On-line Analyzers

CONTINUOUSLY AND FULL AUTOMATIC

Bran+Luebbe®

Based in Charlotte, North Carolina, SPX Corporation (NYSE: SPW) is a global Fortune 500 multi-industry manufacturing leader. The company's highly-specialized, engineered products and technologies serve customers in three primary strategic growth markets: infrastructure, process solutions, and diagnostic systems. Many of SPX's innovative solutions are playing a role in helping to meet rising global demand, particularly in emerging markets, for electricity, processed foods and beverages, and vehicle services. The company's products include thermal heat transfer equipment for power plants; power transformers for utility companies; process equipment for the food & beverage industry; and diagnostic tools and equipment for the vehicle service industry. For more information, please visit http://www.spx.com/.

For more than 75 years, Bran+Luebbe - now SPX Flow Technology – has been providing customers with high quality metering, processing and analysing equipment.

As part of the global SPX Corporation, we are one of the world's most reputable manufacturers of metering and process pumps, process systems as well as analyzing technologies. Our engineers have comprehensive process and applications knowledge across a wide range of markets. This has resulted in product innovations and developments which harness the latest technology whilst meeting the highest quality standards.

55 years of experience

We have over 55 years experience in on-line analysis which sets the standards in water and waste water treatment. We are a leader in high quality measurement.

Continuous product development and improvement maintains our system design at the state of the art. Our installations have a reputation for long life and efficiency, with reliable support for products of all ages.

Our experience is based on thousands of installed systems with a multitude of analyzing applications in all types of water and waste water treatment throughout the world.

The Bran+Luebbe On-line Analyzer family was specially developed for long-term use in typical industrial areas, with a robust and easily maintained design based on 55 years of experience.

Thousands of installations all round the world demonstrate the outstanding suitability of our on-line Monitors – from day to day and year to year.

Process water and waste water

We deliver custom-made installations for public and industrial treatment plants.

Our On-line Analyzers can also cope with difficult waste water such as the effluent from chemical, food and paper factories.

The compact process analyzers and the new in-line sensors combine to create an integrated measuring and control system with graphical display and easy operation. The instruments are delivered in a waterproof housing with space for reagents and accessories.

Water treatment

There are many different types of water and steam circulatory systems.

Although they all have the common elements of feed water treatment, steam generation and condensation, the drive towards higher efficiency results in ever more complex systems.

Our analyzers can measure the key performance parameters at every stage of the process, from a simple pH-measurement to silicate with a sub-ppb detection limit.

Advantages of our Monitors:

- low investment costs
- low operating costs
- innovative technology
- space-saving design
- integrated multi-stream measurement with up to 6 samples with one analyzer

Process and waste water

FLEXIBLE - THE POWERMON S

With true Multi-Parameter analysis, one PowerMon S can replace several older types of analyzer. 6 sample streams and up to 6 parameters (NO_2-N / NO_3-N / NH_4-N / PO_4-P / SAK / CSB / Turbidity / TOC) can be analyzed simultaneously with a single instrument.

Complex measurements such as Total N and Total P are also available. PowerMon S is ideal for applications varying from process optimization through to final effluent monitoring.

This low-maintenance analyzer has low reagent consumption and uses long-life components!

MEASUREMENT AND CONTROL IN ONE SYSTEM - THE BLUEBOX

The BlueBox is not just a very powerful system; it sets a new standard. One BlueBox can control 100 sensors and actuators. Units from almost any manufacturer can be connected. The BlueBox's plug-and-play capability makes it compatible with all current sensors for physical, chemical and biological parameters.

A further BlueBox advantage is automatic remote data transfer. This is possible via radio, email, SMS or the internet, and extends your control capability to just about anywhere on earth. The system also controls active components. This enables complete measurement and control loop systems to be automated. Furthermore, the BlueBox can communicate with sensors over a distance of up to 1,000 meters. It is no longer necessary to leave the control room to check results.

IN-LINE FILTRATION

„Raise it, wipe it, and replace it".
This simple cleaning procedure is all that is needed every 2 - 6 weeks, and takes about one minute. No tubing needs to be replaced and the filter has no consumable parts. With a weight of only 4 kg, installation is easy - just dip it into the tank!

LOWER OPERATING COSTS WITH THE POWERMON TITROMETER

This PowerMon Titrometer provides high accuracy analysis for water hardness, chlorine and acid capacity in water treatment plants and is an ideal component for inclusion in a fully automated control loop.

CERACLEAN

CeraClean is used with the Bran+Luebbe PowerMon, delivering a continuous supply of purified sample for analysis. CeraClean removes solids, colloids and high molecular weight interfering substances from dirty samples.

Applications

PARAMETER*		MINIMUM RANGE	MAXIMUM RANGE	ANALYZER	APPLICATION
Acid	as HCl	0 – 20 g/l	0 – 100 g/l	PowerMon Titrometer	Etching
Ammonium	NH_4^+	0 - 0,5 mg N/l	0 - 1000 mg N/l	PowerMon S PowerMon Ionometer PowerMon Kolorimeter	Sewage treatment Leachate
Chromium	Cr^{6+}	0 - 0,1 mg/l	0 – 5 mg/l	PowerMon Kolorimeter	Tanneries Electroplating
Cobalt	Co	0 – 1 mg/l	0 – 10 mg/l	PowerMon Kolorimeter	Heavy metal industry
Copper	Cu^{2+}	0 – 0,03 mg/l	0 – 1 mg/l	PowerMon Kolorimeter	Discharge Monitoring
Conductivity		0 – 2.000 µS/cm	0 – 80.000 µS/cm	Inductive conductivity sensor	General water quality parameter
Cyanide free or total	CN^-	0 – 0,050 mg/l	0 – 20000 mg/l	PowerMon Kolorimeter PowerMon Titrometer	Electroplating Noble metal winning
Fluoride	F^-	0 – 1 mg/l	0 – 1000 mg/l	PowerMon Ionometer	Final effluent
Nickel	NI^{2+}	0 – 0,1 mg/l	0 – 10 mg/l	PowerMon Kolorimeter	Steel Industry
Nitrate	NO_3^-	0 – 0,1 mg N/l	0 – 200 mg N/l	PowerMon S PowerMon Ionometer PowerMon Kolorimeter ISIS II (inline probe)	Sewage treament Surface water
Nitrite	NO_2^-	0 – 0,003 mg N/l	0 – 20 mg N/l	PowerMon S PowerMon Kolorimeter	Sewage treatment Drinking water
Total Nitrogen	N	0 – 2,5 mg/l	0 – 350 mg/l	PowerMon S TN	Sewage treatment Surface water
Organic carbon	DOC/TOC/TC	0 – 5 mg/l	0 – 50.000 mg/l	PowerMon S	Sewage treatment, Soft drinks, Dairy, Airports
Peracetic acid	CH_3COOOH	0 – 50 mg/l	0 – 5.000 mg/l	PowerMon Titrometer	Food
ortho-Phosphate	PO_4^{3+}	0 – 0,025 mg P/l	0 – 40 mg P/l	PowerMon S PowerMon Kolorimeter	Sewage treatment Surface water
Total Phosphorus	P	0 – 0,5 mg P/l	0 – 40 mg P/l	PowerMon Kolorimeter	Sewage treatment Surface water
Oxygen	O_2	0 – 20 mg/l	0 – 20 mg/l	Clark- or Electroplating sensor	Sewage treatment Aquaculture Water quality
pH		2 – 12	2 – 12	ISFET Sensor	General water quality
Phenol	C_6H_5OH	0 – 0,1 mg/l	0 – 100 mg/l	PowerMon Kolorimeter	Gas works, Petroleum
Redox		-2.000 – 2.000 mV	-2.000 – 2.000 mV	Redox Sensor	On-line monitoring
Sulfide	S^{2-}	0 – 1 mg/l	0 – 200 mg/l	PowerMon Kolorimeter PowerMon Titrometer	Gas works
Temperature		-4 – 30 °C	-4 – 115 °C	NTC Sensor	Sewage treatment
Turbidity		2 – 1.000 FNU	2 – 1.000 FNU	IR-LED, nephelometric	Final discharge
Zinc	Zn^{2+}	0 – 1 mg/l	0 – 70 mg/l	PowerMon Kolorimeter	Electroplating Heavy metal industry

* Many more parameters and ranges are available.

Water treatment

ACCURATE AND RELIABLE - THE POWERMON FAMILY

Easy to use and maintain, the PowerMon is a versatile on-line analyzer with over 100 documented applications which are easily adapted to specific analysis tasks. Up to 6 different sample streams can be measured by one instrument.

The PowerMon is widely used to measure hardness, chlorine, ammonia, nitrate, iron, aluminium and manganese.

Self-diagnostics, automatic calibraton and low reagent consumption result in long intervals between routine maintenance to give low operating costs and minimum down time.

MORE THAN 50 YEARS OF EXPERIENCE AND SUCCES THE POWERMON SILIKOMETER

The PowerMon Silikometer guarantees a permanent optimal water quality by the continuous supervision of the silica concentration in boiler feed water or during water treatment.

The compact and modular design can obtain up to 6 on-line measuring points in one device and enables a space-saving and economic operation.

OPTIMUM PERFORMANCE IN ULTRA-PURE WATER - THE POWERMON NATRIOMETER

This PowerMon Natriometer is specially designed to measure the extremely low levels of sodium in ultra-pure water. It has a detection limit of ng/l (ppt) but can also be adapted to a range extending to g/l concentrations.

The PowerMon Natriometer combines high precision with proven reliability and economical operation.

LATEST TECHNOLOGY ISIS II

This sensational unit is a full-range UV-visible spectrometer built into a probe which can be fully immersed in a tank, pipe or process stream and measures continuously, with high stability and almost no maintenance.

The wide range measurement of the complete spectrum from 200 - 700 nm coupled with powerful software opens up true multi-parameter analysis for substances such as nitrate, suspended solids, organics, DOC, COD, BTX and individual compounds such as benzene and phenol.

The probe is exceptionally easy to install and operate and offers enormous cost savings

Applications

PARAMETER*		MINIMUM RANGE	MAXIMUM RANGE	ANALYZER	APPLICATION
Acid capacity	p-value m-value	0 – 0,5 mmol/l	0 – 20 mmol/l	PowerMon Titrometer	Drinking water
Aluminium	Al^{3+}	0 – 0,1 mg/l	0 - 1 mg/l	PowerMon Kolorimeter	Drinking water
Ammonium	NH_4^+	0 – 0,1 mg N/l	0 – 5 mg N/l	PowerMon Kolorimeter	Drinking water
Boron	BO_3^{3-}	0 – 10 g/l	0 – 20 g/l	PowerMon Titrometer	Cooling water monitoring in atomic power stations
Chlor free or total	Cl_2	0 – 0,2 mg/l	0 – 30000 mg/l	PowerMon Kolorimeter PowerMon Titrometer Clark or Electroplating sensor	Drinking water
Chlorine dioxide	ClO_2	0 – 0,2 mg/l	0 – 1 mg/l	PowerMon Kolorimeter	Drinking water
Chloride	Cl^-	0 – 0,1 mg/l	0 – 3.000 mg/l	PowerMon Ionometer	Ultra-pue water Drinking water
Colour	Hazen	0 – 1°H	0 – 500°H	PowerMon Kolorimeter ISIS II (inline probe)	Drinking water
Copper	Cu	0 – 0,03 mg/l	0 – 1 mg/l	PowerMon Kolorimeter	Boiler water Surface water
Carbon dioxide	CO_2	0 – 20 mg/l	0 – 500 mg/l	PowerMon Ionometer	Drinking water Mineral water
Fluoride	F^-	0 – 1 mg/l	0 – 500 mg/l	PowerMon Ionometer	Drinking water
Hardness		0 – 0,025 mmol/l	0 – 5 mmol/l	PowerMon Titrometer	Water monitoring Drinking water
Hydrazine	N_2H_4	0 – 0,1 mg/l	0 – 2 mg/l	PowerMon Kolorimeter	Boiler water
Iron	$Fe^{2+/3+}$	0 – 0,02 mg/l	0 – 5 mg/l	PowerMon Kolorimeter	Boiler water Drinking water
Manganese	Mn	0 – 0,1 mg/l	0 – 2 mg/l	PowerMon Kolorimeter	Drinking water
Nitrite	NO_2^-	0 – 0,003 mg/l	0 – 3 mg/l	PowerMon Kolorimeter	Mineral Spring water
Oxygen	O_2	0 – 20 mg/l	0 – 20 mg/l	Clark- or galvanic sensor	Water preparation
Ozone	O_3	0 – 0,2 mg/l	0 – 2 mg/l	PowerMon Kolorimeter	Drinking water
pH		2 – 12	2 – 12	ISFET Sensor	Water quality
Potassium	K^+	0 – 10 mg/l	0 – 100 mg/l	PowerMon Ionometer	Water monitoring
Silicate	SiO_2	0 – 0,005 mg/l	0 – 100 mg/l	PowerMon Silikometer	Ultra-pure water monitoring Boiler water
Sodium	Na^+	0 – 0,002 mg/l	0 – 1 mg/l	PowerMon Natriometer	Ultra-pure water monitoring Cooling water
Peroxide	H_2O_2	0 – 0,1 mmol/l	0 – 40 mmol/l	PowerMon Titrometer	Drinking water

*** Many more parameters and ranges are available.**

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CONTINUOUSLY AND FULL AUTOMATIC

THE PRODUCT RANGE: MORE EXAMPLES OF BRAN+LUEBBE PRODUCTS WITH HIGH QUALITY STANDARD, INNOVATION AND KNOW-HOW.

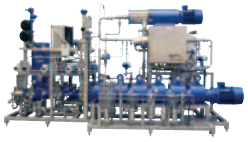
Metering Pumps
for universal application in the low to medium requirement range
ProCam
ProCam Hygienic

Metering pumps
for all process areas where liquids are metered and mixed.
NOVADOS

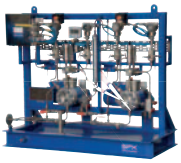
Process pumps
for large flow rates and high operating pressures
NOVAPLEX

MEGANIZER
High pressure homogenizer

Dynamic in-line mixer
for gentle but intensive mixing
PENTAX
PENTAX Hygienic



Process systems
as a complete solution for increased productivity and quality
AutoBlend
Metering and mixing systems



Oil & Gas systems
to aid oil & gas recovery
onshore and offshore
Solar Panel Packages
Chemical Injection Systems
Flow Control Device Panels

Global locations

EMEA

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