

INERTING SYSTEM

For ATEX Zone 1/21 with MT TDL laser sensor

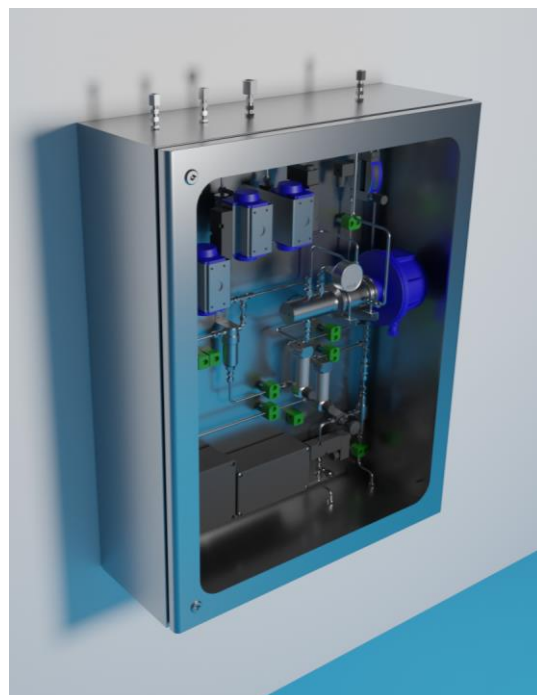


Inerting system for ATEX Zone 1/21 SIL2.

The system is equipped with 1 measuring channel with **Mettler Toledo TDL laser** sensor which is capable of monitoring the atmosphere of several tanks (at intervals) or the ambient oxygen, and it is SIL2 certified.

Equipped with two-stage filtering, it is suitable for inerting difficult processes such as mixers containing solvent vapours or chemical reactors.

Supplied with a control system with safety PLC and optional display unit for ATEX Zone 1/21. Alternatively, it is possible to communicate with the system via Profinet.



TECHNICAL SPECIFICATIONS

Area of use	Ex Zone 1/21 (Sampling Unit and Display Unit) Safe Area (Control Unit)
Sampling Unit	Mettler Toledo TDL 200 mm laser oxygen analyser ATEX Zone 1/21 and SIL2 certification Flow switch for gas sample Ex i ATEX Zone 1/21 4 automatic valves for the activation of the Venturi ejector, for sample sectioning and for the automatic verification of the sensor using nitrogen and ambient air and purging with nitrogen Two-stage condensate and dust filtration system Response time $T_{90} < 10s$ (sample collected with 20m long 6x4 tube)
Display Unit	10.1" with optical bonding on special tempered glass, resolution 1280x800 pixels
Control Unit	Complete with safety PLC to monitor the inerting of one or more tanks.
Mechanical protection	Sturdy design, IP66 for both the Sampling Unit and the Display Unit
Materials	Contact: 316 stainless steel / polyamide sample tubing
Communication interfaces	Ethernet, Profinet
Power supply	24Vdc $\pm 10\%$ Compressed air: 6 barG Nitrogen for calibration and purging: <50 mBarG

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COMPONENTS OF THE SYSTEM

Display Unit

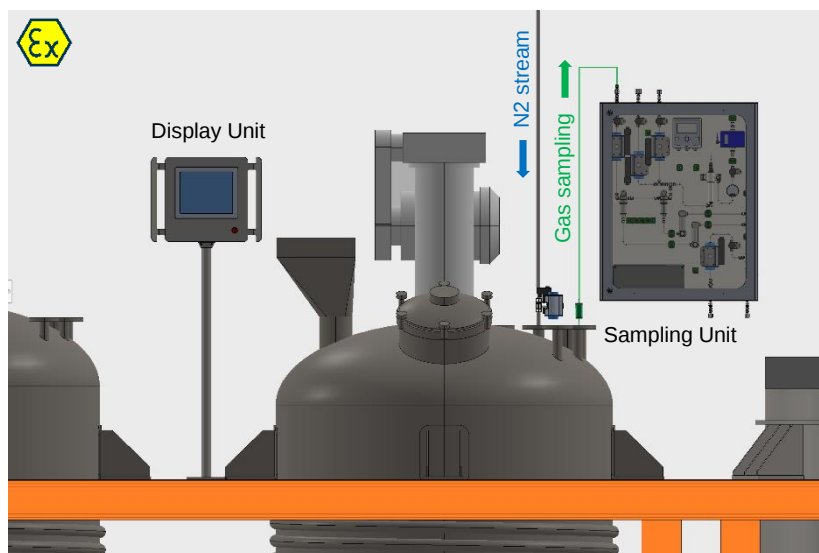
Consisting of a PCL-X-10.1 operator panel, suitable for use in Zone 1/21, installed on a suspended arm or floor stand with stainless steel rotary joints.

To be installed in Zone 1/21 area.

Sampling Unit

Contains the gas sampling and filtering system, oxygen sensor and flow sensor, with dimensions 1000x800x300 mm (HxLxD).

To be installed in Zone 1/21 area.



▲ ATEX Zone 1/21

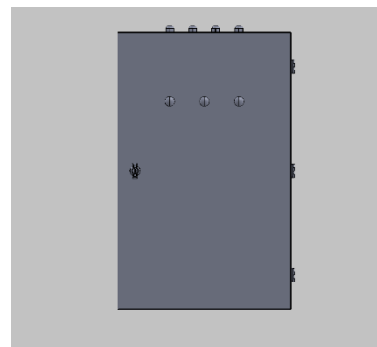
Safe Area ▼

Control Unit

To be installed in safe area

Contains safety PLC, intrinsically safe barriers, safety and diagnostic inputs and outputs. It allows for the Sampling Unit equipment to be managed and the nitrogen valve of each mixer to be controlled.

Dimensions: 800 x 600 x 300 mm (H x L x D)



Customised designs available on request