

January 2025 (EN) V15

	TARAline CC1				
indicator	Free chlorine based on isocyanuric acid with reduced dependence on ph-value				
Application	Swimming pool water, drinking water, sea water Surfactants (tensides) are partially tolerated.				
Chlorination agents	inorganic chlorine compounds: NaOCI (=sodium hypochlorite), Ca(OCI) ₂ , chlorine gas, electrolytically generated chlorine and chlorine compounds based on isocyanuric acid (checked until 500 mg/L isocyanuric acid)				
Measuring system	Membrane covered, amperometric potentiostatic 3-electrode system with electronic inside				
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/analog) - digital internal data processing - output signal: - output signal: - output signal: - or digital (digital-out/digital) - or - not galvanically isolated electronics - output signal: - output signal: - output analog - not galvanically isolated electronics - output signal: - output signal:				
Information about the measuring range	The actual slope of a sensor can vary production-related between 65% and 150% of the nominal slope Note: With a slope > 100% the measuring range is reduced accordingly. (Ex.: 150% slope \rightarrow 67% of the specified measuring range)				
Accuracy after calibration at repeatability conditions (25°C, pH 7.2 in drinking water) of the upper full scale	Measuring range 2 mg/l: at 0.4 mg/l <2% at 1.6 mg/l <2%				
Slope drift At repeatability conditions (25 °C, pH 7,2 in drinking water)	approx. <-3% per month				
Working temperature	Measuring water temperature: 0 +45 °C (no ice crystals in the measuring water) Ambient temperature: 0 +55 °C				
Temperature compensation	Ambient temperature: 0 +55 °C Automatically, by an integrated temperature sensor Sudden temperature changes must be avoided				



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Max. allowed working pressure	Operation without retaining ring: - 0.5 bar - no pressure impulses and/or vibrations Operation with retaining ring in TARAflow FLC: - 3 bar, - no pressure impulses and/or vibrations (see option 1)					
Flow rate (Incoming flow velocity)	approx. 15-30L/h (15 – 30 cm/s) in TARAflow FLC, small flow rate dependence is given					
pH-range	pH 4 – pH 12, highly reduced dependence on pH-value					
Run-in time	First start-up approx. 2 h					
Response time	T ₉₀ : approx. 2 min.					
Zero point adjustment	Not necessary					
calibration	At the device, by analytical determination, DPD-1-Method					
Cross sensitivities/ interferences	CIO ₂ : factor 1 O ₃ : is measured Corrosion inhibitors can lead to measuring errors. Stabilisers for water hardness can lead to measuring errors.					
Absence of the disinfectant	Max. 24 h					
Connection	mV version:5-pole M12, plug-on flangeModbus version:5-pole M12, plug-on flange4-20 mA version:2-pole terminalor5-pole M12, plug-on flange					
max. length of sensor cable	analog < 30 m					
processing)	digital > 30 m are permissible Maximum cable length depends on application					
Protection type	5-pole M12 plug-on flange:IP682-pole terminal with mA-hood:IP65					
material	Microporous hydrophilic Membrane, PVC-U, PEEK, stainless steel 1.4571					
Transport	+5 +50 °C (Sensor, electrolyte, membrane cap)					



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Size	diameter:approx.25 mmLength:mV versionapprox.190 mm (analog signal processing) approx.Modbus versionapprox.205 mm (digital signal processing) approx.4-20 mA versionapprox.220 mm (2-pole-terminal) approx.approx.190 mm (5-pole-M12)				
storage	Sensor:dry and without electrolyte no limit at +5 +40 °CElectrolyte:in original bottle protected from sunlight at +5 +35 °C min. 1 year or until the specified EXP-DateMembrane cap:in original packing no limit at +5 +40 °C (used membrane caps can not be stored)				
maintenance	Regularly control of the measuring signal, min. once a weekThe following specifications depend on the water quality: Change of the membrane cap:once a yearChange of the electrolyte:every 3 - 6 months				
(€	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) 	
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Technical Data

1. CC1 (analog output, analog internal signal processing)

	Measuring range	Resolution in ppm	Output Output resistance	Nominal slope (at pH 7.2) in mV/ppm	Voltage supply	Galvanic isolation required in the measuring device/controller *	Connection
CC1N-M12	0.0520.00	0.01	02000 mV	-100	±5 - ±15 VDC		5-pole M12 plug-on flange Function of wires: PIN1: measuring signal
CC1H-M12	0.0052.000	0.001	1 κΩ	Ω -1000	10 mA	yes .	PIN2: +U PIN3: -U PIN4: signal GND PIN5: n. c.
CC1Up-M12	0.0520.00	0.01	0+2000 mV 1 kΩ	+100	10 - 30 VDC 10 mA		5-pole M12 plug-on flange Function of wires: PIN1: measuring signal PIN2: +U PIN3: power GND PIN4: signal GND PIN5: n. c.

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



2. CC1 (analog output, digital internal signal processing) analog-out / digital

	Measuring range	Resolution	Output Output resistance	Nominal slope (at pH 7.2) in mV/ppm	Power supply	Galvanic isolation required in the measuring device/controller *	Connection
CC1N-An-M12	0.05 20.00	0.01	analog 02 V (max2.5 V)	-100			5-pole M12 plug-on flange
CC1H-An-M12	0.005 2.000	0.001	1 kΩ	-1000	9-30 VDC		Function of wires: PIN1: measuring signal
CC1N-Ap-M12	0.05 20.00	0.01	analog 0+2 V (max. +2.5 V)	+100	approx.7-30 mA	no	PIN2: +U PIN3: power GND PIN4: signal CND
CC1H-Ap-M12	0.005 2.000	0.001	1 kΩ	+1000			PIN5: n. c.

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3. CC1 (digital output, digital internal signal processing)

	Measuring range in ppm	Resolution in ppm	Output Output resistance	Power supply	Galvanic isolation required in the measuring device/controller *	Connection
CC1N-M0c	0.05 20.00	0.01	Modbus RTU	9-30 VDC		5-pole M12 plug-on flange Function of wires: PIN1: reserved
CC1H-M0c	0.005 2.000	0.001	There are no terminating resistors in the sensor.	approx. 7-30 mA	no	PIN2: +U PIN3: power GND PIN4: RS485B PIN5: RS485A

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Data Sheet

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4. CC1 4-20 mA (analog output, analog internal signal processing)

4.1 Electrical connection: 2 pole terminal clamp

	Measuring range	Resolution	Output Output resistance	Nominal slope (at pH 7.2)	Power supply	Galvanic isolation required in the measuring device/controller *	Connection
	in ppm	in ppm		in mA/ppm			
CC1MA2	0.0052.000	0.001		8.0			2-pole terminal
CC1MA5	0.055.00	0.01	420 mA uncalibrated	3.2	1230 VDC	yes	(2 x 1 mm²)
CC1MA10	0.0510.00	0.01		1.6	R _L 50ΩR _L 900Ω		Recommended: Round cable ∅ 4 mm
CC1MA20	0.0520.00	0.01		0.8			2 x 0.34 mm ²

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4.2 Electrical connection: 5 pole M12 plug-on flange

	Measuring range	Resolution	Output Output resistance	Nominal slope (at pH 7.2) in mA/ppm	Power supply	Galvanic isolation required in the measuring device/controller *	Connection
CC1MA2 M12	0.005 2.000	0.001		80			
CC TWAZ-WITZ	0.0052.000	0.001	420 mA	0.0	1230 VDC	Vec	5-pole M12 plug-on flange
CC1MA5-M12	0.055.00	0.01		3.2			Function of wires: PIN1: n. c.
CC1MA10-M12	0.0510.00	0.01	uncalibrated	1.6	R _L 50ΩR _L 900Ω	yes	PIN2: +U PIN3: -U PIN4: n c.
CC1MA20-M12	0.0520.00	0.01		0.8			PIN5: n. c.

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Spare Parts

Туре	Membrane cap	Electrolyte	Emery	O-ring
For all CC1	M48.2	ECC1.1/GEL, 100 ml	S1	14 x 1.8 NBR
	Art. no. 11047	Art. no. 11005.1	Art. no. 11908	Art. no. 11806

(Subject to technical changes!)

Reiss GmbH Eisleber Str. 5 D – 69469 Weinheim Germany





Slope of TARAline CC1 versus pH

Slope of TARAline CC1 versus Flow



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