iotronic
ELEKTROGERÄTEBAU GMBH

AQUACON Ni10

Process analyzers for the determination of dissolved nickel

The AQUACON Ni10 process photometer can be used for the monitoring and control of the dissolved nickel concentration in water. Measurement principle is the photometric determination of nickel by forming a red complex after the reaction with Dimethylglyoxim.

Main application for the photometer is the monitoring of the nickel concentration in process water.

The analyzer consists of a control unit with touchscreen and an analysis unit with measuring chamber, valve, dosing pumps and all required tube connections. The control unit includes a microprocessor which controls the automatic measurement incl. sampling, rinsing, reagent dosing and surveillance of the photodetection system.

Your advantages:

- ⇒ Automatic measurement incl. self test and drift compensation
- ⇒ Easy operation via touchscreen
- ⇒ Adjustable limit value and alarm value
- ⇒ Programmable analog output (0/4-20 mA), optionally with USB port for easy data storage
- ⇒ Adjustable break time between two analysis
- ⇒ External start/stop of an analysis possible
- ⇒ No external calibration required
- ⇒ External plug connections (IP65) for alarm relay, limit relay, analysis relay, external start/stop, analog output 0/4-20 mA
- ⇒ Multi range power supply (110–230 Volt, 50–60 Hz)
- ⇒ Including polycarbonate wall cabinet

Example: AQUACON analyzer

Order informations:

AQUACON Ni10	(0,02 – 1,00 ppm)	Order No. 693 2790 01
Reagent Ni10-R1001	(250 ml)	Order No. 101 2790 01
Reagent Ni10-R1002	(500 ml)	Order No. 102 2790 01
Reagent Ni10-R1003	(500 ml)	Order No. 103 2790 01

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 reserve the right to make changes in the product design without notification to its users.

Specifications

Parameter	Nickel (dissolved)
Description	Automatic microprocessor controlled analyzer for the photometric determination of dissolved nickel
Typical Applications	Control of the nickel concentration in process water
Analysis Method:	Photometric determination of dissolved nickel by the Dimethylglyoxim method
Analyzer type	AQUACON Ni10
Measuring Range	0,02 – 1,00 ppm
Resolution	0,01 ppm
Accuracy	3 % of end value
Reproducibility	2 % 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 rinsing)
Sample Condition	clear, filtrated
Chemical Demands	pH 4 – 9, Fe^{2+} < 0,01 mg/l, Cu^{2+} < 0,01 mg/l
Drain	pressure free into open drain
Reagents	
Number	3
Storage Temp.	5 – 20 °C
Usage/analysis	appr. 0,27 ml / 0,54 ml / 0,54 ml
Reagent volume	250 ml / 500 ml / 500 ml
Suitable for	appr. 925 analysis
Analysis	
Cycle (approx.)	7 min (incl. rinsing time)
Sample interval	1 – 99 min or external start/stop