



**MERA**  
SYSTEMY



## Cashless on-board ticket vending machine MODEL BM-102

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## On-board Ticket Vending Machine Model BM-102



**Versatile ticket vending and fare collection machine.**

- Sale of paper single fare tickets
- Great flexibility in tariff's configuration of customer's choice
- Support for season electronic tickets, including on MIFARE cards
- Support for non-cash payments only
- Construction and applied materials are dedicated for high destruction resistance (against vandalism)
- Adapted to indoor and outdoor work in wide range of temperature
- Color touch screen, resistant to damages and with intuitive user interface (UI)
- Efficient thermal printer for tickets and receipts printing
- Remote control, configuration and reporting
- Two-way online communication
- Advanced stabilization and power supply maintenance system
- Module construction of components enabling simple use, maintenance services and various accessibility level (service, administration, cash collection)
- Display of information or advertisement content
- Sale of other electronic services, e.g. mobile top-ups
- Possibility of integration with vehicle's computer



# BM-102



## Touch screen

- high-contrasted, up to 800 cd/m2
- LCD TFT 10,4"
- vandalproof
- IR (or capacity) touch overlay

## Pin-Pad

- PCI PA DSS certification
- application dedicated to work with acquirer

## Contact card reader

- Visa and MasterCard contact cards (chip and magnetic stripe)
- EMV Level 1 and Level 2 certificates
- payment application - ADVT (Visa Europe) and TIP (MasterCard International) certificates

## E-tickets module

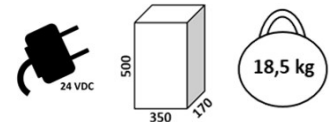
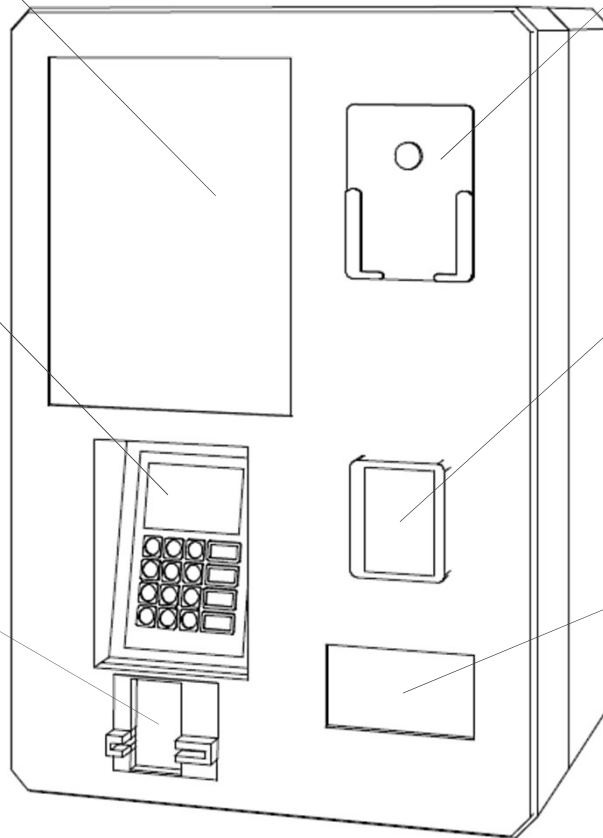
- MIFARE/MIFARE Plus reader/writer
- operates contracts encoded on cards
- season ticket, e-purse

## Contactless (proximity) card

- Visa payWave, MasterCard PayPass
- EMV Level 1, MasterCard PayPass M/Chip, Visa qVSDC
- aplikacja płatnicza: qVSDC (Visa), TIP Contactless (MasterCard)

## Ticket, receipt printing

- thermal programmable printer
- 204 dpi resolution
- full graphic support, including 2D codes
- paper status check (near end, shortage, jams)
- self sharpening cutter
- maximum paper/print width 82,5/80 mm



## Protection against water and dust

Tightness IP 54, according to PN-EN 60529



## Operating in environment

- Operating temperature: -25C to + 55C
- Humidity (without condensation): <95%



## Made from safe materials

- materials are easily separated for recycling and service purposes
- no unsafe or prohibited materials
- compliant with ISO 14001



## Anti-graffiti paint

Special paint facilitates removal of dirt and/or graffiti



## Wire and wireless connection

Two-way communication with back-office systems via one of the following connection type: GSM, GPRS, UMTS, LTE or LAN/Ethernet.



## Alarm system

- loud sound signal (siren)
- transmission of the alarm notice to back office systems

# BM-102: Technical specification



		<b>BM-102</b>
Interface	<b>Display</b>	size
	High-contrasted, vandalproof, colour TFT LCD, with LED backlight. Multilanguage user interface.	brightness
		resolution
		touch overlay (touch technology)
Card payment	<b>Contactless (proximity) card payment operating module</b>	operates Visa payWave and MasterCard PayPass proximity cards
		EMV Level 1, MasterCard PayPass M/Chip, Visa qVSDC certificates
	<b>Contact card payment operating module</b>	payment application - qVSDC (Visa Europe) and TIP Contactless (MasterCard International) certificates
		operates Visa and MasterCard contact cards (chip and magnetic stripe)
	<b>Payment application</b>	EMV Level 1 and Level 2 certificates
		payment application - ADVT (Visa Europe) and TIP (MasterCard International) certificates
Printing	<b>Module for operating MIFARE TM / MIFARE Plus TM standard</b>	PCI PA DSS certification, dedicated to work with acquirer
	<b>Printers</b>	operates contracts encoded on cards, e.g. season ticket, e-purse
		number of printers
		resolution
		maximum paper/print width
Casing, general work parameters	<b>Back office central system</b>	self sharpening cutter
		communication interfaces
		failures notification
		remote update of work parameters, including tariffs changes
	<b>Casing and protection</b>	blocking and unblocking
		sales data collection, reports and settlements
		IP class according PN-EN 60529
		locking mechanism
		alarm system (unauthorised access protection)
		external LED RGB status indicator
<b>Dimensions</b>	height x width x depth [mm]	
<b>Weight</b>	without paper rolls [kg]	
<b>Power</b>	nominal voltage	
<b>Environment conditions</b>	operation temperature	
	storage temperature	
	operating and storage humidity (without condensation)	
	temperature control and heating system	

## BM-102

10,4" (3:4)

800 cd/m2

600 x 800

IR / capacity

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●

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204 dpi

82,5/80 mm

up to 1 mln cuts

GSM/GPRS, LAN Ethernet

●

●

●

●

IP 54

3-point locking system

open door sensor; emission of loud alarm (siren) for defined period of time

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500 x 350 x 170

18,5

24VDC+-30%

-25C do + 55C

-40C to + 70C

<95%

●