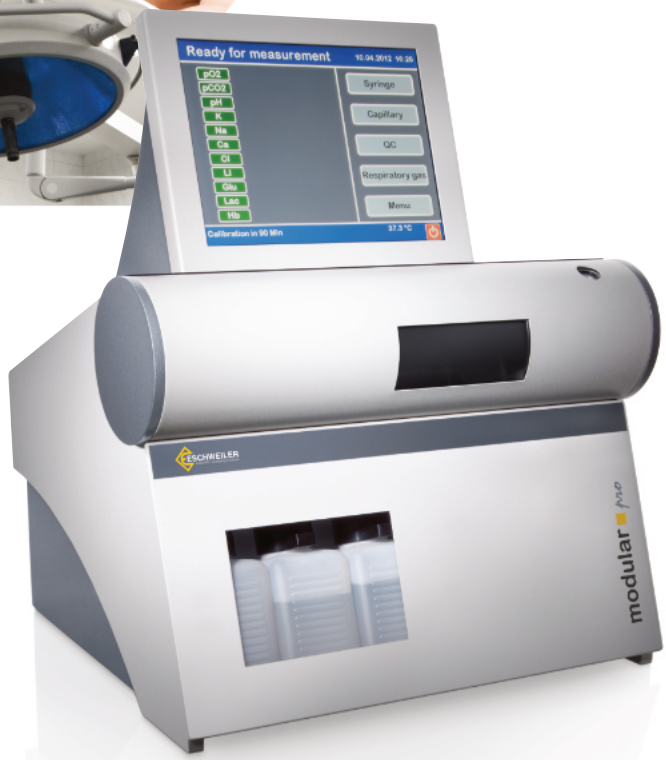
ESCHWEILER
automatic analysing systems



modular pro

BLOODGAS- AND
ELECTROLYTE ANALYSIS
RELIABLE
EASY-TO-USE

MADE IN GERMANY

www.eschweiler-kiel.de

Reliable, fast and easy to use

The new model series ESCHWEILER modular pro offers the user the proven ESCHWEILER concept with state of the art technology:

- modular construction with flexible sensor configuration
- up to 11 directly measured parameters:
  pO_2, pCO_2, pH, K^+, Na^+, Ca^{++}, Li^+, Cl^-, glucose, lactate, tHb
- ESCHWEILER CalPack calibration cassette system
- larger touch screen with clear operating instructions
- universal sample port for syringe and capillary
- barcode reader for entering sample data
- management of patient and QC data
- network access via LAN (HL7)

Touch screen

The large 10.4 inch touch screen enables fast and simple operation of the ESCHWEILER modular pro in daily use.

- simple and clearly-structured menu navigation
- large operation keys for measuring routines
- extensive service and diagnosis programs
- integrated databases for the acquisition and analysis of patient and QC data

Sample port

The new universal sample port of the ESCHWEILER modular pro actively draws the sample to be measured.
Whether capillary or syringe, after insertion of the sample container the ESCHWEILER modular pro takes over all further steps of the sample entry.

Calibration

ESCHWEILER CalPack – the new calibration concept for ESCHWEILER modular pro analysers.
All the necessary calibration solutions for blood gas, electrolyte and metabolite sensors are included in an easy to exchange calibration cassette.

- RFID system for automatic transmission of calibration values
- automatic fill level monitoring by the analyser
- simple menu-driven CalPack exchange
- proven ESCHWEILER liquid calibration of the gas sensors

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Sensors

For more than six decades the name ESCHWEILER has stood for high quality and reliability in blood gas and electrolyte sensors. Measuring precision and durability of measuring units are the hallmarks of ESCHWEILER sensors. Low maintenance and exchangeable membranes – this keeps service costs low.

11 sensors for direct measurement are available and can be combined individually according to the requirements of the customer. In addition there are 15 further automatically transmitted calculation parameters. (see "Technical Data")

Network (LAN)

- Connection of the ESCHWEILER modular pro to internal clinic networks via LAN interface (HL7)
- Transfer of patient and QC data to the central data administration via ODBC (open database connectivity)

Barcode Reader

- Read in coded patient data
- Read in coded QC samples

Since 1951 the name ESCHWEILER has stood for innovative technology in the area of blood gas and electrolyte analysis.

Reliability and simple operation are our goals – the consistent fulfilment of these objectives has distinguished blood analysers from ESCHWEILER for decades.

TECHNICAL DATA

measured parameter	range	resolution
pO_2	0 - 800 mmHg (SI-units selctable)	0,1 mmHg
pCO_2	5 - 200 mmHg (SI-units selctable)	0,1 mmHg
pH	6,000 - 8,000	0,001 pH
total-hemoglobin (tHb)	4 - 30 g/dl	0,1 g/dl
barometric pressure	100 - 900 mmHg (SI-units selctable)	1,0 mmHg
Na^+	20 - 250 mmol/l	1,0 mmol/l
K^+	0 - 20 mmol/l	0,01 mmol/l
Ca^{++}	0 - 5,0 mmol/l	0,01 mmol/l
Li^+	0,4 - 5,0 mmol/l	0,01 mmol/l
Cl^-	20 - 250 mmol/l	1,0 mmol/l
glucose	0 - 30 mmol/l (0-540 mg/dl)	0,1 mmol/l
lactate	0 - 20 mmol/l (0-180 mg/dl)	0,1 mmol/l
input parameter		
patient temperature	13 - 43 ° C	0,1 ° C
hemoglobin (tHb)	0 - 30 g/dl (if not measured)	0,1 g/dl
fraction of inspired oxygen (FIO_2)	15 - 100 %	only relevant for $AaDO_2$
respiratory quotient (RQ)	0,7 - 1,0	only relevant for $AaDO_2$
calculated parameter		
hydrogen ion conc. (H^+)	10 - 1000	0,1 nmol/l
actual bicarbonate (HCO_3-A)	10 - 50	0,1 mmol/l
standard bicarbonate (HCO_3-S)	10 - 50	0,1 mmol/l
base exess (BE)	-25 - 25	0,1 mmol/l
standard base exess (SBE)	-25 - 25	0,1 mmol/l
total CO_2 (TCO_2)	10 - 50	0,1 mmol/l
buffer base (BB)	0 - 100	0,1 mmol/l
O_2 saturation of hemoglobin (O_2sat)	20 - 100	0,1 %
O_2 content or concentration (O_2CT)	0 - 40	0,1 %
partial O_2-press. at 50% O_2-sat (P50)	10 - 50	0,01 mmHg
alveolar to arterial oxygen-tension grade ($AaDO_2$)	0 - 800	0,1 mmHg
anion gap (A-GAP)	0 - 99	0,1 mmol/l
SHUNT	0 - 50	0,1 %
acid base status	relevant diagnosis recorded on printer	
hematocrite (Hct)	0 - 100 %	0,1 %

data input	**data output**	
touch screen	display	10.4"color LED-backlight display (TFT 800 x 600)
barcode reader	printer	fast, low-noise thermoprinter
	interfaces	network (LAN), USB , RS 232, HL7
	data base	integrated data bases for patient- and QC-data

calibration		**specimen**	
automatic calibration	90 min	specimen container	capillary, syringe and others
economy mode	240 min	specimen material	whole blood, serum, plasma and respiratory gas
sleep mode	no calibration		

dimensions/weight		**electrical data**	
height	520 mm	mains voltage	115 V resp. 230 V
width	450 mm	frequency	50/60 Hz
depth	415 mm	ambient temperature	12 - 32 ° C
weight	appr. 17 kg		

Distributer

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