

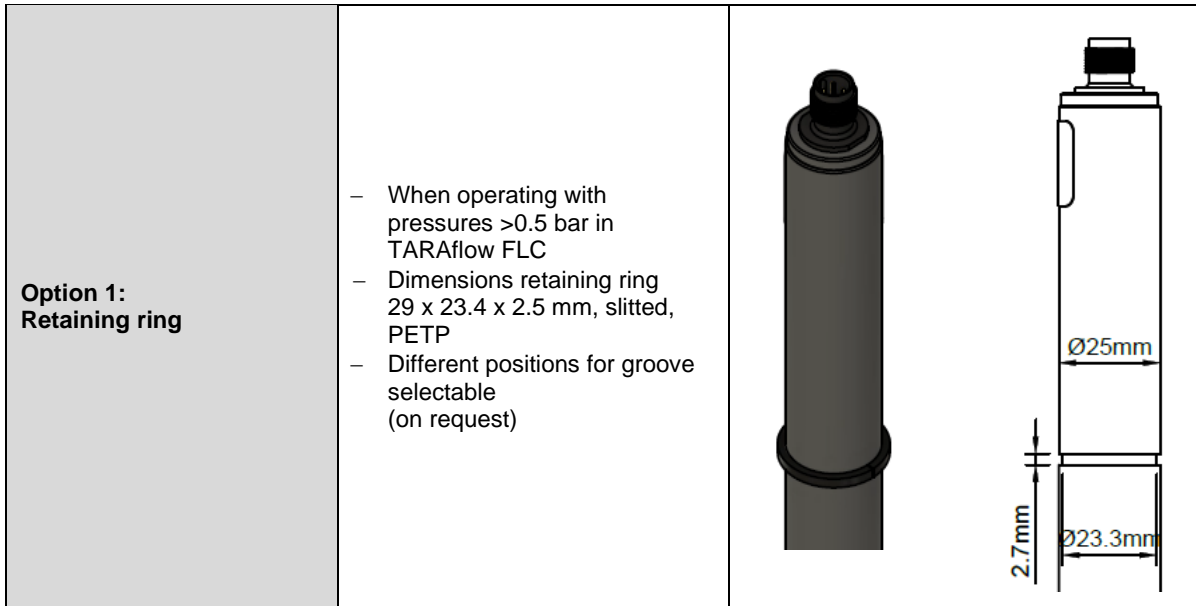




TARAline MST1

indicator	Chlorite
Application	Drinking water, swimming pool water, service water, process water.
appropriate chlorine dioxide production methods	e. g. – Acid/chlorite-method – Chlorine/chlorite-method
Measuring system	membrane covered, amperometric potentiostatic 3-electrode system
electronic	<p>Analog version:</p> <ul style="list-style-type: none"> - voltage output - not galvanically isolated electronics - analog internal data processing - output signal: analog (analog-out/analog) <p>Digital version:</p> <ul style="list-style-type: none"> - electronic is completely galvanically isolated - digital internal data processing - output signal: analog (analog-out/digital) or digital (digital-out/digital) <p>mA-version:</p> <ul style="list-style-type: none"> - current output analog - not galvanically isolated electronics - output signal: analog (analog-out/analog)
Working temperature	Measuring water temperature: 0 ... +40 °C (no ice crystals in the measuring water)
	Ambient temperature: 0 ... +55 °C
Temperature compensation	Automatically, by an integrated temperature sensor Max. change in temperature: 0.3 °C per minute, sudden temperature changes must be avoided
max. allowed working pressure	Operation without retaining ring: <ul style="list-style-type: none"> – 0.5 bar – no pressure impulses and/or vibrations
	Operation with retaining ring in TARAline FLC: <ul style="list-style-type: none"> – 5 bar, – no pressure impulses and/or vibrations (see option 1)
Flow rate (Incoming flow velocity)	approx. 15-30 L/h (15 – 30 cm/s) in TARAline FLC
pH-range	pH 6 – pH 9
Run-in time	First start-up approx. 24 h
Response time	T ₉₀ : approx. 1 min
Zero point adjustment	Normally not necessary
calibration	At the device, by analytical determination of the chlorite concentration

	<h1>TARAline MST1</h1>	
<p>Cross sensitivities/ interferences</p>	<p>Mn²⁺, Nitrite, Fe²⁺ No interference to Chlorine dioxide, Chlorine und Chlorate</p> <p>Corrosion inhibitors can lead to measuring errors. Stabilisers for water hardness can lead to measuring errors.</p>	
<p>Absence of the disinfectant</p>	<p>Max. 24 h</p>	
<p>Connection</p>	<p>mV version: 5-pole M12, plug-on flange Modbus version: 5-pole M12, plug-on flange 4-20 mA version: 2-pole terminal or 5-pole M12, plug-on flange</p>	
<p>max. length of sensor cable (depending on internal signal processing)</p>	<p>analog</p>	<p>< 30 m</p>
	<p>digital</p>	<p>> 30 m are permissible Maximum cable length depends on application</p>
<p>Protection type</p>	<p>5-pole M12 plug-on flange: IP68 2-pole terminal with mA-hood: IP65</p>	
<p>material</p>	<p>Microporous hydrophilic membrane, PVC, PEEK, stainless steel</p>	
<p>Size</p>	<p>diameter: approx. 25 mm Length: mV version approx. 190 mm (analog signal processing) approx.. 205 mm (digital signal processing) Modbus version approx. 205 mm 4-20 mA version approx. 220 mm (2-pole-terminal) approx. 190 mm (5-pole-M12)</p>	
<p>Transport</p>	<p>+5 ... +50 °C (Sensor, electrolyte, membrane cap)</p>	
<p>storage</p>	<p>Sensor:</p>	<p>dry and without electrolyte no limit at +5 ... +40 °C</p>
	<p>Electrolyte:</p>	<p>in original bottle protected from sunlight at +5 ... +35 °C min. 1 year or until specified EXP-Date</p>
	<p>Membrane cap:</p>	<p>in original packing no limit at +5 ... +40 °C (used membrane caps can not be stored)</p>
<p>maintenance</p>	<p>Regularly control of the measuring signal, min. once a week The following specifications depend on the water quality: Change of the membrane cap: once a year Change of the electrolyte: every 3 - 6 months</p>	
	<p>EMC tested RoHS compliant</p>	




Spare Parts

Type	Membrane cap	Electrolyte	Emery	O-ring
For all MST1	M48.2 Art. no. 11047	EMST1/GEL, 100 ml Art. no. 11202	S2 Art. no. 11906	14 x 1.8 NBR Art. no. 11806

(Subject to technical changes!)

Technical Data
1. MST1 (analog output, analog internal signal processing)

	Measuring range in ppm	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
MST1H-M12	0.005...2.000 *	0.001	0...-2000 mV 1 kΩ	-1000	±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.
MST1N-M12	0.05...2.00 *	0.01		-100			
MST1HUp-M12	0.005...2.000 *	0.001	0...+2000 mV 1 kΩ	+1000	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.
MST1Up-M12	0.05...2.00 *	0.01		+100			


* concentration tested and approved up to 2 ppm

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

(Subject to technical changes!)

2. MST1 (analog output, digital internal signal processing)

analog-out / digital


	Measuring range in ppm	Resolution in ppm	Output Output resistance	Nominal slope in mV/ppm	Power supply	Galvanic isolation required in the measuring device/controller **	Connection
MST1H-An-M12	0.005...2.000 *	0.001	analog 0...-2 V (max. -2.5 V)	-1000	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.
MST1N-An-M12	0.05...2.00 *	0.01	1 kΩ	-100			
MST1H-Ap-M12	0.005...2.000 *	0.001	analog 0...+2 V (max. +2.5 V)	+1000			
MST1N-Ap-M12	0.05...2.00 *	0.01	1 kΩ	+100			

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3. MST1 (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
MST1H-M0c	0.005...2.000 *	0.001	Modbus RTU There are no terminating resistors in the sensor.	9-30 VDC	no	5-pole M12 plug-on flange Function of wires: PIN1: reserved PIN2: +U PIN3: power GND PIN4: RS485B PIN5: RS485A
MST1N-M0c	0.05...2.00 *	0.01		approx. 7-30 mA		


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4. MST1 4-20 mA (analog output, analog internal signal processing)

4.1 Electrical connection: 2 pole terminal clamp


	Measuring range in ppm	Resolution in ppm	Output Output resistance	Nominal slope (at pH 7.2) in mA/ppm	Voltage supply	Galvanic isolation required in the measuring device/controller **	Connection
MST1MA2	0.005...2.000 *	0.001	4...20 mA uncalibrated	8.0	12...30 VDC R _L 50Ω...R _L 900Ω	yes	2-pole terminal (2 x 1 mm ²)
MST1MA20	0.05...2.00 *	0.01		0.8			Recommended: Round cable Ø 4 mm 2 x 0.34 mm ²

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4.2 Electrical connection: 5 pole M12 plug-on flange

	Measuring range in ppm	Resolution in ppm	Output Output resistance	Nominal slope (at pH 7.2) in mA/ppm	Voltage supply	Galvanic isolation required in the measuring device/controller **	Connection
MST1MA2-M12	0.005...2.000 *	0.001	4...20 mA uncalibrated	8.0	12...30 VDC R _L 50Ω...R _L 900Ω	yes	5-pole M12 plug-on flange Function of wires: PIN1: n. c. PIN2: +U PIN3: -U PIN4: n. c. PIN5: n. c.
MST1MA20-M12	0.05...2.00 *	0.01		0.8			

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