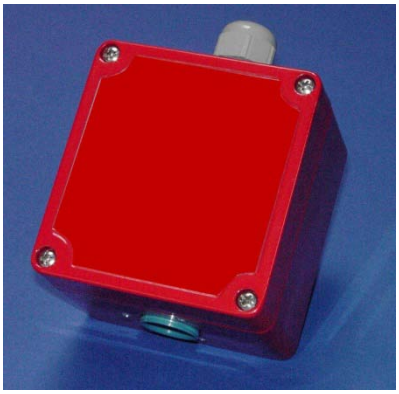
CL2 GAS MEASURING SYSTEM

1. PROPERTIES



CL2 Gas Measuring System
Part no.: 2112B1018
Measuring ranges:
Standard: 0 – 20 ppm

The Chlorine CL_2 gas measuring system determines the concentration of CL_2 gas in the air at ambient temperatures of -20° C to +45° C. The housing is made of aluminium and suitable for wall mounting.

The gas measuring system is calibrated with the help of the respective test gas using a potentiometer; there is no or negligible cross-sensitivity to other substances.

Basic processing and output of the measured values (linear output, 4-20 mA) are integrated into the measuring system. Evaluation and further processing of the measured values occur in a downstream device according to the users specifications (for e.g. ventilation system, limit monitor, display, programmable logic controller).

The measuring system offers ranges of 0-20ppm CL_2.

2. DESIGN

The electrochemical sensor is mounted inside aluminium housing on a sensor holder above the diffusion opening. The cable entry is a screwed cable gland (PG11) and is located on the opposite site. In addition, a transmitter containing a signal amplifier and an output of 4-20 mA is arranged in the housing. The transmitter is based on the two-wire system and processes and transmits the measured signals.

EURO-GAS MANAGEMENT SERVICES LTD, CHURSTON HOUSE,
BASCOMBE ROAD, CHURSTON FERRERS, DEVON, TQ5 0JJ, UK
☎: +44 (0)1803 844414 Fax: +44 (0)1803 844224
euro-gas@btconnect.com www.euro-gasman.com

EURO-GAS
MANAGEMENT SERVICES LTD

3. TECHNICAL DATA

Transmitter

Power supply:	Screw terminals	
	Terminal voltage:	Min. 14 Vdc ±5%
	Current:	Approx. 30mA
Connections:	2 polarised screw terminals:	24 Vdc ±5% and 4-20mA
Potentiometer PZ:	Zero setting (three electrode sensor only)	
Potentiometer PS:	Span setting	
Test pins (+) and (-):	Digital voltmeter connection	
Ambient temperature:	-20° C to +45° C	
Air pressure:	900 hPa to 1100 hPa	
Permissible humidity:	15-95% relative humidity, non-condensing	
Output:	4-20 mA	
Housing:	Aluminium, red	
Protection class of housing:	IP 54	
Housing weight:	Approx. 500 g	
Housing dimensions:	Approx. L90 x W85 x H65 mm	
Connecting cable:	2x1.5 ² Cu + functional ground, shielded cable	
Length:	100 Ω go and return	

Sensor

Gas access:	By diffusion
Expected operating life:	2 years in air
T90 response time:	< 60 seconds
Maximum overload:	50ppm

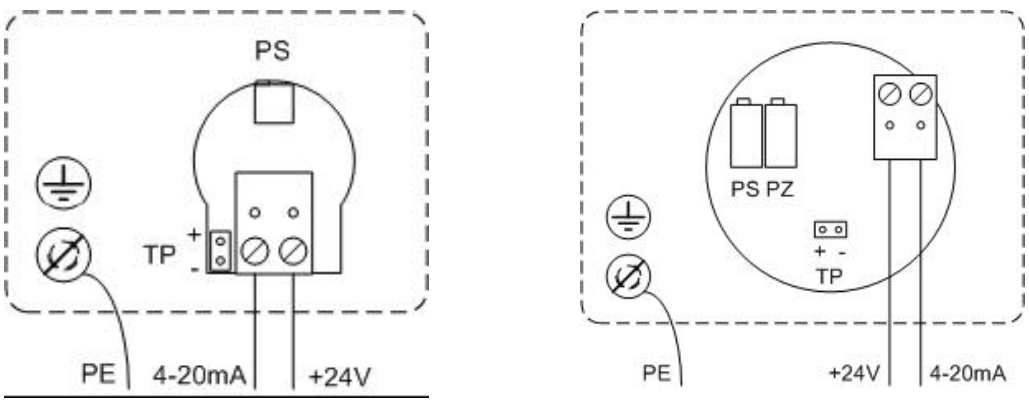
EURO-GAS MANAGEMENT SERVICES LTD, CHURSTON HOUSE,
BASCOMBE ROAD, CHURSTON FERRERS, DEVON, TQ5 0JJ, UK
☎: +44 (0)1803 844414 Fax: +44 (0)1803 844224
euro-gas@btconnect.com www.euro-gasman.com

EURO-GAS
MANAGEMENT SERVICES LTD

Sensor cross-sensitivity data

Interfering Gas	Concentration	Reading
H_2S	25 ppm	-16.3 ppm
SO_2	50 ppm	9.1 ppm
NO_2	50 ppm	1.25 ppm
CO_2	20000 ppm	0 ppm
NH_3	50 ppm	- 1.9 ppm
HCL	9 ppm	1.25 ppm

4. CONNECTION



Connection diagram. Left: version with two-electrode sensor; right: version with three-electrode sensor; PE, potential earth; PS, potentiometer span for setting the span; PZ, potentiometer zero for setting zero (three-electrode sensor only); TP (+) (-), test pins for connecting the voltmeter; 2 polarized screw terminals for power supply (+24 V DC) and measured signal output (4-20 mA).

EURO-GAS MANAGEMENT SERVICES LTD, CHURSTON HOUSE,
BASCOMBE ROAD, CHURSTON FERRERS, DEVON, TQ5 0JJ, UK
☎: +44 (0)1803 844414 Fax: +44 (0)1803 844224
euro-gas@btconnect.com www.euro-gasman.com

The gas measuring system must be connected to any downstream equipment by means of a three-core, shielded cable with maximum 100 Ω cable resistance, including go and return line. Do not lay this line next to a high-tension power cable as there is a danger of radiated interference. The cable must be capable of withstanding the anticipated mechanical, chemical and thermal stresses.

The gas measuring system is connected to the electric circuit (+24 V DC) by means of one of the two polarized screw terminals. The measured data (4-20 mA) is read by means of the second polarized screw terminal. The system earth (potential earth) is connected to the housing.

5. CALIBRATION

The gas measuring system is calibrated manually with the help of two potentiometers (PZ, PS) and two test pins inside the housing. For this, synthetic air and CL_2 test gas are required.

EURO-GAS MANAGEMENT SERVICES LTD, CHURSTON HOUSE,
BASCOMBE ROAD, CHURSTON FERRERS, DEVON, TQ5 0JJ, UK
☎: +44 (0)1803 844414 Fax: +44 (0)1803 844224
euro-gas@btconnect.com www.euro-gasman.com

EURO-GAS
MANAGEMENT SERVICES LTD