Gas Analyzers
Laser oxygen transmitter, TRANSIC100LP, Laser oxygen transmitters
Measuring the oxygen in the process can be quite simple. The TRANSIC100LP from SICK is the rugged transmitter that uses Tunable Diode Laser Spectroscopy (TDLS) to measure O2 reliably. A technology more common in the world of high-tech analysis, is now being used in a field instrument: at an attractive price, easy installation, a long life, low maintenance and suitable for use in potentially explosive atmospheres.

At a glance
- O2 transmitter based on high-performance laser spectroscopy (TDLS)
- For use in potentially explosive atmospheres (FM, ATEX and IECEx approvals)
- Measurement directly in-situ or extractive using a sample gas cell (option)
- Designed for heavy-duty industrial applications
- Compact design and easy to operate
- Long-term stability
- No moving parts

Your benefits
- Measures in real-time directly in the process
- Easy installation and operation
- Self-diagnostics with maintenance display
- Low requirements for gas conditioning
- Low operating costs: no consumables and no purging gas consumption
- Rugged: reliable measurement even in contaminated gases

Fields of application
- Monitoring of inert gas blanketing in tanks and vessels
- O2 measurement in process gases
- Measurements in potentially explosive atmospheres
- Process monitoring in fermenters and bioreactors
- Room air monitoring
- Quality monitoring for the production of technical gases
- Replacement of extractive paramagnetic oxygen analyzers and electrochemical cells

Technical data
<table>
<thead>
<tr>
<th>Measurement principles:</th>
<th>Diode laser spectroscopy (TDLS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measured values:</td>
<td>O2</td>
</tr>
<tr>
<td>Max. number of measurands:</td>
<td>1</td>
</tr>
<tr>
<td>Measuring ranges:</td>
<td>O_2 : 0 ... 5 Vol.-%/0 ... 100 Vol.-%</td>
</tr>
<tr>
<td>Feature</td>
<td>Specification</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>---------------------------------------------------</td>
</tr>
<tr>
<td>Process temperature</td>
<td>-20 ... +80 °C</td>
</tr>
<tr>
<td>Process pressure</td>
<td>800 ... 1,400 hPa</td>
</tr>
<tr>
<td>Ambient temperature</td>
<td>-20 ... +60 °C</td>
</tr>
<tr>
<td>Ex-approvals IECEx</td>
<td>TSA151 power supply: Ex e mb [ib] IIB T4 Gb; Ex tb [ib] IIIC T85°C Db</td>
</tr>
<tr>
<td></td>
<td>Measuring probe: Ex op is IIB T4 Ga; Ex ib tb IIIC T85°C Db</td>
</tr>
<tr>
<td></td>
<td>Sender/receiver unit: Ex ib IIB T4 Gb; Ex ib tb IIIC T85°C Db</td>
</tr>
<tr>
<td>Ex-approvals ATEX</td>
<td>TSA151 power supply: II 2G Ex e mb [ib] IIB T4 Gb; II 2D Ex tb [ib] IIIC T85°C Db</td>
</tr>
<tr>
<td></td>
<td>Measuring probe: II 1/2G Ex op is IIB T4 Ga; II 2D Ex ib tb IIIC T85°C Db</td>
</tr>
<tr>
<td></td>
<td>Sender/receiver unit: II 1/2G Ex ib IIB T4 Gb; II 2D Ex ib tb IIIC T85°C Db</td>
</tr>
<tr>
<td>Ex-approvals USA/Canada</td>
<td>Measuring probe: Class I, Division 1 + 2, Group A, B, C, D T4</td>
</tr>
<tr>
<td></td>
<td>Sender/receiver unit: Class I, Division 2, Group A, B, C, D T4</td>
</tr>
<tr>
<td>Electrical safety</td>
<td>CE, FM</td>
</tr>
<tr>
<td>Enclosure rating</td>
<td>IP 66</td>
</tr>
<tr>
<td>Analog outputs</td>
<td>1 output: 0/4 ... 20 mA, 200 Ω</td>
</tr>
<tr>
<td></td>
<td>only for ATEX/IECEx version TRANSIC151LP</td>
</tr>
<tr>
<td></td>
<td>1 output: 0/4 ... 20 mA, 500 Ω</td>
</tr>
<tr>
<td>Digital outputs</td>
<td>1 NAMUR output</td>
</tr>
<tr>
<td></td>
<td>only for ATEX/IECEx version TRANSIC151LP</td>
</tr>
<tr>
<td></td>
<td>1 relay contact: 30 V AC, 1 A 60 V DC, 0.5 A</td>
</tr>
<tr>
<td>Interfaces</td>
<td>RS-232c (service interface; not for the ATEX/IECEx version)</td>
</tr>
<tr>
<td></td>
<td>RS-485 (not for the ATEX/IECEx version)</td>
</tr>
<tr>
<td></td>
<td>USB (not approved for Ex-applications)</td>
</tr>
<tr>
<td>Device version</td>
<td>Ex-version</td>
</tr>
<tr>
<td>Corrective functions</td>
<td>Adjustment with ambient air or test gases</td>
</tr>
<tr>
<td>Test functions</td>
<td>Contamination check</td>
</tr>
<tr>
<td>Mounting</td>
<td>Flange for direct installation in the process, Wall-mounting bracket for measurement with measuring gas cell, Wall-mounting bracket for ambient air measurement</td>
</tr>
</tbody>
</table>
Australia  
Phone +61 3 9457 0600  
1800 33 48 02 – tollfree  
E-Mail sales@sick.com.au

Belgium/Luxembourg  
Phone +32 (0)2 466 55 66  
E-Mail info@sick.be

Brasil  
Phone +55 11 3215-4900  
E-Mail marketing@sick.com.br

Canada  
Phone +1 905 771 14 44  
E-Mail information@sick.com

Česká republika  
Phone +420 2 57 91 18 50  
E-Mail sick@sick.cz

China  
Phone +86 4000 121 000  
E-Mail info.china@sick.net.cn  
Phone +852-2153 6300  
E-Mail ghk@sick.com.hk

Danmark  
Phone +45 45 82 64 00  
E-Mail sick@sick.dk

Deutschland  
Phone +49 211 5301-301  
E-Mail info@sick.de

España  
Phone +34 93 480 31 00  
E-Mail info@sick.es

France  
Phone +33 1 64 62 35 00  
E-Mail info@sick.fr

Great Britain  
Phone +44 (0)1727 831121  
E-Mail info@sick.co.uk

India  
Phone +91–22–4033 8333  
E-Mail info@sick-india.com

Israel  
Phone +972-4-6881000  
E-Mail info@sick-sensors.com

Italia  
Phone +39 02 27 43 41  
E-Mail info@sick.it

Japan  
Phone +81 (0)3 4593 2112  
E-Mail support@sick.jp

Magyarország  
Phone +36 1 371 2680  
E-Mail office@sick.hu

Nederland  
Phone +31 (0)30 229 25 44  
E-Mail info@sick.nl

Norge  
Phone +47 67 81 50 00  
E-Mail sick@sick.no

Österreich  
Phone +43 (0)22 36 62 28 8-0  
E-Mail office@sick.at

Polska  
Phone +48 22 837 40 50  
E-Mail info@sick.pl

România  
Phone +40 356 171 120  
E-Mail office@sick.ro

Russia  
Phone +7-495-775-05-30  
E-Mail info@sick.ru

Schweiz  
Phone +41 41 619 29 39  
E-Mail contact@sick.ch

Singapore  
Phone +65 6744 3732  
E-Mail sales.gsg@sick.com

Slovenija  
Phone +386 (0)1-47 69 990  
E-Mail office@sick.si

South Africa  
Phone +27 11 472 3733  
E-Mail info@sickautomation.co.za

South Korea  
Phone +82 2 786 6321/4  
E-Mail info@sickkorea.net

Suomi  
Phone +358-9-25 15 800  
E-Mail sick@sick.fi

Sverige  
Phone +46 10 110 10 00  
E-Mail info@sick.se

Taiwan  
Phone +886 2 2376-6288  
E-Mail sales@sick.com.tw

Türkiye  
Phone +90 (216) 528 50 00  
E-Mail info@sick.com.tr

United Arab Emirates  
Phone +971 (0) 4 86 65 878  
E-Mail info@sick.ae

USA/México  
Phone +1(952) 941-6780  
1 (800) 325-7425 – tollfree  
E-Mail info@sickusa.com

More representatives and agencies  
at www.sick.com