

Precision photometer for the measurement of phosphate

COPRA Phosphate Analyzer

Analyzer for the continuous measurement of phosphate in boiler water in power plants.

Measuring range 0 to 50 ppm.

2 channel instrument.

Full-text display (2 x 20 characters).

Menu driven programming.

Programmable automatic calibration (zero point, gain).

Automatic check of sample flow and reagent addition.

Constant-temperature reaction chamber and photometer.

4 signal outputs 0/4 ... 20 mA, freely scaleable.

4 function contacts for remote control (choose channels or switch off channels).

4 contacts programmable as limit switches for phosphate or check of sample flow.

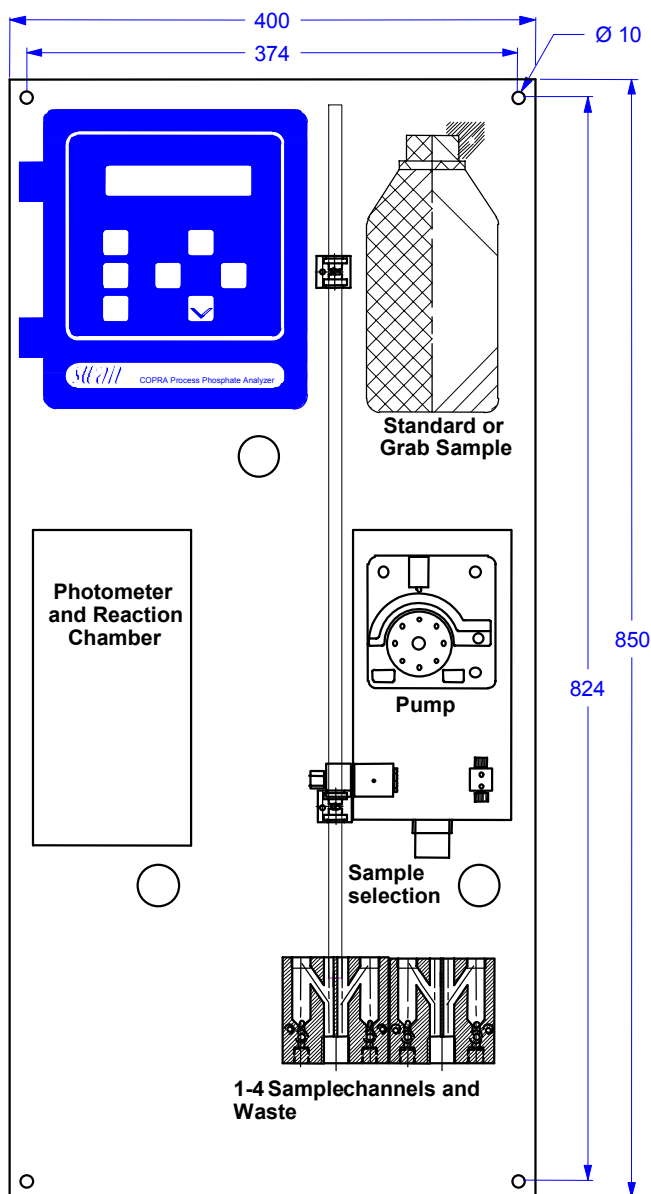
Data logger for roughly 8000 data lines.

Grab-sample testing.

Safety channel.

Options:

- Four-channel instrument
- Communication board for BUS (PROFIBUS DP, MODBUS) and connection of modem.



Order scheme	COPRA Phosphate Analyzer	A-25.21	0		
Option 1:	Standard (up to 2 channels)		0		
	Multiplexer (up to 4 channels) _____		1		
Option 2:	Standard (RS232)			0	
	Multifunctional communication board _____			1	
Reagents:	No reagent included				0
	Start-up kit for 1 month (transport restrictions might apply) _____				1

Technical data:

Dimensions (height x width x front-to-back size): 850 x 400 x 140 mm
Weight: 18 kg
Mounting panel: stainless steel
Electronic housing: injection-molded aluminum
Protection: IP65
Ambient temperature: 5 - 45 °C
Relative humidity: 30 - 95% non-condensing
Storage and transport: 0 - 50 °C
Display: full-text display, 2 x 20 characters, green, for measuring values phosphate of all channels with time of last measurement / operating status and date / time of clock.

Cabinet version:

Dimensions (height x width x front-to-back size): 1600 x 600 x 400 mm
Weight: roughly 100 kg

Power supply:

85 265 VAC, 50 ... 60 Hz
Power consumption: 85 VA
Parameter storage without battery.

Software:

Menu driven input of calibration parameters, limits, printer, logger, and communication parameters.
Programming of interval for automatic calibration.
Password protection for all programs.

4 Signal outputs:

Current loop: 0/4 - 20 mA
Max. burden: 600 Ω

4 function contacts:

For potential-free contacts.
Functions:
- standby (interruption of measurement)
- choosing channels
- switching off channels

4 contacts:

Max. load: 24 VDC / 0.1 A (with common reference potential)
Programmable as
- limit switches for phosphate
- check of sample flow

Error contact:

Max. load: 1 A / 250 VAC
Potential-free switching contact
Summary alarm indication for system and handling errors.

Interfaces:

Interface RS232 for printer and firmware download
Option:
Multifunctional interface board RS485 including:
- PROFIBUS DP protocol
- MODBUS ASCII protocol
- MODBUS RTU protocol
- RS232 for modem connection

Safety:

Automatic check of sample flow and reagent addition.
Safety channel.
No spillage of aggressive reagents during the change of pump tubes, because tubes and photometer can be emptied before.

Measurement of phosphate:

Precision photometer
Measuring range: 0.1 to 50 ppm
Accuracy: ± 0.1 ppm or 5% of measuring value
Reproducibility: ± 0.1 ppm or 2% of measuring value
Response time: 6 min
Grab sample function

Calibration:

Programmable automatic calibration, zero point, gain,

Sample flow:

Constant head with tube connection
Pressure: 0.3 to 3.0 bar
Flow: min. 10 ml/min
Temperature: 5 to 45 °C
Connection inlet: 4x6 mm
Connection outlet: 14x20 mm (1/2")
Outlet: Pressure-free outlet
Suspended soils: less than 10 ppm no oil and no grease

Multiplexer (max. 4 samples)

4 constant heads with multiplexer
The four contacts are used as limit switches for phosphate.

Connection scheme

