

# VAL100 On-board Validator

## Barcode/NFC/RFID ticket validator

**Fast, accurate, robust and reliable ticket reader for validating tickets and passes on any media**

### Description

The VAL100 On-board Validator is designed for use in a variety of public transportation automatic fare collection systems.

The validator combines barcode and NFC/RFID reading functionality to provide a single target for tickets and travel passes – whether presented on a card, mobile phone or tablet. The device is simple and intuitive to use and takes less than half a second to process a ticket.

The VAL100 can be connected via RS232, Ethernet and USB, or may be used wirelessly through a mobile network – independent of the existing on-board infrastructure.

The device has four SAM card slots for security, flexibility and integrity in processing fare transactions.

The VAL100 is fitted with a bright, clear, 480 x 272 high-resolution display that is sunlight-readable. There are three coloured LEDs and a programmable speaker to confirm ticket reads.



### Features

- Robust design for long-term front-line use
- Large, clear 480 x 272 TFT LCD colour screen
- Single point of presentation barcode/NFC/RFID reader
- Fully sealed and water resistant reader designed for indoor and outdoor use
- Unique, optimised focal distance improves card and mobile phone reading performance
- All high speed communications are routed on the device's processor module – with massive time saving.

### Applications

- Buses
- Trams
- Ferries

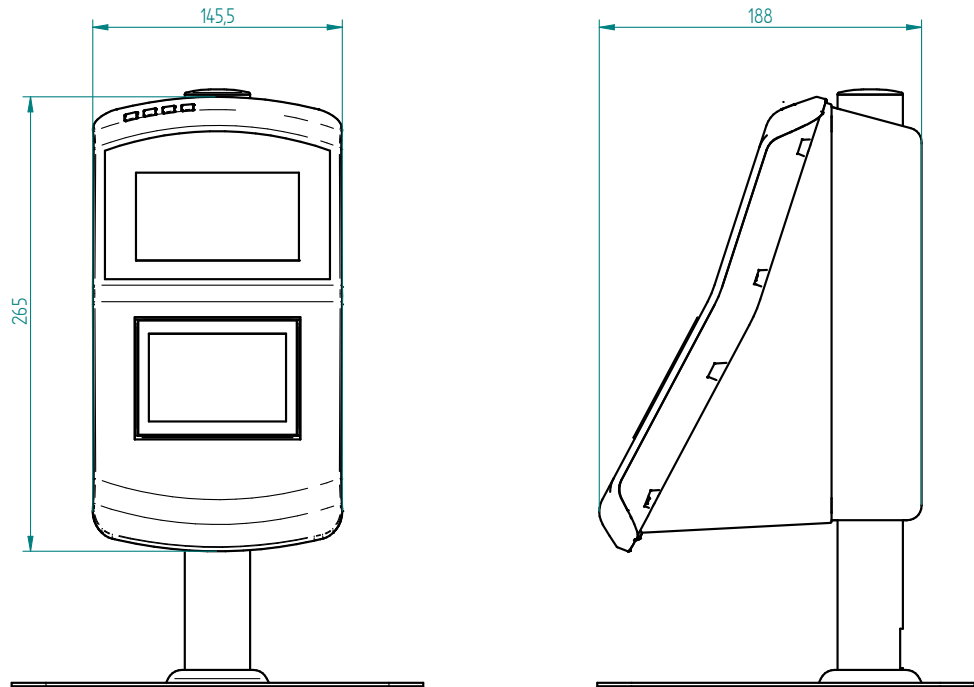


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## Dimensions



## Specifications

### Mechanical

External dimensions:

145.5W x 265H x 188D (main unit) mm

Body: Black & grey ABS

Display: 480 x 272, widescreen, sunlight-readable

Glass: 4mm Toughened White Soda Lime; BS EN60068-2-75 & IEC 62262:2002, rated to 3.5J impact

### Power supply

9-36 volts – automotive grade power supply

### Environmental

Temperature: Operating -20°C to +50°C; Storage -40°C to +70°C

Humidity: 5-90% humidity, non-condensing

Shock and Vibration: IEC 61373

Fire retardance: EN13501-1

EMC Approvals:

FCC 47CFR Part 15 Class A

EN55022: 2006 + Amd1: 2007;

EN55024: 1998 + Amd1: 2001 + Amd2 2003

UL 60950-1 and CSA C22.2 No. 60950-1-07

IEC 60950-1 2nd edition

IEC 60950-1 2nd edition including amendment 1

Safety: EN 60950-1: 2006; IEC 62471: 2006

Ingress: IP54

MCBF: 50,000

### Communications and host

Communication: 3G\*/4G\*/GPRS\*

Connection: GPS\*; Wifi\*; Bluetooth 4\*/Bluetooth Low Energy\*; RS232, RS485\*, USB, Ethernet

Host: 1.0GHz ARM processor; 512MB Ram; 2 x Micro SD card slot; Linux OS, full API and device access for developers

LED indicators: 4 x RGB LEDs

Sound: Stereo speakers with digital control for audio playback

### Reader – Barcodes

Reads following barcode symbologies:

Linear: EAN, UPC, Code 2 of 5,

Interleaved 2 of 5, IATA 2 of 5, Code 39, Code 128

2D: IATA resolution 792, PDF417, Aztec, DataMatrix and QR codes

Performance: Will read 2D barcodes from paper, mobile phones and tablets

### Reader – Contactless NFC/RFID

Reads NFC-enabled mobile phones and contactless smart and banking cards.

EMV Level 1

4 SAM slots

NFC tags:

NFC type 1 tags

NFC type 2 tags (Mifare Classic)

NFC type 2 tags (Mifare Plus)

NFC type 3 tags (Felica)

NFC type 4 tags – ISO14443-4 Type A

NFC type 4 tags – ISO14443-4 Type B

\* *Optional*

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