

Prosense **Sampling** System



Prosense

makes life safer

Prosense Sampling System

There are many factors creating obstacles to monitoring gas level directly locating a detector in the required area such as temperature, humidity, dust, air flow and corrosive environments. Prosense provides a sampling system to use in these cases to sample the gas from the area and condition it to perform continuous and accurate detection. The sampling system is a complete solution integrated with necessary detector for measurement. Prosense sampling solution is developed to ensure continuous measurement by sampling from environments where diffusion method cannot be used.

The European Standard EN 1539:2010 defines necessary safety rules and requires continuous monitoring for dryers and ovens in which flammable substances are released. The nature of operation in these devices releases flammable and VOC gases/ vapours that needs ventilation. According to this standard plants equipped with a continuous monitoring system can operate up to 50%LEL gas concentration and reduce the ventilation rates.

Continuous monitoring system allows process to work stable and without interruption as necessary preventative actions can be performed at on time.

Reducing process shutdowns and maintenance costs will have a major impact on productivity. Also an operation running with a continuous monitoring system can reduce the ventilation rates and costs which provides less operational costs.



Detector

System has integrated Prosense PQ Series detector(s) to measure target gas/gases. Prosense manufactures a range of state of art detectors to monitor flammable and toxic gases as well as oxygen in different measurement ranges that can be adaptable for application requirements.

Pump

The sampling system is an integrated structure with a pump that draws air from the environment. The pump is located behind the detector and continuously vacuums the air from the environment to be sampled.

Cooling

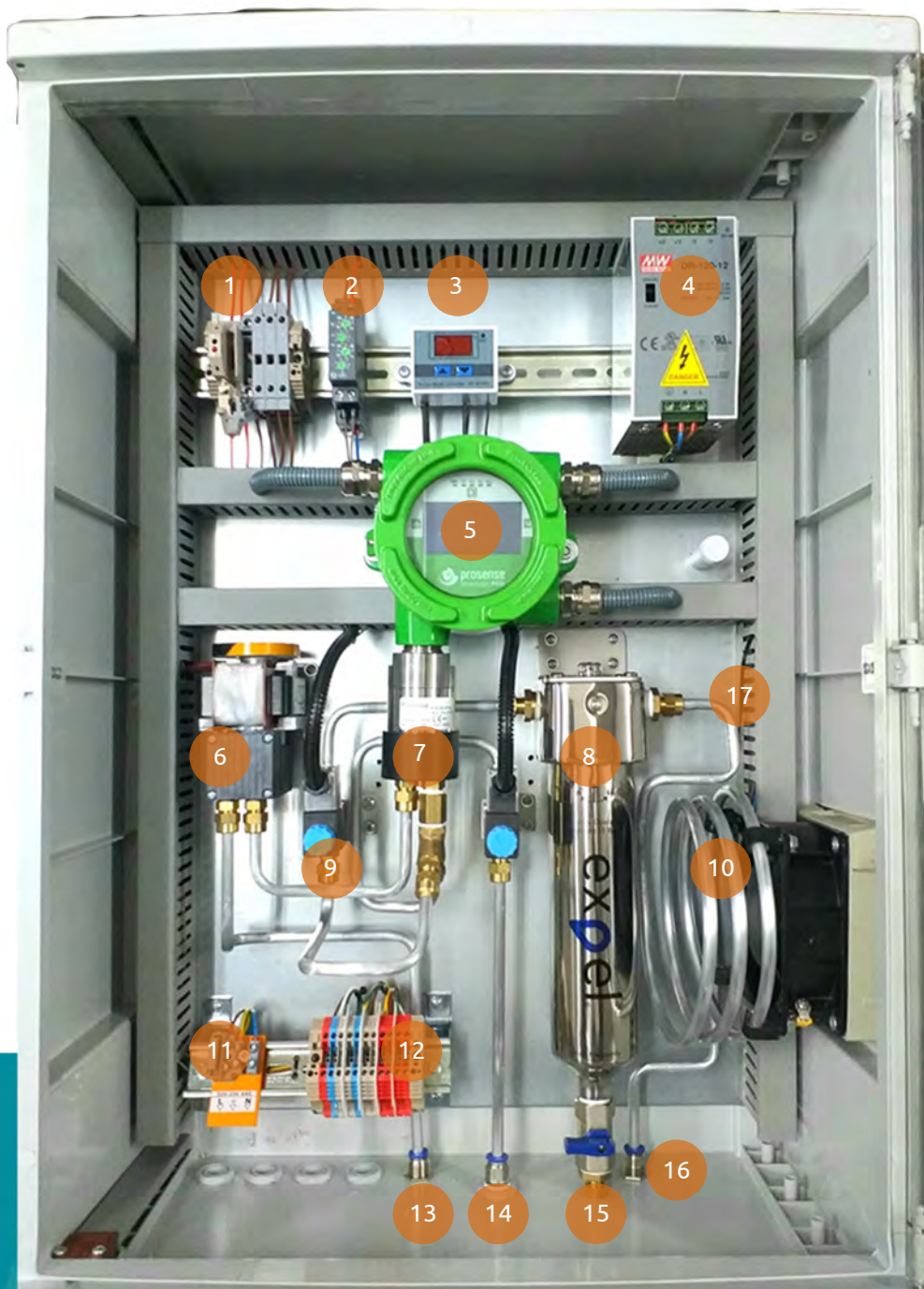
System includes a temperature control unit and activates cooling fan depending on the measured temperature on gas pipe.

Filtering

System has a special filter to eliminate any dust, water, oil from the air sampled. Filter can be changed according to air and sampling conditions.

Clean Air/Calibration

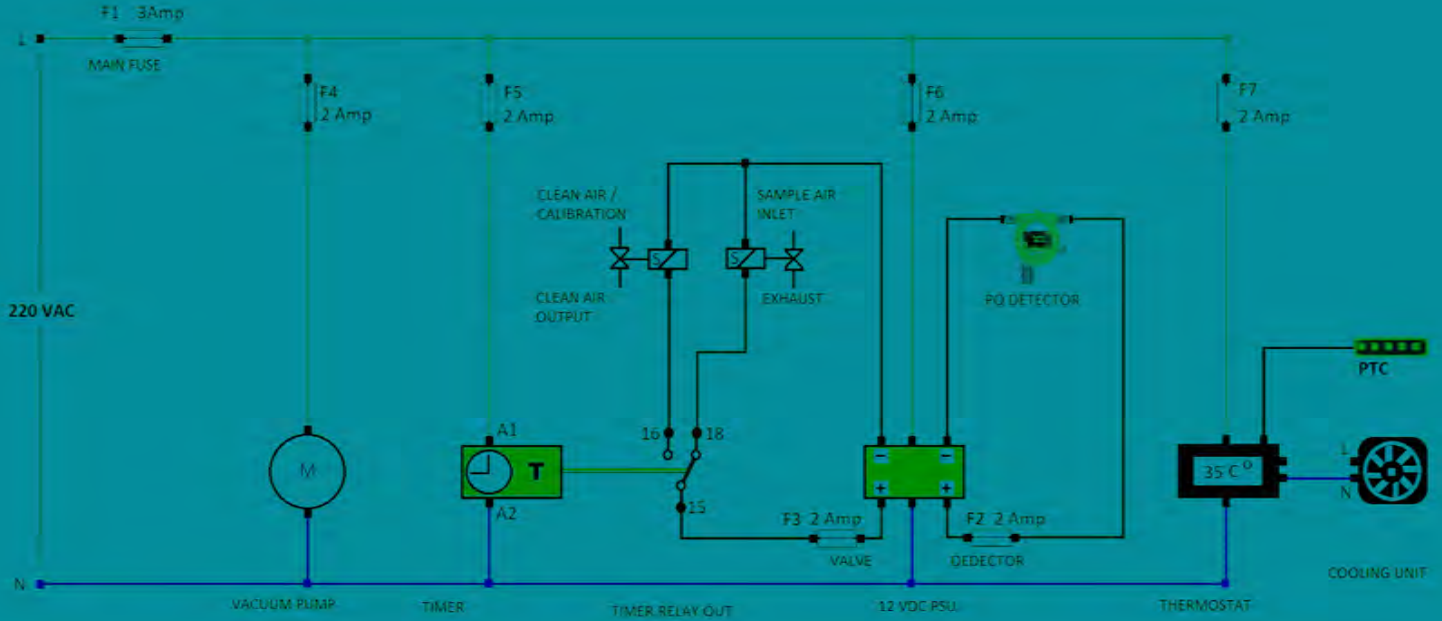
System has two solenoid valves to manage air flow to provide clean air to detector in necessary periods. The timer can be set based on end user requirements. Also they can be used for calibration purposes to perform maintenance activities without making any changes on the sampling system.



- 1- Fuses
- 2- Timer
- 3- Thermal Control
- 4- Power Supply
- 5- Detector
- 6- Vacuum Pump
- 7- Flow Adapter
- 8- Filter
- 9- Solenoid Valve
- 10- Cooler
- 11- Main Power Input
- 12- Detector Connections
- 13- Air Out
- 14- Clean Air/Calibration
- 15- Drain
- 16- Air In
- 17- Thermostat

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Sampling System Diagram



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