

AQUACON -m10/-m20

Process analyzers with touchscreen for acidity (-m-value) analysis

The **AQUACON -m10/-20** process analyzers consist of a control unit with touchscreen and an analysis unit with measuring chamber, valve, dosing pumps and all required tube connections.

Working principle of the analyzer is the titration of a water sample with sodium hydroxide solution to determine the $K_{B4,3}$ value(-m-value). A second reagent (indicator) is dosed for the photometric detection of the color change. A control unit with a microprocessor takes care for the automatic procedure of analysis.

Applications for the new analyzers are the survey and monitoring of water treatment plants and the control of decabonisation plants. The analysis results can be used for the monitoring/control of a supervised process.

- good cost-benefit relationship,
- high resolution,
- adjustable limit and alarm value,
- programmable analog recorder output (0/4-20 mA), optional with USB port for data storage
- adjustable break time between two analysis (1 - 99 min),
- external start/stop of an analysis possible,
- multi range power supply (110 230 Volt, 50 – 60 Hz) for variable use
- automatic operation incl. self test and drift compensation, no external calibration
- polycarbonate wall cabinet included



Order informations:

AQUACON -m10 AQUACON -m20	(0,1 – 3,5 mmol/l) (0,2 – 7,0 mmol/l)	Order No. 693 2774 02 Order No. 693 2775 02
Reagent MP-R1001M10	(500 ml)	Order No. 101 2775 01
Reagent MP-R1001M20	(500 ml)	Order No. 101 2776 01
Reagent MP-R1002M (indicator)	(250 ml)	Order No. 102 2775 01

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Technical Data

Current output	0/4 - 20 mA, max. load 500 ohm	
Display	240 x 128 dots, Touchscreen	
Relays	1 x Alarm, potential-free 230 V/50 Hz, 3A	
-	1 x Limit, potential-free 230 V/50 Hz, 3A	
	1 x Analysis state, potential-free 230 V/50 Hz, 3A	
External Switching	potential-free contact, 18 V DC, ca. 4 mA	
Power Supply	110 - 230 V 50/ 60 Hz	
Power Consumption	approx. 16 VA	
Dimensions	640 x 315 x 190 mm (H x W x D)	
Protection	IP 65 (transmitter housing)	
Connections	Plugs with circular connection 1,5 mm ²	
Temperature	5° to 45°C, at consumption of reagents within 6 months	
Since it is company policy to continuously improve its product range we receive the right to make changes		

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Parameter	-m-value (acidity) K _{B4.3} or carbonate hardness
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Description	Microprocessor-controlled analyzer for the determination of -m-value (acidity) in water		
	AQUACON -m10	AQUACON -m20	
Typical Applications	Monitoring of strong and weak acids dissolved in water.		
Method of working	Titration of $K_{B4,3}$ (m-value) using sodium hydroxide solution		
	and photometric determination of the endpoint		
Measuring Range	-m10 = 0.1 - 3.5 mmol/l	-m20 = 0.2 - 7.0 mmol/l	
Resolution	0.03 mmol/l	0.06 mmol/l	
Accuracy	5 % of end value		
Reproducibility	3 % of end value		
Zero-point Stability	automatic adjustment		
Number of Samples	1		
Sample			
Operating Pressure	0,1 -10 bar		
Temperature	5 - 30 °C		
Sample Volume	25 ml per analysis (excluding cuvette rinsing)		
Sample Condition	clear, with particles < 0.5 g/l ; < 50 μ m		
Drain	pressure free into open drain		
Reagents		Q (Titrent Ladiester)	
Number Storago Tomporaturo	2 (Titrant, Indicator)	2 (Titrant,I ndicator) 0 – 30°C	
Storage Temperature	0 – 30°C 0.5 ml per 1 mmol (Titrant)		
Usage/analysis (approx.)	0,07 ml Indicator	0.25 ml per 1 mmol (Titrant) 0,07 ml Indicator	
Reagent volume	500/250 ml	500/250 ml	
Suitable for analysis (appr.)	1000 (at 1 mmol/l -m-value)	2000 (at 1 mmol/l -m-value)	
Analysis			
Cycle (approx.)	3 - 10 min		
Sample interval	1 min - 99 min		