

TECHNICAL DATA

		MAT1100	MAT1200
SCALES		Oxygen Any number of user-defined scales	Oxygen Carbon dioxide Nitrogen Any number of user-defined scales
OXYGEN (O ₂)	MEASUREMENT RANGE	0.5–35 vol%	0.5–35 vol%
	ACCURACY	±0.2 vol%	±0.2 vol%
	RESOLUTION	0.1 vol%	0.1 vol%
CARBON DIOXIDE (CO ₂)	MEASUREMENT RANGE		0–100 vol%
	ACCURACY	N/a	±0.5 vol%
	RESOLUTION		0.1 vol%
NITROGEN (N ₂)	ARITHMETIC DETERMINATION	N/a	Residual content of the gas mixture
O ₂ SENSOR	TYPE	Electrochemical cell (EC)	Electrochemical cell (EC)
	SERVICE LIFE	Up to 6 years (by 20 vol% O ₂)	Up to 6 years (by 20 vol% O ₂)
	CROSS-SENSITIVITY	No CO ₂ cross-sensitivity	No CO ₂ cross-sensitivity
	DRIFT	Low drift, < 3%/month	Low drift, < 3%/month
CO ₂ SENSOR	TYPE		Two-channel NDIR sensor
	SERVICE LIFE		Unlimited
	CROSS-SENSITIVITY	N/a	Not affected by moisture
	DRIFT		Low drift < 1%/month
AVERAGE MEASUREMENT PERIOD ¹⁾		7 s	10 s
MINIMAL HEADSPACE VOLUME ²⁾		10 ml	10 ml
HEATING TIME		< 10 s	5 min
AMBIENT TEMPERATURE		10–50 °C	
HUMIDITY OF THE SAMPLE GAS		< 90% r.H.	
OPERATING VOLTAGE		100–250 V, 50/60 Hz	
POWER CONSUMPTION		Max. 60 W	
ADJUSTMENT		Automatic (menu-guided)	
CONTROL		7.0" capacitive touchscreen, 800 x 480 pixels	
INTERFACES		USB (USB flash drive, barcode scanner, keyboard, mouse); Ethernet RS-232	
DIMENSIONS (WxHxD)		200 mm x 150 mm x 350 mm	
WEIGHT		4.6 kg	

¹⁾ after heating-up time

²⁾ after pre-rising with N₂

MAT1400
MAT1500

SCALES		Oxygen Any number of user-defined scales	Oxygen Carbon dioxide Nitrogen Any number of user-defined scales
OXYGEN (O ₂)	MEASUREMENT RANGE	0–100 vol%	0–100 vol%
	ACCURACY	±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%)
	RESOLUTION	0.001 vol%	0.001 vol%
CARBON DIOXIDE (CO ₂)	MEASUREMENT RANGE		0–100 vol%
	ACCURACY	N/a	±0.5 vol%
	RESOLUTION		0.1 vol%
NITROGEN (N ₂)	ARITHMETIC DETERMINATION	N/a	Residual content of the gas mixture
O ₂ SENSOR	TYPE	Zirconium dioxide sensor (ZrO ₂)	Zirconium dioxide sensor (ZrO ₂)
	SERVICE LIFE	Unlimited	Unlimited
	CROSS-SENSITIVITY	toward inflammable gases	toward inflammable gases
	DRIFT	Drift-free	Drift-free
CO ₂ SENSOR	TYPE		Two-channel NDIR sensor
	SERVICE LIFE		Unlimited
	CROSS-SENSITIVITY	N/a	Not affected by moisture
	DRIFT		Low drift < 1%/month
AVERAGE MEASUREMENT PERIOD ¹⁾		5 s	10 s
MINIMAL HEADSPACE VOLUME ²⁾		7 ml	7 ml
HEATING TIME		10 min	10 min
AMBIENT TEMPERATURE		10–50 °C	
HUMIDITY OF THE SAMPLE GAS		< 90% r.H.	
OPERATING VOLTAGE		100–250 V, 50/60 Hz	
POWER CONSUMPTION		Max. 60 W	
ADJUSTMENT		Automatic (menu-guided)	
CONTROL		7.0" capacitive touchscreen, 800 x 480 pixels	
INTERFACES		USB (USB flash drive, barcode scanner, keyboard, mouse); Ethernet RS-232	
DIMENSIONS (WxHxD)		200 mm x 150 mm x 350 mm	
WEIGHT		4.6 kg	