

1.1.1 Bromine Sensor BR1

Detects free bromine as hypobromous acid and BCDMH, also in sea water.



Product description:

- Measurand(s): free bromine, 1-bromo-3-chloro-5,5-dimethylhydantoin (BCDMH), hypobromous acid HOBr,
- Calibration: at the controller, by means of analytic bromine determination, depending on the brominating agent, free bromine: DPD1 method, BCDMH: DPD4 method,
- Interferences: Cl₂, ClO₂, O₃, are measured as well,
- pH range: 6.5 ... 9.5, greatly reduced pH dependence,
- Pressure range: 0 ... 0.5 bar, no pressure surges and/or fluctuations,
- Temperature range: 5 ... 45 °C,
- Integrated automatic temperature compensation,
- Response time: T₉₀ approx. 2 min,
- Flow rate: approx. 30 l/h,
- Shaft length: 175 mm, 195 mm, 205 mm,
- Material: PVC, Peek, stainless steel 1.4571, microporous hydrophilic membrane,

Areas of application:

- Drinking-, pool-, industrial and process water; a special electrolyte is used for sea water

Scope of supply:

- BR1: sensor, membrane cap, electrolyte for use in fresh water use

Ordering data:

Type: Bromine sensor BR1	Measuring range: ppm	Resolution: ppm	Output signal:	Power supply:	Item number:
BR1H	0.005 ... 2.000	0.001	0 ... -2000 mV 1 kΩ	±5 ... +15 V DC 10 mA	3326526
BR1N	0.05 ... 20.00	0.01			3326525
BR1H-An	0.005 ... 2.000	0.001	0 ... -2000 mV (max. 2.500 mV), 1 kΩ Modbus RTU	9 ... 30 V DC; approx. 20 ... 56 mA	3326502
BR1N-An	0.005 ... 2.000	0.001			3326503
BR1H-M0c	0.005 ... 2.000	0.001			3326531
BR1N-M0c	0.05 ... 20.00	0.01			3326530
BR1MA-2	0.05 ... 2.00	0.1	4 ... 20 mA	12 ... 30 VDC R _L = 50Ω (12V)... 900Ω (30V)	3326505
BR1MA-5	0.05 ... 5.00				3326515
BR1MA-10	0.05 ... 10.00				3326520
BR1MA-2-M12	0.05 ... 2.00	0.1	4 ... 20 mA	12 ... 30 V DC R _L = 50Ω ... 900Ω	3326540
BR1MA-5-M12	0.05 ... 5.00				3326541
BR1MA-10-M12	0.05 ... 10.00				3326542

Additional technical data:

Type: Bromine sensor BR1	Slope:	Connection:	Special characteristics:
BR1H	-1000 mV/ppm	4-pole threaded coupling connector	Connection only to a controller with galvanically separated power supply.
BR1N	-100 mV/ppm		
BR1H-An	-1000 mV/ppm		
BR1N-An	-100 mV/ppm	Modbus RTU	M12 male
BR1H-M0c			
BR1N-M0c		2-pole terminal	Connection only to a controller with galvanically separated power supply.
BR1MA-2	8.0 mA/ppm		
BR1MA-5	3.2 mA/ppm		
BR1MA-10	1.6 mA/ppm	M12 male	Connection only to a controller with galvanically separated power supply.
BR1MA-2-M12	8.0 mA/ppm		
BR1MA-5-M12	3.2 mA/ppm		
BR1MA-10-M12	1.6 mA/ppm		

Spare parts:

Spare part:	For sensor type:	Item number:
Membrane cap M48.2	BR1 (all types)	9026020
Electrolyte ECP1.3 Gel	BR1 for measurement without salts <1 g/l in the water (all types)	9026056
Electrolyte ECP2S Gel	BR1 for measurement in salt water (all types)	9026055

Accessories:

Type:	For sensor type:	Item number:
Sensor simulator pH, Redox, Cl	all sensors with mV signal	(10115)
mV sensor simulator	all sensors with mV signal	9026205
mA sensor simulator	all sensors with mA signal	2125100
mV simulator and mV tester	all sensors with mV signal	(10300)
mV simulator and mA tester	all sensors with mV signal or mA signal	(10305)
Photometer for calibration	all sensors	
Reagent for photometer	all sensors	