

EMT Zerowaste® 3 Gas Portable Infra Red SF6 Analyser measures SF6 purity, H2O and SO2 in a simple to use field portable analyser with laboratory like results

EMT offers a complete range of analysis and handling instruments designed to meet the varying application requirements of Testing & Maintenance in SF6 gas filled equipment.

Our technologies are used in T&D networks of switchgear and circuit breakers around the world for the analysis and testing of all parameters associated with SF6 gas quality. EMT offers 3 Gas Analysis on 2 of its models: Zerowaste® and Asserolyz-IR.

The “Zerowaste® 3 Gas Analyser” first analyses the gas and then stores the gas in an internal storage facility. There is no cross contamination between the gas analysed and the gas stored as the analysis is done prior to storage. Gas emissions are virtually eliminated and when the storage is full the gas can be pumped either automatically (if selected) or manually, back to the breaker or a waste vessel for gas recycling

In addition, the instrument provides an accurate measurement of the breaker pressure (7 to 145 PSI) through a manifold gas entry port which also regulates the internal pressure of the gas inside the analyser. A leak detection probe can be included as an option together with the export of logged data through a USB. The “Zerowaste® 3 Gas Analyser” provides an inexpensive and cost effective solution for measuring SF6 quality.

Features

- Uses advanced infra red absorption technology with electrochemical cell, bringing laboratory standard measurement to the field
- Auto operation - connect and walk away. Connect to the circuit breaker and the unit automatically samples the SF6 gas, detects when gas is connected (by sensing the inlet gas pressure) and starts the preselected number of cycles automatically, it then pumps the gas back after the analysis
- Safe distance working - the unit allows a safe working distance for the user. Once started, the unit will wait for 2 minutes before automatically commencing the analysis
- Multi analysis operation - the user can select up to 5 cycles to run on the same sample. In fully automatic mode, the instrument will run the selected number of cycles then pump the gas back at the end. The user will then be able to view and save the results for the number of measurements taken



- The lightest ‘pump back’ SF6 analyser at only 15Kg/33lbs and housed in a robust IP67 case with wheels, retractable handle and pockets for hoses and spare parts
- Fully portable, battery operated (minimum 8 hours) even during gas pump back
- Automatic sampling of up to 5 sequential measurements
- Automatic pump back for sampled gas (user selectable)
- Automatic start of measurement upon detection of gas connection (user selectable)
- Readings are obtained at just 5 minutes per test with the minimum amount of gas used, typically 250cc per measurement cycle
- Time programmable moisture purge for highest quality H2O measurement
- Full colour touch screen display with user friendly interface and USB communication
- Fully compliant, pre set user selectable methods (CIGRE/IEC/ASTM) plus 3 custom methods
- Datalogging of up to 1000 sample results
- Upgradeable with easy addition of more sensors for measurement of up to 11 gas parameters including CF4, HF, CO, H2S and R12
- Leak detection probe option.

Accessories & Options

Universal fittings kit facilitating connection of SF6 gas analysers to most commercially available SF6 switchgear and circuit breakers including:

- ABB ■ Siemens ■ Alstom Schneider ■ Hanson ■ Hyundai

Other Products in this Range

- Asserolyz-IR 3 Gas Analyser
- Zerowaste SF6 Analyser (measurement of up to 11 gas parameters)
- Smartfill SF6 Filling & Topping Up System
- Smartfill Continuous SF6 Top-Up Manager.

Technical Specification

Multi sensor Hi/Lo ppm technology. SF6 Purity, Dewpoint, SO2 (low/high range)



Gases Measured and Options	Gas	Range	Repeatability
	SF6 Purity	0-100%	+/-0.5% FS ¹
	Dewpoint	-60 - 20°C	+/-0.5°C at -30°C
	Dewpoint	34-23,700 ppmV	+/-20 ppmv @ 379 ppmV
	HF	0-200ppm	+/-5% FS ¹
	SO2 Lo	0-150ppm	+/-2% FS ¹
	SO2 Hi	0-500ppm	+/-2% FS ¹
	CF4 Lo	0-4000ppm	+/-2% FS ¹
	CF4 Hi	0-65%	+/-1% FS ¹
	CO	0-1000ppm	+/-5% FS ¹
	HS2	0-100ppm	+/-5% FS ¹
	R12	0-250ppm	3% of FS ¹
	AIR	0-50%	1% of FS ¹

FS¹: Full Scale (of Measuring Range)

SF6 Leak Detection	Detection Limit	3 gm/year
	Technology	NDIR

Screen	Type	TFT
	Size	4.3" 16:9 (wide aspect ratio)
	Resolution	480 x 272 dots
	Transmission Mode	TN/Transmissive/Normally White
	Dot Pitch	0.198 x 0.198
	Colours	24 bit
	Touchscreen	Integrated resistive touch panel
	Backlight	White LED PWM
	Luminance	350Cd/m2 (Typ.)

Memory	Type	Flash EEPROM
	Capacity	1000 results

Battery	Operating Time	>8 hours
	Charger Input	100-240V - 50/60Hz

PC Communications	Type	USB
	Class	HID
	Connector	Mini AB

Gas Pressure	0.5 to 10 bar (7 to 145 PSI)
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High Pressure Option	Bar = 0.5 to 12 Bar
	PSI = 7 to 174 PSI

Operating Environmental Conditions	Temperature Range	-20 to 40°C/-4.0 to 104°F
	Humidity	0-95%RH non-condensing

Physical Specifications	Weight	15kg (33lbs)
	Maximum Dimensions	L500 x W300 x D470 mm (19.11" x 12" x 18.5")



Exclusive distributor in the USA

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