

EQUIPMENTS DETAILS



Analog control panel for fire alarm

Manufacturer: NOTIFIER
Model: AM2000 (or similar made by other manufacturer)

DESCRIPTION
The AM-2000 is an analogue microprocessor control panel suited to manage fire-escape system or combined system; fire alarm and gas alarm. Designed in compliance with EN-54-2 standards.

- MAIN FEATURES**
- 16 bit Hitachi microprocessor - H8 Series with 128 KB Eprom, 32 KB Rom, 128 KB Flash memory.
 - 2 analogue communication loops.
 - 99 detectors + 99 input/output modules for each line.
 - Gas detection by 4x20mA analogue modules input; connectable on the same line of fire detectors.
 - 4 lines x 40 character backlit LCD Display.
 - Membrane keypad with function keys.
 - 2 serial interfaces:
 - RS-232 to connect a remote serial printer (80 characters per line).
 - RS-485 or RS-232 to connect up to 32 LCD-6000 display repeaters. The same line can be used to:
 - connect a CRT or a PC with a terminal emulator program.
 - Optional card with 2 serial access port to connect Annunciators, Repeaters and a PC Graphic System are available by adding a SIB-600 optional board.
 - Power Supply Unit: 24Vdc +/- 0.5% standard.
 - Battery charger: 0.8A - 24Vdc (batteries 2x17Ah max).
 - Cabinet size: 278 (H) x 365 (W) x 125 (D).

- TECHNICAL FEATURES**
- Standard software in 3 languages (English, Italian and French) configurable by operator.
 - Other user-selectable languages are available choosing the proper chip (3 languages per chip).
 - 3 Password levels (Operator - Maintenance - Configuration).
 - Programmable labels:
 - 32 character point label
 - 20 character zone label
 - 150 physical zones and 400 logic groups.
 - User-programmable Control-by-event (CBE) equations to program actions to be performed, using logic operators (And-Or-Xor-Delay-etc.).
 - 999 event history log in non-volatile memory.
 - Real time clock.
 - Loop autoprogramming with automatic identification of installed device type.
 - Automatic detection of points with the same address.

- Decision algorithms for alarm and trouble criteria.
- Automatic Day/Night sensitivity adjustment.
- Detector maintenance warning.
- Detector line sensitivity warning.
- Detector alarm threshold programmable with 9 selections.
- Type ID programming for pre-defined specific functions.
- Control panel automatic test and manual Walk-Test functions.
- Keyboard with keys dedicated to specific functions:
 - lamp test;
 - signal silence;
 - restore silenced contacts;
 - alarm/trouble list;
 - system test;
 - reset;
 - alarm and trouble acknowledge.
- Keys to select operator menus:
 - read status;
 - modify status;
 - programming;
 - special functions.
- Alpha-numeric keys for control panel field programming.
- Serial port to connect an alphanumeric terminal (or simulation program on PC) or up to 32 display/repeaters (LCD-6000).
- Serial port to connect a printer.



Smoke optical detector for fire alarm recessed in the false ceiling

Manufacturer: NOTIFIER
Model: SDX751EM (or similar made by other manufacturer)

DESCRIPTION
Analogue Series detectors presents features of maximum reliability and flexibility in low profile box.

Series 700 detectors have been designed according to EN54 standards and to the main international rules (body of legislation). The different kind of detectors (smoke optical, ionic and rate-of-rise) are interchangeable on the same mounting box. A particular stability characterizes this range of detectors even in the case of high current and turbulences.

The analysis chamber is designed so that it is air flow insensitive and is protected by a net to reduce the dust and insect contamination. This net can be easily removed for cleaning operations and replacement. A complete range of mounting bases, accessories and test equipment is available. Further information for each products is available by request.

- MAIN FEATURES**
- New microprocessor models.
 - Magnet test possibility.
 - Plug-in installation with interchangeable bases electronic elements free.
 - 360° alarm visualization through a couple of LED.
 - Removable cover and anti-insects screen to facilitate the cleaning.
 - Chamber actively very low (ionic detector).
 - Addressing through rotary selectors.
 - Base removal protection possibility.
 - Measurable sensitivity on the device.
 - According to EN 54.

- DEVICES**
- SDX-751 EM (EN54)
 - MICROPROCESSOR SMOKE OPTICAL DETECTOR
- It is a base plug-in detector combining a smoke sensitive optical chamber with an addressable analogue communication device. Drift Compensation™ internal algorithm: allows the automatic correction of errors caused by dust accumulation into detector. This procedure can be disarmed in factory to guarantee the compatibility with control panels already equipped for compensation. So, it is possible to send a real analogue data (not compensated).
- OPERATING VOLTAGE:** 24Vdc
- WORKING VOLTAGE:** 15-32Vdc
- ALARM CURRENT:** 6.5 mA @ 24 Vdc
- STAND BY CURRENT:** 300µA @ 24Vdc
- IP RATING:** IP40 - IP43 with W81 cover
- OPERATING TEMPERATURE:** -30° + +70°C
- RELATIVE HUMIDITY WITH NO CONDENSE:** 10%-93%
- DIMENSIONS:** ø 102 mm - h: 43 mm. With base B501
- WEIGHT:** 102 g.



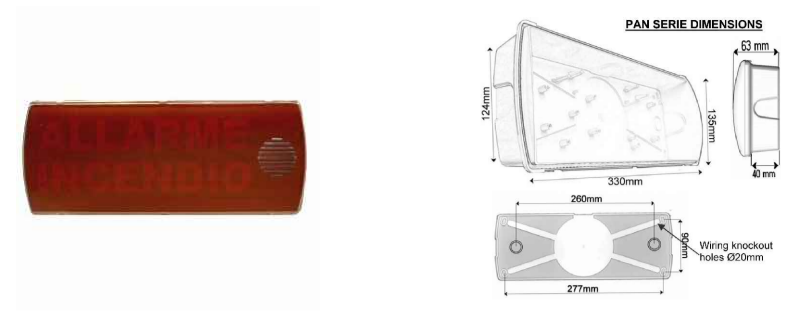
Manual call point for fire alarm recessed in the wall, above 30cm the floor.

Manufacturer: NOTIFIER
Model: M500KA (or similar made by other manufacturer)

DESCRIPTION
M500KA has been designed in accordance with EN54.11 standard to be used as a component in addressed analogue detection system. It is a push button that will be activated upon breaking the front glass. Could be installed with wall-mounted option or flush-mounted option; in this case the projecting part from the wall have thin profile (31.5mm). Front label is phosphorescent to simplify identification in dark location. Easy wiring: simply connect the two wire of the lines to terminals of push-button. M500KA is provided with a status LED.

- GENERAL FEATURES**
- Box colour: red
 - Material: ABS
 - Automatic start upon breaking the glass
 - Front phosphorescent label for prompt location in the dark
 - Test key supplied
 - Wall-mounting box supplied with pre-cut hole for the wire inlet pipe
 - Front fastening screw that can be sealed for the opening control - Front Italian-English labels supplied

- TECHNICAL FEATURES**
- Protection grade: IP44
 - Operating voltage range: 15-30 Vdc
 - Current (stand-by): 200 µA
 - Current (in alarm): 5 mA with LED 30 mA max
 - Operating temperature range: 0° + 40°C
 - Humidity: 10% + 93% without condense
 - Dimensions: 110x110x55 wall-mounted option
 - 110x110x31,5 flush-mounted box option
 - Weight: 170 gr



Optical and acoustical repeater for fire alarm recessed in the wall, above 90cm the floor.

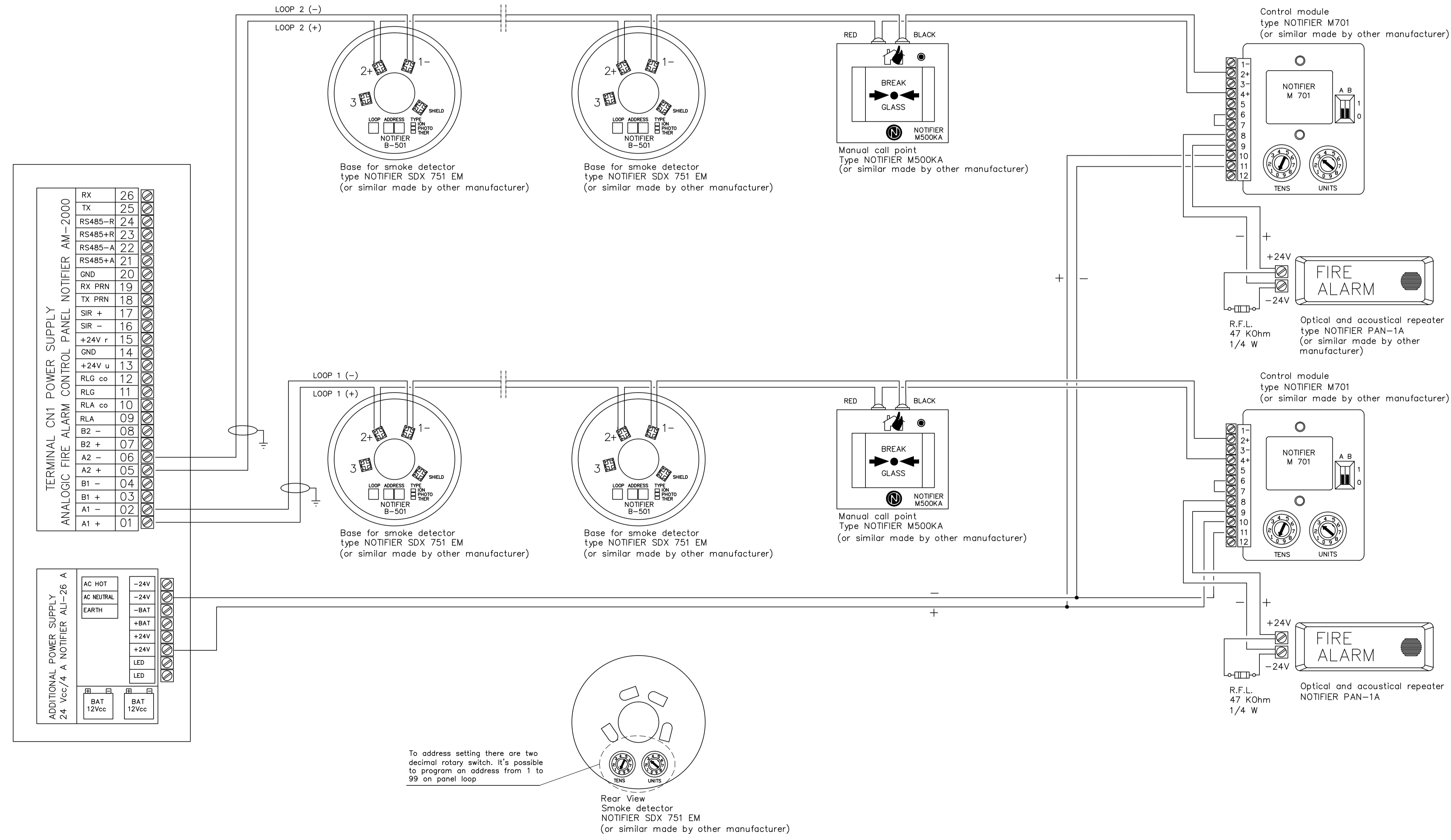
Manufacturer: NOTIFIER
Model: PAN 1A (or similar made by other manufacturer)

DESCRIPTION
AUDIO VISUAL APPLIANCE
PAN Series, optical acoustical appliance are available in four different models: PAN-1N, PAN-1A, PAN-1M, PAN-1SN. The devices are built up with self-extinguishing materials, ABS or VO (anti flame propagation materials) and display and inscriptions are in PMMA (Polymethylmethacrylate), a slow flammability material. Inscriptions on red background are visible only in alarm condition. For installation in particularly dusty environment or for outdoor installations it is available PAN1-SN; that is IP65 version of PAN1 model. It is also available "KIT-IP55" upgrading kit.

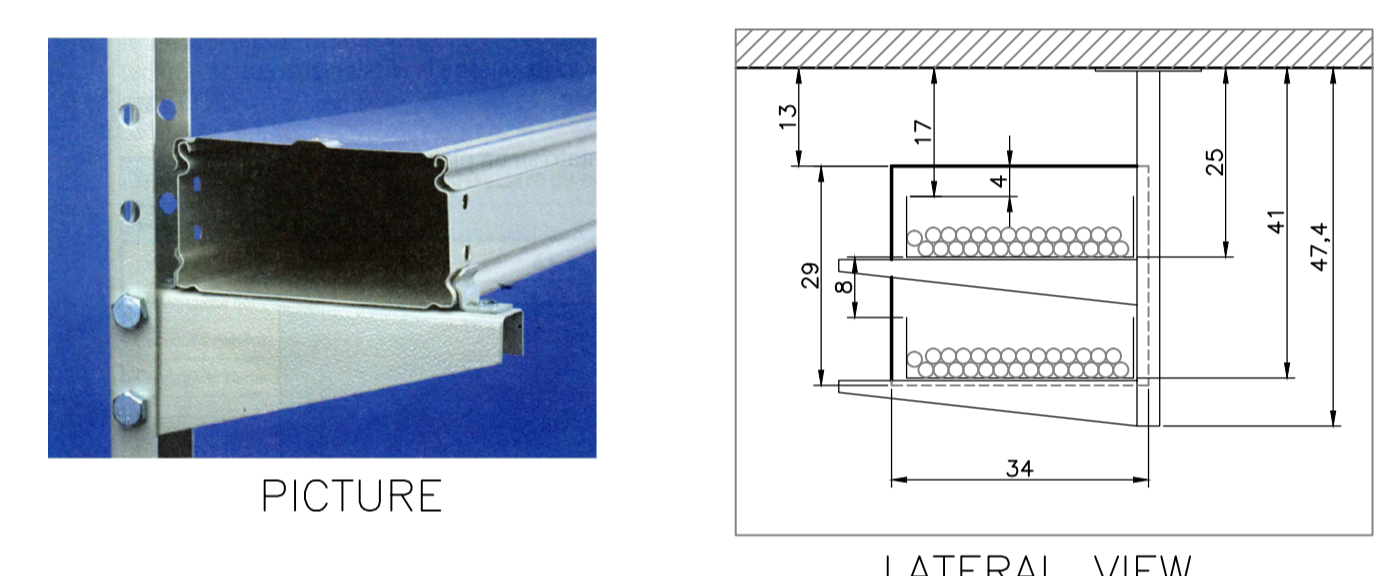
- TECHNICAL FEATURES**
- Operating voltage: 12/24Vdc (all models)
 - Optional power cord 220/240vac for PAN-1A Model: AL02A.
 - Current absorption:
 - PAN-1N: LED + speaker LED + voice LED, + sound and voice have same current absorption, 180/260mA @24Vdc.
 - PAN-1A: 75mA @24Vdc (standby).
 - Light:
 - PAN-1N: PAN-1M: 8 high efficiency LEDs.
 - PAN-1A: 6 high efficiency LEDs.
 - PAN-1M: 8 LED high efficiency LEDs.
 - Weight:
 - PAN-1N: 950gr
 - PAN-1M: 400gr
 - PAN-1A: 640gr

- PAN1-A PARTICULAR FUNCTIONS**
- Backup battery: 7.2Vdc - 1500mAh - Ni-MH.
 - Autonomy: 45min. in alarm (buzzer + light).
 - Local Test: It's possible perform a local test using a magnet on the reed contact located in the lower side of the device. The test will activate light and buzzer for 5 seconds and perform battery test with specific discharging resistance for a period of 25 seconds.
 - Remote test: switching to positive "Remote Test" terminal, it's possible perform a remote test for all wired devices. During this test the battery will be checked, buzzer and lamps relay off.
 - Ally test: Every 8 days the device perform automatically the battery test signalling any possible fault.
 - Automatic battery connection: the batteries are physically wired, but not electrically. Only after first energization a specific circuit connect electrically the batteries.
 - Automatic management: fully device operation only after first electric connection to +CONT terminal block.

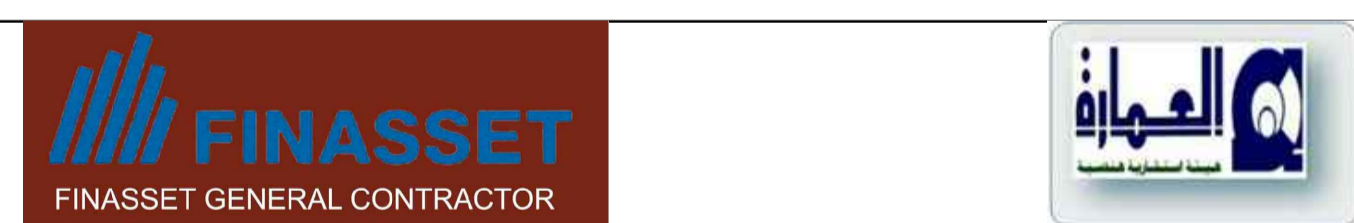
DETAIL Fire alarm wiring and connection



DETAIL hole for passage cable tray Scale 1:10



BENHAZI - LIBYA - CITY HALL RESTORATION



Architectural, electric and mechanical systems project

Architect in charge and team coordinator: Arch. Carlo Formichi



DRAWING	ES12	WORKING DESIGN DETAIL OF FIRE ALARM SYSTEM
SCALE	1:25	
DATE:	10 June 2009	
UPDATING:	July 2009	

DETAIL
typical wiring phonia, data and fire alarm
Scale 1:25