iotronic
ELEKTROGERÄTEBAU GMBH

AQUACON Fe10/Fe20

Process analyzers for the determination of dissolved iron (Fe^{2+}, Fe^{3+})

The AQUACON Fe10 and Fe20 process photometers can be used for the monitoring and control of the dissolved iron (Fe^{2+}, Fe^{3+}) concentration in water. Measurement principle is the photometric determination of iron by forming a Pyridyl-Triazine compley (AQUACON Fe10) or by forming a 1,10-Phenanthrolin complex (AQUACON Fe20).

Main applications for the photometers are the monitoring of the iron concentration in drinking water, waste water and process water.

The analyzers consist 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 Fe10

Order informations:

AQUACON Fe10	(10 – 500 ppb)	Order No. 693 2754 01
AQUACON Fe20	(0,1 – 20 ppm)	Order No. 693 2755 01
Reagent Fe10-R1001	(250 ml)	Order No. 101 2754 01
Reagent Fe10-R1002	(250 ml)	Order No. 102 2754 01
Reagent Fe10-R1003	(250 ml)	Order No. 103 2754 01
Reagent Fe20-R1001	(500 ml)	Order No. 101 2755 01

iotronic
ELEKTROGERÄTEBAU GMBH

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	Iron (dissolved, sum Fe^{2+}, Fe^{3+})	
Description	Automatic microprocessor controlled analyzer for the photometric determination of total dissolved iron	
Typical Applications	Control of industrial effluent of steel facilities; corrosion control in closed water cycles; analysis of drinking water	
Analysis Method:	Photometric determination of dissolved iron with Pyridyl-Triazine	Photometric determination of dissolved iron with Phenanthrolin
Analyzer type	AQUACON Fe10	AQUACON Fe20
Measuring Range	10 – 500 ppb	0,1 – 20,0 ppm
Resolution	1 ppb	0,1 ppm
Accuracy	2 % of end value	
Reproducibility	1 % 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 6-8	
Drain	pressure free into open drain	
Reagents		
Number	3	1
Storage Temp.	0 – 30°C	5 – 25°C
Usage/analysis	appr. 0,8 ml/ each reagent	appr. 0,54 ml
Reagent volume	250 ml / 250 ml / 250 ml	500 ml
Suitable for	appr. 300 analysis	appr. 925 analysis
Analysis		
Cycle (approx.)	4 - 7 min	
Sample interval	1 – 99 min or external start/stop	