NTRON
Gas Measurement

Fail-safe Oxygen Measurement

EXCELLENCE
THROUGH DIVERSITY

Who we are

We, at Ntron, are proud of our reputation developed over the last 25 years. We have established ourselves as market leaders in the design and manufacturing of Gas Measurement Systems for process and people safety across a wide variety of industrial applications.

Today, Ntron strives to exceed customer expectations through continuous innovation; by developing better and more efficient gas analysis and control solutions, by helping to maximize process efficiencies, by improving product quality to protect the health and safety of personnel and the environment and also by preserving capital equipment and investments.

Our experienced team provides customised solutions across a wide range of sectors internationally. Our goal is to ensure qualitative and efficient gas measurement systems for your specific gas measurement requirements.

25 years experience in Fail-safe Oxygen Measurement in the chemical and pharmaceutical industry

Ntron is the market leader for the supply of oxygen analysis-based inerting control systems for safety critical applications.

We have the ability to supply either in-line or extractive oxygen measurement systems designed to prevent flash fires and explosions on process applications.

We have developed successful relationships with several OEM manufacturers, in applications such as: centrifuges, chemical reactors, thermal oxidisers, dryers and milling applications.

We can assure you through our cross-industry experience and our SIL 2 (IEC 61508) rated solutions that we can provide the most suitable option to your individual needs.

Application

Flammable solvents are essential ingredients of many centrifuge separation processes. Such applications raise the possibility of flash fire or explosions. If the oxygen concentration within the combustible mixture is decreased sufficiently, a flame cannot propagate.

The use of inert gas will effectively deplete the oxygen concentration in the process and provide the required level of safety.

The use of oxygen based inert gas control is the only direct method of preventing flash fire and explosions.

SOLUTION 1 - IN-LINE

SAFE AREA

SIL 2 rated Oxygen Analyser designed to comply with the requirements of IEC 61508 for the fail-safe Oxygen measurement on inert gas blanketing applications

HAZARDOUS AREA

Retractable Oxygen Sensor System for In-Situ / In-Line process measurement

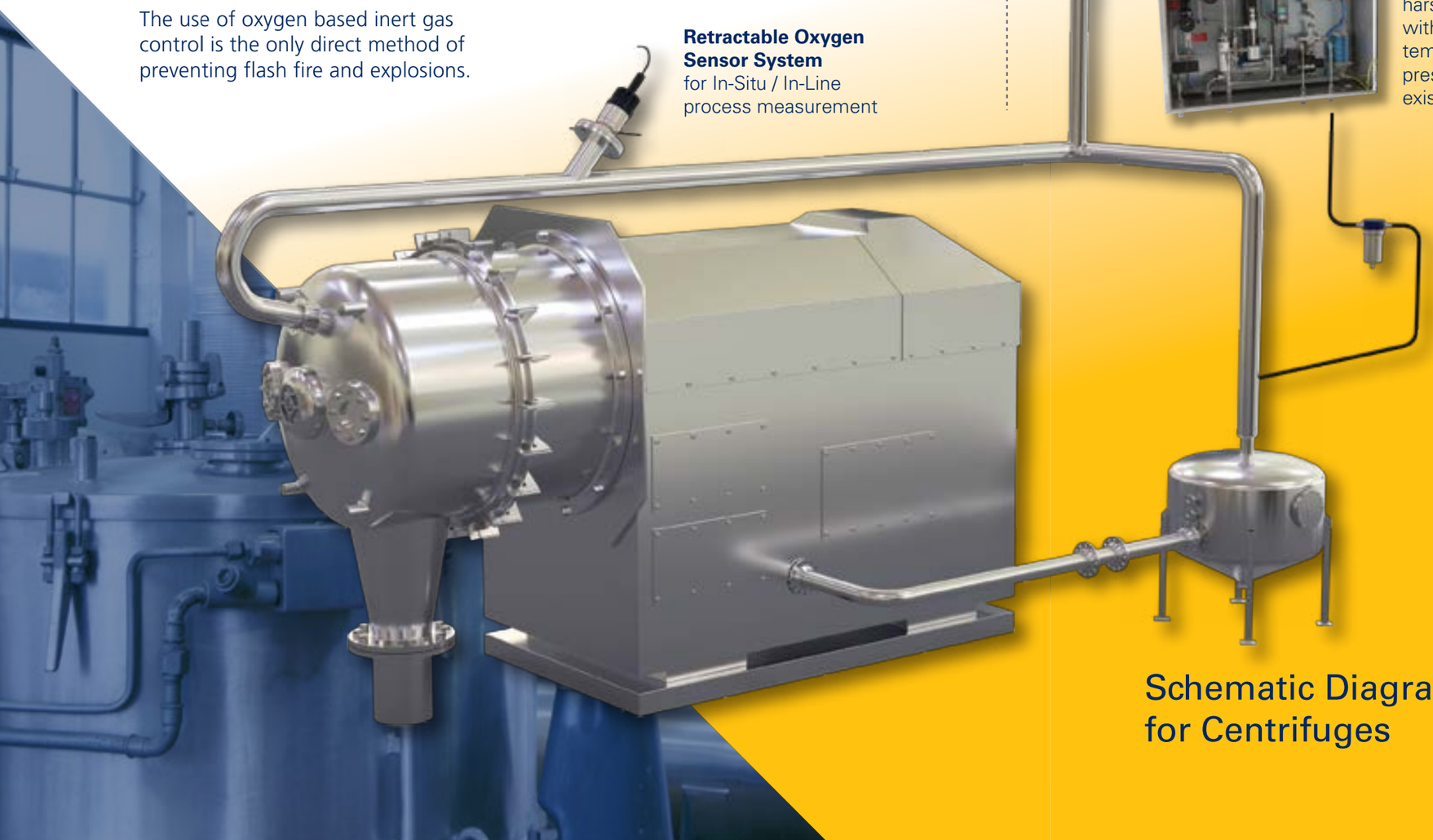
SOLUTION 2 - EXTRACTIVE

SAFE AREA

OxyOne Oxygen Analyser for inerting control applications

HAZARDOUS AREA

Extractive Sampling System designed for harsh applications with extreme temperature and pressure conditions exists.



Schematic Diagram for Centrifuges

The Ntron Solution

Ntron has developed an in-line SIL 2 rated Oxygen Analyser designed specifically for harsh chemical applications within the pharmaceutical and chemical industry.

Products

1. OxyOne Oxygen Analyser

OxyOne has been designed specifically for the monitor and control of inert process applications. It is capable of accepting two separate oxygen sensors and it is designed to interface directly with Ntron's inline or extractive sampling systems.

It is available in either wall or rack mounting configuration and has features like sensor guard and sensor life predictor which has been developed specifically for inerting control applications. Features include data logging, Modbus communication, and multiple digital stroke outputs.

2. OxyTx Oxygen Analyser

The Ntron OxyTx oxygen analyser is a competitively priced compact and rugged device for measurement of % Oxygen concentration in hazardous area applications.

It is designed to use with Ntron's range of chemically resistant oxygen sensors which are suitable for use in monitoring oxygen on harsh chemical applications.

The ATEX approved transmitter generates an analogue output 4-20 mA for measurement range of 0-25% Oxygen.

3. SIL2 Rated Oxygen Analyser

The **SIL2 rated oxygen analyser** has been developed specifically for the measurement of oxygen for safety critical application within the chemical and pharmaceutical industry. This analyser is designed for use in the hazardous area and has an inbuilt galvanic isolation barrier which accepts an input from an intrinsically safe oxygen sensor.

Application for this analyser includes the measurement of oxygen on inerting applications for explosion prevention. This analyser has 3 configurable alarm outputs, 4-20 mA and RS232/ RS485 communication. The complete analyser solution meets the requirements of SILO2.

4. OxyProbe Sensor

The Long Life Solid State Oxyprobe 200 is designed for In-Situ measurement of Oxygen concentration on harsh Chemical Applications within the Fine Chemical and Pharmaceutical industry.

This sensor can meet the requirements of IEC61508 SIL 2, when interfaced with Ntron's SILO2 safety oxygen analyser.

It is specifically designed for use with Ntron's OxyExtract Insertion/ Retraction Unit for in-line oxygen measurement, but can also be offered as a discreet oxygen Sensor for direct insertion into process Vessels using a variety of connection methods.

5. OxyExtract Oxygen Analyser

The OxyExtract Range of IECEx/ATEX approved retractable In-Line Oxygen Sensors along with the OxyOne Analyser and ACCU Calibration unit, provide a cost effective solution to meet your process safety requirements.

The Primary advantage of the OxyExtract is the ability to measure Oxygen concentration directly in the process gas stream without the need for complex sampling systems.

The Sensor can be removed/replaced without opening the process to ambient air!

Two basic versions are offered; One for Manual insertion and retraction of the sensor probe, and the other for Remote (pneumatic) insertion and retraction of the sensor probe.The OxyExtract is available in 316 stainless steel and Hastelloy C22 and has a variety of Tri-Clamp and Flange process connections.

6. ACCU

The Ntron ACCU is an Automatic Calibration and Control Unit which provides Remote localised control for the Ntron OxyExtract in-process range of Oxygen Measurement Systems. The ACCU
supplies Insert, Retract, Calibration and positional Pneumatic controls to the OxyExtract unit and terminal interface for the Oxygen Probe signal output. The ACCU is designed to interface with the
Ntron OxyOne Oxygen Analyser, providing for control and signalling connections to the Analyser
and Customer DCS Systems.

The unit is Installed local to the process being monitored and is suitable for Hazardous Area use (Interface signals via suitable I.S. Barriers). An optional integral Digital Display of the Oxygen level is available and the ACCU comes complete with the interconnecting Probe cable and Pneumatic Tubing.

Contact Information

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