

DIVA3 PLATFORM · CONTROLLER

DIVA3 Base – the universal controller

The DIVA3 Base interface controller connects vending machines and payment systems of all manufacturers and acts as an interface converter with complete accounting. As the successor of the DIVA2 Base it offers a modern processor architecture, 2 × USB-C, Ethernet 10/100 and optional 4G – with the full feature set of the proven DIVA firmware.

Audit

Telemetry

Cashless closed + open loop

Converter

TWINT

nube cloud



10

serial and parallel interfaces

18–42 VDC

powered via machine connector s1.4

MDB·EXE·CCI·BDV

automatic cable detection

LAN·4G·USB-C

nube cloud remote management

180×90×50

mm, operation 0 ... +70 °C

■ Applications

- Interface converter between vending machine (MDB, Executive, CCI, BDV, parallel) and payment systems
- Telemetry box for audit (EVA-DTS), single transactions and remote management via LAN or 4G
- Controller for third-party systems: card readers, credit card terminals, Tapsy (SoftPOS), TWINT, QR scanners, cash registers
- 2 vending machines on one DIVA3 Base (e.g. snack machine + coffee machine)
- Special applications: Compact Loader, Coffee Corner, miniPOS, transfer station, laundry, turnstiles, timer applications

■ Benefits

- Supports all cash and cashless payment systems on the market
- All serial machine interfaces on one connector (s1.4) with automatic cable detection
- Open interfaces for cash registers, databases and cashless systems – no lock-in strategy
- Modern platform: 1 GHz Cortex-M7, 2 × USB-C, Ethernet, internal microSD – ample reserves
- Compatible with the DIVA2 family: machine cables s1.4, options (max. 2) and extensions, one firmware for all devices
- Connection to the nube cloud: remote SW updates, configuration, monitoring and alarms; TIV back office
- Built in as standard: TWINT (CH) QR code open-loop payment
- Expandable to a cashless system with LEGIC, MIFARE and mobile (LeX3 or external reader)

■ Firmware functions

- Service/free vend mode, subsidies, bonus, 4 price lists + cash, 100 selections, age verification, VAT rates
- Debit and/or credit operation in online or offline mode, mixed vend across all payment systems
- Machine interfaces: MDB slave cashless (level 1–3), MDB comms gateway, Executive, BDV, CCI, parallel
- Third-party payment systems: MDB master (coin changer, bill validator, 2 card readers), credit card terminals, QR scanners, ID readers
- EVA-DTS statistics readable via cable (s7.3), USB-C, USB stick, IrDA eye, LAN or 4G
- Single transactions in XML format on internal microSD, collected via USB stick or cloud
- User interface with LEDs and buzzer; languages DE, EN, FR, IT, ES, CA

Details according to the DIVA manual and the feature list of the current firmware.

■ Tools – what else do I need?

- **PC tool DHT** via USB-C or s7.3 for configuration and SW update
- **USB stick (FAT32)** and **USB-C cable**
- **Machine cable s1.4** matching the vending machine (order separately)
- **Commissioning card** and **nube account** for cloud functions
- optional **IrDA eye** for older handhelds
- **Firmware download:** help.hugwi.ch

Technical data

Dimensions / weight	180 × 90 × 50 mm (L × W × H), plastic housing; weight approx. 280 g
Temperature range	Operation 0 ... +70 °C, storage -40 ... +85 °C, non-condensing
Power supply	18 ... 42 VDC (nominal 24 VDC, SELV) via s1.4; current consumption typ. 300 mA @ 24 VDC
Supply for ext. devices	USB-C 0.5 A each; 5 V and 24 V on s2, s5.3, s7.3, p7.2; MDB supply on s4
Processor / memory	NXP i.MX RT1170 (Cortex-M7, 1 GHz), 16 MB code flash, 1 MB data flash, 4 Mbit NVRAM, microSD (opt.)
Expansions	max. 2 options (e.g. O215 I/O, O206 RS232), 1 extension (E207 4G, E216 display/keyboard)
Controls / RTC	Slide switch Serv./Oper. (commissioning), set button, LEDs, buzzer; RTC with lithium cell (10 years)
Connectivity	LAN 10/100, 4G LTE with extension E207 (EU / LATAM), USB 2.0, IrDA (ext. eye)
Standards	MDB/ICP 4.2, EVA-DTS / DDCMP, Executive, BDV, CCI; IEEE 802.3; USB Type-C
Conformity	CE – EMC EN 55032 / EN 55035, RoHS

Connectors and interfaces



1 s1.4	Machine MDB / EXE / CCI / BDV + power	7 s5.3	RS232 payment system (e.g. EFT), 5 V / 24 V
2 s4	MDB master: coin changer, bill validator, card reader	8 W4N	4G antenna (only with extension E207)
3 s2	RS232 + 24 V: printer, display, scanner, cash register	9 USB 7	USB-C OTG: laptop, configuration, SW update
4 LAN	Ethernet 10/100BASE-T, RJ45	10 Serv./Oper.	Slide switch service / operation (commissioning)
5 s7.3	RS232 configuration, DDCMP, handheld	11 USB 2	USB-C host: USB stick, QR scanner
6 p7.2	I/O: 1 opto IN, 2 SSR OUT, RS232, IrDA eye	12 set	Button (reset)

RFID antenna / control are not fitted on the DIVA3 Base. Pin assignments and connector types: see Specification Note SN172.

Ordering information

Item no.	Description	Scope of delivery
D4.01.000.01	DIVA3 Base	Controller without RFID and without cables; order machine cable s1.4 separately

With integrated LEGIC/MIFARE reader and antenna Dragon: see data sheet LeX3 (D4.05.000.xx).

Accessories

Expansions, peripherals		Machine cables s1.4 (12-pin), mounting	
D2.69.000.06	Extension207 Set GSM 4G (EU)	D3.01.003.08	Machine cable MDB
D2.69.000.07	Extension207 Set GSM 4G (LATAM)	D3.01.003.87	Machine cable 2× MDB
D2.63.000.01	Option215 set (I/O expansion)	D3.01.003.05	Machine cable Executive
D2.42.000.01	Option206 RS232 set	D3.01.003.11	Machine cable CCI
D2.64.000.02	Extension216 display, keyboard	D3.01.003.07	Machine cable BDV
HW.14.000.01	DIVA external serial display (on s2)	D2.01.004.15	Self-adhesive Velcro tape set