



# GAS WARNING SYSTEMS

## Monitoring parameters: Cl<sub>2</sub>, ClO<sub>2</sub>, O<sub>3</sub>, NH<sub>3</sub> and HCl

### Conex® DIA-G gas warning system

The Conex DIA-G (Dosing Instrumentation Advanced-Gas) safety system monitors gas dosing installations and gas storage rooms.

#### Features

- Monitoring of two different gas storage rooms or two different gases at the same time
- Simultaneous display of both measured values
- Optimum safety due to permanent sensor monitoring, alarm relay and optional backup operation by connection of an external buffer battery
- Very short response time in case of a sudden change of the gas concentration
- Long and maintenance-free sensor service life
- Sensor recognition and auto-calibration as well as monitoring of sensor life
- Separate sensor interface for one potentiostatic sensor. When using the separate sensor interface, the Conex DIA-G can be installed in a control room at a distance of up to 500 m from the sensor interface
- With optional audible and visual alarm device
- Display languages: German, English, French, Spanish, Polish and Russian

#### Monitoring parameters

- Chlorine
- Chlorine dioxide
- Ozone
- Ammonia
- Hydrochloric acid

### Conex® DIS-G gas warning system

The Conex DIS-G (Dosing Instrumentation Standard-Gas) safety system monitors gas dosing installations and storage rooms.

#### Features

- Monitoring of two gases at the same time
- Simultaneous display of both measured values
- Optimum safety thanks to the automatic sensor test function
- Very short response time in case of a sudden change of the gas concentration
- Long and maintenance-free sensor service life
- With optional audible and visual alarm device
- Display languages: German, English and French

#### Monitoring parameters

- Chlorine
- Chlorine dioxide
- Ozone

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## Technical data and functions: Gas warning systems

	Conex DIA-G	Conex DIS-G
Electronics	16-bit microprocessor system	I2C bus technology
Display	Backlit plain-text display	LCD, 2 lines, 2 x 16 characters
Indication mode	In ppm for measured values of both sensors	In ppm for measured values of both sensors
Relay outputs	Five potential-free relay-outputs, per software switchable to NO (normally open) or NC (normally closed) (fail-safe); max. 250 V/6 A, max. 550 VA	Five potential-free relay-outputs; max. 250 V/6 A, max. 550 VA ohmic load
Signal inputs	<ul style="list-style-type: none"> <li>Two measured value inputs (for amperometric sensors 1 and 2)</li> <li>Internal CAN bus, including connections for two interfaces, each for the operation of one potentiostatic sensor</li> </ul>	Two measured value inputs (sensor 1 and 2)
Signal outputs	Two current outputs 0/4 -20 mA, max. load of 500 Ohm, with wire breakage monitoring; free assignment to the measuring range of the sensors	Two analog outputs 0/4 - 20 mA, max. load of 400 Ohm, assigned to the 0 - 5 ppm range
Safety functions	<ul style="list-style-type: none"> <li>Permanent sensor monitoring or automatic sensor test, interval between tests adjustable from every 0.5 to 30 days</li> <li>Wire breakage monitoring of all current outputs</li> <li>Optional backup battery with backup indication on the display, allowing Conex DIA-G to work for at least one hour after mains failure</li> <li>Automatic adjustment of data specific to the sensor</li> <li>Display of the sensor exchange intervals with a plain-text message</li> </ul>	Permanent sensor monitoring or automatic sensor test, interval between tests adjustable from every 0.5 to 14 days
Temperature	Conex DIA-G and sensor interface (without sensor): Operation: 0 to +50 °C Storage: -20 to +65 °C	Operation: 0 to +45 °C Storage: -20 to +65 °C
Power supply	110-240 V (-10 %/+ 10 %), 50/60 Hz or 24 VDC	230/240 V (-10 %/+10 %), 50/60 Hz, or 115/120 V (-10 %/+10 %), 50/60 Hz
Power consumption	Approx. 20 VA	Approx. 5 VA
Enclosure class	IP 65 (wall-mounted)	IP 65 (wall-mounted)
Weight	Approx. 1.5 kg	Approx. 0.8 kg

## Technical data and measuring parameters: Gas sensors

Measuring parameter	Potentiostatic gas sensor					Amperometric gas sensor		
	Cl <sub>2</sub>	ClO <sub>2</sub>	O <sub>3</sub>	NH <sub>3</sub>	HCl	Cl <sub>2</sub>	ClO <sub>2</sub>	O <sub>3</sub>
Measuring range [ppm]	0-20	0-1	0-1	0-100	0-30	0-5	0-5	0-5
Response time t <sub>90</sub> (20 °C)	< 30	< 120	< 60	< 60	< 70	2	2	2
Recovery time [minutes]	1	1	1	1	1	10-15	10-15	10-15
Expected life [months]	24	24	18	24	24	12	12	12
Operating temperature [°C]	-20 to +40					+5 to +45		
Storage temperature [°C]	+4 to +10					+5 to +30		
Relative humidity	max. 90 % at 40°C (non-condensing)					max. 90 % at 40°C (non-condensing)		
Max. distance sensor - amplifier [m]	500 (bus line length)					100		
Weight [g]	150					250		