

# Flame Photometer FP8800



The FP8800 Flame Photometer is used for simple, precise and inexpensive measurement of concentration of alkaline elements in aqueous solutions for analytical applications in process and laboratory. It was developed especially for industrial applications. It features a PROFIBUS DP and two Ethernet interfaces for computer-aided process control (SPC). Two USB-ports are intended for data export (e.g. in .csv format) or firmware update via USB flash drive. The FP8800 features the use of propane or butane as a

fuel gas which allows flame-photometric measuring up to three elements simultaneously. In addition purified and dried air is required.

Measurements can be performed either with or without internal standards. Standard solutions are used for calibration, while control solutions are used to verify results. All samples, controls and standards are presented manually.

The device can be customized flexibly to users' requests.



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## Features at a glance

- Excellent quality of measurement
- Precision CV < 0.5% for Na, K, Li at 1 mg/l
- Max. 4 measuring channels + flame detection and -monitoring
- High durability
- Storage space for up to 99 methodes
- Storage space for up to 999 measuring results
- Large 8.4" TFT-LCD with 800x600 pixel
- Intuitive operation by touch screen or mouse
- Integrated online help
- Data management in a SQL database
- Complete user management
- Complete traceability of all results
- Permanent availability of all device data
- Interfaces: 1X PROFIBUS DP, 2X Ethernet, 2X USB, 2X RS-232
- Measurement functions are accessible by process interface
- In laboratory environment connection to a LIMS is possible by internal web service (SOAP)
- Easy export of measuring data on USB flash drive (Excel .csv format)

## Technical data and specifications

- **Measurement principle** Emission flame photometer for determination of alkaline elements (Na, K, Li) in aqueous solutions
- **Measuring ranges**
  - Sodium 0.01 mg/l to 1000 mg/l
  - Potassium 0.02 mg/l to 1000 mg/l
  - Lithium 0.02 mg/l to 1000 mg/l
- **Measurement readout** max. 4 digits
- **Precision** CV < 0.5% for Na, K, Li at 10 mg/l
- **Stability** Drift < 1% / 15 min after warming-up period
- **Detection limits**
  - Sodium < 1 µg/l
  - Potassium < 2 µg/l
  - Lithium < 1 µg/l
- **Spectral selection**
  - Precision interference filters
  - Sodium 589 nm
  - Potassium 768 nm
  - Lithium 671 nm
- **Sample throughput** approx. 300 samples per hour
- **Sample volume** < 1 ml
- **Calibration**
  - With linear characteristic: two point calibration
  - With nonlinear characteristic: adjustment with up to 6 additional standards
- **Reference Line** Measurements with and without internal standard
- **Methods** 99 freely definable methods
- **Result storage** 999 last measurements
- **Fuel gas** Propane, Butane or mixture of both  
~0.3 NI/min, 1.2-1.5 bar
- **Compressed Air** Free of oil, water and particles  
~12 NI/min, 0.9-1.5 bar
- **Warming-up period** approx. 15 min
- **Display** 8.4" TFT-LCD, 800 x 600 pixels
- **Operation** Resistive touch screen and USB mouse
- **Languages** English, German
- **Interfaces**
  - 1X PROFIBUS DP (process interface)
  - 2X Ethernet (Intranet, LIMS)
  - 2X RS-232 (multifunctional)
  - 2X USB (manual data export and firmware update)
- **Power supply** 230 V, 50 Hz, 75 W
- **Dimensions** Width 47 cm, height 49 cm, depth 44 cm