



CONTROL UNITS

Warszawa

**MD-8...
MD-16...**

Series U5

PURPOSE

CONTROL UNITS type MD-8... and MD-16... are dedicated to use with detectors type DEX®/F, DG/F, DG.EN made by GAZEX. MD units are able to control WG and AirTECH type detectors as well. MD is microprocessor controlled - available in two versions: up to 8-channel (MD-8...) or up to 16-channel (MD-16...).

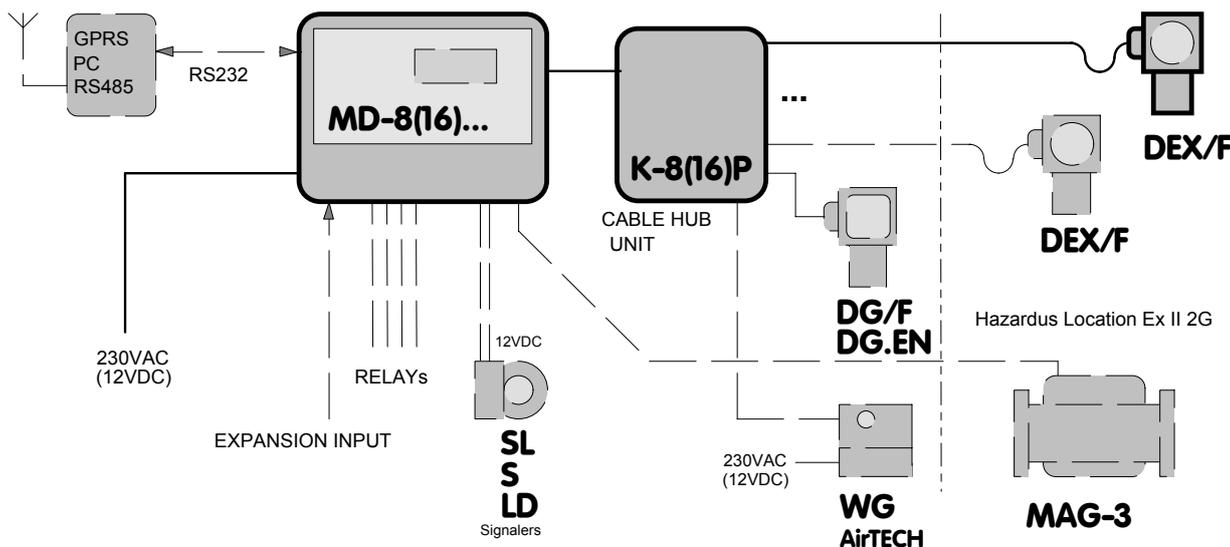
MD saves the alarm status of each detector connected to the device, until the manual reset of the memory is performed by operator. MD allows to control of external devices such as ventilators, contactors, valves, etc.

Control units are available with both voltage supply: 230VAC (model MD...B with automatic back-up) or 12VDC.

Model MD...Z sends cut-off signals to safety valve type MAG.



TYPICAL SYSTEM CONFIGURATION



SELECTING TABLE

Model	MD-	8	8.A	8.B	8.Z	8.ZA	8.ZB	16	16.A	16.B	16.Z	16.ZA	16.ZB
Max Detector channels		8	8	8	8	8	8	16	16	16	16	16	16
Relay Output		2+2	2+2	2+2	2+2	2+2	2+2	2+2	2+2	2+2	2+2	2+2	2+2
Fault Relay Output		1	1	1	1	1	1	1	1	1	1	1	1
12DC Alarm Output		2+2	2+2	2+2	2+2	2+2	2+2	2+2	2+2	2+2	2+2	2+2	2+2
12VDC Expansion Input		2	2	2	2	2	2	2	2	2	2	2	2
12VDC High-current Output		-	-	-	2	2	2	-	-	-	2	2	2
Power supply		230V AC	12V DC	230V AC	230V AC	12V DC	230V AC	230V AC	12V DC	230V AC	230V AC	12V DC	230V AC
Internal back-up Power supply				+			+			+			+

PRODUCER: **GAZEX**
gazex Baletowa 16, PL 02-867 Warsaw, POLAND
 Tel: +48 22 644 2511 Fax: +48 22 641 2311
 gazex@gazex.pl www.gazex.com

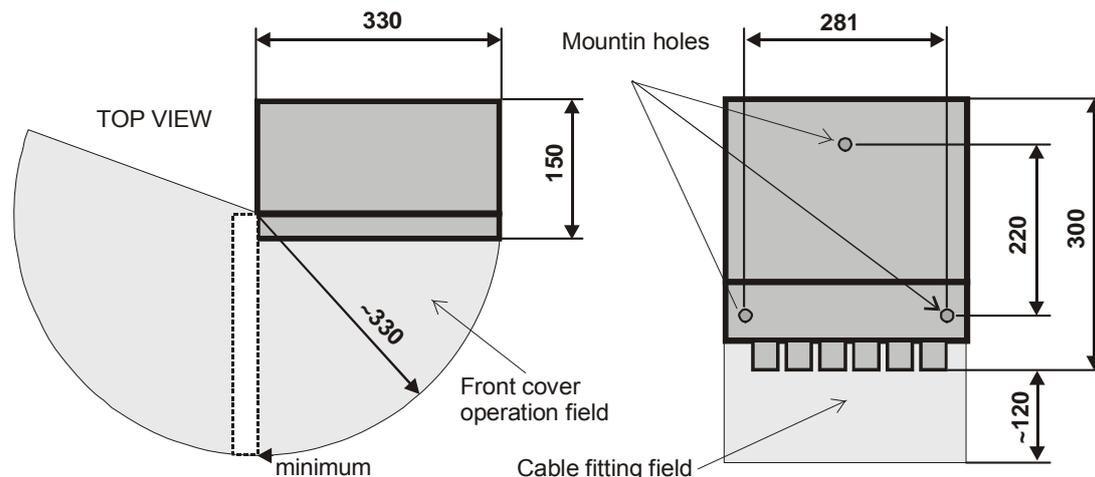
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OPERATIONAL FEATURES

- Power supply to all detectors - 9VDC, overload control (each detector), all connections control
- Large LCD display with back-light, optical (LEDs) and acoustic signaling state of each detector/output
- Two virtual zones with separate outputs – 2 control units in one
- Internal memory for more than 2000 events (back-up battery)
- Regulation for all timing parameters from front panel
- PC software for memory loading and parameters settings, RS232 terminal available
- External GPRS or RS485 control unit for two way operations available (optionally)
- Isolated alarm inputs, possibility to connect other MD/systems
- 12V alarm outputs for warning lamps and sirens and 12VDC low current power supply for external devices
- Relay outputs (each zone, each level), fault relay output
- Model MD...Z: two 12VDC high current outputs for cut-off safety valves with connections control
- Internal power supply back-up (model MD...B only)

INSTALATION REQUAIREMENTS



TECHNICAL SPECIFICATION

Supply voltage	MD-8,16 (B, Z, ZB) : 230VAC (allowed: +10%,-14%) MD-8,16 (A, ZA) : 12VDC (allowed: 11.5V - 14.0V)
Power consumption	max 65W (MD...A : max 55W)
Operating temperature	0°C do 40°C allowed, +5°C do 35°C recommended, -5° C do 45°C instantaneous allowed (< 2h/8h)
Store temperature	5°C do 35°C
Number of channels	two threshold channels: 8 - (MD-8...); 16 - (MD-16...), in two virtual zones
Alarm levels	2 , warning - A1 (ALARM 1); alarming - A2 (ALARM 2) – (closing valve for MD...Z)
Alarm memory	inputs: LCD display+ buzzer , each channel and level outputs: LED for each level; 2300 events in memory (battery back-up)
Memory delete	manual reset button at front panel
Inputs/outputs timing	inputs delay: 1 ÷ 20min. s pre-heating after switch on, inputs delay: 10 s (3 ÷ 120 s can by set from front panel); outputs delay: 10 s (3s ÷ 15min. can by set from front panel)
Visual indication	LCD graphic display + ALARM1 (red LED), ALARM2 (red LED)
Acoustic signaling	internal buzzer – aprox. 60dB/1m.
Detectors supply voltage	9VDC, on LCD indication for each detector
Fault alarm	"AWARIA" FAULT - yellow LED
Fast test signal release	manually, „TEST" button under terminal cover
Power indicator	green LED
Relay outputs	NC/NO type for: A1 and A2 /zone + ΣA1, ΣA2, FAULT; non-voltage; max load: 8A (resistive load) or 2A (motor) or 0,6A (inductive fluorescent lamps); 250VAC or 30VDC
Voltage outputs	<ul style="list-style-type: none"> ■ 12VDC for A1, A2; summary load = max 0.3A, (supply for SL-31, S-3, LD-1) ■ 12VDC impulse, for A2, high-current, cut-off of safety valve (MD...Z only) ■ 12VDC supply for external MDX or others (max load = 0.2A)
Digital output	RS232, ASCII or MODBUS/RTU mode, 9600/19200bps, non-standard connector
Expansion inputs	12VDC (photo couplers, 5-16V, max 20mA) for A1, A2; non-delay
Dimensions, weight	300 x 330 x 150 mm, (H x W x D); approx. 3kg
Enclosure	ABS, 9 cable glands, IP54, 3-point fitting