

aquaspex-professional Reagent System

Aquaspex-professional comprises a range of test methods for frequent on-site water analysis. These tests have been developed from established standard methods which guarantee best possible accuracy and sensitivity, and minimal interferences from foreign substances. Photometric test employ the DataLine Photometer for absorbance measurements and subsequent conversion to concentrations.

The **aquaspex-professional** reagent system is manufactured in Adelaide, South Australia by:

Aquaspex Water Testing Products
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DataLine Photometer for Photometric Water Analysis

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Water is a natural resource on our planet which is subject to ever increasing demands regarding quantity and quality. Efficient use of this limited resource is becoming more and more important. As a consequence, quick, but reliable and accurate water analysis has become a necessity for professionals working in the areas of water supply and water treatment.

The new state-of-the-art, portable DataLine Photometer meets those demands for professional water quality monitoring. In conjunction with the "aquaspex-professional" reagent system it allows rapid water analysis in the laboratory and in the field.

Photometric Tests:

Ammonium
Chlorine
Chromate
Copper
Iron
Manganese
Nitrate
Nitrite
pH
Phosphate
Sulphide

Titrimetric Tests*:

Alkalinity
Calcium
Chloride
Dissolved Oxygen
Nitrite
Sulphite
Total Hardness

(*titrimetric tests do not require the photometer)

Other tests on request.

The reagents are supplied in 30 mL or 60 mL dropper bottles (liquids) and 4.5 g packs (powders). Refills are available from 100 mL to 1000 mL and 15 g to 75 g. Reagent shelf life is typically two years.



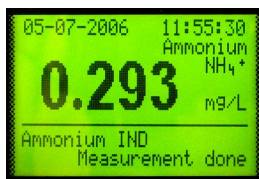
Features

The DataLine Photometer employs the latest LED (light emitting diode) technology. It uses 9 LEDs to cover the measuring range from 380 nm to 810 nm.

LEDs have proved to be very stable light sources with narrow spectral bandwidths and good precision. Also, they consume little energy, and consequently the instrument can be used in field for extended periods of time without recharging the batteries. The photometer utilises an advanced optical design with additional interference filters that have specifically been developed for this instrument for improved accuracy.



The meter is microprocessor controlled and has a large graphic LC-display (128 x 64 pixels). Up to 150 analytical methods can be stored in the photometer's memory, which can also hold 1000 sets of measurements including a date and time stamp each. These records can be transferred to a computer for long term storage via an infrared link (IrDA).



The photometer is waterproof according to IP 66, hence suitable for operation in a humid or even wet environment.

Accessories

The DataLine Photometer is supplied in a foam lined plastic carry case that also holds a power supply, rechargeable batteries, 10 cuvettes, 2 reaction vessels,

funnel, 5 mL syringes (2x), cleaning brush, cuvette stand, operating instructions, USB cable, IrDA transmitter, IrDA-USB driver for Windows, photometer software (for Windows 98 and later).



Specifications

Type:

portable LED/filter photometer, waterproof to IP 66

Spectral range:

380 – 810 nm (9 distinct wavelengths: 380-430-470-500-520-560-610-700-810 nm)

Absorbance range:

-0.5 – +4.0 A

Electro-optic precision:

±1.5 % (in the range 0.1 – 2.0 A at 20°C)

Photometric precision:

±3 % (in the range 0.1 – 2.0 A at 20°C)

Cuvettes:

16 mm round glass cuvettes

Memory:

150 methods, 1000 data records, 50 most recent results

Languages:

English (optionally up to 5 additional languages)

Power supply:

rechargeable batteries (4 AA NiMH, 2100 mAh), plug pack 9 V DC, 300 mA

Battery life:

approx. 1,000 h / 20,000 measurements

Auto-Off:

1 – 30 min. (selectable)

Display:

LCD 128 x 64 pixels (62 x 40 mm), backlit

Computer interface:

IrDA USB

Dimensions:

255L x 93W x 54H mm

Weight:

560 g (incl. batteries)

Temperature range:

+10°C – +40°C (operation); -10°C – + 50°C (storage)

Calendar and Clock:

built-in

No	St	Value	Unit	Substance	Symbol	Method	Range	Location	Date	Time	Comment
33		0.553	mg/L	Nitrite	NO_2^-	Nitrite NED	0.0 - 2.0		18/06/06	14:29:27	
34		1.176	mg/L	Nitrite	NO_2^-	Nitrite NED	0.0 - 2.0		28/04/06	10:58:49	
35		1.176	mg/L	Nitrite	NO_2^-	Nitrite NED	0.0 - 2.0		27/04/06	18:04:39	
36		0.000	mg/L	Ammonium	NH_4^+	Ammonium IND	0.0 - 2.0		27/04/06	18:04:19	
37		0.061	mg/L	Ammonium	NH_4^+	Ammonium IND	0.0 - 2.0		27/04/06	18:03:58	
38		0.000	mg/L	Ammonium	NH_4^+	Ammonium IND	0.0 - 2.0		27/04/06	14:18:05	
39		1.238	A	Absorbance 560	560 nm	LED	-0.5 - 4.0 A		29/03/06	17:16:57	
40		1.239	A	Absorbance 560	560 nm	LED	-0.5 - 4.0 A		29/03/06	17:16:48	
41		0.641	A	Absorbance 560	560 nm	LED	-0.5 - 4.0 A		29/03/06	16:51:30	
42		0.087	A	Absorbance 560	560 nm	LED	-0.5 - 4.0 A		29/03/06	16:51:14	

Photometer Software

The photometer comes with a software ("Photometer Manager" for Windows) that enables the user to upload measurements stored in the photometer to a computer. These data can then be exported to Microsoft Excel or other spreadsheet software for further processing, and/or record keeping. As each data set has a date and time stamp and even location information, these records comply with GLP and can be used for quality assurance purposes.

Furthermore, users can create their own methods and download the corresponding calibration curves into the photometer.

