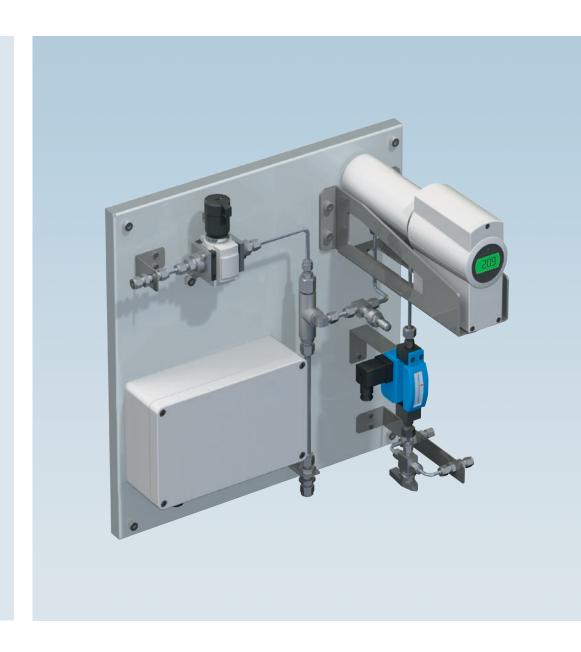
TRANSIC Extractive

Oxygen measurement for many application

Reliable measurements even in difficult conditions

- Reliable measurement in difficult measuring conditions and in contaminated gases
- Slim sample conditioning system results in minimal maintenance work
- Can be used in hazardous areas
- Easy to use and install
- Low operating costs





Reliable oxygen measurement for challenging process environments

Oxygen is a vital elixir of life. Yet in industrial environments, it is often unwelcome. It is highly reactive and can severely compromise process safety and product quality. For instance, it can lead to uncontrolled combustion, to corrosion, and to changes in product properties in foods or chemicals, for example. In such cases, the absence of oxygen is a sign of quality and absolutely essential to ensuring a safe process.

TRANSIC Extractive reliably measures oxygen content and can be adapted to the most varied of application conditions – whether you are looking to guarantee safety, prevent corrosion, or ensure product quality.

Focused on essentials

With TRANSIC Extractive, we provide a modular system for the extractive analysis of oxygen that lends itself to virtually all applications and industry standards. The TRANSIC Extractive process gas analyzer system focuses on the essentials: It impresses thanks to the minimum maintenance it requires, its low operating costs, and components that are perfectly matched to the application in question.

Proven technology now also available for extractive measurements

TRANSIC Extractive is the answer to all measurement situations where in-situ analysis is not possible: for example, when the measurement point is difficult to access, at temperatures above 80 $^{\circ}\text{C}$ (176 $^{\circ}\text{F}$), or when process pressures are high. We developed this flexible gas analyzer system for extractive oxygen measurement with conditions such as these in mind. The proven technology of the TRANSIC100LP laser oxygen transmitter can now also be used for extractive measurements.

As a result, TRANSIC Extractive is opening up new possibilities with respect to oxygen measurement. It is now possible to carry out calibrations and operational checks with an additional air supply without dismantling the device, as the procedures can be performed outside the monitored area. If required, TRANSIC Extractive can also keep its eye on several measurement points: Thanks to the programmable measurement point switchover feature, multiple measurement points can be reliably monitored in turn.

TRANSIC100LP – The core system component

TRANSIC Extractive combines the benefits of the TRANSIC100LP transmitter design with the flexibility of an extractive analyzer system. Based on modular design principles, it can be individually configured for every customer. However, one core system component remains unchanged – the TRANSIC100LP laser oxygen transmitter.

The system uses state-of-the-art laser technology to deliver precise measurement results even in difficult conditions. As a result, TRANSIC Extractive is the ideal solution for monitoring the $\rm O_2$ concentration in plants and processes across all industries.



One system solution – many applications

As an extractive oxygen measurement device, TRANSIC Extractive is the right choice for a whole host of applications and industries. It reliably fulfills standardized hygiene requirements, offers standardized protection against environmental influences, and is also certified for use in explosion-hazardous areas (to ATEX or NEC 500 and NEC 505). TRANSIC Extractive is frequently used for the inerting and blanketing of tanks: the airspace in the tank above substances that react with oxygen is filled with inert gas. This effectively protects the content of the tank against contact with oxygen and prevents explosions.

In the packaging and food industries too, maintaining a controlled atmosphere is often crucial in ensuring product quality. For example, with modified atmosphere packaging (MAP), food is vacuum-packed, keeping it fresh for longer. While controlled atmosphere storage (CA storage) controls the ripening process of fruit and vegetables when they are transported and stored by reducing the amount of oxygen. Thanks to the system's modular construction, TRANSIC Extractive can be individually adapted to numerous industries and applications.

TRANSIC Extractive Oxygen measurement for every application



Product description

The TRANSIC Extractive modular analyzer system combines the benefits of the TRANSIC transmitter design with the flexibility of an extractive analyzer system. TRANSIC Extractive is the ideal solution for monitoring the $\rm O_2$ concentration in plants and processes across all industries. The system uses

state-of-the-art laser spectroscopy to perform reliable measurements even in difficult conditions. As a modular system, it can be adapted to different industry standards and virtually every application, and can even be used in hazardous areas or hygienic areas without any problems.

At a glance

- Oxygen transmitter based on modern laser spectroscopy (TDLAS)
- Compact design adapted to specific application conditions
- Very easy to operate and install
- Can be combined with sample point switching
- Flexible for virtually every application
- Modular extension possible
- Various Ex-approvals available

Your benefits

- Reliable measurement results in difficult measuring conditions and in contaminated gases
- Minimal maintenance work due to lean gas conditioner

Fields of application

- Inertization of tanks and lines
- Can be used in explosion-areas
- Easy to use and install
- Low operating costs
- Storage, processing, and packaging of food, medicines, and other oxygen-sensitive substances



More Information online

For more information, enter the link or scan the QR code to get direct access to technical data, operating instructions, software, application examples, and much more. www.endress.com/transic-extractive



Technical data

The exact device specifications and product performance data may vary and are dependent on the respective application and customer specifications.

Measured values	O_2
Maximum number of measured vaule	1
Measurement principles	Diode laser spectroscopy (TDLS)
Measuring ranges	
O_2	0 5 Vol% / 0 100 Vol%
Response time (t ₉₀)	≤ 10 s
Accuracy	≤ 0.2 Vol%
Zero point drift	± 0.1 Vol% per year
Process temperature	-20°C $+200^{\circ}\text{C}$ (-4°F $+392^{\circ}\text{F}$); other temperatures on request
Process pressure	800 hPa 15,000 hPa (11.60 psi 217.56 psi); higher pressures on request
Ambient temperature	-20 °C +60 °C (−4 °F +140 °F)
Storage temperature	−20 °C +80 °C (−4 °F +176 °F)
Ex-approvals	
IECEx	Sender/receiver unit: II 1/2G Ex ib IIB T4 Gb; II 2D Ex ib tb IIIC T85°C Db Measuring probe: II 1/2G Ex op is IIB T4 Ga; II 2D Ex ib tb IIIC T85°C Db Power supply: II 2G Ex e mb [ib] IIB T4 Gb; II 2D Ex tb [ib] IIIC T85°C Db Applies for TRANSIC itself, not necessarily for the entire system
ATEX	Sender/receiver unit: II 1/2G Ex ib IIB T4 Gb; II 2D Ex ib tb IIIC T85°C Db Measuring probe: II 1/2G Ex op is IIB T4 Ga; II 2D Ex ib tb IIIC T85°C Db Power supply: II 2G Ex e mb [ib] IIB T4 Gb; II 2D Ex tb [ib] IIIC T85°C Db Applies for TRANSIC itself, not necessarily for the entire system
NEC/CEC (US/CA)	Sender/receiver unit: Class I, Division 2, Group A, B, C, D T4 Measuring probe: Class I, Division 1 + 2, Group A, B, C, D T4 Applies for TRANSIC itself, not necessarily for the entire system
Electrical safety	CE
Enclosure rating	IP 66
Analog outputs	1 output: 0/4 20 mA, 500 Ω 1 output: 0/4 20 mA, 200 Ω , only for ATEX/IECEx version TRANSIC151LF
Digital outputs	1 relay contact: 30 V AC, 1 A / 60 V DC, 0.5 A 1 NAMUR output: only for ATEX/IECEx version TRANSIC151LP
Interfaces	RS-485 (not for the ATEX/IECEx version) RS-232 (Service interface; not in ATEX/IECEx design) USB (not approved for Ex-applications)
Dimensions (W x H x D)	500 mm x 500 mm x 400 mm (19.69 " × 19.69 " × 15.75 "); basic variety, depending on version

Weight	15 kg 30 kg (33 lbs 66 lbs); depending on configuration
Power supply	
Voltage	24 V DC TRANSIC151LP: 21.6 26.4 V
	For ATEX/IECEx versions via TSA151 energy supply, a PELV power supply unit is not necessarily required
Current consumption	≤ 500 mA TRANSIC151LP: ≤ 240 mA; depending on version
Power consumption	≤ 6 W TRANSIC151LP: ≤ 5.2 W; depending on version
Corrective functions	Adjustment with ambient air or test gases
Test functions	Contamination check

Ordering information

Our regional sales organization will help you to select the optimum device configuration.

Dimensional drawings

TRANSIC Extractive (dimensions in mm (inch))

