1 Retaining ring
	in ppm	in ppm		in mV/ppm				Positions
CCF1.0N-An	0.05...10.00 *	0.01	0...-2000 mV 1 kΩ	-100	9-30 VDC  approx. 7-30 mA	no	5-pole M12 plug-on flange  Function of wires: PIN1: measuring signal PIN2: +U PIN3: power GND PIN4: signal GND PIN5: n. c.	1, 2, 3, 4, 5
CCF1.0N-Ap	0.05...10.00 *	0.01	0...+2000 mV 1 kΩ	+100				


\* concentration tested and approved up to 10 ppm

\*\* for further information see brochure 'Technical information // galvanic isolation' (in the download area of our website [www.reiss-gmbh.com](http://www.reiss-gmbh.com))

(Subject to technical changes!)

### 3. CCF1.0 (digital output, digital internal signal processing)

- The power supply is galvanically isolated inside of the sensor.
- The output signal is galvanically isolated too, that means potential-free.


	Measuring range	Resolution	Output Output resistance	Power supply	Galvanic isolation required in the measuring device/controller **	Connection	Option 1 Retaining ring
	in ppm	in ppm					Positions
CCF1.0N-M0c	0.05...10.00 *	0.01	Modbus RTU	9-30 VDC	no	5-pole M12 plug-on flange	1, 2, 3, 4, 5
CCF1.0H-M0c	0.005...2.00	0.001	There are no terminating resistors in the sensor.	approx. 7-30 mA		Function of wires: PIN1: reserved PIN2: +U PIN3: power GND PIN4: RS485B PIN5: RS485A	

\* concentration tested and approved up to 10 ppm

\*\* for further information see brochure 'Technical information // galvanic isolation' (in the download area of our website [www.reiss-gmbh.com](http://www.reiss-gmbh.com))

(Subject to technical changes!)

4. CCF1.0 4-20 mA

	Measuring range	Resolution	Output Output resistance	Nominal slope (at pH 7,2)	Voltage supply	Galvanic isolation required in the measuring device/controller **	Connection	Option 1 Retaining ring
	in ppm	in ppm		in mA/ppm				Positions
CCF1.0MA2-M12	0.05...2.00	0.01	4...20 mA uncalibrated	8	12...30 VDC R <sub>L</sub> 50Ω...R <sub>L</sub> 900Ω	yes	5-pole M12 plug-on flange  Function of wires: PIN1: n. c. PIN2: +U PIN3: -U PIN4: n. c. PIN5: n. c.	1
CCF1.0MA5-M12	0.05...5.00			3.2				
CCF1.0MA20-M12	0.05...10.00			0.8				

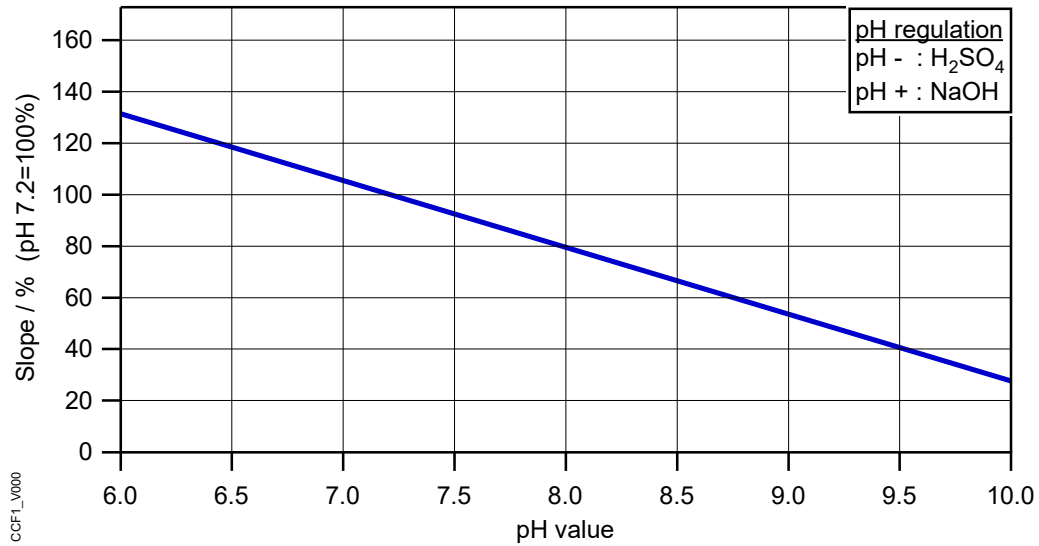
\* concentration tested and approved up to 10 ppm

\*\* for further information see brochure 'Technical information // galvanic isolation' (in the download area of our website [www.reiss-gmbh.com](http://www.reiss-gmbh.com))

(Subject to technical changes!)

### Slope of TARAeasy® CCF1 versus pH

Temperature: 25°C / Flow rate: 30 L/h



### Slope of TARAeasy® CCF1 versus Flow

Temperature: 25°C / pH value: 7.2

