



Description:

Gas detection control unit for measurement of flammable and/or toxic gases as well as oxygen. Smoke detectors as option. Graphic display. Menu guided configuration. 3 Alarm levels per channel. 12 freely configurable relays. Analog outputs 4...20 mA (only ET-4DA2).

Article-No.	Wall Mounted		DIN-Rail		Control Panel		19"-Rack	
	230 V	24 V	230 V	24 V	230 V	24 V	230 V	24 V
ET-4D2	315000	315004	315001	315005	315002	315006	315008	315009
ET-4DA2	317000	317004	317001	317005	317002	317006	317008	317009

Features

Number of Transmitters:	1 to 4 (4-20 mA)
Signal Processing:	Microcontroller with A/D-Converter
Alarm/Fault/Indication:	- Illuminated graphic display (160 x 80) for indication of measured values, messages and alarms 12 (3 x 4) red LEDs for alarm indication - LEDs for indication of channel fault (4 x yellow), channel operation (4 x green), operation (1 x green), device fault (1 x 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:	12 change-over contacts 230 V / 5 A, ohmic, (in total: max. 10 A), freely configurable with Alarm 1 to 3 and transmitter fault 2 change-over contacts 230 V / 5 A, ohmic, for maintenance mode and device fault
Additional Features:	- Adjustment of zero point and sensitivity of measuring channels - RS 232/RS 485-Interface for communication with external periphery (PC or PLT-System) - Key switch function (maintenance mode) - Horn reset - Alarm reactivation 4 Digital inputs, potential free 4 Analog outputs 4-20 mA/0-10 V, potential free (only ET-4DA2)
Operation Temperature:	-10 °C to +40 °C, Humidity: non condensing
Storage Temperature:	-25 °C to +60 °C, Humidity: non condensing
Options:	ProfiBus, ModBus, Ethernet connection, Visualisation ET-View, ... (with integrated ProfiBus DP-Module: ET-4DP2, 24 V (Art. 315010))

Gas Detection Control Unit ET-4D(A)2

Electrical Features

Power Supply: 230 V AC (85...264 V AC, 47...440 Hz / 120...340 V DC) or 24 V DC

Power Consumption: 45 W (230 V AC: max. 0.2 A , 24 V DC: max 2 A)

Conformity

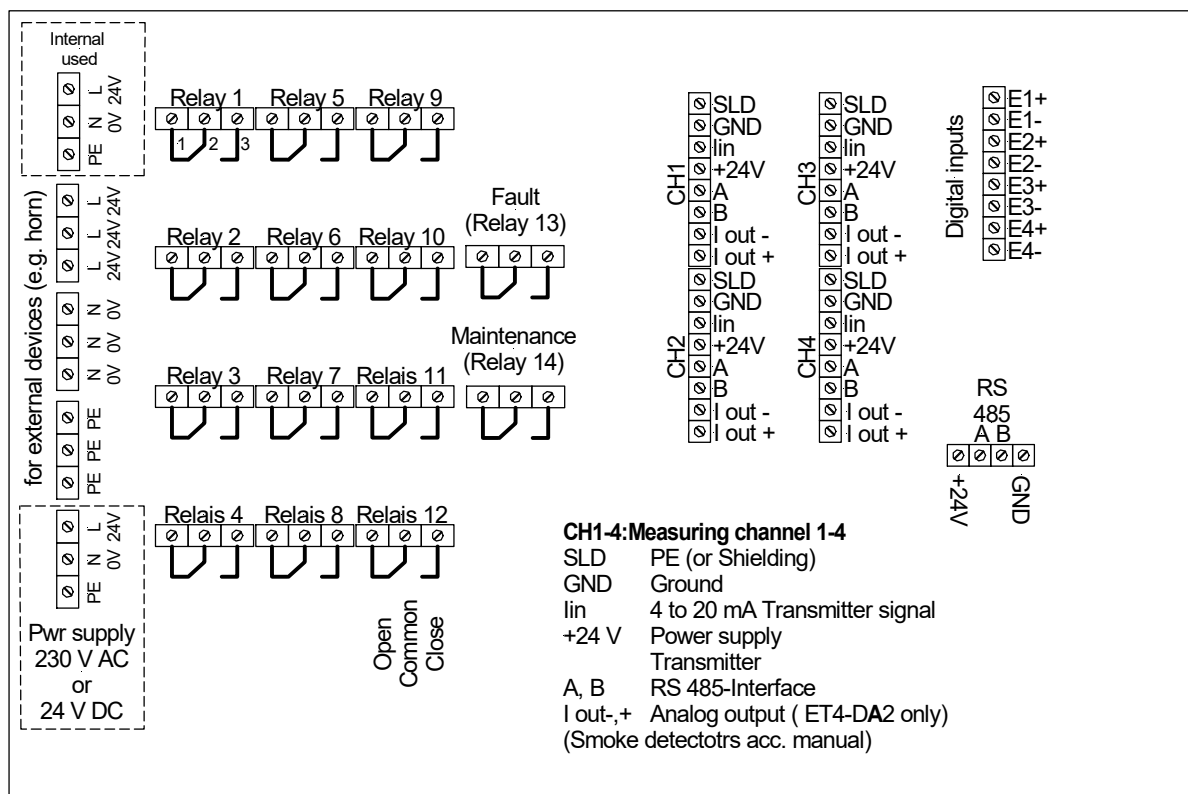
EC-Directives: CE II (3)G

Type Test: 2014/34/EU (ATEX), 2014/30/EU (EMV), 2014/35/EU (LVD)
BAM 10 ATEX 0301 X (Art. 315000, 317000, Software ET481118, acc. to Standards EN 60079-29-1:2007, EN 50271:2001)

Measuring Function: Designed acc. to

- DIN EN 60079-29-1
- DIN EN 45544-1 to DIN EN 45544-3
- DIN EN 50104

I/O-Connection Scheme



Relays Configuration

Relay 1 to 12: Freely configurable at device (Alarm 1 to 3, fault, reset able, open-circuit/closed-circuit principle, logic linking AND/OR)

Relay 13: Device fault

Relay 14: Maintenance mode

Standard Settings:

Relay 1 to 4: 1. Alarm of channels 1 to 4

Relay 5 to 8: 2. Alarm of channels 1 to 4

Relay 9: 1. Common Alarm of channels 1 to 4

Relay 10: 2. Common Alarm of channels 1 to 4

Relay 11: 3. Common Alarm of channels 1 to 4

Relay 12: Common fault of channels 1 to 4

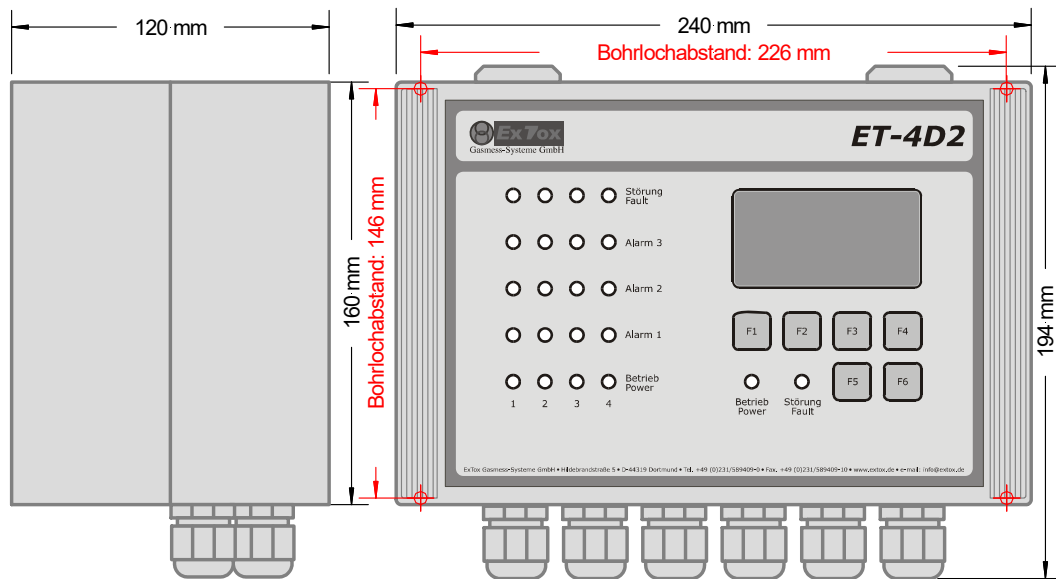
All relays: closed-circuit principle, non reset able
(deviations possible when used in ExTox IMC, in special versions or in combination with smoke detectors)

Option: Adjustment acc. to customer requirements:

- on factory-sided delivery
- at location by ExTox-Service

Gas Detection Control Unit ET-4D(A)2

Type Wall Mounted



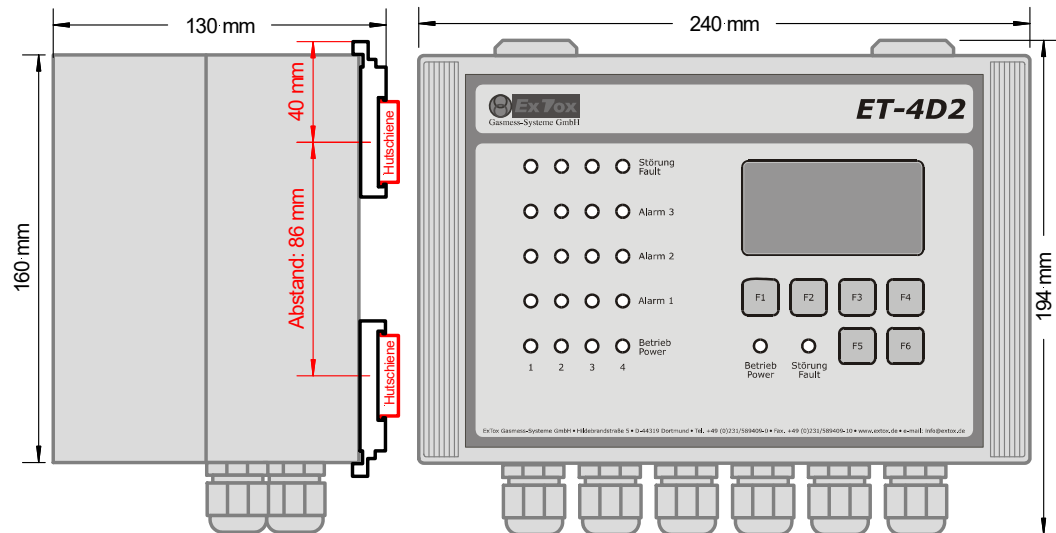
Type:
Dimension (WxHxD):
Material:
Enclosure Rating:
Cable Gland:

Installation Hints:

Wall mounted housing for fix installation
240 mm x 194 mm x 120 mm
Housing ABS
IP 54

- 1 x M20 x 1.5 (diameter of cable 7-13 mm)
- 10 x M16 x 1.5 (diameter of cable 5-10 mm)
- Lead-through for mounting screws: d= 4.5 mm
- The housing can be opened for installation and maintenance purposes by tucking up the cover. Provide free space above the housing.

Type DIN-Rail



Type:

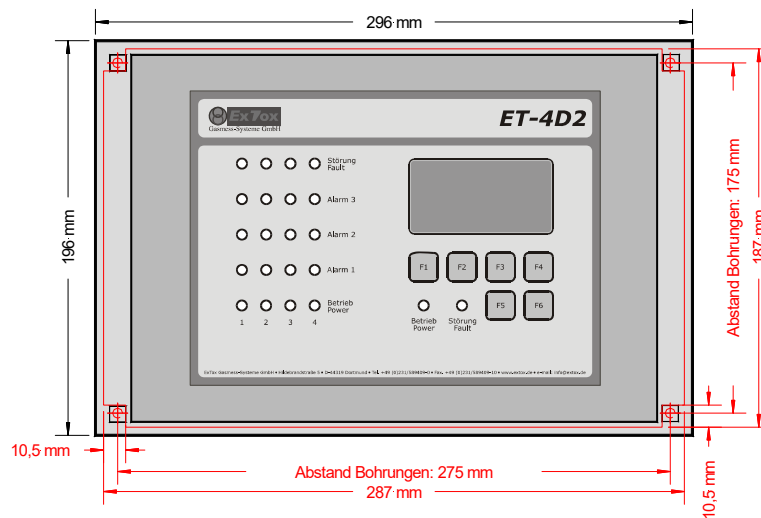
Installation Hints:

Identical to wall mounted type, but additionally with adapters for installation on Standard DIN-Rails 35 mm x 7.5 mm

- Adapters are mounted on the back plate to snap-in the housing on the DIN-rails. The connection can easily be loosened by a screw-driver. Pull up the nozzle of the adapter.
- The housing can be opened for installation and maintenance purposes by tucking up the cover. Provide free space above the housing.

Gas Detection Control Unit ET-4D(A)2

Type Control Panel



Type:	Installation in control panels or cabinets. Indication/Controller to be installed in front cut-out. I/O-clamp terminal can freely be positioned on mounting places.
Dimension (WxHxD):	296 mm x 196 mm x 80 mm (Indication/Controller) 240 mm x 160 mm x 40 mm (I/O-clamp terminal)
Material:	Front lid: Polystyrene with double front seal
Enclosure Rating:	IP 54 (front lid)
Installation Hints:	- Lead-through for mounting screws: d= 3 mm - I/O-clamp terminal for remote installation inside the cabinet: Bore holes: 226 mm x 146 mm, Connection cable: ca. 1.8 m (special length on demand)
Options:	- I/O-clamp terminal not remote: installation is done on the backside of the controller PCB. Depth of complete device: ca. 160 mm - Front lid for adaption to customer specific dimensions of control panel cut-out

Type 19"-Rack

Type:	Identical to Control Panel Type, but built-in 19"-frame rack
Dimension (WxHxD):	482.6 mm (84 TE) x 265.35 mm (6 HE) x 185 mm

(Subject to technical changes)