TECHNICAL DATA - GAS ANALYSERS

			MAT1100
SCALES			Oxygen Any number of userdefined scales
OXYGEN (O$_2$)		MEASUREMENT RANGE	0.5–35 vol%
		ACCURACY	±0.2 vol%
		RESOLUTION	0.1 vol%
CARBON DIOXIDE (CO$_2$)		MEASUREMENT RANGE	N/a
		ACCURACY	
		RESOLUTION	
NITROGEN (N$_2$)		ARITHMETIC DETERMINATION	N/a
O$_2$ SENSOR		TYPE	Electrochemical cell (EC)
		MEASUREMENT PRINCIPLE	Acidic electrolyte
		SERVICE LIFE	Up to 6 years (@20 vol% O²)
		CROSS-SENSITIVITY	No CO² crosssensitivity
		DRIFT	Low drift, < 3 %/month
CO$_2$ SENSOR		TYPE	N/a
		MEASUREMENT PRINCIPLE	
		SERVICE LIFE	
		CROSS-SENSITIVITY	
		DRIFT	
AVERAGE MEASUREMENT PERIOD			7 s
HEATING TIME			< 10 s
AMBIENT TEMPERATURE			
HUMIDITY OF THE SAMPLE GAS			
OPERATING VOLTAGE			
POWER CONSUMPTION			
ADJUSTMENT			
CONTROL			
INTERFACES			USB (USB fl
DIMENSIONS (WxHxD)			
WEIGHT			

MAT1200	MAT1400	MAT1500
Oxygen Carbon dioxide Nitrogen Any number of userdefined scales	Oxygen Any number of userdefined scales	Oxygen Carbon dioxide Nitrogen Any number of userdefined scales
0.5–35 vol%	0–100 Vol.-%	0–100 Vol.-%
±0.2 vol%	±0.001 Vol.-% (< 1 Vol.-%) ±0.01 Vol.-% (< 6 Vol.-%) ±0.1 Vol.-% (< 35 Vol.-%) ±0.4 Vol.-% (> 35 Vol.-%)	±0.001 Vol.-% (< 1 Vol.-%) ±0.01 Vol.-% (< 6 Vol.-%) ±0.1 Vol.-% (< 35 Vol.-%) ±0.4 Vol.-% (> 35 Vol.-%)
0.1 Vol.-%	0.001 Vol.-%	0.001 Vol.-%
0–50 Vol.-%		0–100 vol%
±0.5 Vol.-%	N/a	±0,5 Vol.-%
0.1 Vol.-%		0.1 Vol.-%
Residual content of the gas mixture	N/a	Residual content of the gas mixture
Electrochemical cell (EC)	Zirconiumdioxid-Sensor (ZrO$_2$)	Zirconium dioxide sensor (ZrO^2)
Acidic electrolyte	Potentiometrische Messung	Potentiometric measurement
Up to 6 years (@20 vol% O^2)	Unbegrenzt	Unlimited
No CO^2 crosssensitivity	Querempfindlich gegenüber brennbaren Gasen	Crosssensitive toward inflammable gases
Low drift, < 3 %/month	Driftfrei	Driftfree
Twochannel NDIR sensor		Twochannel NDIR sensor
Infrared spectroscopy		Infrared spectroscopy
Unlimited	N/a	Unlimited
Not affected by moisture		Not affected by moisture
Low drift < 1 %/month		Low drift < 1 %/month
10 s	5 s	10 s
5 min	10 min	10 min
10–50 °C		
< 90% rF		
100–250 V, 50/60 Hz		
Max. 60 W		
Automatic (menuguided)		
5.7" TFT touchscreen, 640 x 480 pixels		
...ash drive, barcode scanner, keyboard, mouse); Ethernet (network printer, network share, LIMS); RS232 (serial ASCII printer)		
200 mm x 150 mm x 350 mm		
4.6 kg		