



Be Right™



## AP3900 Multi laboratory robot standard configuration

Product #: SMAP3900-MULTI  
AED Price: Contact Hach

### Laboratory robot for fully automated water analysis

Laboratory robot for water analysis including sample preparation. Modular concept. Basic version contains COD, total P, total N, Ammonium, Nitrate and Nitrite.

This unique product processes the critical parameters of COD, total P and total N in parallel using our well established, pre-programmed cuvette tests. The control software ensures the optimal sequence for processing all samples to minimise total time to results through sample preparation, digestion of complex samples, waiting times and measurement. Additional samples can be added at any time, even when the sequence is running and the current status of the analysis is accessible any time with a simple mouse click. Rapid yet simple even untrained users are able to enter all necessary information to the system due to the easy-to-use software.

**Saves time and costs**

**Increases productivity and flexibility**

**Highest precision and accuracy due to automated procedures**

**Parallel execution of different samples and methods**

**Reliable by complete traceability of results**

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### Specifications

Accessories:	Horizontal and vertical shaker; station for opening and screwing the cuvettes
Altitude:	max. 2000 m
Ambient temperature:	4 - 40 °C
Calibration:	Range 0.2 - 2.0 mL
Compressed air pressure:	5 bar
Detector:	DR 3900
Dilution:	10 times
Dimensions (H x W x D):	950 mm x 1290 mm x 840 mm
Dispenser:	Calibrated Hamilton Dispenser 2.5 mL
Dosing system (reagent):	Reagent - pipette tips
Dosing system (sample):	Sample - PTFE sheathed needle, ID 2 mm

	Stirrer with 9 mm paddle
Environmental conditions: relative humidity:	Relative Humidity 80 % at 31 °C
Installation category:	Category II
Interface:	2 x RS232 for Robot and Dispenser;
	USB type A for DR3900
Log file:	All actions will be automatically logged and stored
Manual languages:	Danish, Dutch, English, French, German, Italian, Spanish
Measurement method:	Automatic HACH LANGE cuvette test (13 mm test tube);
	10 times measurement and 2D barcode
Memory:	Permanent memory, data will not be lost
Number of cuvette positions:	160
Number of heating positions:	2 x 24 (optional 2 x 48)
Number of reagent positions:	12
Number of relays:	16 up to 32
Number of sample positions:	24 (optional 48); 50 mL sample volume
Parameter:	Multi
PC requirements:	Intel or AMD computer >1.8GHz
	512 MB Ram
	40 GB Hard disk
	CD-Rom Drive
	WinXP, Win Vista / 7 (only 32 bit)
	1 x available USB 2.0 connector
	2 x available serial COM-ports (9 pin)
	Monitor 1280 x 1024
Photometric accuracy:	1% @ 0.5 - 2.0 Abs
Photometric linearity:	< 0.5 % - 2 E
Power requirements (Hz):	50/60 Hz
Power requirements (Voltage):	230 V AC
Propeller mixer:	8 mm, 100 rpm
Robotic arm:	Ultra-sonic sensor
Source lamp:	Halogen bulb,
	reference beam technology (spectral)
Temperature:	Selectable 40°C, 100°C, 110°C, 148°C and 150°C
Warranty:	24 months
Wavelength:	Selection automatic
Wavelength range:	320 - 1100 nm
Wavelength resolution:	1 nm

Weight:

150 kg - 170 kg