TCR TECORA
POLLUTION CHECK

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G8 Isokinetic

AUTOMATIC ISOKINETIC SAMPLING SYSTEM

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Made in Italy

INDUSTRIAL
EMISSIONS

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Business Unit

INDUSTRIAL EMISSIONS

Application

RADIOACTIVE

Compliant with

ISO 17025, ISO 16911-1

After more than 40 years of experience about automatic isokinetic sampling systems, after ISOSTACK B6(80's-90's) after the acclaimed **ISOKINETIC G4** (2000-2020), the 3rd generation of isokinetic sampler is finally arrived. We are proud to introduce **ISOKINETIC G8,** the most advanced sampler in the market, updated to all EN and EPA standard as well as fully compliant to the metrological chain requirements mentioned in the standard **ISO17025**.

The main components that has been the strength during these years has been readjusted to run with the new digital architecture. The last technology has been adopted to design the most as it is powerful electronic platform as it is simple. A pre-test period as confirmed the very high MTBF of all hardware and software. The very stable and easy to use **G4** sw platform has been the base to develop the new **G8** user interface.

The starting point and most important objective was: make the life of testing and sampling engineers simple.

Nowadays, during sampling activities, the mandatory rationalization of the working day impose to manage more sampling at the same time. The automation level of **ISOKINETIC G8** makes that you don't need to be worried about it.

Warning and alarm messages are sent to your phone via G8 app, so you have *total control any time, anywhere!*

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Reduced Weight and Dimensions

The introduction of new internal components has led to a significant decrease of weight facing the request form the national requirements about human working load limits. The limited operating space in most of the sampling platforms has been the starting point from wich our R&D has been engaged in order to design a sampler with better performances and better handling/ transportability.

Main Features

- Total isokinetic control within the standard limits with very fast response and high flow stability even in the most unstable stack gas speed conditions;
- Volume measurement with dry gas meter;
- Sampling flow measurement with mass flow meter;
- In-stack temperature and velocity measurement;
- Wide duct library to archive all the sites data;
- Data logger function with saving data on internal memory or external USB key (supplied with the instrument);
- Very high MTBF wich results in low maintenance and low spares expences;
- All sensors can be calibrated as required from ISO17025
- Auto check at starting;
- Leak test in line during sampling;
- Calculation for MSSI impactor
- Log measurements and alarms;
- Automatic re-start in case of flue gas velocity alarm.

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New Features

- Connection with on line analyzer to acquire CO_2 and O_2 data for an accurate and real time gas density calculation (optional). Also other pollutants can be archived in a dedicated report;
- Advanced digital high resolution differential pressure sensors with near zero drift. High temperature stability over the sampling period;
- Fixed point stack gas speed measure as required from ISO16911-1;
- 3D pitot data acquisition and management (optional);
- Automatic unattended sensor verification;
- Background diagnostic test procedure to ensure total efficiency during sampling;
- USB/wifi/bluetooth interface to download data;
- Wide resisitive touch screen. any type of toucing material can manage it (gloves, pen, etc). All the informations are available in a clear high res wiev
- Connection with all samplers and devices of **TCR TECORA X** line (BRAVO X series, DRYX gas conditioning system, G10 T PROBE and other);
- Connection with swirl angle meter to verify the flow as required from ISO16911-1 (optional);
- Connection with laser distance sensor to acquire the stack grid data (optional);
- **Reduction of cables** and connections toward probes and other devices: a single **umbilical cable** includes the cables for the heated uses;
- **Portability and sturdiness** empowered through a steel and aluminium frame and ABS panels;
- **Sampling flow** even more flexible with 4 or 8 m^3/h.

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Reliability

- G8 Interface details;
- G8 ONE version 2;
- G8 uses quality components which grant reliability in time.Last generation electronics, which assures high immunity from electromagnetic noisy and designed to work even in severe ambient conditions;
- Advanced autotest functions: allow to point out faults and malfunctioning before the start sampling and eventually to proceed bypassing the anomaly;
- Simplified and reduced maintenance: the new pneumatic circuit, the components' arrangement and the removable wide carter frame, make the maintenance operations fast and easy to perform;
- "Block pump" function, in case of accidental liquid suction: it switch off automatically the pump, avoiding its damage;
- Software upgrade via USB: the customer can update the instrument himself every time a new software version is released.

Accuracy / Sampling Quality (QA/QC)

G4 allows to follow quality control procedures for the automatic isokinetic sampling.

Calibration traceability of each sensor and measured parameter. G4 stores each calibration performed by the user and the manufacturer.

The report is downloadable via USB. Calibration curve on 5 points for each sensor

Correction curve on 5 points programmable by customer for each sensor.

Allows to adjust deviations eventually found during recalibration.

Volume measurement redundancy now coming from a mass and a volume meter.

Autocalibration function: permits to verify the calibration of flow and volume measurement elements and eventually to adjust them comparing it with an external reference.

High accuracy digital pressure sensors with thermal drift compensation.

Thermocouple calibration curve following ITS 90 standard.

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Parameters Saved on Intrument's Report

- Instrument's serial number;
- Sampling date / hour;
- Duct temperature;
- Duct absolute pressure;
- Flue gas velocity;
- Duct flow;
- Duct physical parameters;
- Sampling time;
- Atmospheric pressure;
- Sampling line pressure;
- Sampled volume;
- Nozzle's flowrate;
- Sampler range;
- Isokinetic deviation;
- Heated box temperature;
- Heated probe temperature;
- Condensation bath temperature;
- Condensation bath gas outlet temperature;
- Swirl check;
- Stagnation check;
- Wall factor.

Stored Report Type

- Measurement report;
- Punctual report;
- Sampled point summary;
- Measurement log;
- Parameters record with time;
- Programmable integration;

Report Format

Compatibile with the following systems:

Windows XP and following
Linux;
Mac OS;
Google Chome OS.

Compatibile with:

Microsoft Office;
Generic database
SUN Open Office suite.

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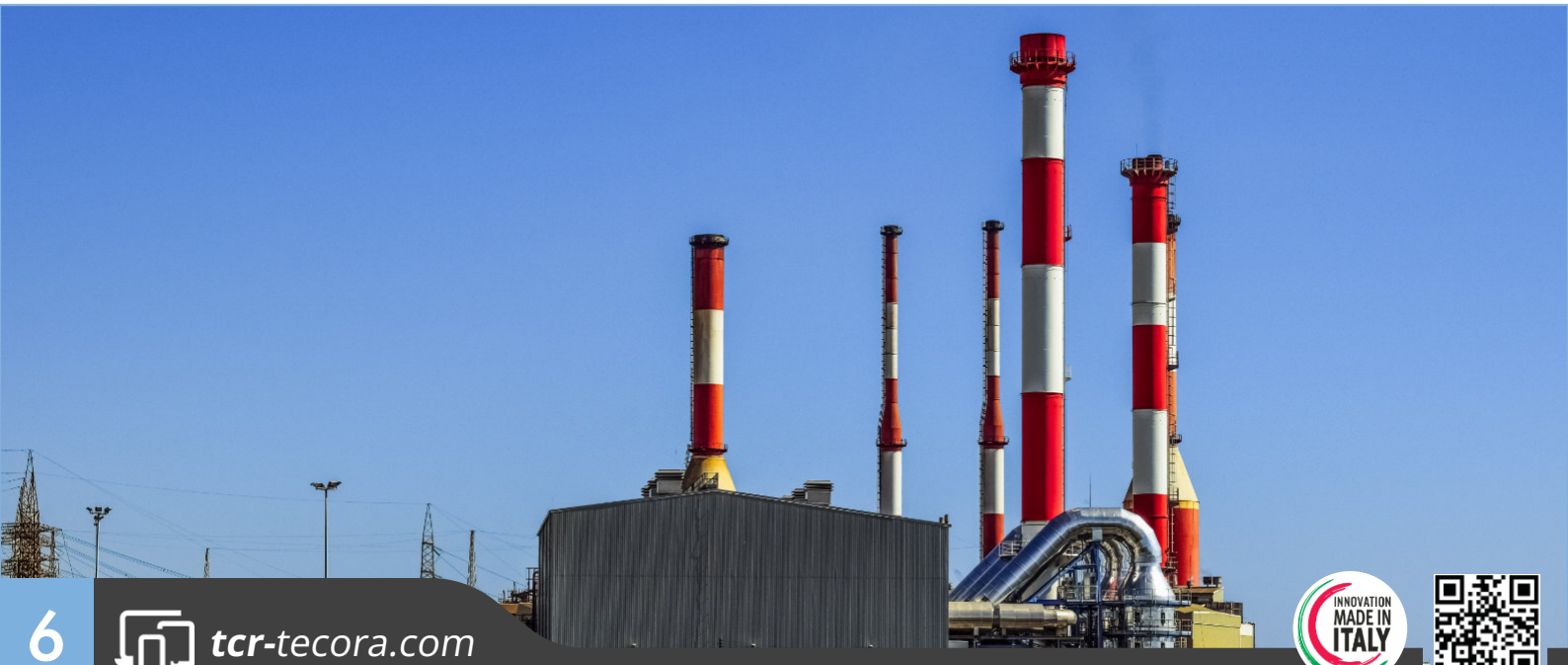
Technical Features

Range	0 - 2500 Pa (0-250 mmH_2O) better
Accuracy	Better than 1% of measure ± 2 Pa 0.1 Pa
Resolution	(0.01 mmH_2O)
Diferential Pressure	30 000 Pa (3000 mmH_2O)
Absolute Pressure	(static and ambient)
Range	0 - 105 kPa (1050 mBar) absolute

Temperature

Inlet for Thermocouple K Type	Up to 5 (depending on model)
Range	0 + 1200 °C
Accuracy	0.1 °C
Resolution	0.1 °C
Thermocouple	0 + 1200 °C
Accuracy	1% of measure ± 0.2 °C
Dry Gas Meter Temperature	Pt 100 sensor (4 wire)
Range	-20 + 80 °C
Accuracy	1% of measure ± 0.2 °C
Resolution	0.01 °C



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Volume Measurement

Dry Gas Meter	G2.5 o G4 (depending on model)
Resolution	0.1 litre
Accuracy	2%
Suction Pumps	Rotative pumps 4 or 8 m^3/h
Sample block valve	Internal Solenoid Valve
Suction Gas Filter	Built-in Glass Fiber
Water Sensor	Built-in (*optional)
Gas Connections and Pitot	Quick hose connectors
Data download/upload	USB, Bluetooth, WIFI, modem
Working Temperature	-20 + 40 °C 95% UR
Power Supply	230 Vac 50/60Hz - (110Vac 50/60Hz)
Data storage protection	backup ram battery
Display	5" touch screen with high resolution
Weight	15 Kg (4 m^3/h) 19 Kg (8 m^3/h)
Weight (Mini and Light Versions)	13 Kg (55 l/min) 9 Kg (30 l/min)
Data download / upload	USB, Bluethooth, WIFI, modem, TCR Tecora G8 App.

Codes

Isokinetic G8 One 4 M3/h 220V	AA99-825-0000SP
Isokinetic G8 One 8 M3/h 220V	AA99-825-0001SP
Isokinetic G8 H2O Condensation Alarm	AA99-825-9901SP
Isokinetic G8 Probe and Box Temp Controller	AA99-825-9902SP
Isokinetic G8 N° 2 Input for TC K	AA99-825-9903SP
Isokinetic G8 Automatic Autozero Diff Press Sensor	AA99-825-9904SP
Isokinetic G8 Carrying Case	AA99-825-9906SP
Auxiliary Thermocouple K G8 Input	AA99-825-9907SP
Auxiliary Thermocouple K G8 with 2 mt Cable	AA99-825-9908SP
G8 Integrated Cable (Pitot + Heatings) 5 mt	AA99-825-9940SP
G8 Integrated Cable EPA Complaint L.5 mt	AA99-825-9960SP

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Connect with us

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Engaged for a better future!

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