

The cost-efficient Process Colorimeter that delivers its results with laboratory accuracy.



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ADI 2019

Process Colorimeter





Intelligent

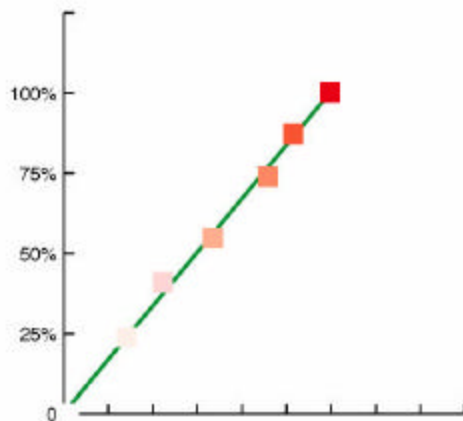
The analysis is being made by differential measurement of the initial colour of the sample and the developed colour after the reagents have been added and it has reached equilibrium.



In this way fouling, as well as turbidity and the sample's own colour are compensated for, while the accuracy and speed of analysis are assured by the equilibrium criteria.

From the differential measurement and previously stored calibration data, the analysis result is calculated by the Analyzer and transmitted, either digital or analogue.

The last 100 results are stored and may be recalled on the display or printed (optional) with mean values.



Automatic and reliable on-line analysis

Colorimetric analysis has a long track record in environmental control and process water quality management. The ADI 2019 Process Colorimeter continues that record and delivers its results around the clock. To match the most demanding applications as well as the easier ones the 2019 is available with a special colorimetric device for each:

The stopped-flow colorimetric cell, housing the mixing cuvette, the thermostat, a Light Emitting Diode (LED) and the detector, offering ultimately low reagent consumption combined with laboratory precision, or

The dipping probe, featuring an LED, a detector and a pre-amplifier housed together in a highly chemical resistant shaft of TPX. The probe is mounted in the measuring cell like an electrode, making the whole system so simple and yet offering laboratory precision.



Automatic validation and calibration

The 2019 is capable of performing a check on its results and calibration data fully automatically by delivering a small but exact amount of a concentrated (thus having long shelf life!) standard solution by its precision burette and will generate an alarm when pre-set tolerances are exceeded.

The calibration of the 2019 has been made really easy: one just has to select "Calibrate" and the number of calibration data (max. 7) required. The Analyzer will dispense a sequence of optimised shots of concentrated standard solution into a blank for dilution. Reagents are added and the colour densities are taken at their equilibria.

Using these data the Analyzer will fit the most optimum curve, which is then stored and utilised for future analyses.

With the 2019 the days of carrying bulky glassware with standard solutions to and from the Analyzer are over.





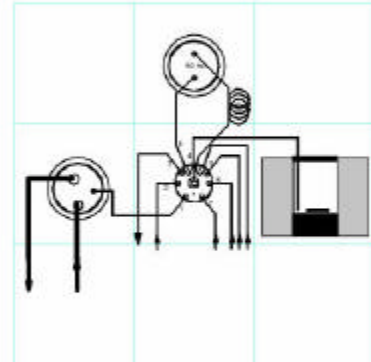
Several versions to suit any application

Compact

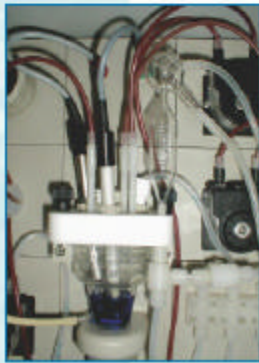
This model features a special-design and patented valve, which (in combination with the precision burette) executes all liquid handling.

The sample is being taken from the fast loop cell (optionally serving as precipitator) and delivered to the stopped-flow colorimetric cell. Next the reagents are being mixed with the sample, subsequently followed by the optical density readings.

Main application: more or less clean waters.



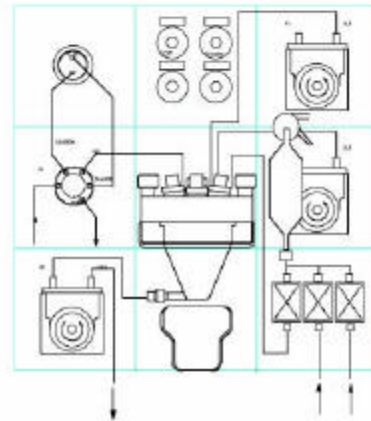
Heavy duty; pipette



This model is making use of the dipping probe colorimeter. The separate pipette sizes the sample accurately and delivers the sample to the measurement cell by gravity feed. Individually operated valves (or pumps) deal with the addition of reagents, the draining and the washing of the measurement cell. This strict separation of the functions is benefiting the user with pleasant, high up-times in the case samples are rough.

It features an automatic diagnostic on the validity of the result by a standard solution from the precision burette, as well as an automatic multiple point calibration.

Main application: fouling low concentrated samples.



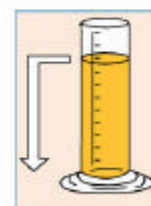
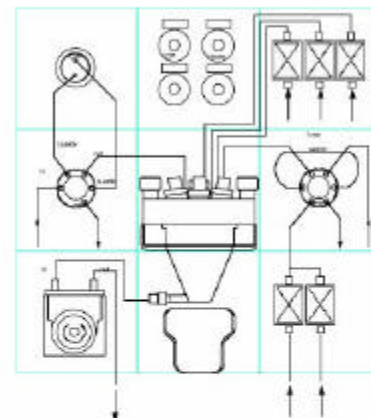
Heavy duty; injection loop

This model is the look-alike of model 2. In stead of utilising a pipette it is having a sample injection loop, capable of injecting very small samples (down to .2 ml) in order to analyse samples with high concentrations.

Low reagent consumption and low maintenance

The batch-wise operating principle, which allows the analysis frequency to be set to actual needs, in combination with the small measurement cell, lead to a significant reduction in reagent usage (typical < 1 Lt/month).

The limited contact time with the sample, the limited numbers of movements of the proven and sturdy parts, as well as the LED light source (lifetime guaranteed; no lamp bulb replacements) are securing a carefree operation, with typical uptimes over 99%.



Applications

Measurand	application	concentration mg/l
Ammonia	waters	0 - 10
Aluminium	potable water	0 - 0.25
Calcium	potable water	0 - 20
Chlorine	(cooling) waters	0 - 10
Chromium	waste water	0 - 0.5
Cobalt	PTA catalyst	400 - 800
Copper	waste water	0 - 5
	plating bath	high levels
Cyanide	waste water	0 - 0.5
Ferric	potable water	0 - 5
Ferrous	potable water	0 - 5
Formaldehyde	waste water	0 - 1
Hydrazine	boiler water	0 - 5
Manganese	potable water	0 - 5
Nickel	waste water	0 - 1
	plating	high levels
Nitrate	waste water	0 - 200
	potable water	0 - 10
Nitrite	waste water	0 - 1
Phenol	waste water	0 - 5
Phosphate	waste water	0 - 10
Silica	boiler water	0 - 10
Sulphide	waste water	0 - 1

Contact your local distributor or us if your application is not listed

Continuity

Over the past years Applikon Dependable Instruments has installed numerous Process Analyzers in over 40 countries. Its research continues to improve existing designs as use is made of the latest scientific knowledge, and the view of our clients is regularly investigated. When you consider of going on-line with wet chemistry analysis, Applikon is here to be part of it.

The 2019 Process Colorimeter is unrivalled in its accuracy's, yet it is very cost-efficient to purchase, as well as operating it.

Let's find out how this benefits you by having our engineered proposal.

You can count on Applikon Dependable Instruments, the world-wide leader in on-line wet chemistry analysis.



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