

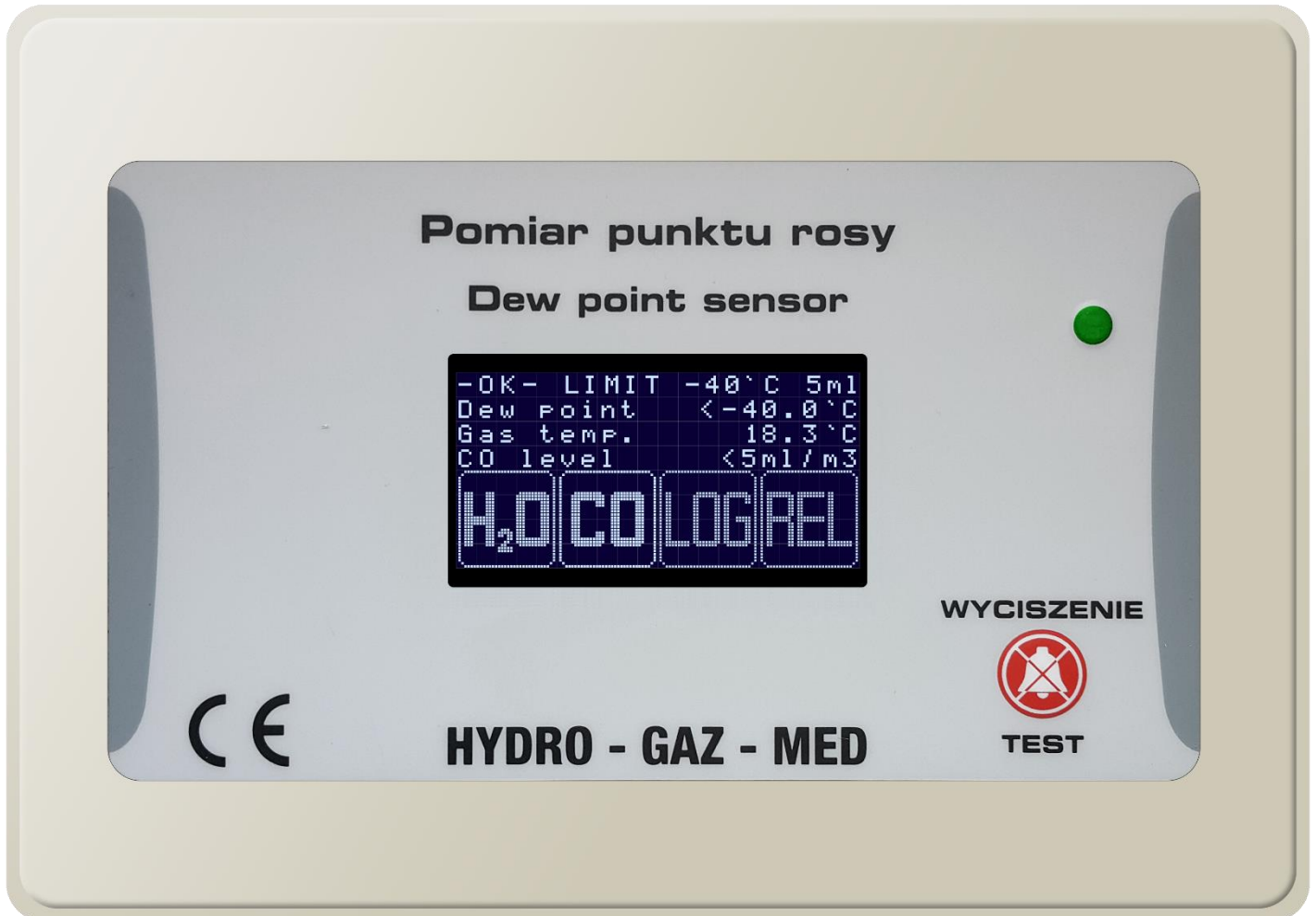


HYDRO-GAZ-MED
MEDICAL EQUIPMENT MANUFACTURER
Willowa 40 St., 05-205 Dobczyn, Poland
☎ +48 22 787 65 60 / +48 606 348 532 📠 +48 22 487 98 53
💻 www.gazmed.pl / ✉ gazmed@gazmed.pl

DEW POINT AND CARBON MONOXIDE MONITOR

in compressed medical air and oxygen

according to EN ISO 7396-1:2016



Instruction manual



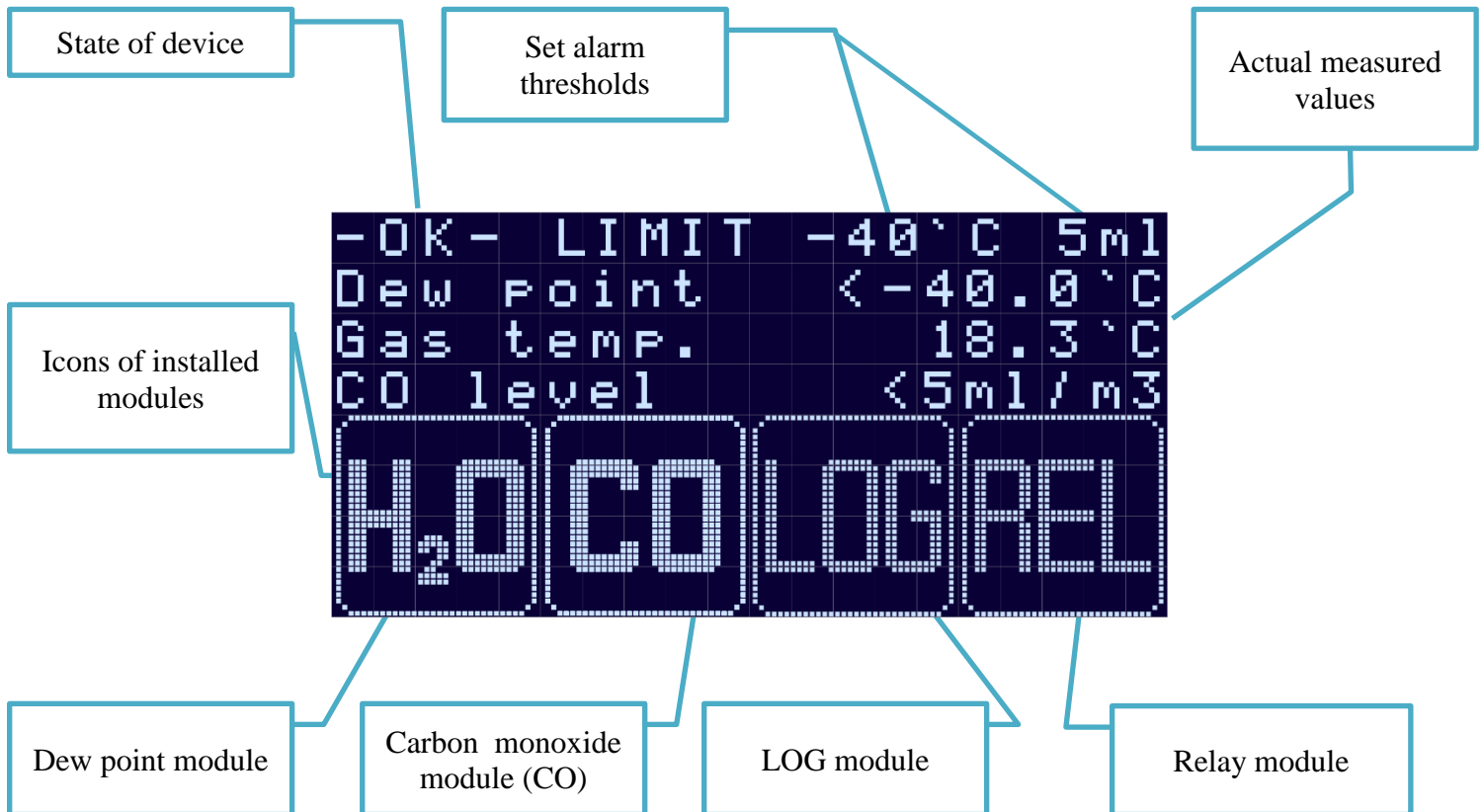
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1. Purpose

Device is designed to measure dew point temperature and carbon monoxide content in compressed medical air and in compressed oxygen from oxygen concentrator systems. As component of medical gas pipeline system according to EN ISO 7396-1:2016-07 it is a medical device class I.

2. Screen content



3. Construction

Device consists of few modules:

- 1) dew point module – primary module, available in every version;
- 2) relay module – to transmit alarm states;
- 3) carbon monoxide module – to measure CO level;
- 4) LOG module – to record operation and alarm states;
- 5) alarm unit;
- 6) 12V power supply;
- 7) 230V cable;

4. Function

4.1. Dew point

During normal operation H2O icon will be active all the time, in DEW POINT line value will be shown as „< -XX°C”, (XX means set alarm threshold). It means dew point temperature is lower than alarm threshold.

If dew point temperature will raise above set alarm threshold device will show measured value in DEW POINT line, H2O icon and LED will start blinking and there will be an audio alarm.

Physical button on the front panel is to mute alarm for 10 minutes, after that time alarm starts again, if the cause of the problem is not solved.

4.2. Carbon monoxide

During normal operation CO icon will be active all the time, in CO LEVEL line value will be shown as „<XXml/m³”, (XX means set alarm threshold). It means CO level is lower than alarm threshold.

If CO level will raise above set alarm threshold device will show measured value in CO LEVEL line, CO icon and LED will start blinking and there will be an audio alarm.

Physical button on the front panel is to mute alarm for 10 minutes, after that time alarm starts again, if the cause of the problem is not solved.

CO sensors are calibrated prior to shipment, so it is not necessary to calibrate again.

5. Transmitting alarm signals

Device allows to transmit alarm signals in 2 ways.

5.1. Relay

First one is potential-free contacts (see wiring diagram), which provides “open” or “closed” state. In normal condition circuit is closed, when an alarm occurs circuit is opened.

5.2. MODBUS RTU

Second one is Hydro-Gaz-Med central monitoring system interface. It is provided with RJ-45 connectors on the back of alarm unit (see wiring diagram). It allows to connect any model of remote alarm unit or to connect to the network of central monitoring system in facility using MODBUS RTU converter (sold separately).

6. Event preview

Device is equipped in LOG module, which records operations of device every hour and every alarm state when occurs.

To access preview screen press and hold the TEST button for 10 seconds. When proceeds to preview screen, there will be shown last recorded event. To view previous events press TEST button. The screen will go back to normal mode after 1 minute of inactivity.

7. Maintenance

It is recommended to replace CO sensor every 1 year.

8. Spare parts list

- | | |
|--------------------------|--------------------|
| - dew point sensor | - cat. No. SHT75 |
| - carbon monoxide sensor | - cat. No. I-30STG |

9. Authorized service

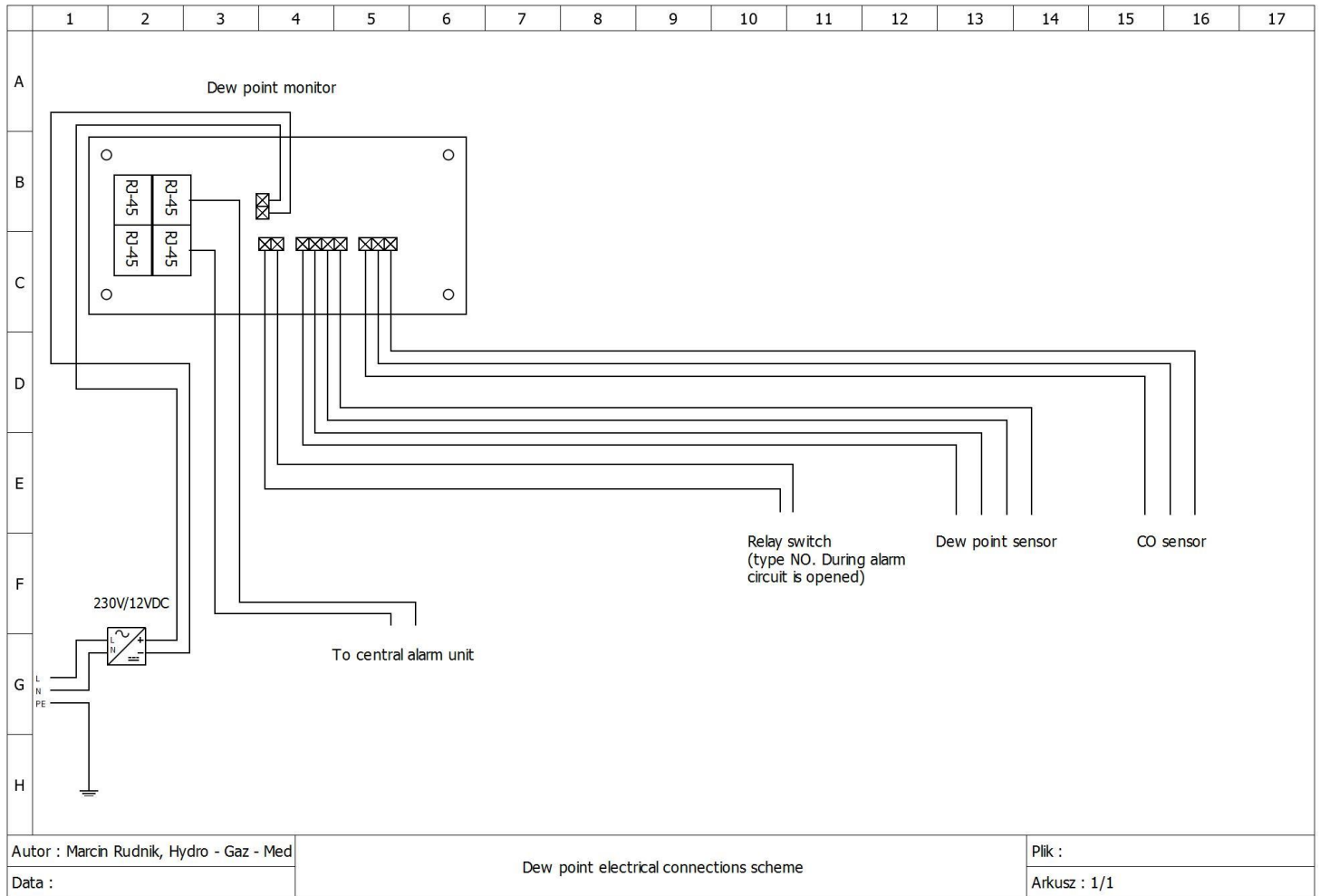
HYDRO-GAZ-MED Sp.J.
 Willowa 40 St.
 05-205 Dobczyn, Poland
 tel. +48 22 787 65 60
 fax +48 22 487 98 53
 gazmed@gazmed.pl

10. Specification

Standard	HGM	
Input	Dew point sensor, carbon monoxide sensor	SHT75, IT8, IQ5, I-30
Output	Digital	Relay (HF49F) max. 30V 3A DC / 48V 3A AC
	MODBUS RTU (optional)	9600 BAUD, 8 bits, 2 bits stop, no parity control
	LOG module	250 records, every hour it records status, plus every alarm.
Measuring range	Temperature Dew point Carbon monoxide CO	5°C – 50°C < -40°C info. OK. < 5 ml/m ³ info. OK.
Inlet pressure	Max. 16 bar	
Air inlet	6 mm hose (self-locking)	
Connectors	Transmission	RJ-45 or STL-1550/4-3.5
	Inlet/outlet	STL-1550/4-3.5 MC-1.5/2-5,08
Power supply	230V AC	
Power consumption	~25mA	Max. 200mA
Housing	PET	
Working temperature	5 – 50°C	
Storing temperature	-20 – 60°C	
Dimensions	Length	180 mm
	Width	145 mm

	Height	60 mm
Weight	~850 g	

11. Wiring diagram



12. FTP cable scheme

