



(This figure shows a development model. Changes in serial model possible.)

Description:

Compact system for the analysis of Biogas:

- Methane (CH₄), Oxygen (O₂) and Hydrogen Sulphide (H₂S)
- Sampling and conditioning of measured gas, transmitters and evaluation combined in one compact wall mounted housing. Process of measurement especially designed for biogas application.
- Discontinuous measurement, 12 times per day
- Indication of the latest measured value during flushing and air phases
- 4...20 mA-outputs for CH₄, O₂, and H₂S (only Bio-Compact-A)

Article-No	Type (L): up to 100 ppm H ₂ S	Type (H): up to 1000 ppm H ₂ S
Bio-Compact	430128	430129
Bio-Compact-A	430130	430131

Features

- Measurand/Measuring Ranges:**
- Methane, 0 to 100 % (v/v) CH₄
 - Oxygen, 0 to 25 % (v/v) O₂
 - Hydrogen Sulphide:
Type (H): 0 to 1000 ppm, e. g. raw gas, or
Type (L): 0 to 100 ppm H₂S, e. g. behind active coal filter
- Sampling of Measured Gas:**
- Gas suction pump
 - Maximum length of sampling line: 20 m
 - Electronic flow rate monitoring
 - Magnetic valve to change from measured gas to flushing air and to control the process of measurement
 - Hosing: PE/PP
 - Flame arrestor ⓘ IIG IIB3 (inlet of measured gas)
- Operation Temperature:** +5 °C to +40 °C
- Humidity (Environment):** Non condensing
- Humidity (Measured gas):** < 60 r.F., non condensing (Recommended mounting location: behind dehumidification or active coal filterkohlefilter)
- Pressure at sampling point:** -100 hPa to +50 hPa (relative to ambient)

Signal Evaluation

- Alarm/Fault/Indication:**
- Illuminated graphic display (160 x 80) for indication of measured values
 - LEDs for channel specific indication of alarms (red), channel fault (yellow), channel operation (green),
 - LEDs for indication of operation (green) and device fault (yellow)
- User Interface:**
- Menu guided system via graphic display and keys
 - Completely configurable at device, no tools needed
 - 3 password protected servicing levels
- Alarm Evaluation:**
- 3 freely adjustable alarm levels per channel
 - Monitoring: over-scale, under-scale or min/max
 - Latching of each alarm configurable
- Relays, potential free:**
- 8 change-over contacts 230 V / 5 A (total power consumption: max. 10 A), freely configurable with alarms 1 to 3 and transmitter fault
 - 2 change-over contacts 230 V / 5 A for maintenance mode and device fault

ExTox Bio-Compact(-A)

Additional Functions	<ul style="list-style-type: none">▪ Adjustment of zero point and sensitivity of measuring channels▪ RS 232-Interface for communication with PC or PLT-Systems▪ Key switch function (maintenance mode)▪ Horn reset▪ Alarm reactivation▪ Analogue outputs 4-20 mA for CH₄, O₂, and H₂S, potential free (only Bio-Compact-A)
Mechanical Data	
Connections:	Glands for 4/6 hose (Ø inner/outer: 4/6 mm) at the bottom of the housing: <ul style="list-style-type: none">▪ measured gas inlet▪ gas outlet
Type:	Wall mounted housing, mounting plate for an easy stationary installation
Dimensions: (WxHxD)	<ul style="list-style-type: none">▪ appr. 480 mm x 200 mm x 120 mm (device)▪ appr. 480 mm x 280 mm (mounting plate)
Material:	Housing ABS
Cable Gland:	At the side of the housing: <ul style="list-style-type: none">▪ 1 x M20 x 1.5 (cable diameter 7-13 mm)▪ 10 x M16 x 1.5 (cable diameter 5-10 mm)
Installation Hints:	<ul style="list-style-type: none">▪ Separate housing areas for electronics and gas flow▪ The parts of the housing can be opened separately in order to perform installation and maintenance works.▪ Connections between electronic and gas part are of plug-in type, therefore easily and separately changeable▪ Holes in mounting plate for fixing screws: d= 6.5 mm
Storage Temperature: (Device out of operation)	-25 °C to +60 °C
Electrical Data	
Power Supply:	230 V AC (50 Hz)
Power Consumption:	45 W (230 V AC: max. 0.2 A , 24 V DC: max. 2 A)
Clamp Field:	<ul style="list-style-type: none">▪ Power Supply▪ Central connection PCB for transmitters, digital inputs and relay inputs
Conformity	
EC-Directives:	CE Ⓜ II (3)G 2014/34/EU (ATEX), 2014/30/EU (EMC), 2014/55/EU (LVD)
Measuring Function:	Designed according to <ul style="list-style-type: none">▪ EN 60079-29-1▪ EN 45544-1 to DIN EN 45544-3▪ EN 50104

Options:

- External condensate trap incl. hose pump: allows operation of the ExTox Bio-Compact under environmental conditions, in which formation of condensate in the measured gas lines cannot completely be excluded. Removal of condensate is automatically been done by the hose pump.
- Water trap: protects the ExTox Bio-Compact against damages due to condensate / Water entrance.

This Data Sheet is at the same time a type specific supplement to the Instruction Manual *ExTox Bio-Compact*.

ATTENTION: all information in this data sheet is preliminary.
It describes the actual development status. The future serial version may differ.
(Subject to technical changes)