



ADOS
est. 1900

Instrumentation and Control



LOWCOST GASTRANSMITTER

LCTR 903



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since 1997
DIN EN ISO 9001
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Application

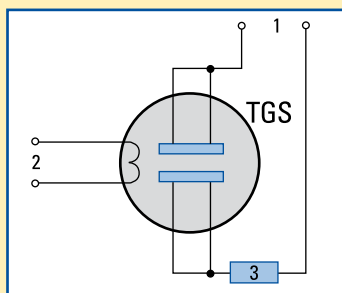
The **gas transmitter ADOS LCTR 903** is suitable for the detection of combustible gases, for example hydrogen, methane (natural gas) or propane / butane (LPG) in air in the LEL region.

Fields of Application

- Gas fired boiler systems
- Gas distribution station
- Gas transfer station
- Battery-charging station

The TGS sensor

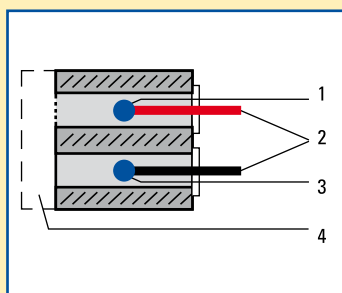
The **TGS sensor** contains a semiconductor sensor, which is constructed on SnO₂-sintered N-substrate. When combustible or reducing gases are absorbed by the surface of the sensor, the concentration of the test gas is determined by the change in conductivity.



1 = Circuit voltage
2 = Heating voltage
3 = Load resistor

The VQ sensor

The head of the **VQ sensor** functions on the principle of heat reaction. When combustible or reducing gases or vapours come in contact with the measuring element, they are subjected to catalytic combustion, which causes a rise in temperature. This rise causes a change in the resistance of the measuring element which is used as a measure of the component of gas being tested. The inert element is for compensating the temperature and conductivity of the test gas.



1 = Catalyzer pellistor
2 = Electric connections
3 = Inert pellistor
4 = Diffusion filter

Technical Data

Type	TGS	VQ
Measurement method:	Semiconductor	Heat reduction
Measurement range:	0–100 % LEL	0–100 % LEL
Percentage error of f.s.d.:	± 5 %	± 5 %
Linearity:	<15 % of f.s.d.	<3 % of f.s.d.
Temperature range:	-20 °C to +45 °C	-20 °C to +45 °C
Temperature effect:	5 %	2 %
Response time (t ₉₀):	approx. 20 sec.	approx. 20 sec.
Pressure effect:	1 %	1 %
Mounting position:	optional	optional
Application:	Poisonous, combustible and explosive gases in the LEL region	Poisonous, combustible and explosive gases in the LEL region
Expected operation time for sensor:	> 2 years	> 2 years
Supply voltage:	15 V – 30 V	15 V – 30 V
Interface:	4–20 mA three-wire	4–20 mA three-wire
Protection class:	IP 30	IP 30
Dimensions: (D x H)	80 x 80 mm	80 x 80 mm
Weight:	500 g	500 g