Gas Analyzer System MGAS 5.x

FUNCTION:

Instrument for measuring following gas concentrations

Carbon monoxide	%CO
Carbon dioxide	%CO2
Hydrogen	%H2
Methane	%CH

Customizable Gas components are possible.

Following components will be calculated:

- C-Level from CO2, CO and Temperature
  or Temperature, CO and mV*

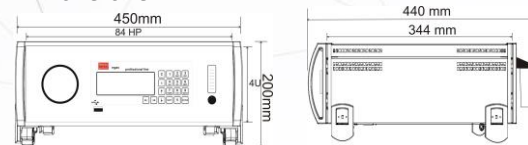- Dew point from CO2, H2 and Temperature
  or Temperature, H2 and mV*

mV from Lambda probe or O2-Probe

This equipment is qualified to measure furnace atmospheres online with, max. 6 different gas sensors. Eight analogous outputs, eight digital inputs / outputs and an optional serial interface are possible. The communication with the serial interface can be done with Modubus, TCP Ethernet or Profibus. All Analog and Digital inputs / outputs can be configured manual e.g. as Alarm, starting calibration or switching off pump. An optional data logging function with USB data transfer and an internal memory with 16MB is available. The logging function can work in manual or timer mode. With the delivered Software "MGas Viewer" you can visual, print, export and administrate your stored data. The equipment is adjustable by a high-quality foil keyboard with self-explainable menu structure in German and English language. Automatic calibration for zero-point and span for all gas components is possible. There is an additional calibration function called "fast calibration" which allows the user to change the displayed gas concentrations manual. Additional it is possible to configure several protection functions, e.g. switching off at high Dew Point or low Process Temperature, to increase the lifetime of the Device. The advanced gas transducers represents the latest technological achievement in non-dispersive infrared gas transducers with high accuracy, good long-time stability and excellent repeatability.

CONSTRUCTION:

Transportable Instrument (desktop) or Rack-mounting

Dimensions:

-**Desktop variant:**
 450 x 200 x 440 (w x h x d)
-**Rack variant:**
 U=4, HP=84, D=400mm

Weight: Approx. 14 kg

Protection type: IP 20 to IEC 529

Power supply:
230V +4% / -10%, 50-60Hz or
115V ± 10%, 50-60Hz

Power: Approx. 70W / Slow Fuse 2A in Power switch

Communication:
MODBUS
RS232, RS422, RS485
Ethernet over TCP/IP
Profibus

Heat up time: Approx. 10 min.

Storage:	0...50 °C
Operation:	5...40 °C

Measuring range:

CO:	0...35,0 %
CO2:	0...0,500 %, 0…1,000 %, 0…2,000 %
H2:	0...80,0 %
CH4:	0…5,0 %, 0…10,0 %, 0...20,0 %
°C:	0...1200 °C
C:	0...1,50 %
O2:	0…1300 mV
DP:	-30…+30 °C

Other measurement ranges on request.

MESA Electronic GmbH, Johann-Flitsch-Str.2, D-83075 Bad Feilnbach Tel:+498064-90630-0 Fax: +498064-90630-90
E-mail: info@mesa-international.de Webpage: www.mesa-international.de

V2.0 01-2021 page 1

Gas Analyzer System MGAS 5.x

TECHNICAL DATA:

Gas inputs:
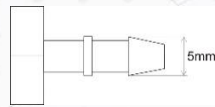- Measurement gas input
- Zero gas input
- Reference gas input

Pressure:
- Maximal pressure:
100 mbar overpressure (ü)
- Working pressure:
0 do 50 mbar overpressure (ü)
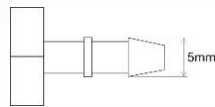- Gas flow:
Approximately 0,4 l/min

Connection type:
Hose connector

Gas outputs:
- Gas output 1
- Gas output 2
Pressure: Pressureless

Connection type:
Hose connector

Measuring gas components: max. 6
Oxygen probes: Lambda probe or O_2 probe
Additional calculation:
% Carbon-level,
°C Dew point
Measuring method:
NDIR dual wavelength principle no moving parts

Influence values	
Drift with autocal.	insignificant
Drift without autocal.	± 2% FS over 12 months
Linearity error:	< 2% FS
Temperature dependence with autocal.:	insignificant
Temperature dependence without autocal.:	± 2% FS/10 °K
Pressure dependence:	± 0.2% FS/10 mbar

Compensated by internal pressure sensor between 800 mbar and 1200 mbar.

Order number	Device name
800-1077	MGas 5.1
800-1069	MGas 5.2 / CO / CO2
800-1071	MGas 5.3 CO / CO2 / H2 oder CH4
800-1073	MGas 5.4 CO/CO2/CH4/H2/TP/%C/°C with DP sensor
800-1074	MGas 5.4 CO/CO2/CH4/H2/TP/%C/°C
800-1075	MGas 5.5 CO/CO2/H2/CH4/TP/%C/°C
800-1078	MGas 5.5 CO/CO2/H2/CH4/TP/%C/°C with DP sensor

Additional options and accessories

800-1201	RS 485 with Modbus protocol
800-1202	Profibus DB
800-1203	Modbus TCP/IP Slave
800-1204	Internal Datalogger, 16 MB memory capacity, USB + viewing software
800-1205	O2-probe / L-probe input with TC / %C - calculation
800-1206	Multiplexer software in connection with a MESA multiplexer
800-1207	Multiplexer software without a MESA multiplexer
800-1208	19"" housing

MESA Electronic GmbH, Johann-Flitsch-Str.2, D-83075 Bad Feilnbach Tel:+498064-90630-0 Fax: +498064-90630-90
E-mail: info@mesa-international.de Webpage: www.mesa-international.de

V2.0 01-2021   page 2