Spectrophotometer AL800

Water and waste water testing
330 - 900 nm

The AL800 is a modern single-beam spectrophotometer with an excellent price/performance ratio that is specifically designed for water testing.

Optics

The AL800 is a single-beam spectral photometer (see illustration). The light source is a tungsten halogen lamp with flash function. The lamp is switched on only momentarily during the measurement process[1], so there is no need for a warm-up period. The AL800 is ready to perform a self-test as soon as it is switched on. The light passes through an entry slot to the monochromator, where it is split into spectral ranges. The monochromator is a holographically produced, transparent grating. The movable mirror ensures that light of the desired wavelength is focused automatically so that it passes through the exit slot, into the sample chamber and therefore through the water sample. The light that is not absorbed by the sample travels to the silicon photodiode detector. This signal is then evaluated by a microprocessor and shown as a result in the display.

Highlights

- Interface RS232
- Large illuminated display
- Touch-sensitive film keypad with logical layout
- Use of round cuvettes and rectangular cells of different sizes without adapter
- 35 user-specific methods
- Fast, easy lamp change
- Update via Internet

Multifunctional sample chamber

Round cuvettes measuring 16 mm and 24 mm in diameter and rectangular cells with pathlengths from 10 to 50 mm may be used without an adapter. Only the 10 mm cell will be fixed by a little holder that must inserted into the sample chamber.

Operator guidance and functions

The choice of language is prompt in the display and canbe switched to German, English, French, Italian, Spanish or Portugese. When further languages become available, they will be updated via internet.

In addition to the pre-programmed AQUALYTIC® methods, the user can also program 35 own methods (10 user concentration methods and 25 user polynomials). Other functions include the automatic count-down function in various methods, differentiated determination for some methods, absorption / transmission, spectral uptake, kinetics and up to 7 concentrations (linear).

Data transfer

The RS232 interface on the back allows direct connection and data transfer to a PC or printer with serial interface. Up to 1000 records can with date, time, running test and code number as well as the measuring range and the method number.

Updates for new methods and additional languages can be found on our website: www.aqualytic.com.

Power supply

The required input voltage is 12 V. The AL800 is connected to an external power pack as standard. Battery operation is also possible by using an external energy station (see accessories).

N.I.S.T. Traceability

The device can be calibrated by the user with a secondary standard filter set (order no .: 711160) which can be traced back to N.I.S.T. are. The user can set the device in "user adjustment mode" for each method with standards traceable to N.I.S.T. adjust.

(N.I.S.T. = National Institute of Standards and Technology)

Technical data

Wavelength range	330 to 900 nm
Photometric range	-0.3 to 2.5 Abs
Spectral bandwidth	10 nm
Wavelength accuracy	±2 nm
Wavelength reproducibility	±1 nm
Light source	Pre-adjusted tungsten halogen lamp
Monochromator	Holographic grating
Detector	Silicon photodiode
Multifunctional sample chamber	Round cuvettes 24 and 16 mm Ø, Rectangular cells 10-50 mm
Display	Backlit LCD graphic display
Language options	German, English, French, Italian, Spanish, Portugese
Storage capacity	1000 test data sets
Serial interface	RS232
Dimensions (L x W x H)	270 x 275 x 150 mm
Weight	approx. 3.2 kg
Power supply unit	Input: 100 - 240 V ~ 1.0 A 50 - 60 Hz Output: 12 V .... 30 W
Approval	CE

AQUALYTIC® AL800
Spectrophotometer 330 - 900 nm
complete with power supply unit (100-240 V, 50-60 Hz), two batteries for keeping data and serial cable for connection to a PC (D9F-D9M).

Order code: 4712000

AQUALYTIC® AL800
Spectrophotometer 330 - 900 nm
in case as above, with energy station, replacement lamp, 12 round cuvettes with lid (height 48 mm, ø 24 mm),10 round cuvettes with lid (height 90 mm, ø 16 mm), W 100 rectangular cell (50 mm path length),
W 100 rectangular cell (10 mm path length), plastic stirring rod, but without reagents.

Order code: 4712005

We would be pleased to quote a ready to use spectrophotometer unit for the parameters and required accessories.

Applications

- Waste Water
- Drinking Water
- Industrial Process Water
- Scientific & Research
- Governmental and Private Laboratories

General Catalogue April 2018

Accessories	Code
Replacement halogen lamp	7110 00
Magnetical pin (for updates)	19801687-2
Connection cable to a PC	198197
Connection to a 12 V plug	711040
Case for transport	712050
Universal adapter for sockets	192065
Secondary standard set	711160
Plastic funnel with handle	471007
Cleaning cloth for cuvettes	197635
Power supply unit 100-240 V / 50-60 Hz	711090
Power station, 230 V / 50 Hz with cable for connection	711050
12 round cuvettes with lid Height 48 mm, 24 mm Ø	197620
5 round cuvettes with lid Height 48 mm, 24 mm Ø	197629
10 round cuvettes with lid Height 90 mm, 16 mm Ø	197665
Cuvette stand for 6 round cuvettes Ø 24 mm, acrylic glass	418951
Cuvette stand for 10 cuvettes (Ø 16 mm or □ 13,5 mm), acrylic glass	418957
W 100, rectangular cell optical glass OG, 10 mm path length	601040
W 100, rectangular cell optical glass OG, 50 mm path length	601070
W 110, rectangular cell Quartz-UV-glass, 10 mm path length	661130
Printer for Photometer incl. line adapter and RS232-cable	198077