

SIRA device for measuring odorant concentration

Natural gases and hydrogen are by nature low in odor or even odorless to humans.

In order for potential leaks to be noticed and eliminated in a timely manner thanks to someone smelling the typical gas odor, these gases are supplemented with an odorant (i.e. odorized) in the gas grid.

A new process gas analyzer uses UV spectrometry for the legally required odorization check.

TECHNICAL DATA:

Dimensions	H=990 mm/W=360 mm/D=300 mm aluminium housing
Weight	approx. 30 kg
IP classification	IP42
Operating temperature	-10°C to +50°C -20°C to +60°C (customized)
Ambient humidity	max. 95 % relative humidity, non-condensing
Mounting	wall mounting including wall holders
Ventilation	2x active ventilation
Power supply	110-230 VAC 50-60 Hz 200 W fault relay (24 VAC/100 mA) service relay (24 VAC/100 mA)
Display/operation	10.2" touchscreen display
Hardware	multiprocessor system with 32 GB storage USB ethernet
Software	Embedded Linux operating system
Safety monitoring	ventilation function, pressure monitoring, flow monitoring
Gas inlet	process gas calibration gas test gas
Gas connection	6 mm stainless steel compression fitting
Gas outlet	flue gas
Gas connection	6 mm stainless steel compression fitting

FEATURES:

Process gases	H-/L-gases Hydrogen
Ambient pressure range	950 – 1,100 mbar
gas pressure	20 – 50 mbar
gas consumption	max. 20 l/hr
communication options	0/4 – 20 mA digital output relays fieldbus systems

ANALYSIS SYSTEM FOR MEASURING ODORANT CONCENTRATIONS:

Adapted analyzer systems are available for the relevant odorants.

The central assembly of the analyzer system is the UV sensor in conjunction with a zero gas generation system matched to the odorant.

Adaptation of the analyzer system in the event of a change of odorant is possible at any time.

Odorant	Measuring range	Error limits
Tetrahydrothiophene (THT)	0 – 50 mg/m ³	0.75 mg/m ³ or 10 % of the measured value
Gasodor® S-Free	0 – 50 mg/m ³	0.75 mg/m ³ or 10 % of the measured value

FEATURES:**Configurable parameters**

- adjustment of different parameters according to users' needs, e.g. measurement cycles, units, storage intervals, views, reports

Control concept dependent on access rights

- access rights via user level
- configurability and transmission of measurement data and reports

Cycled measurement from 120 seconds to 24 hours

- setting of measuring cycles
- saving of measurement results
- history with graphic display
- protecting the setting of measuring cycles

Automatic reporting

- generating reports from the saved measurements
(duration of reporting periods can be adjusted freely)

Export function of measurement data

- saving measurements and reports on the device, including exporting

Uploading data in the cloud

- accessing measurements and reports on a file server via the internet

FEATURES:

Remote monitoring (remote maintenance possible)

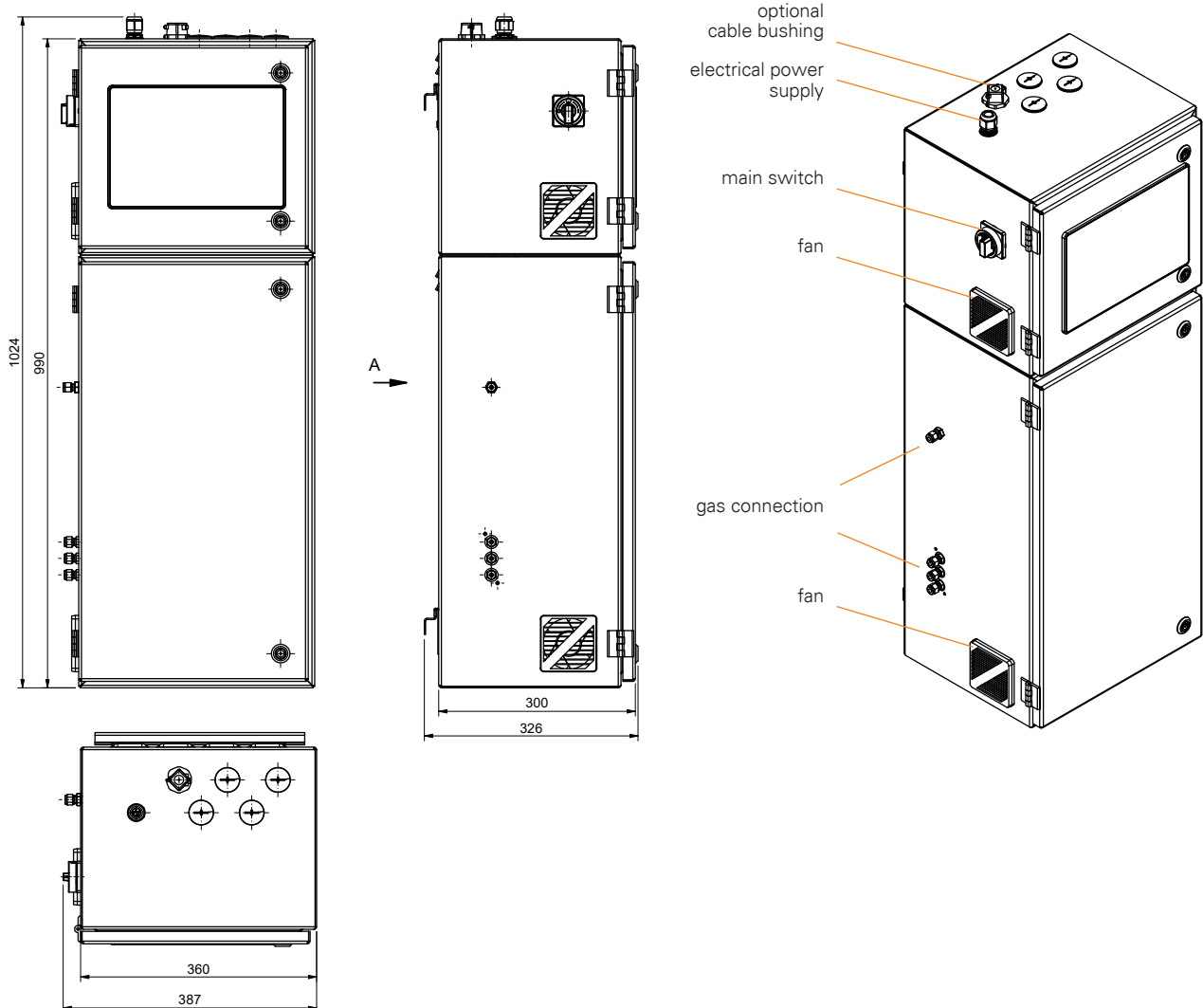
- retrieval of measurements and the resulting graphs
- setting of measurement cycles and export of measurement data and reports

GSM connectivity

- dispatch of alarm emails or SMS messages to preset destinations when threshold values exceed or fall below the set limits (the email or SMS indicates the device and the reason for the alarm)

Communication options

- Modbus TCP
- Profibus
- Profinet
- others on request



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