

# MODEL CA6 - PHOSPHATE ANALYZER

## Compact online colorimeter for the automatic measurement of Phosphates

### APPLICATION FIELDS

- Power Utility
- Cooling water
- Drinking water
- Boiler feedwater
- Industrial and municipal wastewater
- Surface water



### ADVANTAGES / FEATURES

#### Dual compartment enclosure

To ensure complete separation between the electronics and the wet part.

#### One reagent configuration, low reagent consumption

Minimum operating cost by small reagent consumption, only 2.5L (0.66 US.gal) for the 16 mm cell / 5L (1.32 US.gal) for the 26 mm cell of each reagent every 90 days with 15 minute analysis frequency.

#### Automatic calibration / validation / cleaning

Validation, cleaning and calibration are standard features which significantly reduce downtime and operator intervention ensuring the most accurate results are obtained.

Free selectable validation, cleaning and calibration intervals.

#### Wide measuring range

The determination ranges of the CA6 Phosphate Analyzer vary from trace  $\mu\text{g/L}$  to 2000  $\text{mg/L PO}_4$  using internal dilution module.

#### Color touchscreen user interface

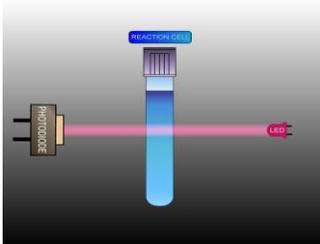
The CA6 Colorimeter is equipped with a graphic touchscreen interface showing measured values and status information. Easy access to menus and functions. Multiple languages. Integrated datalogger with USB download.

#### Factory tested, ready for installation and operation

Just connect the power, sample, and reagent lines and the analyzer is fully operational.

#### Multiple streams

Dual streams version available. External Sequencer, switching up to 4 sample streams.



#### MEASUREMENT PRINCIPLE – YELLOW METHOD

The reagent, containing sodium molybdate and ammonium meta-vanadate in an acid medium, reacts with the orthophosphate to form a yellow coloured phospho-vanado-molybdate compound. The absorbance intensity is proportional to the phosphate concentration in the sample and is determined at 430 nm.

## TECHNICAL SPECIFICATIONS

Measured parameter:	PO <sub>4</sub> / P-PO <sub>4</sub> (ppb, ppm, mg/l). Phosphates / reactive phosphorus	Dimensions (H x W x D):	23.6 x 15.0 x 8.2 in / 606 x 380 x 209 mm
Measuring principle:	Differential photometric absorbance. Yellow Method.	Weight:	Approx. 44 lbs (20 Kg)
Measuring range:	0.05 to 10 ppm P-PO <sub>4</sub> (30 ppm PO <sub>4</sub> ) for the 26 mm cell - 0.1 to 16 ppm P-PO <sub>4</sub> / (50 ppm PO <sub>4</sub> ) for the 16 mm cell; up to 640 ppm P- PO <sub>4</sub> / 2000 ppm PO <sub>4</sub> with internal dilution.	Power supply:	Voltage: 100 - 240 VAC 50/60 Hz standard or 24 VDC (option) Power consumption: max. 80 VA
Reproducibility:	± 200 ppb or ± 5%, whichever is greater (26 mm cell) ± 500 ppb or ± 5%, whichever is greater (16 mm cell).	Outputs:	2 x 4-20 mA outputs for measured data Modbus RTU RS485
Analysis frequency:	Freely programmable, batch near-continuous analysis.	Alarms:	4 SPDT programmable potential free relays
Cycle time:	8-10 minutes, including conditioning before analysis cycle and rinsing after measuring.	Digital input:	Remote start / stop
Reaction cell:	Temperature heated Pressure-free from overflow vessel	Operating Temperature:	41 - 113 °F (5 - 45 °C)
Sample:	Temperature: 41 - 122 °F (5 to 50 °C) Flow Rate: 80 to 500 mL/min Connection: 6 mm (¼-in.)	Humidity:	10 to 90% non-condensing (indoor use, outdoor installation only possible with protective cabinet or shelter not included)
Drain:	Pressure-free, atmospheric drain Connection: 12 mm (½-in.)	Installation:	Wall mount (standard), bench top support or panel mount (options).
N° of streams:	1, 2 with integrated switching valve 3, 4 with external sequencer	Ingress Protection:	IP54

