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 Fillerkampsweg 1-5 • 31832 Springe OT Eldagsen • Tel.: 05044/887-0 • Fax: 05044/887-99
E-mail : info@iotronic.de Internet: http://www.iotronic.de

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	