GasScreen 40

Multi-channel control unit

- *4 channels 4-20 mA*
- *16 channels RS-485*
- *Large 5" colour touch screen display*
- *Maximum versatility*
- *Easy assembly and configuration*
- *Powerful CPU for input and alarm management*
- *Optional WiFi and Datalogging*

The control unit for gas monitoring **GasScreen 40** enables the connection of 4 inputs in 4-20mA or 16 inputs in RS-485.

The input terminal block also accepts 0-20 mA signals, or in Volts (0-5 V, 0-10 V), making this control unit versatile also for managing sensors with different input logics.

The connectable sensors can be all those available, for combustible gases, oxygen and toxic gases.

The configuration of the connected sensors, as well as the detection parameters and alarm modification, are carried out on a large and comfortable 5" colour touch screen display, in a simple and intuitive way, which displays the measurement in real time, the relative unit and the type of gas detected, providing clear information in case of alarm: The channel display in alarm will turn yellow in case of fault alarm (sensor malfunction or absence of electrical signal), orange if the first alarm threshold is exceeded and red if the second alarm threshold is exceeded.

During the configuration steps, the user is guided by a simple and functional menu.

For slight deviations around the sensor calibration value, it is possible to act directly on the **GasScreen 40** from the relative auto-calibration menu, thus being able to align the measured value without having to act on the sensor.

A bottom plate for wall mounting ensures easy installation on any type of surface.

The CPU is set up for local wireless or GPRS connection (by inserting an optional card inside the instrument); Internet connection is available on the Ethernet socket.

The datalogger (optional) enables the storing of up to 30 days of measures at one-minute intervals, as well as all alarm events that occurred during the given period, and these data can then be exported to a USB stick to visualise trends in the gas concentration graph, directly on the large display.

Order information		
	GasScreen 40	Cod. 1004300
	Datalogger for GasScreen 40	Cod. 1004310

With the use of toxic gas sensors, GasScreen also provides alarms related to exposure over time: TLV TWA and TLV STEL, differentiated by their corresponding messages and colours on the display.
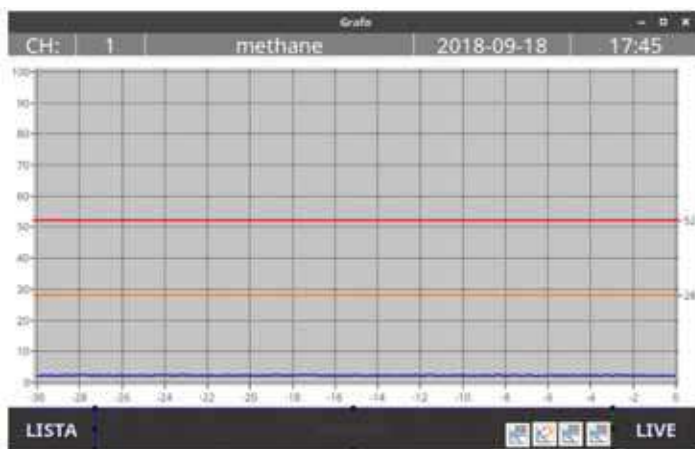
For each channel there are 2 relay contacts (8 relays in total); then there is a general alarm contact, a fault alarm relay common to the 4 channels and 2 "spare" relays that can be used, for example, in case of TLV alarms.

The colour display indicates the alarm level (yellow stands for fault, orange for first threshold exceeding and red for second threshold exceeding, while green indicates no alarm in progress). 4 channels are displayed simultaneously, each with its own identifying name, gas name and corresponding mA output. If there are more than 4 sensors connected, the channel that goes into alarm is automatically displayed on the main screen.

In the programming menu, you can enable/disable each channel. Then, for each active channel, it is possible to select the gas name from a drop-down menu (from a pre-loaded library that also includes the toxic gas TLV thresholds), then enter an identifying name (for example the name of the room where the sensor is installed), set the alarm thresholds and the latching type (automatic or manual return of the alarm signal).

The datalogging function enables, for each channel, the storing of data related to the last 30 days. By selecting the channel of interest, the tendency of the measured concentration graph is shown in full display, with reference to the relative alarm thresholds. Data can be exported to a pen drive via the USB port on the GasScreen 40.
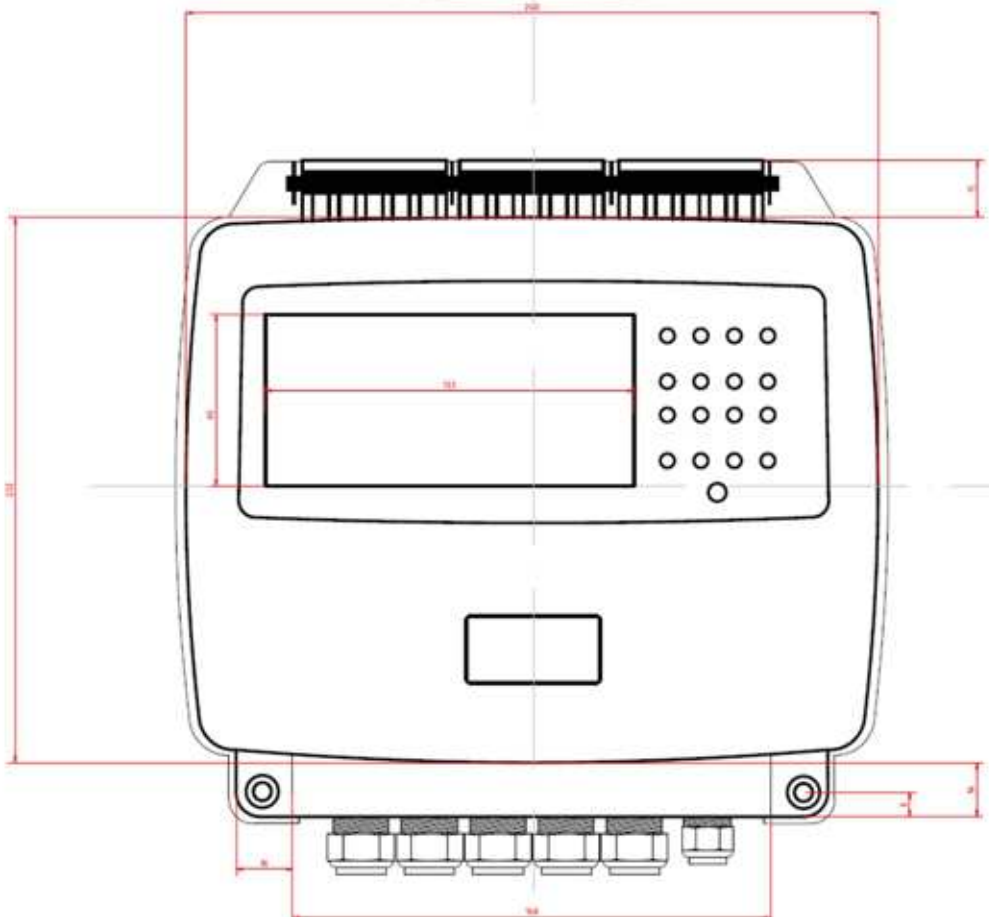
In the calibration menu, both zero point and span calibration can be carried out directly on the GasScreen 40 unit, thus enabling alignment of the values with those desired when the deviation is within an acceptable tolerance percentage.

GasScreen 40

General technical specifications	
Capacity	▪ Up to 4 analogue channels ▪ Up to 16 channels in RS-485
Types of inputs	Two- or three-pole, mA, mV, max 36 W total (without dedicated A/V unit)
Sizes	250 x 265 x 80 mm.
Container	ABS Polycarbonate, wall-mounted
Weight	1780 gr.
User interface	
Display	5" colour touchscreen LCD. Graphical user interface
Visual indicators	▪ N. 2 red LED for gas thresholds (A1 and A2) ▪ N. 1 yellow LED for general alarm (fault) ▪ N. 1 green LED for active channel signalling
Acoustic alarm	Buzzer activated in case of alarm, 90dB
Button	Common for alarm silencing/acknowledgement
Programmable parameters	▪ Offset and range for each channel ▪ 2 alarm levels per channel ▪ Customizing the measured parameter
Language	Italian, English
Power supply	
AC power supply	220 Vac
DC power supply	24 Vdc
Absorption	Max 240 W
Environmental specifications	
Operating temperature	0°C to + 55°C
Humidity	0% to 95% relative humidity (non-condensing)
Available I/O modules	
Inputs	▪ 4 analogue inputs in 4-20 mA, 0-20 mA, 0-5 V, 0-10 V ▪ 16 digital inputs in RS-485
Relay outputs	▪ N. 1 general alarm relay ▪ N. 1 fault signalling relay, common to the 4 channels ▪ N. 2 channel relay (A1 and A2) ▪ N. 2 spare relay (usable for STEL and TWA)
4-20 mA output	4 repeated and isolated mA outputs, 0-100% FSD = 4-20 mA
Common inputs	Remote reset
Common outputs	12 alarm signals, General fault alarm
Approvals	
Compliance Certificate	EC
Other	
Data registration	Configuration, events and recorded data (optional)
Communication	Ethernet, Wi-Fi, USB
Battery	Backup, optional

GasScreen 40 - Front view

GasScreen 40 - Motherboard