

Control Unit Module

Sigma MOD LCD

Product code: PW-033-B



Reliability



Integrity



Innovations









Information about the product

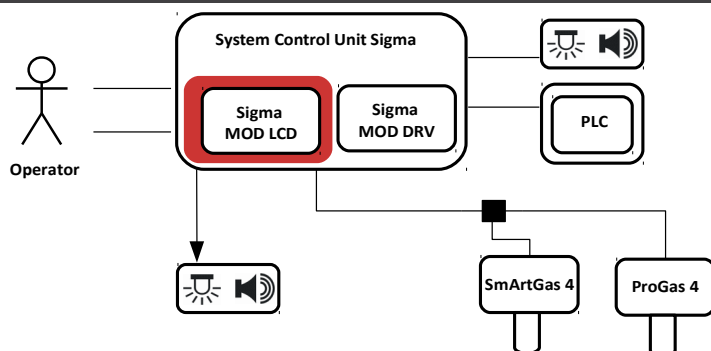
The Control Unit Module Sigma MOD LCD, is a component of the Gas Safety System Sigma Gas. The module's functions include: communication with gas detectors, control of visual and sound indicators by means of contact outputs, transmission of the status of the gas monitoring network to other external systems via both its RS-485 digital link and contact outputs, display of system status to the operator by means of visual indicators and an integrated buzzer, and operator inputs for the control of the gas monitoring network, including, binary inputs and the RS-485 digital link.

This device is also responsible for the parametrization and execution of operator commands.

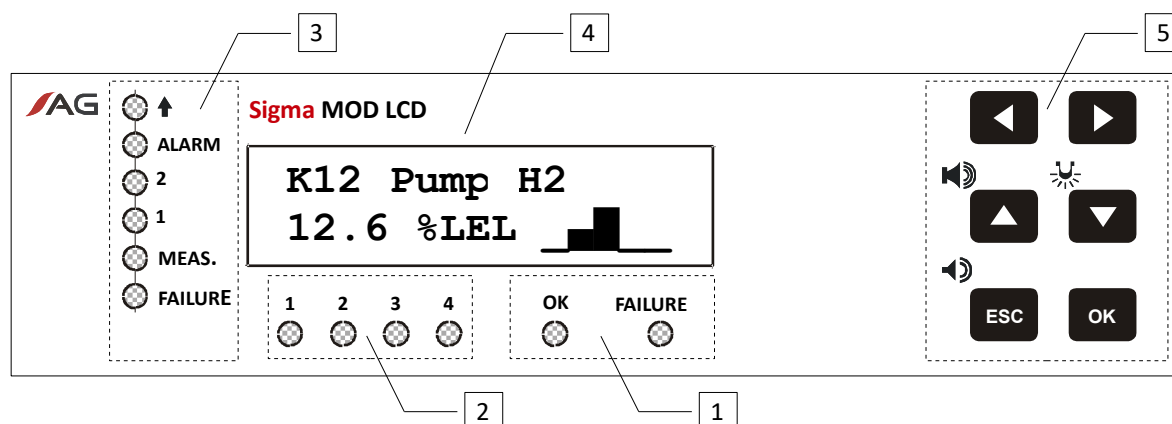
Key functionalities:

-  handling up to 32 gas detectors,
-  8 relay outputs,
-  4 binary inputs,
-  presentation of the gas detectors status (operation, exceeding the thresholds, its special conditions and diagnostic status),
-  presentation of historical states (exceeding the thresholds, failures),
-  control of the entire system operation.

Location and role of the device in Gas Safety System



User interface

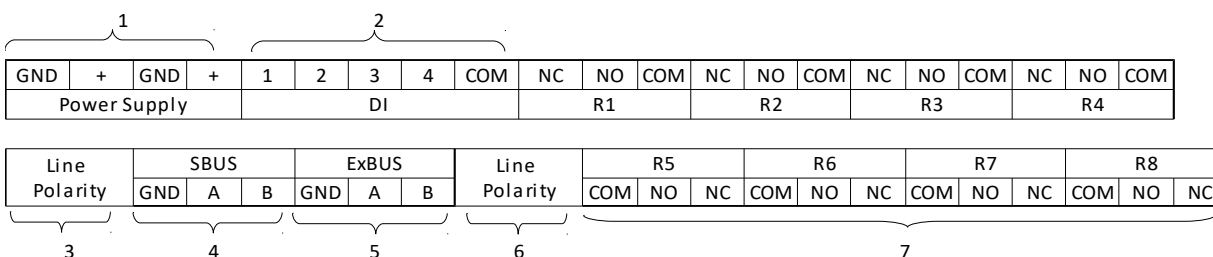


Front panel of Control Unit Module Sigma MOD LCD consist of the following areas:

1. control unit module status,
2. digital inputs status,
3. gas detector status,
4. LCD display,
5. keyboard.

Detailed information on marking the hardware configuration to determine the product code can be found in the User's Manual.

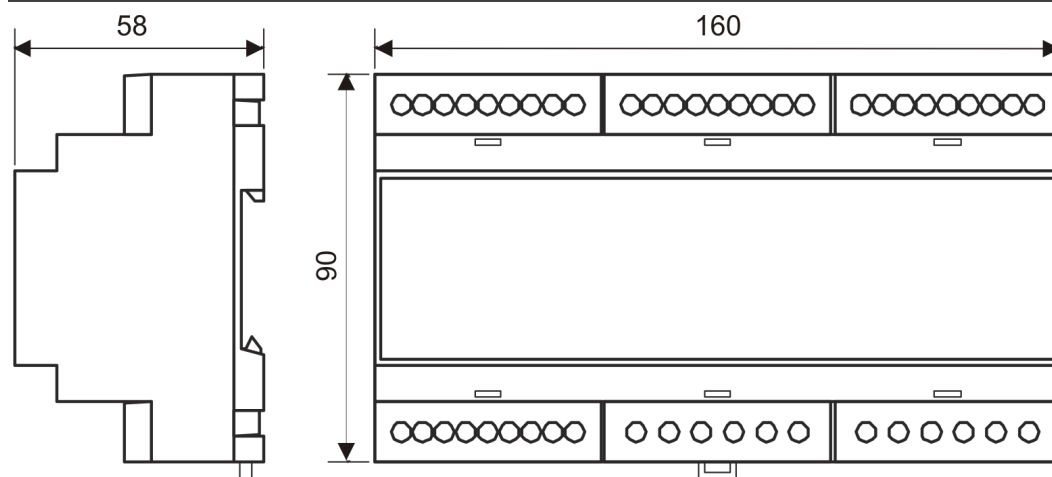
Electrical interface



No.	Name	Pin	Description
1	Power Supply	GND	Negative. Both "GND" terminals are internally connected
		+	Positive. Both "+" terminals are internally connected
2	DI	1-4	Inputs DI1 – DI4
		COM	Common terminal of inputs DI
3	Line polarity		Configuration jumpers for the SBUS port
4	SBUS		System communication port. Used for data exchange between devices in Sigma Gas System.
		A	Signal line A
		B	Signal line B
		GND	Negative. Both "GND" terminals are internally connected

No.	Name	Pin	Description
5	ExBUS		Communication port
		A	Signal line A
		B	Signal line B
		GND	Negative. Both "GND" terminals are internally connected
6	Line polarity		Configuration jumpers for the ExBUS port
7	R1 – R8		Relays output
		COM	Common terminal of relay
		NO	Normally open contact of relay
		NC	Normally close contact of relay

Dimension



Technical specification

Power supply	10 – 34 V DC
• Voltage Vcc	2.5 W
• Power	
Environment	
• Ambient temperatures	-10 – +50 °C
• Humidity	10 – 90% long term, without condensation
IP	IP20
Digital input parameters	
• R _{IN}	10 kΩ
• Inactive	0 – 1 V
• Active	10 – 34 V
	Any polarity
Parameters of binary outputs	
• Relay	Floating contacts, NO/NC 230 V AC / 3 A 230 V DC / 0.25 A 24 V DC / 3A Not protected against overloading

Digital communication parameters	
• Port SBUS	RS - 485 Sigma Bus
• Electric standard	
• Communication protocol	
• Port ExBUS	RS - 485 Modbus ASCII / RTU, 4800 – 115200 b/s, no parity / even parity/ odd parity, number of bits 7/8 (only for Modbus ASCII)
• Electric standard	
• Communication protocol	
Integrated signalling equipment (visual)	LCD text display, 2 x 16 characters with backlight, LED indicators
Integrated signalling equipment (audible)	70 dB, 0.1 m distance
Protection class	III
Cable glands (cable diameter range)	1 – 2 mm ²
Enclosure material	Self – extinguishing PPO
Weight	0.4 kg
Mounting	On DIN-35 / TS35

Product marking

Product code	Device
PW-033-B	Sigma MOD LCD Control Unit Module



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