

# FIRE ALARM

- ▶ **Smoke sensor**  
mod. 1043/261
- ▶ Complying with EN 54/7 specifications

- ▶ **Rate-of-rise sensor**  
mod. 1043/266
- ▶ Complying with EN 54/5 specifications

- ▶ **Heat sensor**  
mod. 1043/264
- ▶ Complying with EN 54/5 specifications

- ▶ **Manual button**  
mod. 1043/243
- ▶ Complying with EN54/11 specifications

- ▶ **Repeater panel**  
mod. 1043/274

- ▶ **Printer interface**  
mod. 1043/275

▶ **AREA  
INTERNET**

- ▶ **Interface PC**  
mod. 1043/278A

- ▶ **Modem**  
mod. 1043/283

- ▶ **Software**  
mod. 1043/279A  
or 1043/273

- ▶ **Printer**





## SECURITY SOLUTIONS

## CONTROL UNIT

- Sch. 1043/260A** Microprocessor type fire alarm control system 2 loop lines expandable to 4, 6, and 8 loops  
**Sch. 1043/250** Microprocessor type fire alarm control system 1 loop line

## ACCESSORIES

- Sch. 1043/270** Expansion board to 2 loops  
**Sch. 1043/271** Activation module  
**Sch. 1043/273** Remote Assistance software for 1043/260A  
**Sch. 1043/274** Repeater panel  
**Sch. 1043/272** Short-circuit isolator  
**Sch. 1043/277** Serial interface for conventional sensors  
**Sch. 1043/276** RS485 system interface  
**Sch. 1043/275** Printer interface for 1043/260 control unit  
**Sch. 1043/278A** PC interface  
**Sch. 1043/279A** Graphic map and remote management software



1043/250

## SENSORS

- Sch. 1043/261** Smoke sensor with base and self-teaching circuit  
**Sch. 1043/262** Smoke sensor with base and SCR opto output, with self-teaching circuit  
**Sch. 1043/264** Heat sensor with base and self-teaching circuit  
**Sch. 1043/265** Heat sensor with base and SCR opto output, with self-teaching circuit  
**Sch. 1043/266** Rate-of-rise sensor with base and self-teaching circuit  
**Sch. 1043/267** Rate-of-rise sensor with base and SCR opto output, with self-teaching circuit  
**Sch. 1043/268** Optical-thermal sensor with base and self-teaching circuit  
**Sch. 1043/269** Optical-thermal sensor with base and SCR opto output, with self-teaching circuit  
**Sch. 1043/243** Manual button, c/w self-teaching circuit  
**Sch. 1043/244** Manual reset button, c/w self-teaching circuit



1043/261



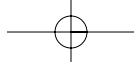
1043/243

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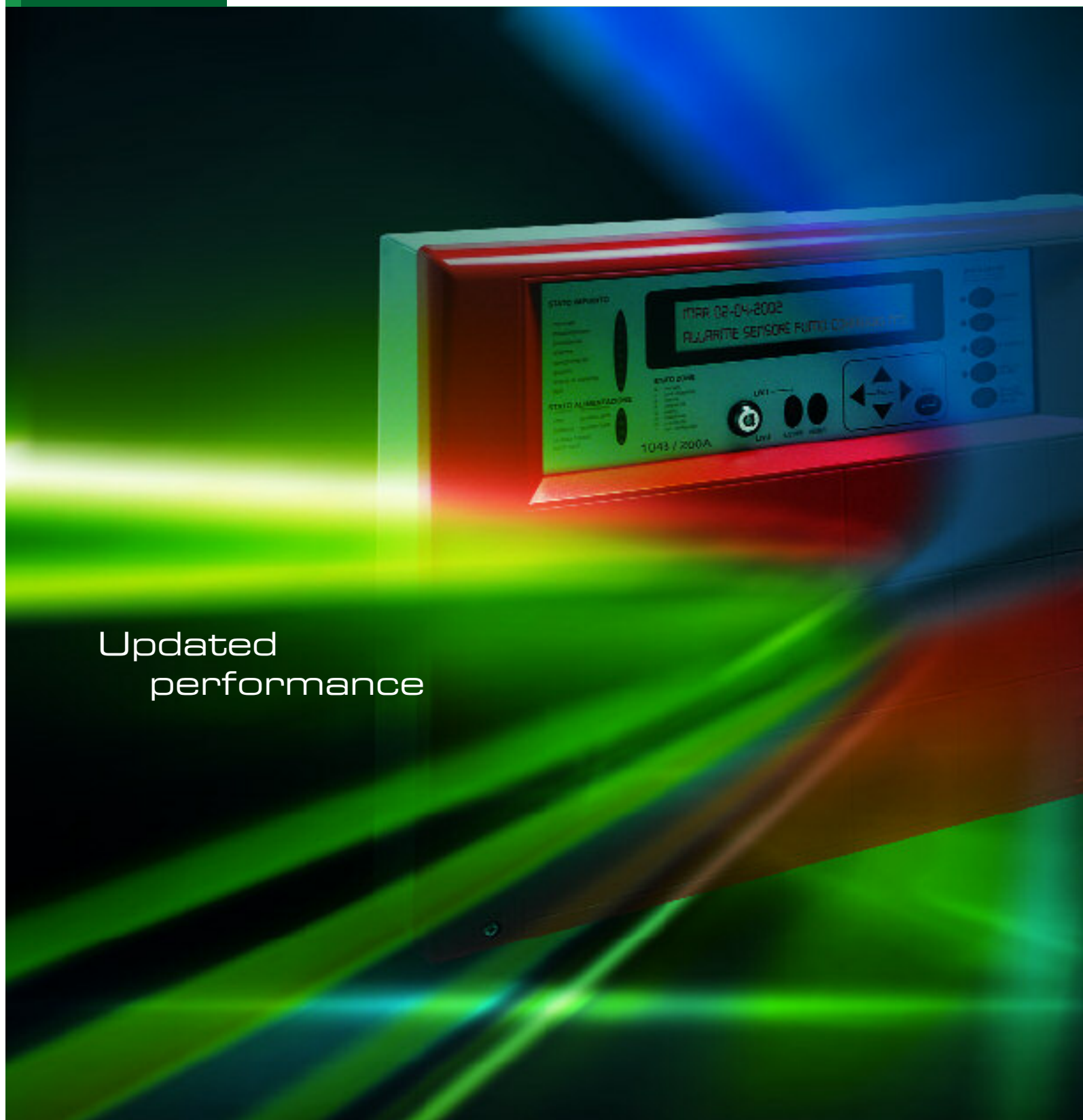
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INDUSTRY

PUBLIC

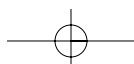
SECURITY SOLUTIONS



Updated  
performance

**DIGITAL Fire Alarm Systems.**

**urmet**



INDUSTRY

PUBLIC

## Versatility with the gift of simplicity

Urmet has skillfully blended simplicity and versatility to deliver a line of digital fire alarm control systems with class-beating performance able to cater to any plant engineering requirement.

The new control units are both flexible and modular and able to interact simply and immediately with the end user. They all feature a generously-scaled display for data exchange, a self-test capability, events control and a minidin input (to be connected to a normal PC keyboard) for programming.

Urmet digital systems can be used in three different ways according to system installation requirements: closed-loop line with self-teaching sensors; 2 open lines, also with self-teaching sensors, 2 open lines with logic address sensors. The set of sensors can be divided into 32 virtual zones without any constraints as regards sequence or having to belong to the same loop.

The alarm threshold of each zone (single, double or multiple consent criteria) and the weight of each individual sensor according to this threshold can be set.

The sensors, activation modules, individual zones can be identified with 16-character names selected from an internal default or fully customizable vocabulary.

Outstanding characteristics include: remote management, remote assistance, day/night function, hotel function, up to 1000 event memory, the serial port for connection of repeater panels, printers and PCs.

- ▶ FIRE ALARM CONTROL UNIT  
mod. 1043/260A
- ▶ EN 54 part 2 - 4 specificator



- ▶ Interface  
**RS232-485**  
mod. 1043/276



- ▶ Software  
mod. 1043/279A



# CONTROL UNITS

## 1043/260A • Microprocessor type fire alarm control system 2 loop lines expandable to 4, 6, and 8 loops

► Complying with EN 54 part 2-4 specifications

- Management of max. 8 loop lines
  - 2 basic loops, expandable with 2-loop additional boards
- Management of max. 16 open lines
  - Each loop can be configured as 2 open lines
- Line configuration:
  - Closed loop with self-addressed sensors
  - Two open lines with self-addressed sensors
  - Two open lines with logic address sensors
- Management of a total of 960 points (sensors/activation modules)
- Management of 120 points per loop (60 if configured as pair of open lines)
- Up to 4 activation devices per loop (each device has 4 relays)
- Up to 128 programmable outputs (4 for each device)
- Up to 32 freely-associable zones
- 40 x 4 back-lit alphanumeric LCD display
- Possibility of setting the alarm threshold of each zone
- Possibility of setting the weight of each sensor according to the threshold of the zone to which it belongs
- Possibility of enabling/disabling the individual sensors, the individual zone, entire lines
- Possibility of identifying the sensors and the zone with 16-character names
- Internal vocabulary
- Programming using standard keyboard from PC (optional)
- On-board management keyboard with three access levels
- RS-485 for connection of repeater panels, serial printer and PC
- REMOTE MANAGEMENT (using Sch. 1043/279A)
- REMOTE ASSISTANCE (via Sch. 1043/273)
- Hotel/hospital function
- Up to 1000-event memory
- 27.6 Vdc - 2.5 A switching power supply (current limited)
- Max. external load. 1.5 A @ 27,6 V
- Internal buzzer
- General alarm relay output: SPDT 24 V
- Fault alarm relay output: SPDT 24 V
- Power-off alarm relay output: SPDT 24 V
- Reset output: SPDT 24 V 10A
- Max. length per loop: 2 Km
- Max. length per open line: 2 Km
- Dimensions: 500 (W) x 370 (H) x 150 (D) mm

## 1043/250 • Microprocessor type fire alarm control system 1 loop line

► Complying with EN 54 part 2-4 specifications

- Management capacity: 120 points (60 if configured as pair of open lines)
- Up to 4 activation devices (each device has 4 relays)
- Up to 16 programmable outputs (4 for each device)
- Management of 1 loop line
  - Each loop can be configured as 2 open lines
- Line configuration:
  - Closed loop with self-addressed sensors
  - Two open lines with self-addressed sensors
  - Two open lines with logic address sensors
- Up to 16 freely-associable zones
- 40 x 4 back-lit alphanumeric LCD display
- Possibility of setting the alarm threshold of each zone
- Possibility of setting the weight of each sensor according to the threshold of the zone to which it belongs
- Possibility of enabling/disabling the individual sensors, the individual zone, entire lines
- Possibility of identifying the sensors and the zone with 16-character names
- Internal vocabulary
- Programming using standard keyboard from PC (optional)
- On-board management keyboard with three access levels
- RS-485 for connection of repeater panels, serial printer and PC
- Up to 1000-event memory
- 27.6 Vdc - 2.5 A switching power supply (current limited)
- Max. external load. 1.5 A @ 27,6 V
- Internal buzzer
- General alarm relay output: SPDT 24 V
- Fault alarm relay output: SPDT 24 V
- Power-off alarm relay output: SPDT 24 V
- Reset output: SPDT 24 V 10A
- Battery compartment: 2 x 12 V - 12 A batteries
- Max. length per loop: 2 Km
- Max. length per open line: 2 Km
- Dimensions: 500 (W) x 370 (H) x 150 (D) mm
- Management of max. of 4 open lines.
- Management of a total of 120 points per loop (60 if configured as pair of open lines).
- Configuration of the board (open or closed)
  - Closed loop with self-addressed sensors
  - Two open lines with self-addressed sensors
  - Two open lines with logic address sensors
- Connection to main board with 14-pin flat cable
- 2 readout leds
  - Flashing green: normal functioning
  - Steady yellow: fault



# ACCESSORIES

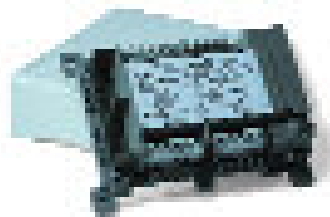


## 1043/270 • 2-loop expansion board

▶ The 1043/270 expansion board manages communication between the 1043/260A control unit and devices connected on sensor lines. The connection with the devices may be made with a closed-loop line or open lines.

Configuration is carried out with the power supply disconnected using three-position jumpers located in an accessible part of the board.

- ▶ Management of max. 2 loops.
- ▶ Management of max. 4 open lines.
- ▶ Management of a total of 120 points per loop (60 if configured as pair of open lines).
- ▶ Configuration of the board (open or closed line):
  - Closed loop with self-addressing sensors
  - Two open lines with self-addressing sensors
  - Two open lines with logical address sensors
- Connected to the motherboard using 14-pin flat cable.
- ▶ Connected to the motherboard using 14-pin flat cable.
- ▶ 2 indicator leds:
  - ▶ Flashing green: normal functioning
  - ▶ Steady amber: fault



## 1043/271 • Activation module

▶ The activation modules (relay-type outputs) are installed on sensing lines with up to a maximum of 4 devices per LOOP (or per pair of open lines), each containing 4 relay outputs whose individual functions are selected when programming the control unit.

The board exchanges data with the control unit and can operate in self-addressed mode in the open line or closed loop configuration (with bi-directional polling) or be programmed with a physical address in order to operate in a star or parallel connection configuration.

The board must be powered at 12V or 24V by the control unit or by an external power supply.

- ▶ Power supply voltage: 15-21 Vdc line
- ▶ Power take-off on the line: average 200  $\mu$ A
- ▶ Relay power supply: 11 ~ 15 Vdc / 21 ~ 28 Vdc
- ▶ Relay contacts: 1 A @ 30 Vdc
- ▶ Dimensions: 135 (W) x 110 (H) x 45 (D) mm

## 1043/273 • Remote assistance software for 1043/260A

▶ This software makes it possible to acquire plant characteristics by reading the data on the interface or in the control unit.

With the aid of the 1043/283 modem and of the PC 1043/278A interface, the software permits remote download and remote programming of the configuration of the control unit and also of the events log (using password and/or jumper).

## 1043/274 • Repeater panel

The repeater panel promotes active, constant control of each event. The 1043/250 -/260 control unit (equipped with 1043/276 system interface) can manage up to 16 remote panels. Connection with the control unit and with any other panels is afforded by an RS485 opto-isolated port. The identifier address of the panel is established by a commutator located on the main board of the panel; also, the serial line can be disabled using a specific jumper.

Information is displayed on a back-lit 40 x 4 character alphanumeric display. Power present, bypassing/re-enabling, alarms and faults are displayed by a set of leds. The user has a keyboard with specific keys to send/receive commands to/from the control unit.

▶ The following operations can be performed or displayed from the repeater panel:

- buzzer reset
- alarm reset
- enabling/disabling of the BELL output
- enabling/disabling of the FAULT output
- enabling/disabling of the POWER-OFF output
- cancellation of delays
- bypass/restore of actuators
- display of loop status information



# ACCESSORIES



- display of zone status information
- display of information regarding the status of the points of the control unit
- display of the control unit events log
- disable/enable of the zones of the control unit
- ▶ Power supply voltage: 11 ÷ 29 Vdc
- ▶ The power supply must preferably be provided by an in-field auxiliary power supply unit.
- ▶ Possibility of disabling the serial line with a jumper
- ▶ Operating temperature: - 5°C to + 45°C
- ▶ Dimensions: 350 (W) x 100 (H) 210 (D) mm



## 1043/272 • Short-circuit isolator

- ▶ In a system of analogue lines connected in parallel to a 1043/250 - /260, the short-circuit isolator guarantees functioning of the sensors and/or buttons connected to the same line in the case of short-circuit. The short-circuit is displayed via leds on the electronic board, clearly visible from the outside, and on the control unit via data exchange.
- ▶ In the case of a short-circuit, the control unit will isolate the rest of the system from the section of cable where the short-circuit has occurred, indicating each point connected to the section of line as faulty/failed.
- ▶ The number of isolators to be connected will depend on the number of lines connected to the control unit.
- ▶ Power supply voltage: from 15 to 21 Vdc
- ▶ Power take-off on standby: 250 microampere
- ▶ Average power take-off in operation: 15 mA
- ▶ Response time: 15 ms



## 1043/277 • Serial interface for conventional sensors

- ▶ The serial interface permits connection of non-analogue (buttons, smoke sensors, temperature sensors, linear smoke sensors 1043/010) or impulsive type conventional sensors or contacts in fire alarm systems with analogue processor-based control unit 1043/260. The device is equipped with relays that, when suitably programmed, can control optical-acoustic beacons, sirens, electro-magnetic locks. The sensor to be connected must be equipped with relays with NC or NO potential-free ("clean") contacts. The duration of the alarm must be > 10 s. It is advisable to always use the NC connection so that any interruption is notified. The analogue sensors and interface board are powered directly by the LOOP, while a dedicated power supply line must be provided for sensors or devices connected to the interface board. The interface board is of the intelligent, bi-directional "analogue" type; it is installed on the sensing line and is able to exchange data with the control unit and to operate in various modes: self-addressed, in the open line or closed loop configuration.
  - In the configuration with star or parallel connection, if programmed with a physical address.
- ▶ Power supply voltage: 21 Vdc
- ▶ Power take-off on standby: 250 mA
- ▶ Average power take-off in operation: 15 mA
- ▶ Response time: 15 ms
- ▶ Weight: 30 g
- ▶ Dimensions: 70 (W) x 45 (H) mm



## 1043/276 • RS485 system interface

- ▶ The interface is a dedicated device able to convert the TTL interface of the main board of the 1043/250 - /260 control unit into an RS485 serial line. It permits data exchange with all system devices connected on the RS485. Connection is afforded by a 10-pin flat cable (provided).
- ▶ The interface can disable the serial line using a jumper.
- ▶ Power supply voltage: provided directly by the main board of the 1043/260 control unit using a flat cable.
- ▶ Dimensions: 75 (W) x 55 (H) mm

# ACCESSORIES



## 1043/275 • Printer interface

The printer interface is a dedicated device able to connect to the system on the RS485 serial line. Connection is afforded by a 25-pin parallel port.

Any type of parallel printer (preferably of the needle type) with fan-fold form can be used to connect to the interface module.

The information provided on the hardcopy medium includes:

- Configuration status of the system (using a dedicated command)
- Events generated by the control unit
- ▶ Power supply voltage: 11 ± 29 Vdc
- ▶ The power supply must preferably be provided by the in-field auxiliary power supply unit
- ▶ Possibility of disabling the serial line using a jumper
- ▶ Max. power take-off: 15 mA with power supply voltage of 24 Vdc
- ▶ Operating temperature: from - 5°C to + 45°C
- ▶ Relative humidity: from 5% to 95%
- ▶ Dimensions: 135 (W) x 110 (H) x 45 (D) mm



## 1043/278A • Interfaccia PC

The interface is the device between the RS485 network of the 1043/260A control unit (provided via Sch. 1043/276) and the outside world. In particular, it permits functioning of the map/remote management monitoring program Sch. 1043/279A and the Remote Assistance program Sch. 1043/273 of the control unit. The device must be powered with an external power supply unit. One of the two power supplies present in the catalogue: Sch. 1043/091 or Sch. 1043/092 can be used.

- ▶ Power supply voltage: 11 ~ 29 Vdc
- ▶ Power take-off: 100 mA @ 12 Vdc 70 mA @ 24 Vdc
- ▶ Volatile memory
- ▶ Operating temperature: from - 5°C to + 45°C
- ▶ Relative humidity: from 5% to 95% with condensation and ice
- ▶ Max. line length: 1,200 m
- ▶ Cable cross-section: 0.5 mm<sup>2</sup>
- ▶ Dimensions: 140 (W) x 105 (H) x 37 (D) mm

## 1043/279A • Graphic map and remote management software for 1043/260A

▶ The remote management software makes it possible to acquire the characteristics of the system by reading the data present on the 1043/278A interface. With the aid of the 1043/283 modem, the new software permits:

- remote display of any system event (alarm, pre-alarm, fault, etc.)
- remote display of the entire plant in graphic format
- event reset.

Operates with the Windows 95 - Windows 98 - Windows NT platform.

Images can be imported in the following formats:

- AUTOCAD
- DWG
- DXF

The minimum configuration required by the machine is as follows:

- PENTIUM II
- 64 MB RAM
- 200 MB of free space on disk
- CD ROM and audio board
- LAN board with TCP/IP network protocol
- SVGA video board.

The software makes it possible to access up to sixteen 1043/260A management units on a single PC station