SYSCO

SINGLE FACED GENERAL BOARD ARRIVALS OR DEPARTURES

The single faced general board "ARRIVALS" or "DEPARTURES" SYSCO is made of a specialized display unit for passenger railway information.
The board is inside a solid metallic container made of sheetzinc 25/10 and has a pleasant and functional design. Inside the container there is a 6060 aluminium frame that supports the signal groups and manages electronical parts. The metal container is externally painted with black opaque (or other colours) polyester powder.
The indicator is equipped with RP-SYSCO signal groups (paddle rollers) that are on one single side. The paddles are made of black laminated plastic PCV-WOPADUR with a marked characteristic of not misshaping even at high temperatures, white letters are used for information, yellow letters for delays and red letters for IC and EC picture-grams.
All the rollers, that form the lines have 60 mm high letters and are used to visualize the name of the stations where the train is coming from and the name of destination, subsidary information, category, hour, minutes, delay and platform number.
Each line is composed of 19 signal groups distribued in the following way:

INFORMATION	NUMBER OF ROLLERS	TYPE	HEIGHT OF	GROUP CODE
coming from destination	12	Alpha numerical	60 mm	RP-60-Ml
Subsidary information	1	Subdidary information	60 mm	RP-60-Ml
Category	1	Category	60 mm	RP-60-Ml
Hour	1	Hour	60 mm	RP-60-Ml
Minutes	2	Alpha numerical	60 mm	RP-60-Ml
Delay	1	Delays	60 mm	RP-60-M4
Platform	1	Platform number	60 mm	RP-60-M2

The indicator also has a general switch used to choose power supply, an electric service socket, a micro-processor line control (code CR-SYSCO) for every two lines, with a special comunication interface, to connect to the host system. A switch type powe is used to supply the necessary voltage to the electronic components and to the signal groups. On the upper part "ARRIVALS" or "DEPARTURES" is printed, while the access electronic panel has "COMING FROM" or "DESTINATION" "SUBSIDARY INDICATION" "CATEGORY" "HOUR", "HOUR", "DELAY", "PLATFORM".

TECHNICAL CHARACTERISTIC

* ***Power supply***

Voltage: 220 V AC +/- 10%
Power supply switch AC-DC 220V - 12V 12A
Frequency: 47-63 Hz

* ***Power absorbed***

800 W max

* ***Operative conditions:***

Temperature -20° C to +60° C
Humidity 10% to 90% (without condensation)

* ***Illumination:***

2 Fluorescent lamps 220V 36W

* ***Dimensions:***

2490 mm length x 1620mm height x 200 mm depth

* ***Weight:***

215 Kg

* ***Comunication interface:***

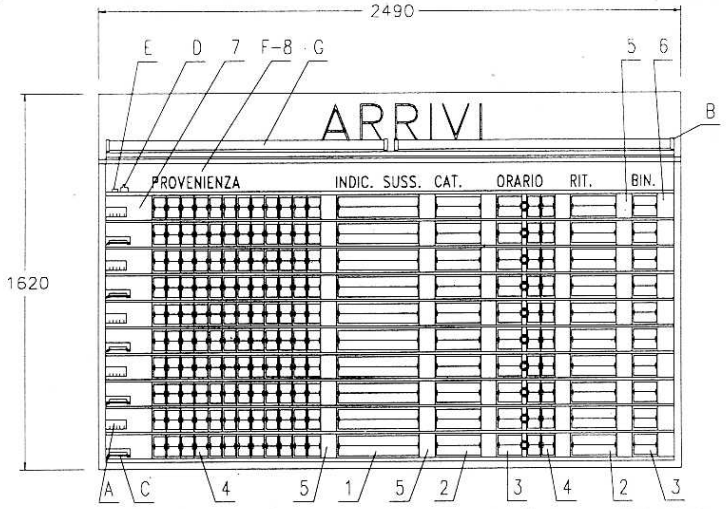
Type RS-422
Speed 1200 - 9600 Band (can be chosen)
Format 8 bit data 1 bit stop.

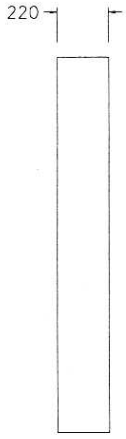
* ***Safety rules:***

IEC 950

* ***Optionals:***

Terminal for local diagnostics.





PART	NAME	PART	NAME	
A	POWER SUPPLY	1	SIGNAL GROUPS RP 60 M6	
B	LAMP HOLDER	2	SIGNAL GROUPS RP 60 M4	
C	ELECTRONIC CARD	3	SIGNAL GROUPS RP 60 M2	
D	SWITCH AND SOCKET	4	SIGNAL GROUPS RP 60 M1	
E	REACTORS	5	SEPARATOR HEIGHT 60 LENGTH	66 mm.
F	PANEL WITH	6	SEPARATOR HEIGHT 60 LENGTH	71 mm.
G	FLUORESCENT LAMP	7	SEPARATOR HEIGHT 60 LENGTH	199 mm.
		8	SEPARATOR HEIGHT 60 LENGTH	2488 mm.

SYSCO

ARRIVAL AND DEPARTURE SINGLE SIDED GENERAL BOARD (6 + 1 lines of information)

Description

The single sided general board SYSCO consist of two summarizing display units of 6 +1 lines, specialized in railway information to passengers.

Each unit is contained inside a solid metal container (galvanized sheet and aluminium 15-20/10) and has a pleasant and functional design, it is painted externally with black, opaque poliyester powder.

To display information it uses illuminated rectangular modules VACUM FLUORESCENT (V.F.D.), a matrix of 5x7 points (the size of each point that makes-up the matrix is 5x6 mm).

The matrix 5x7 letter is 50x30 mm, and is able to display every type of alpha-numerical letter with its own light. On the upper part of every unit we have the titles "ARRIVALS" the height of these letters is of 150 mm. There is also a line of titles with 150 mm high letters for: "COMING FROM" "DESTINATION" "SUBSIDARY INDICATION" "CATEGORY" "TIME" DELAY" "PLATFORM".

The titles and the information given are silk-screened.

Every line displays the following information:

* Coming from (Destinatio)	12 letters
* Subsidary indications	20 letters
* Cathegory	4 letters
* Time	5 letters
* Delay	4 letters
* Platform	2 letters

The line, freely written, shows 104 letters (52 for every unit).

On the unit upper part "DEPARTURES" is shown and displays the date with the same VFD system while the unit "ARRIVALS" shows the time (hour and minutes) "12:00". The indicator also has an electric service socket and an anti-collision acrylic protection.

TECHNICAL CHARACTERISTIC FOR EACH UNIT

* ***Power supply:***
  Voltage: 220V AC +/- 10%
  Frequency: 47 - 63 Hz
  12 toroidal transformers: in 200V
  out 28 Vcc, 5Vcc, 3.5 V CA

* ***Power absorbed***
  330 W Max

* ***Operation conditions:***
  Temperature -20° C to +60° C
  Humidity 10 to 90 (without condensate)

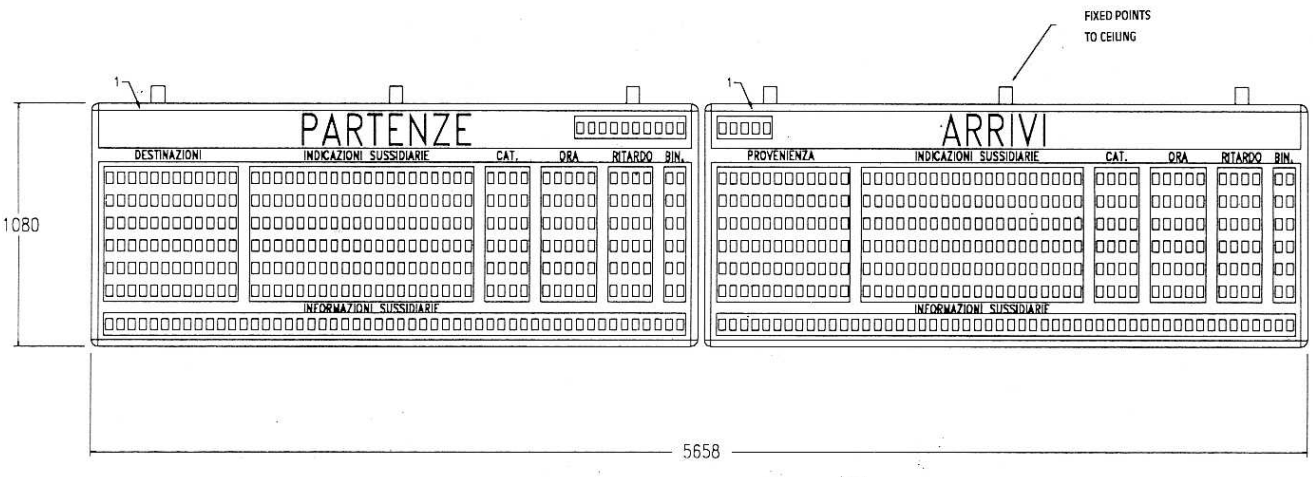
* ***Size***

Length	2814 mm
Height	930 mm
Depth	135 mm
Weight:	120 Kg

* ***Communication interface:***

Type	RS-422
Speed	1200-9600 Baud (can be chosen)
Size	8 bit data, 1 bi stop.

* ***Safety rules:***
  IES 950



SYSCO

ONE SIDE PLATFORM DISPLAYER WITH TWO INFORMATION LINES

DESCRIPTION

The single face platform displayer **SYSCO** is a display unit specialized in supplying information to passengers in railway environment, to be positioned on platforms or rail-sidewalk.

The displayer is built in a strong metallic structure container (phosphate plate 15-20/10) in a functional and pleasant design. It contains an internal alluminium 6060 chassis which is the support of signaling groups and management electronics. The metal container is painted with opaque black POLYESTER powder for external use.

To access the internal parts, there is a door with a tempered glass frontal (thickness 5 mm), top hinged, with a gas regulated spring opening.

The indicator is equipped with **RP-SYSCO** signal groups (paddle rollers) that show one side. The paddles are made of black laminated plastic **PCV-WOPADUR** and dont misshape even at high temperatures. Letters used for information are white, yellow letters are for delays and red letters for **IC** and **EC** picture-grams.

The first line made of 12 rollers with 100 mm high letters is used to display the name of the stations where the train is coming from; the second line displays data regarding subsidary information, category, hour, minutes, delay.

This second line is made up of 6 rollers specialized with letters/symbol 60 mm heigh.

ROW NUMBER	NUMBER OF ROLLERS	TYPE	HEIGHT OF	GROUP CODE
1	12	Alpha-numerical	100 mm	RP-lOO-Ml
2	1	Subdidary information	60 mm	RP-60-M6
2	1	Category	60 mm	RP-60-M4
2	1	Hour	60 mm	RP-60-M2
2	2	Alpha-numerical	60 mm	RP-60-Ml
2	1	Delays	60 mm	RP-60-M4

The displayer has also a general switch used to choose power supply, an electric service socket, a micro-processor line controller (code **CR-SYSCO**), with a special communication interface, to connect to the Host system. A switch type power-supplier is used to supply the necessary components and to the signal groups.

When operating temperatures exceed foreseen values, for climate conditions and/or positioning of displayer, there is a forced ventilation device, controlled by a heat sensor inside.

TECHNICAL CHARACTERISTIC

* ***Power supply***
  Voltage: 220 V AC +/- 10%
  Power supply switch AC-DC 220V - 12V 12A
  Frequency: 47-63 Hz

* ***Power absorbed***
  100 W max

* ***Operation conditions:***
  Temperature -20° C to +60° C
  Humidity 10% to 90% (without condensation)

* ***Illumination:***
  2 Fluorescent lamps 220V 36W

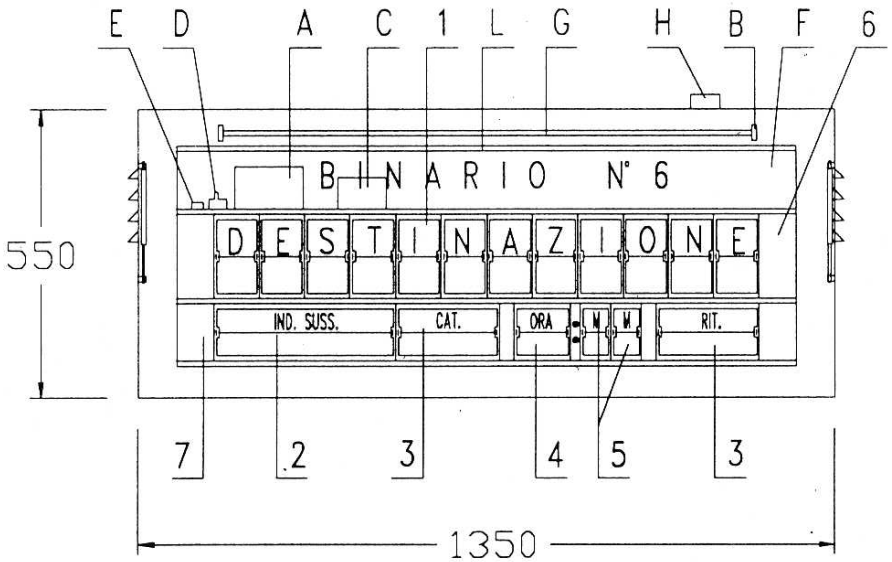
* ***Dimensions:***
  1350 mm length x 550mm height x 370 mm depth

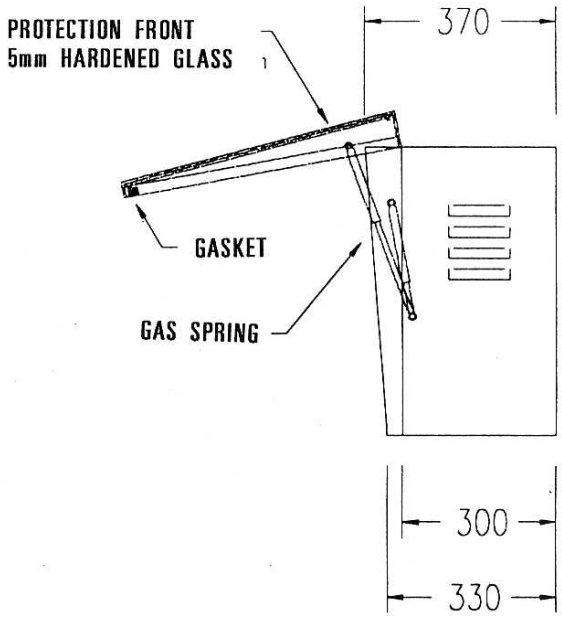
* ***Weight:***
  78 Kg

* ***Communieation interfaee:***
  Type RS-422
  speed 1200 - 9600 Baud (can be choscn)
  Format 8 bit data 1 bit stop.

* ***Safety rules:***
  IEC 950

* ***Optionals:***
  - Temperature sensor
  - Humidity sensor
  - Local/remote control for light switch
  - Local/remote control for ventilation device start-up
  - Terminal for local diagnostics.





PART.	NAME
A	POWER SUPPLY
B	LAMP HOLDER
C	ELECTRONIC CARD
D	SWITCH AND SOCKET
E	REACTORS
F	PANEL WITH PLATFORM NUMBERS
G	FLUORESCENT LAMP
H	CABLE HOLDER
L	SUPPORT LEVEL IN ALLUMINIUM 6060
1	SIGNAL GROUPS RP 100 M1
2	SIGNAL GROUPS RP 60 M6
3	SIGNAL GROUPS RP 60 M4
4	SIGNAL GROUPS RP 60 M2
5	SIGNAL GROUPS RP 60 M1
6	SEPARATOR HEIGHT 100
7	SEPARATOR HEIGHT 60

SYSCO

SINGLE SIDE TWO LINE INFORMATION SUBWAY DISPLAYER

Description.

Single side platform indicator Sysco is a DISPLAY UNIT specialized in supplying railway information to passengers, it can be installed on a shelf or on the platform.

The indicator is inside a heavy metal container made of galvanized sheet 15-20/10 and has a pleasant and functional design. Inside the contaner there is a 6060 aluminium frame that supports the signal groups and manages electronical parts.

The metal container is painted externally with black, opaque polyester powder. For acces inside it has a glass VISAPM 6/7 door with hinges on the top, a caliper opening and blocking screw on the metal structure when the door is closed. The indicator is equipped of RP-SYSCO signal groups (paddle rollers) that are on one single side. The paddles are made of black laminated plastic PVC-WOPADUR, undeformable even in a high temperatures, the letters are is printed on black paddles with white letters for information, yellow letters for delays and red letters for IC and EC picturegrams.

The first line of information is used for the name of the destination station of the train, and is composed of twelve alpha-numerical rollers with 35 mm. height letters; the second line shows information regarding: subsidary indication, category, hour, minutes, delay and is composed of six specific rollers with letters/graphic symbols 35 mm high, as in the table shown below.

LINE NUMBER	NUMBER OF ROLLERS	TYPE	HEIGTH OF LETTER	GROUP CODE
1	12	Alpha numerical	35 mm	RP-35-M1
2	1	Subsidary indicator	35 mm	RP-35-M6
2	1	Category	35 mm	RP-35-M4
2	1	Hour	35 mm	RP-35-M2
2	2	Alpha numerical	35 mm	RP-35-M1
2	1	Delays	35 mm	RP-35-M4

The indicator also has a general switch used to choose power-supply, an electric service socket, a micro-processor line control (code CR-SYSCO), with a special communication interface to connect to the Host system, a fluorescent lamp and a switch type power-supplier to supply power to the electronic components and to the signal groups.

TECHNICAL CHARACTERISTICS:

* ***POWER SUPPLY:***
  VOLTAGE: 220 V AC +/- 10%
  POWER SUPPLY SWITCH AC-DC 220 V-12 V 12 A
  FREQUENCY: 47-63 Hz.

* ***POWER ABSORBED:***
  75 W maximum.

* ***OPERATIVE CONDITIONS:***
  TEMPERATURE -20 °C to +60 °C
  HUMIDITY 10% to 90% (without condensate)

* ***ILLUMINATION:***
  1 FLUORESCENT LAMP 220 V AC 18 W

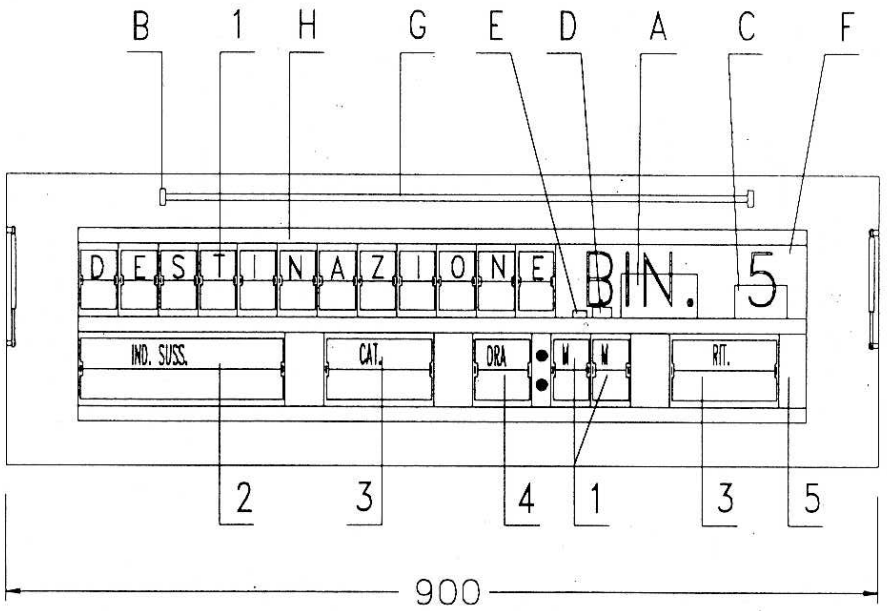
* ***DIMENSIONS:***
  LENGTH: 900 mm
  HEIGHT: 300 mm
  DEPTH: 330 mm

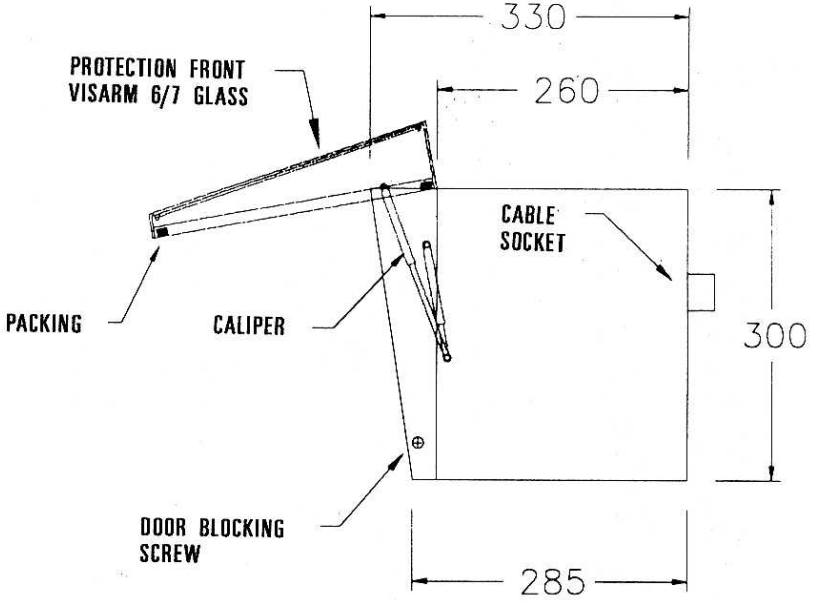
* ***WEIGHT:***
  78 Kg.

* ***COMMUNICATION INTERFACE:***
  TYPE RS-422
  SPEED 1200-9600 Baud (can be chosen)
  FORMAT 8 bit data, 1 bit Stop.

* ***SAFETY RULES:***
  IEC 950

* ***OPTIONALS:***
  - REMOTE/LOCAL CONTROL TO SWITCH ON LIGHT
  - TERMINAL FOR LOCAL DIAGNOSTICS





PART.	NAME
A	POWER SUPPLY
B	LAMP HOLDER
C	ELECTRONIC CARD
D	SWITCH AND SOCKET
E	REACTORS
F	PANEL WITH PLATFORM NUMBERS
G	FLUORESCENT LAMP
H	SUPPORT LEVEL IN ALLUMINIUM 6060
1	SIGNAL GROUPS RP 35 M1
2	SIGNAL GROUPS RP 35 M6
3	SIGNAL GROUPS RP 35 M4
4	SIGNAL GROUPS RP 35 M2
5	SEPARATOR H 35

SYSCO

Automatic Telephone Information System (I.T.A.)

DESCRIPTION OF THE SYSTEM

The automatic telephone information system SYSCO is achieved by a PC of adequate characteristics, interfaced with the pubblic telephone network by a special audio card.

Usable via four dedicated telephone lines, it allows the transmission to the user of a set of information on general topics (eg. related to the condition of the stations or the bank), and on specific issues (traffic, trains, timetables, bank accounts, bank mouvements and/or balances), automatically managed by a set of files tailor made and always accessible to the user.

The system is based on the costruction of messages through a set of digital recorded terms, in special files on the computer hard disk, dedicated to information management. The system builds the phrase, mixing the variable parts of the phonema when delivering the information requested.

The user is allowed to enter a file of vocal information messages audible in sequence or through a selection criterion proposed by the system and selected by the user through codes entered on the touchtone keyboard (DTMF).

All messages are audible in different languages, chosen by the user, thanks to the presence of more dictionaries. All files containing the management parameters for A.T.I. system are easily accessible by the user, including digital words file, that can be updated at any time. The system can be upgraded by adding other PC's to the network.

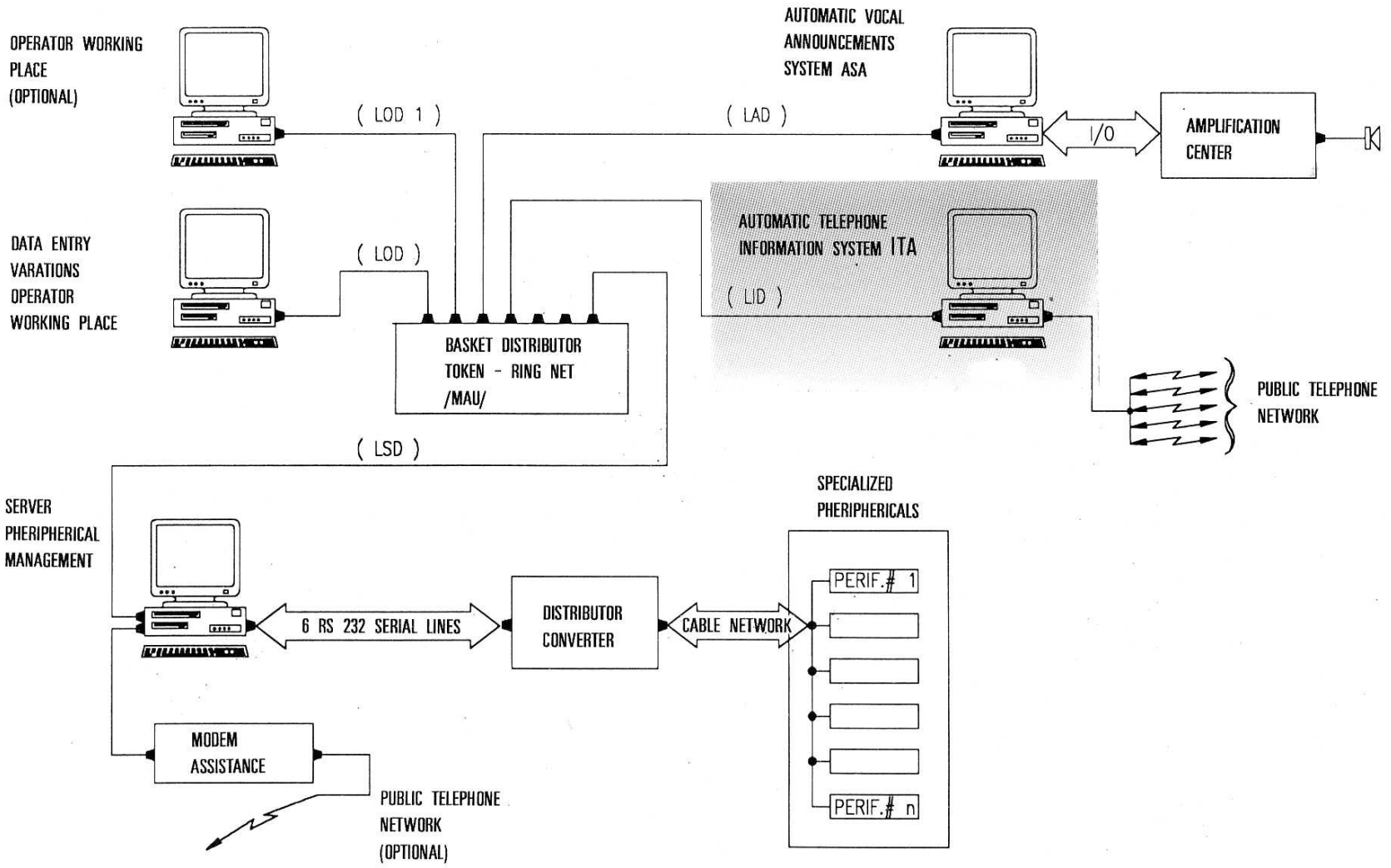
TECHNICAL CHARACTERISTIC

Brand	IBM PC or compatible
Power Supply	In: 100+/-125 V
	200+/-250 V
CPU	80486SX-33 Mhz or more
OPTIONAL	Overdrive Processor
	25/50-33/66 MHz
BIOS	AMI BIOS
Memory	Ram 8-16 MB
Card Slot	5 slots AT 16 bit
Keyboard Connector	AT Type
Video	VGA 640x480 16 colours
External Ports	COMl, LPTl, mouse, keyboard
Keyboard	AT Compatible
F1oppy	3,5" 1,44MB,
	5,25" 1,2 MB
Hard Disk	12OMB IDE

EXPANSION CARDS:

- TOKEN-RING lan Network Card
- N.2 dedicated cards for ATI service management
  Audiotext ADPCM 8 Khz technology
  2 lines management on a single card
  Ring Detector
  Answer Circuit
  DTMF figures receiver
  Conversion fork 2/4 wires

SYSTEM EXAMPLE OF RAILWAY APPLICATION SYSTEM



SYSCO

Automatic Vocal Annoucement System in railway stations (A.S.A.)

Description of the system:

The system for automatic vocal announcement SYSCO is based on many years of experience in information to public maturated also in railway ambit (automatic vocal announces in stations, etc.) a highly qualitative up to date system has been developed, it is reliable in all its components and thanks to the modularity of the conception, easily integrable and interfaceable to different types of information systems.

The system is formed by a Personal Computer equipped with a special card produced by SYSCO, for the analogic digital sound interface D/A ADPCM 4 bit technology, by a hard disk containing all the phonems required by the vocabulary used in a station and software for their management, by a drive for installation disks, maintenance and up date information for software, by a LAN network card, for the interface with the station MASTER computer, by a standard colour video to control the messages sent and by an extended keyboard.

The system is interfaced on one hand with the central computer of the station from which it receives the fields and the type of message to synthetize, timed on the succession of the events (train arrival/departure platform change, delay, fixed message predefined announcement) on the other hand with the station system of sound diffusion with a level of audio amplification easily regulated through special software commands.

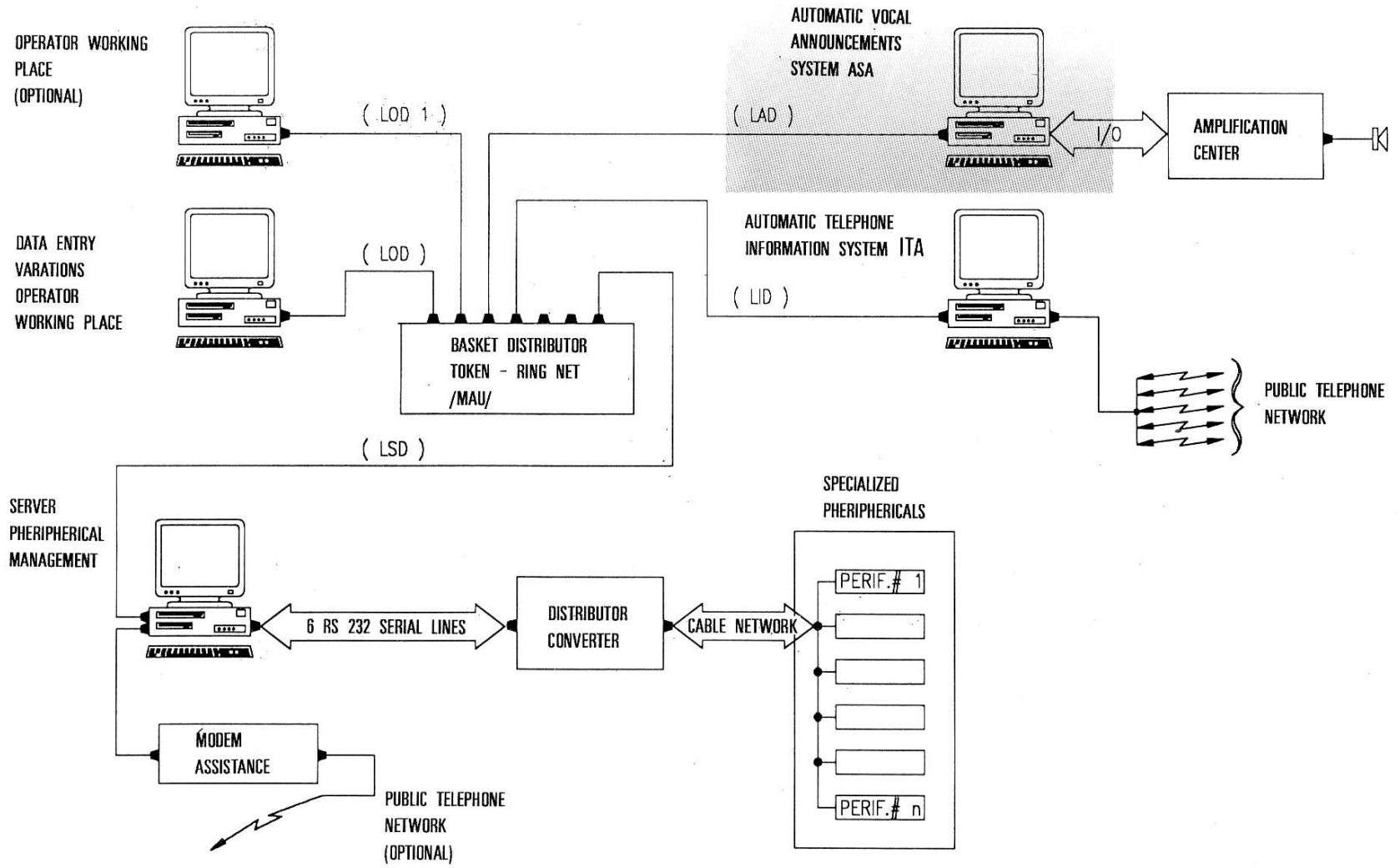
TECHNICAL SPECIFICATION

Make:	PC IBM or compatible
Power supply:	Input 110 to 125V c.a. or 200 to 250 V c.a.
CPU	386SX-25/486SX-33
BIOS:	AMI BIOS
Memory:	RAM 8-16MB
Card slot:	5 slot AT 16 Bit
Keyboard connector:	Tipo AT
Video:	VGA 640 x 480 16 colours
External ports:	COMl, LPTl, mouse, keyboard
Keyboard:	Compatible AT
Floppy unit:	One by 3,5" 1.44 MB, One by 5,25" 1,2 MB
Hard disk unit:	120 MB IDE

EXPANSION CARDS:

- Lan network card TOKEN-RING
- Dedicated digital/analogical message conversion, card,
  ADPCM 8 Khz technology
  audio amplifier output
  Central-amplification interface DIGITAL I/O

SYSTEM EXAMPLE OF RAILWAY APPLICATION SYSTEM



SYSCO

ELECTRONIC STAMPING SYSTEM
mod. SYSCO P010

This is a special peripherial conceived for the counter, in On-Line mode, connected with the central unit via RS232 interface. Such a postage meter allows the acceptance of various types of postal objects, such as:

- Registered letters
- Insured mail "posta celere"
- Internal "posta celere" (PI)
- International courrier EMS (CAI Post)
- Parcels
- Ordinary mail

The postage meter prints a stamp on the object accepted, directly on the packet up to 10 mm. thickness, or on adhesive tape in case the object is thicker.

GENERAL SPECIFICATIONS

The general specifications of the postage meter are:

- Slave Operation

A counter PC (master) sends the commands and controls all the functions via standard RS232 interface

- Parcels Block

A special tray under the input slot, blocks the packet till the end of the stamping operation (mechanic device opening for emergency).

- Stamp

Metal stamp type, red colour that
realizes the printing of the State Punch and the perimeter that
delimitates the fields:"Office Name" and "Hour Minutes".

- Print

Realizes the print on the object with fixed, variable and graphic letters with a bubble-jet type of head.

The system can also be connected to an electronic scale for the automatic acquisition of the mail weight.

TECHNICAL SPECIFICATIONS

Environment conditions of operation

- Humidity	10 t 90
- Temperature	5 + 40° C ?
- Stockage	0° + 50° C

Electric Specifications

- Frequency	50-60 Hz
- Tension	220-240 V

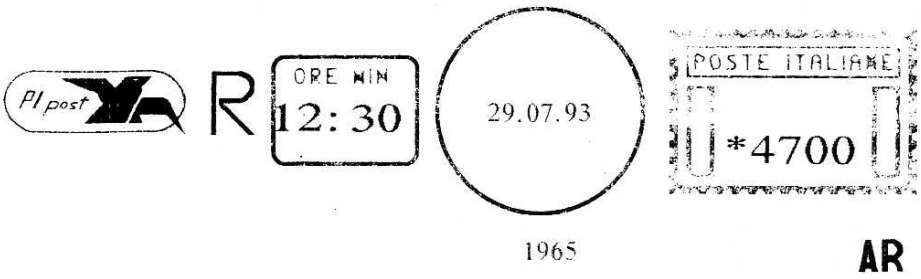
Fisical Specifications

- Dimensions mm.:	250 x 250 x 200

Dimensions of Objects to Stamp

- Minimum	88 x 138 mm
- Maximum	190 x 260
- Max. thickness	10 mm
- Discontinuity	1 mm

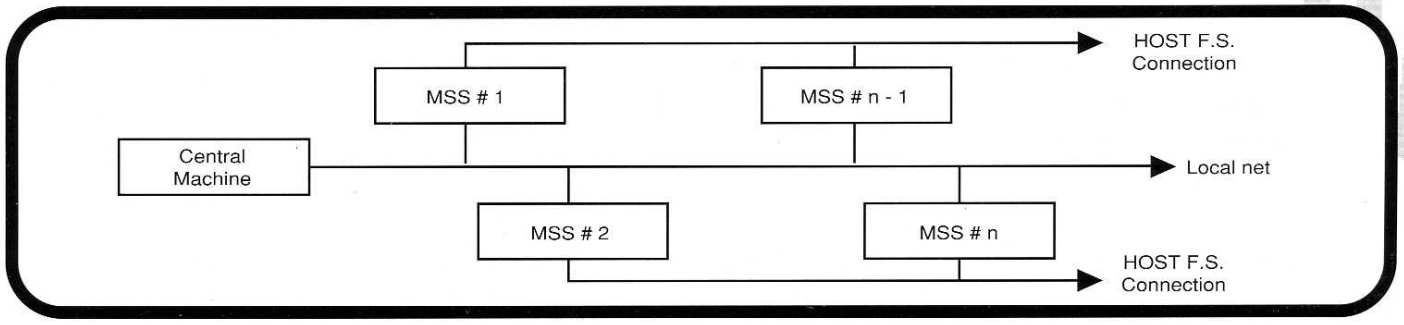
POSTAGE METER STAMP MOD. P010



SYSCO

Automatic Self-Service Late Booking Railway Tickecting System (P.U.M.A.)

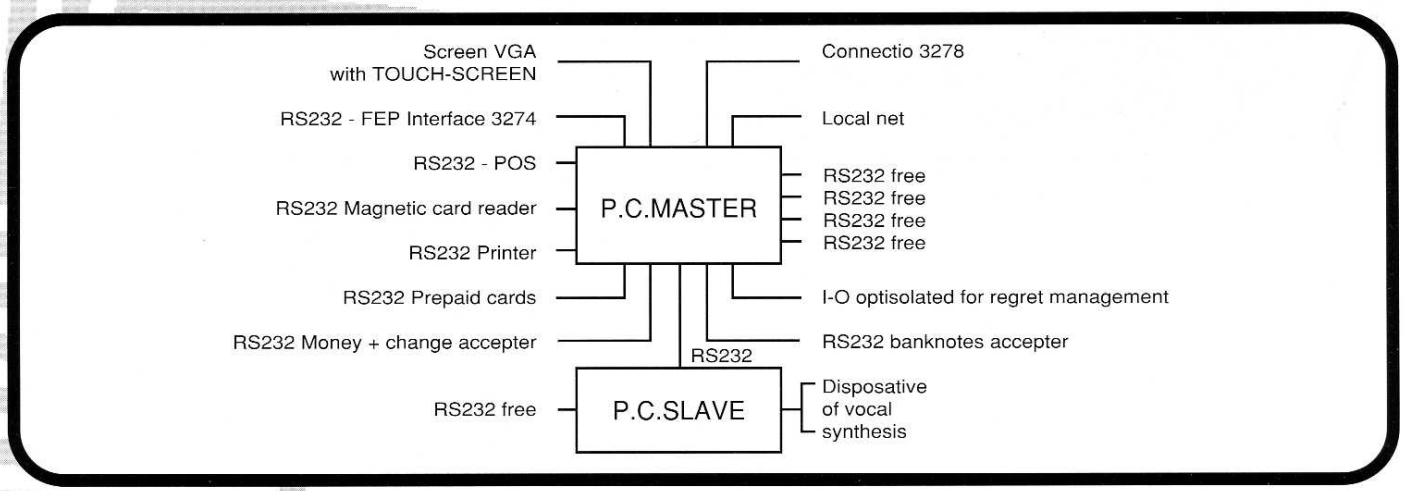
AUTOMATIC SELF-SERVICE LATE BOOKING RAILWAY TICKECTING SYSTEM (P.U.M.A.)
The PUMA system (Automatic Late Booking) provides a booking offer, from the train station of departure through a Self-Service Terminal unit (TSS).
The user has the possibility to book at the last moment (till a few minutes before departure) avoiding any inconvenience arising by not having a seat reservation. The user can book seats, sleeping berths, beds and there is no difference among offers of each TSS in the same station.
The unit has been designed and produced with a modular structure for each component and it is presented in a complete and optimal configuration. Eventually, the client may define different types of units specially configurated, eliminating some components and adding other peripheral devices utilizing the four RS232 channels already available.
The structure of the system is the following:



The type of local network utilized is a TOKEN-RING; it is also possible, modifying the special card, to use an ETHERNET.
The central unit is configurated both as SERVER and CLIENT.
The self-service unit it is configurated as CLIENT (However it may have a double configuration SERVER + CLIENT).
The functions of the central unit are the following:

- management of railway timetables;
- summary report and statistic functions;
- service files management (black-list, error, log etc.)
- diagnostic management on line;
- synchronization of self-service units

It is possible to provide 3278-3274 emulation devices for the direct connection with a Host - computer to allow two way transfer of data and programs.
The hardware structure on which the central unit is based on is a P.C. 80386 with 4 ram Mbytes and with a mass support of over 100 Mbytes, token-ring network card or ethernet, emulation card 3278 o/e 3274.
The operation system utilized is MS-DOS 5.0
The self-service units have the following configuration:



The functions provided by the self-service units are:

- Tele-booking
- Tele-ticketing
- Stand alone tele-ticketing

The interaction user/unit takes place through touch-screen and a regret button that allows interruption of the transaction at any time. The information is displayed and synthesized in the language selected by the user among the five available.
The monitor management graphic card is the VGA type.
The display masks have been created with the graphic package PAINTBRUSH.
The configuration software file controls the management of the masks making therefore their updating easy.

The modes of payment available are:

- with banknotes and change
- with credit cards
- with bancomat cards
- with prepaid cards

It is possible to use POS system or magnetic card reader locally managed with black-list and maximum amount payable.
The available change is: 50, 100, 200 and 500 used for automatic change filling (this is anyhow managed by a change full code, which redirects change to common cash unit and not to change dispenser) To manage regret and not confirmed transations, change or banknotes, once introduced are kept stand-by, if the operation is confirmed the amount will be delivered to the actual cash unit or returned to the user.
The POS system may be connected directly to the telephone network or connected with each unit to a concentrator via R5422 network.
The concentrator allows credit cards management locally or through the national banking circuit.
The connection with the Railway Host Computer for telebooking and teleticketing can be accomplished by emulation 3278 via card on P.C. bus or in emulation 3274 through internal FEP.
The printer used is a high speed graphic printer utilizing thermic transfer technology on paper that is not chemically treated.
The two types of tickets (booking or simple ticket) are completely loaded by the master P.C.for both the graphic part and the alphanumerical part; the two types of tickets are loaded at the start up of the printer and at the moment of the printing only the variable parts of the document are sent in.
The printer is provided with a coder and magnetic reader for the management of IATA documents.
The device can print 2500 tickets in high quality and 12.500 in a slightly reduced quality.
On the master P.C. four serial lines are kept available to connect new equipment.
The hardware structure on which the self-service unit is based on (master part) is a P.C. 80386 with four ram Mbytes and with a mass support of over 120 Mbytes, touch screen, 2 multiserial cards of 6 lines each.
The slave PC is a 80386 with 2 ram Mbytes, 120 hard disk Mbytes and vocal synthesis card ADPCM. The operation system used is MS-DOS 5.0 on both PCs.
In case of interruption of the connection with the central computer the self-service system described above can continue operation as a stand alone ticketing unit and then tranfer to the central unit all the information regarding the tickets it has issued in the meantime.

SYSCO

INDICATORE DI SOTTOPASSAGGIO VACUUM

Singola faccia a 3 righe di informazione

Description

The SYSCO subway single side displayer is a displaying unit tailor made for railways environment for information to public in subway sites.

The displayer is made by a container of strong metal structure (galvanized sheet and alluminium 15-20/10) with a functional and pleasant design, painted with black matt POLYESTER powder.

To display the information it uses a 5x7 dot matrix (the dimensions of each dot of the matrix are mm5x6) luminous rectangular modules VACUUM FLUORESCENT (VFD), the 5x7 matrix typeface has a dimension of mm 50x30 and can display any alphanumerical typeface using its own light.

On subway diplayers the fixed text, mm 100 typeface, indicating the number of rail is placed on the side of the display unit near the exit, and the titles, "TIME, CAT., DELAYS" of mm 30 typeface, will be placed in between the 1st and 2nd line. The Headlines and the titles are silk-screened.

The composition of the subway displayer allows to display 3 lines of information per train with 7x5 dot matrix mm 50 high as follows:

First Line:

- Destination 16 digits

Second Line:

- Category 4 digits
- Time 5 digits
- Delay 4 digits

Total digits available in each line N.16.

Third Line:

- Subsidiary Display 16 digits

Technical Caracteristics:

Power Supply:

Voltage: 220 V AC +/- 10%
Frequency: 47-63 Hz
2 Toroidal Transformer: IN 220V AC
OUT 28V CC, 5V CC, 3,5V CC.

Power Absorbed :

Maximum 50
Operating Conditions:
Temperature -20C/+ 60C.
Umidity 10%/90% (without condensate).

Dimension:

Lenght mm 1280
Hight mm 438
Depth mm 95

Weight:

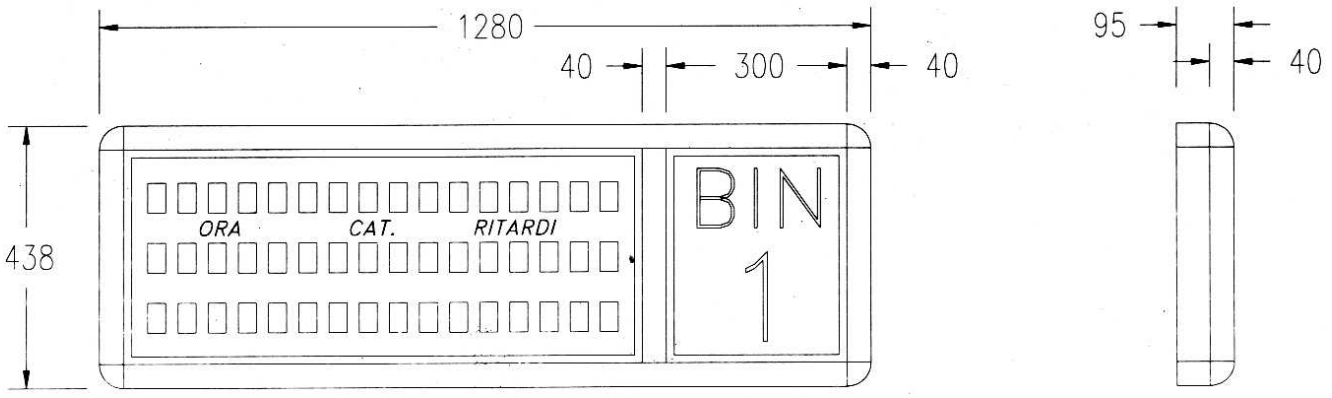
Kg 30

Communication Interface:

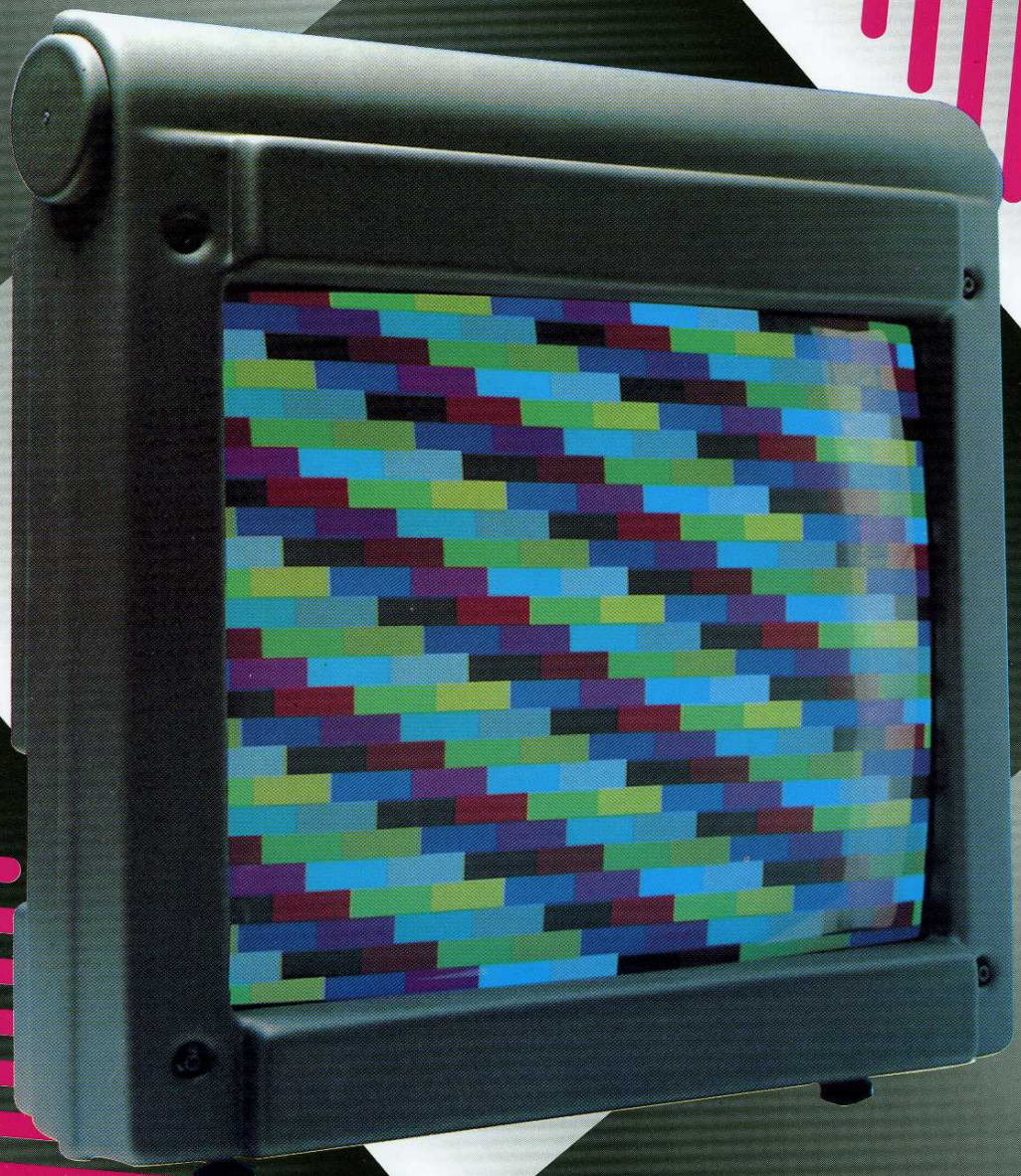
Type RS-422
Speed 1200-9600 Baud (switchable)
Format 8 bit data, 1 bit Stop

Safety Rules:

IEC 950



SYSCO



MONITOR PER TELEINFORMAZIONE (M.T. SYSCO)

GENERAL CHARACTERISTICS

SYSCO-MT is set-up by a colour monitor, generally 20" screen for public monitors and 15" screen for staff monitors.
These monitors are generally used in railway environnement to display summarized information regarding train arrivals and departures.

Monitor container:

The container is made by a plastic cabinet that holds the monitor and interface for the connection to the station system.

The containers have the following characteristics:

* Built in resistent plastic material
* Non degradable by atmospheric agents and light
* Resistent to collisions and thermal shocks:
* The anterior plastic panel for screen protection is transparent, anti breakthrought (polycarbonate o similar)
* Can be fixed to ceiling, wall, on a pavement structure, on one side to a pole
* The front mask is silkscreened with the indications ARRIVALS and DEPARTURES
* Fixing of devices inside the container, protection against stray currents and electrical discharge
* Monitor, letter generator and subsidiary devices, are easy to extract
* Dust protection
* Support clamps allow horizontal and vertical rotation of the container and the block in the desired position.

Technical specifications for 15" Monitor

Staff monitors are 15" colour monitors and have the following specifications:

* Cathodic Ray Tube
  15" Colour Video
* Available area
  15"
* Power supply
  Voltage: 170/264 Vac (or 85/132 Vac)
  Frequency:47/63 Hz
* Absorbed power
  Maximum 70 W
* Chinescope Demagnetisation
  Automatic start-up
* Input video signal:
  positive analogic RGB, input impedance 75 Ohm, width 1 Vpp, Video code input impedance 75 Ohm, widht 1 Vpp.
* Horizontal frequency scansion:
  15;625 Khz +/- 850 Hz
  Flyback time :<1.15 ms.
* External controls
  Brightness, contrast, colour saturation
* Input connectors
  SCART socket for RGB and/or Composite Video
  BNC connector for Composite Video
* Commutators
  Input signal selection (RGB/Composite video)
  input impedance selection Composite Video (75 Ohm/High impedance)
* Operating conditions
  Temperature O C - 40 C
  Humidity 10 - 95 (without condensate)
  Altitude O m. - 3000 m.
* Safety Rules:
  Guaranteed against X ray emission
* Dimensions:
  370x395X365 mm (WxDxH)
* Weight:
  15"=11.6 Kg.

Technical specifications for 28" Monitor

Public monitors are 28"colour monitors and have the following specifications:

* Available area
  28" 490x365mm (WxH)
* Power supply
  Voltage: 170/264 Vac (or 85/132 Vac)
  Frequency:47/63 Hz
* Absorbed power
  Maximum 95 W
* Chinescope Demagnetisation
  Automatic start-up
* Input video signal:
  positive analogic RGB, input impedance 75 Ohm, width 1 Vpp,
  Composite Video Pal code, input impedance 75 Ohm, widht 1 Vpp.
* Horizontal frequency scansion:
  15;625 Khz +/- 500 Hz
  Flyback time :<1.15 ms.
* Vertical frequency scansion:
  50 Hz
  Flyback time:<1.15ms
* Reaction time for Video amplificator:
  Rise time= <50ns
  Fall time= <70ns
* External controls
  Horizontal width, vertical width, horizontal frequency, vertical frequency, horizontal phase, vertical phase, horizontal linearity, vertical linearity, pad, trapeze, brightness, contrast, supply voltage, RGB level, colour saturation, volume.
* Input connectors
  SCART socket for RGB and/or Composite Video
  BNC connector for Composite Video
* Commutators
  Input signal selection (RGB/Composite video)
  input impedance selection Composite Video (75 Ohm/High impedance)
* Operating conditions
  Temperature 0°C - 40/ C
  Humidity 10% - 95% (without condensate)
  Altitude O m. - 3000 m.
* Safety Rules:
  Complies with IEC 950, UL 47
* Dimensions:
  675x465X645 mm (WxDxH)
* Weight:
  28"=31.6 Kg.

SYSCO

GRUPPO SEGNALETICO RP - SYSCO

Characteristics:

The RP - SYSCO paddle module is the basic component of the display element in the displayer using the paddles technology.
All SYSCO paddles modules are made following a standard building criterion which allows modularity in the choice of the different typeface dimensions in order to satisfy any kind of usage.
The Signaling group is made by a motor which allows a roll to operate by a series of wheelwork accomplishing the desired display and by a micro-processor which uses infrared electronic sensors to allow operation and positioning controls.
All mechanical parts are treated with special processes to allow systems to be installed in particularly adverse climate conditions.
The paddles forming the roll, are horizontally mounted with front gravity movement. They are made of special PVC WOPADUR material (poured and pressed) which is undeformable up to 105° C temperature.
The rolls are equipped with 40 paddles of variable lenght and hight, the dimension of the silk screened typeface on the paddle (Helvetica type white on black) determines the signaling rolls type produced by SYSCO, respectively:

Group Code	Symbol Hight mm	Symbol Lenght mm Ml	M2	M4	M6
RP-100-Mx	mm 100	57	-	-	-
RP- 60-Mx	mm 60	35	85	180	340
RP- 35-Mx	mm 35	18	35	85	180

Motor

The paddles roll rotation inside the signaling group is realized by a 4 phases STEPPER-MOTOR with monopolar drive circuit.
The motor grants a per step axis rotation of 7,5 degrees, with a tolerance of +/- 0.5 degrees. The use of a steppermotor allows an highly relyable system with a silent and precise operating of the signaling group.

Technical specifications

Module control unit RP-SYSCO

Microcontroller Control Unit RISC type
Clock frequency 4 Mhz
PROM 1 KBIT.
32 bytes RAM
4 ADC channels
Watch-dog reset
12 bit digital I/O
1 RS 485 serial port
1 diagnostic LED (optional)
DRIVER circuit for stepper motor
Voltage regulator + 5V DC
Power supply + 12 V DC max. 200 mA.

Stepper motor:

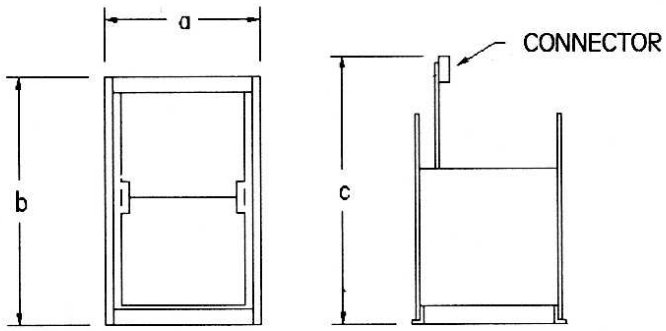
Number of PHASES: 4
Monopolar drive
Degrees for step: 7,5°
Accuracy +/- 0.5
Power supply Voltage 12 V DC
Number of steps for 360° rotation: 48
Position control device
Incremental optical encoder
Infrared optical device
Home position

Power supply

power supply + 12 DC max 200 mA.

Operat i ng condi t i ons

Relative humidity: up to 95% (without condensate)
Temperature range for group inside in a frame installed in a uniform temperature environnement: -20 + 80 C.
Noise: from 40 to 65 dB.



GROUP CODE	MODUL	MESURE mm. a	b	c
RP 100	M1	89.4	150	173
RP 60	M1	56.4	105	173
	M2	114.4	105	173
	M4	214.4	105	173
	M6	354.4	105	173
RP 100	M1	42.4	76	193
	M2	64.4	76	193
	M4	114.4	76	193
	M6	214.4	76	193

SYSCO

INDICATORE DI BINARIO DOPPIA FACCIA A DUE RIGHE DI INFORMAZIONE

DESCRIPTION

The double side platform displayer SYSCO is a display unit for supplying information to passengers in railway stations, it can be installed on platforms or rail-sidewalk.

The displayer is built with a strong metal structure container (galvanized sheet 15-20/10) in a functional and pleasant design. It contains an internal alluminium 6060 frame which is the support of signaling groups and manages electronic parts. The metal container is painted with matt black POLYESTER powder for external use.

To access the internal parts, there are two doors with a tempered glass frontal (thickness 5 mm), hinged at the top, with a gas operated spring opening.

The indicator is equipped with RP-SYSCO signal groups (paddle rollers) on both sides.

The paddles are produced in black laminated plastic PCV-WOPADUR indeformable even at high temperatures. Letters silk-screened in white on black paddles are used for information, yellow letters are for delays and red letters for IC and EC picture-grams.

The first information line made of 12 rollers with 100 mm high letters is used to display the name of the stations where the train is coming from; the second line displays data regarding: subsidiary information, category, hour, minutes, delay.

This second line is made up of 6 rollers with letter/ graphic symbol 60 mm heigh.

ROW NUMBER	NUMBER OF ROLLERS	TYPE	HEIGTH OF LETTER	GROUP CODE
1	12	Alpha numerical	100 mm	RP-100-Ml
2	1	Subsidary information	60 mm	RP-60-M6
2	1	Category	60 mm	RP-60-M4
2	1	Hour	60 mm	RP-60-M2
2	2	Alpha numerical	60 mm	RP-60-Ml
2	1	Delays	60 mm	RP-60-M4

The indicator has a general switch used for power supply sectioning, an electric service socket, a micro-processor line controller (code CR-SYSCO), with a special communication interface, for connection to Host system, two fluorescent lamps and switch type power-supplier is used to supply the necessary voltage to the electronic components and to the signal groups.

When operating temperatures exceed normal values, due to climate and/or positioning of displayer, a ventilation device managed by the line controller starts up, the device is provided with a heat sensor placed inside the displayer to monitorize temperature.

TECHNICAL CHARACTERISTICS

**** Power supply***

Voltage: 220 V AC +/- 10
Power supply switch AC-DC 220V - 12V 12A
Frequency: 47-63 Hz

**** Power absorbed***

150 W max

**** Operating conditions:***

Temperature -20 C to +60° C
Humidity 10 to 90 (without condensate)

**** Illumination:***

2 Fluorescent lamps 220V 36W

**** Dimensions:***

Lenght	1350 mm
Height	550 mm
Depth	340 mm

**** Weight:***

120 Kg

**** Communication interface:***

Type	R5-422
speed	1200 - 9600 Baud (switchable)
Format	8 bit data 1 bit stop.

**** Safety rules:***

IEC 950

**** Optionals:***

Temperature sensor
Humidity sensor
Local/remote control for light switch
Local/remote control for ventilation device start-up
Terminal for local diagnostics.