pH-value LR T M329

5.2 - 6.8 pH

Bromocresolpurple

Instrument specific information

The test can be performed on the following devices. In addition, the required cuvette and the absorption range of the photometer are indicated.

Instrument Type	Cuvette	λ	Measuring Range
MD 600, MD 610, MD 640, MultiDirect, PM 620, PM 630, XD 7000, XD 7500	ø 24 mm	560 nm	5.2 - 6.8 pH

Material

Required material (partly optional):

Reagents	Packaging Unit	Part Number
Bromocresol Purple Photometer	Tablet / 100	515700BT
Bromocresol Purple Photometer	Tablet / 250	515701BT

Application List

- Boiler Water
- Pool Water Control
- Raw Water Treatment

Notes

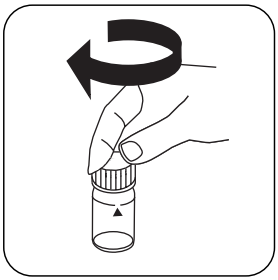
1. For photometric determination of pH values only use BROMCRESOL PURPLE tablets in black printed foil pack and marked with PHOTOMETER.
2. The accuracy of the colorimetric determination of pH values depends on various boundary conditions (buffer capacity of the sample, salt contents etc.).

Determination of pH value LR with Tablet

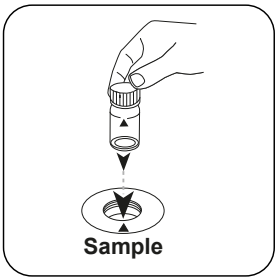
Select the method on the device.

For this method, a ZERO measurement does not have to be carried out every time on the following devices: XD 7000, XD 7500

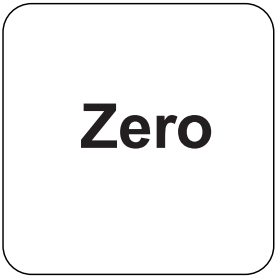
Fill 24 mm vial with **10 mL sample**.



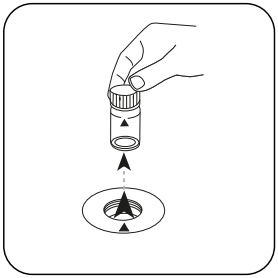
Close vial(s).



Place **sample vial** in the sample chamber. Pay attention to the positioning.

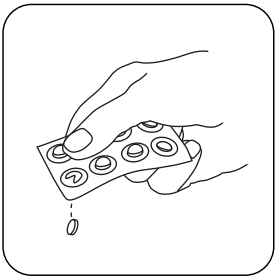


Press the **ZERO** button.

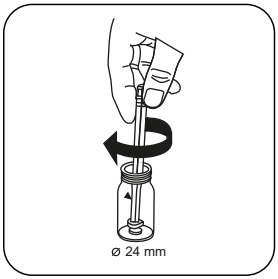


Remove the vial from the sample chamber.

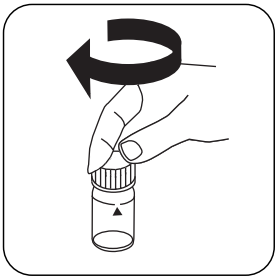
For devices that require **no ZERO measurement** , **start here**.



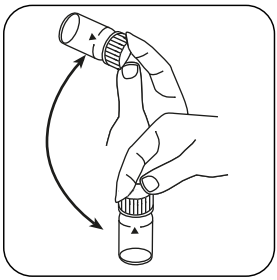
Add **BROM-CRESOLPURPLE PHOTOMETER tablet**.



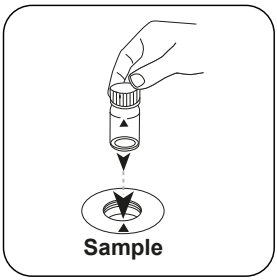
Crush tablet(s) by rotating slightly.



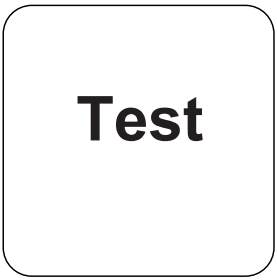
Close vial(s).



Dissolve tablet(s) by inverting.



Place **sample vial** in the sample chamber. Pay attention to the positioning.



Press the **TEST** (XD: **START**)button.

The result in pH value appears on the display.

Chemical Method

Bromocresolpurple

Appendix

Calibration function for 3rd-party photometers

Conc. = a + b•Abs + c•Abs^2 + d•Abs^3 + e•Abs^4 + f•Abs^5

	ø 24 mm	□ **10 mm**
a	4.59342 • 10^{+0}	4.59342 • 10^{+0}
b	2.8352 • 10^{+0}	6.09568 • 10^{+0}
c	-2.28986 • 10^{+0}	-1.05849 • 10^{+1}
d	9.993 • 10^{-1}	9.93142 • 10^{+0}
e	-1.5366 • 10^{-1}	-3.28333 • 10^{+0}
f		

Interferences

Persistant Interferences

- pH values below 5.2 and above 6.8 can produce results inside the measuring range. A plausibility test (pH-meter) is recommended.

Removeable Interferences

Salt error Correction of test results (average values) for samples with salt contents of:

Indicator	Salt content per sample		
Bromocre-solpurple	1 molar -0.26	2 molars -0.33	3 molars -0.31

The values of Parson and Douglas (1926) are based on the use of Clark and Lubs buffers. 1 Mol NaCl = 58.4 g/L = 5.8 %

Bibliography

Colorimetric Chemical Analytical Methods, 9th Edition, London