

Futura 2 validators

Smart validators for contact or contactless smart cards and paper tickets

Futura 2 are electronic validation machines able to be integrated in complex Automatic Fare collection Systems; For their limited cost, represent a cheap alternative to common electromechanical ticket stamping machines.

They can be supplied either in the basic version, with the simple function of ticket-stamping, to be later equipped with an add-on unit for contact or contactless smart cards.

The Futura validators power comes from an "open" and advanced architecture: each unit is functionally similar to a PC, with its own operating system, a solid state disc unit and interfaces of various types; the use of high level programming languages eases the development of complex applications able to manage a modern integrated payment system. Equipped with TCP/IP and PPP protocols, they can connect to Internet by means of a GPRS modem to send or receive information from a control centre.

Able to be interfaced to the on board system, they can also be provided with a built-in, short-range communication system, to transfer information and update software totally automatically.

Characterised by a robust modular construction and with a nice and ergonomic design, it leans out from the post to which it is fixed by only 70mm, and it may be quickly removed without tools.



**OMOLOGAZIONE
95/54/CE**

*Starting From October, 1st 2002, the 95/54/CE approval is mandatory for all equipments to be installed on board and heavy sanctions are planned for those who infringe this regulation.

**Futura 2
la validatrice
che cresce
con l'azienda**

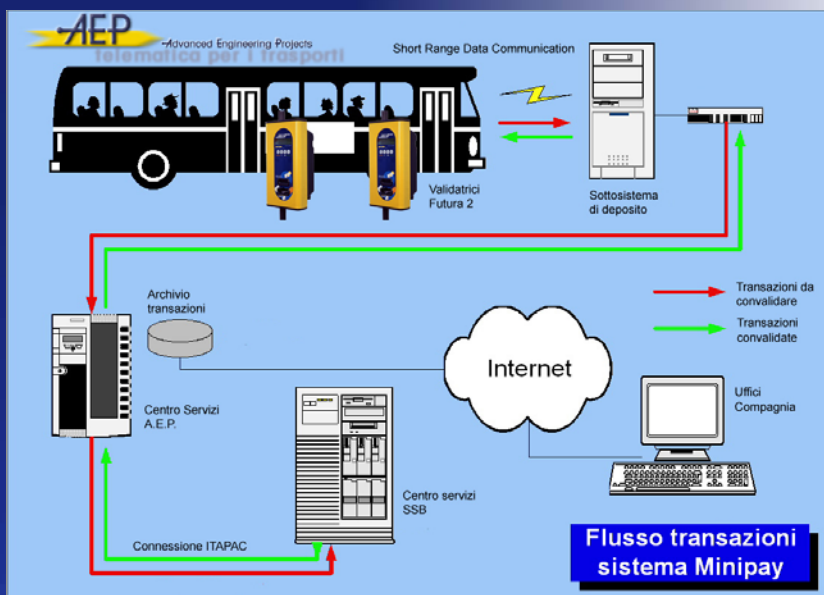
From paper
tickets.....

...to contact
smart cards....

.... to contactless smart cards....

AEP
Advanced Engineering Projects
telematica per i trasporti

Technical Characteristics



Codici di ordinazione

- 09.02.00 Futura 2 con stampante e orologio
- 09.02.01 Unità processo, porta modulo SAM e display LCD
- 09.02.02 Lettore smart card contact ISO-7816
- 09.02.03 Lettore smart card contactless ISO 14443B
- 09.02.04 Lettore smart card contactless ISO 14443A + B
- 09.02.05 Tastiera 4 pulsanti
- 09.02.06 Modulo comunicazione radio 433 MHz con antenna
- 09.02.07 Modulo comunicazione radio 868 MHz con antenna
- 09.02.08 Opzione fast hook
- 09.02.09 Personalizzazione pannello

Technical specifications subject to change without notice.

Keyboard and panel: customizable; programmable function keys.

Display: alphanumeric(al), back lit 2 lines x 16, large size characters.

Ticket validation: with impact dot printer; ribbon cartridge.

Smart card: contact smart card ISO 7816, long life, no-swipe; no contact smart card ISO 14443 A&B, reduced rangereading. Up to 6 SAM modules. Approved for use with Minipay* electronic purse.

Wireless communication: optional built-in radio module; does not require separate installation; two-way transfer; transaction downloading; update of tariff policy, even at a deferred date.

Serial interfaces: for manual download of data, diagnostic and for connection to other systems such as on board computers, GSM modules, GPS modules; vocal synthesizers, displays, passenger counters etc.

Power supply: 24V d.c. +20%

Temperature: -10 ÷ 60°C

Dimensions and weight: approx. 370x130x200mm 4kg (depending on optional features)

Vibration Resistance and Shock Sensitivity: in accordance with CEI EN 50155

Regulati(vesons): DM n.58 del 20/02/96; UNI CEI I-ETS 300-220; DiCEI EN 55024; UNI ENV 12796-97; CEI EN 52-21 (IEC 236-3); IPC-SM-782

Applications library: category/class discount; quantity discount; special surcharge service; holiday surcharge; rush hour surcharge; special offers; weekly subscription; monthly subscription; seasonal subscription; yearly subscription; operating in a pool with other companies; prices with an expiry date; promotional messages; intercity services stating departure/arrival; public holidays; VIP cards; visualization of remaining credit on card; automatic tariff calculation.



Mterm smart card inspector's terminal

Codice documento A.E.P. : 70.01.01 - 02/04 Ing