Logivyx

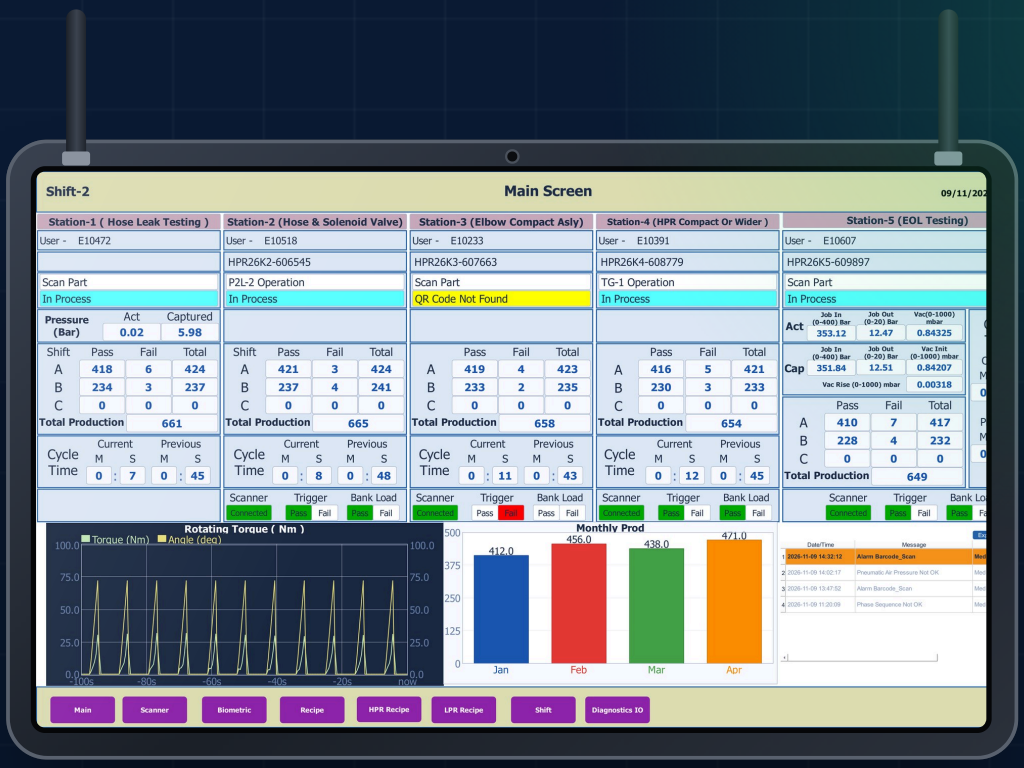
PRODUCT CATALOG · 2026

7″ PANEL PC · HMI + SOFT PLC · FIELD-READY I/O

FieldCore 7

Wire it to 24 V. Run the machine.

A compact 7-inch industrial controller-panel with native RS232 / RS485, dual Ethernet, wide-range 9–36 V DC power and optional 4G — pre-loaded with the Logivyx Runtime, so operator screens and IEC 61131-3 control logic run together on one device.



LOGIVYX RUNTIME · LIVE PROJECT SCREEN

9–36 V DC
Terminal-block power input

2 × RS232 · 2 × RS485
Native serial for Modbus RTU

Dual LAN · 4G
GbE + 100M · optional LTE

VISUAL LOGIC.
ZERO CODE.

PRODUCT OVERVIEW

A controller-grade panel that fits a small door.

FieldCore 7 is the compact, field-hardened member of the Logivyx panel family. It takes cabinet 24 V directly, talks to serial instruments without adapters, separates plant and machine networks on two Ethernet ports and keeps time and state through power loss — with the Logivyx Runtime and Soft PLC already installed.

THE CONVENTIONAL CABINET

HMI + PLC + gateway + router

HMI panel | PLC CPU | Serial gateway | 4G router

Four boxes · four configurations · four failure points

- ✕ Extra devices for serial and remote access
- ✕ Separate HMI and PLC software and licences
- ✕ 24 V → 5 V converters and more DIN rail

THE FIELDCORE WAY

One 7″ panel does all four jobs

FIELDCORE 7

HMI | Soft PLC | RS232/485 | 4G · Wi-Fi

One project · one licence · one device on 24 V DC

- ✓ PLC, gateway and router removed from the BOM
- ✓ Serial devices wired straight to terminals
- ✓ Powered directly from the cabinet 24 V supply

7″
1024 × 600 capacitive multi-touch, 400 cd/m²

4 COM
2 × RS232 + 2 × RS485 on pluggable terminals

2 LAN
Gigabit + 100 Mbps Ethernet ports

0
Separate PLCs needed — the Soft PLC runs on the panel

WHAT YOU GET

Industrial panel PC

Aluminium and sheet-metal 7″ panel with front-mount kit, wide-range power and on-board serial ports.

Logivyx Runtime, pre-loaded

HMI/SCADA runtime with embedded Soft PLC installed on eMMC (Linux ARM64) and licence activated for the device.

Network deploy from Studio

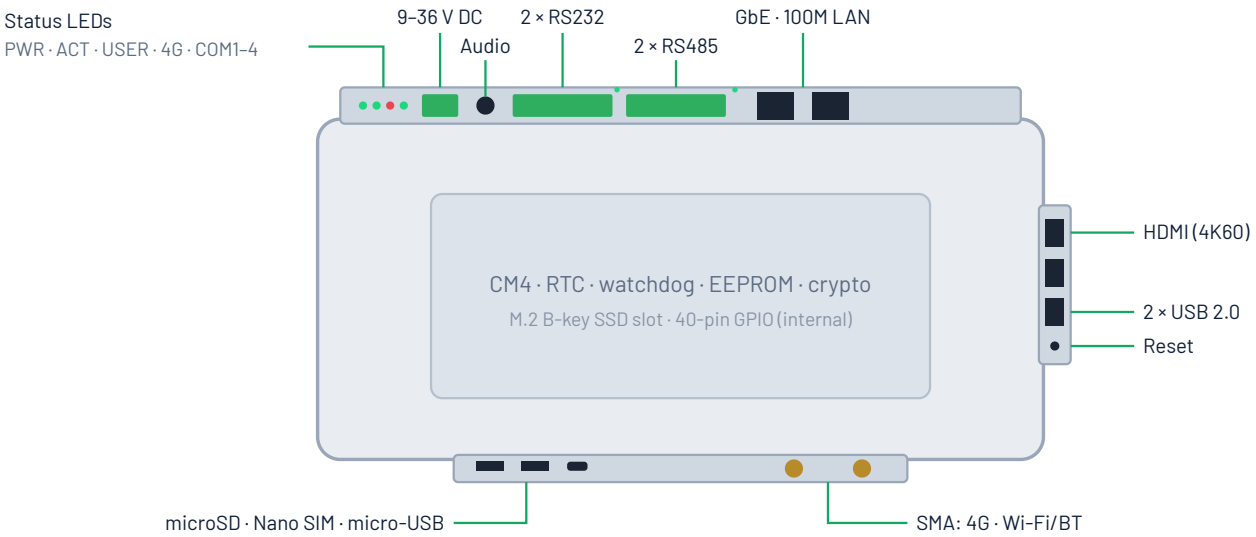
Push projects from Logivyx Studio on a Windows PC over Ethernet or Wi-Fi — and maintain remotely over 4G.

HARDWARE

Every interface a machine actually wires to.

Raspberry Pi CM4 compute in a compact metal housing, with the field interfaces on pluggable 3.5 mm terminals and the reliability features of a controller: RTC, watchdog, EEPROM, crypto chip and optional supercapacitor backup.

FIELDCORE 7 · I/O LAYOUT (SCHEMATIC, REAR VIEW)



Raspberry Pi CM4

BCM2711, 4 × Cortex-A72 at 1.5 GHz; 2–8 GB RAM and 16–32 GB eMMC by variant.

9–36 V DC input

Wide-range terminal input with reverse-polarity, over-voltage and over-current protection.

Native serial

2 × RS232, 2 × RS485 on 3.5 mm terminals with per-port activity LEDs and selectable 120 Ω termination.

Dual Ethernet

1 × Gigabit + 1 × 100 Mbps — keep the plant network and the machine network apart.

4G LTE & Wi-Fi

Optional 4G (Nano SIM) and dual-band 802.11ac Wi-Fi + Bluetooth 5.0 with external SMA antennas.

RTC & watchdog

Real-time clock for time-stamped logs and a hardware watchdog for unattended operation.

EEPROM & crypto chip

On-board EEPROM and encryption chip; optional supercapacitor backup on power loss.

Audio & buzzer

Built-in 3 W speaker, buzzer and 3.5 mm audio jack for audible alarms and operator prompts.

Storage that grows with the project. eMMC for the OS and runtime, a microSD slot for user data, and an internal M.2 B-key slot for a 2230 / 2242 SSD when logs and reports get large.

Optional 8 MP front camera for operator identification and inspection snapshots in Logivyx camera widgets; HDMI output (4K60) for a second, larger display.

SOFTWARE ON BOARD

Logivyx Runtime, ready on first power-up.

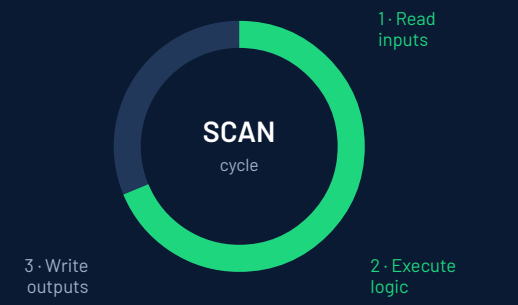
Every FieldCore ships with the full Logivyx Runtime — the same HMI/SCADA engine and embedded Soft PLC used on all Logivyx targets. Your .hmi project carries screens, tags, logic, alarms, recipes and reports in one file.

THE CORE USP

Embedded Soft PLC — on the panel

A deterministic, cyclic logic engine runs inside the runtime: it reads inputs, executes your Main routine and writes outputs every scan — with scan-time and overrun monitoring, retentive variables and STARTUP / SHUTDOWN routines. Program it in Structured Text, Ladder or the graphical Sequence designer.

Structured Text · Ladder · Sequence · PID · Timers · Counters · CiA 402 motion



Serial devices, natively

Modbus RTU masters and raw-serial / ASCII drivers bind directly to the on-board COM ports — no USB adapters.

Data, recipes & reports

SQLite logging with RTC time-stamps and batch keys, multi-profile recipes, tag-triggered PDF reports, SQL Server read/write.

Remote over 4G

Read-only web & Android viewer of live screens and OPC UA publishing — over LAN, Wi-Fi or the 4G link.

Diagnosis on the panel

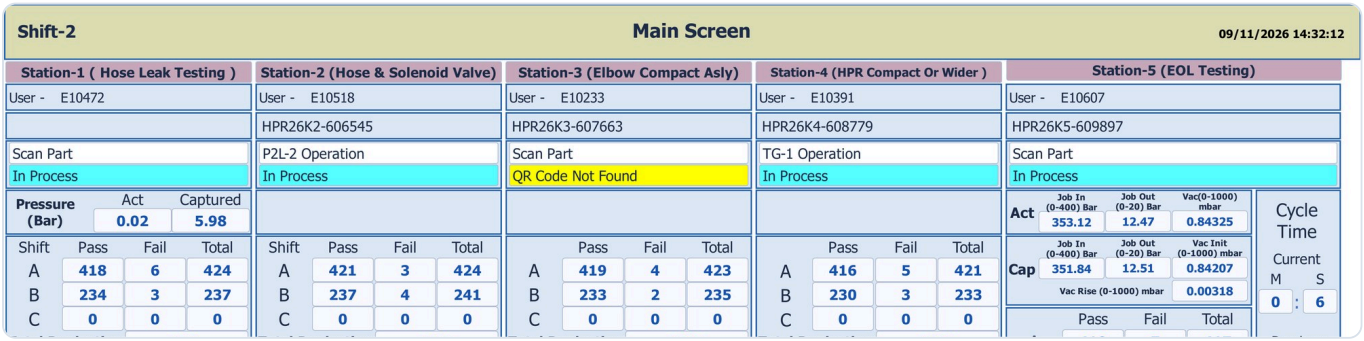
IO Diagnosis and watch window run on the deployed panel — filter tags, force values, flag stale data, export CSV.

Security built in

User groups, hashed passwords and screen-, dialog- and widget-level authorisation for audit-friendly operation.

Retentive by design

Retentive variables and internal tags persist across power cycles — the machine resumes where it stopped.

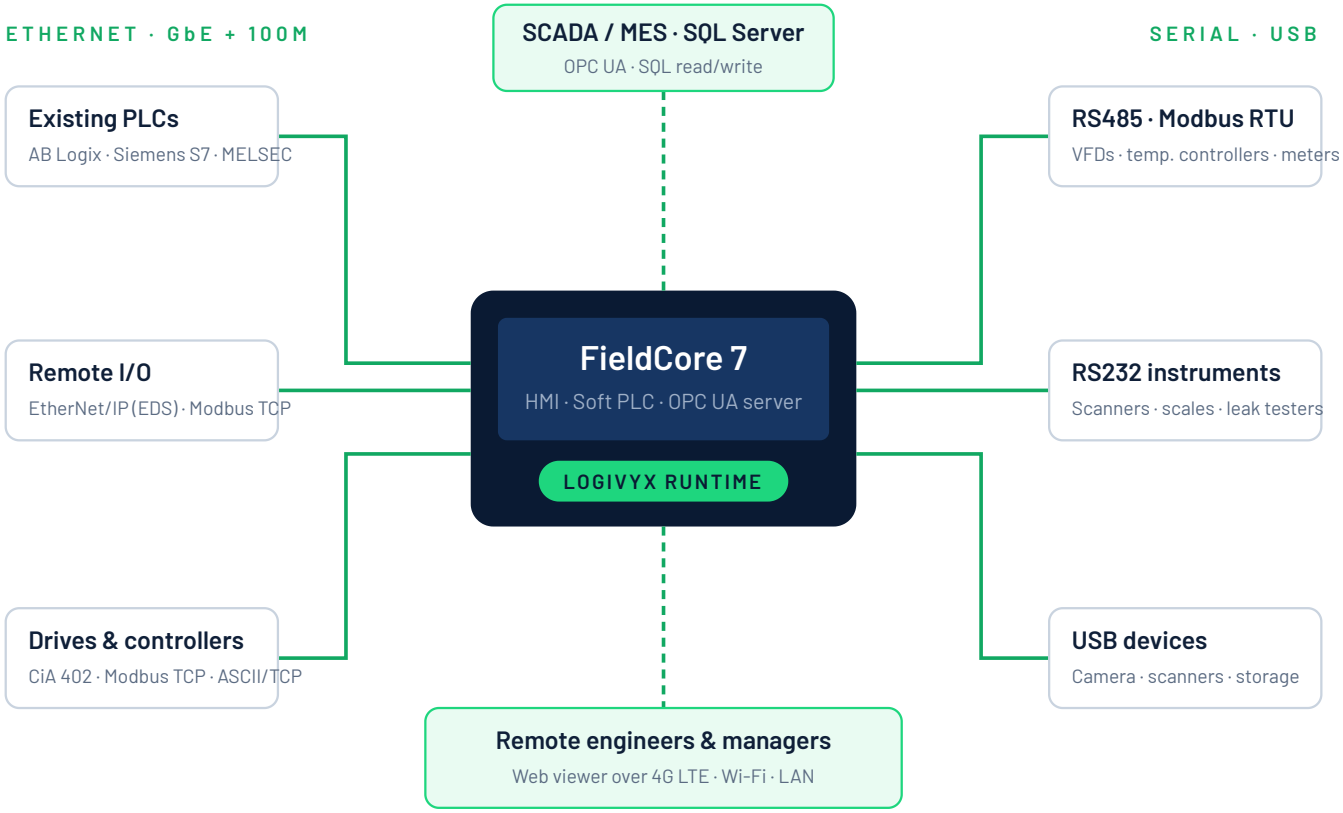


Live runtime screen. Per-station sequence step, scanned part codes, shift-wise production and cycle times — from a real Logivyx assembly-line project (simulated values).

CONNECTIVITY

Ethernet, serial and cellular from one 7-inch panel.

Run the machine from the embedded Soft PLC, front an existing PLC as a vendor-neutral HMI, or both in hybrid mode — while serial instruments wire straight to the terminals and 4G brings the machine within reach from anywhere.



Mitsubishi

SLMP over Ethernet for MELSEC iQ-F (FX5) and SLMP-capable CPUs. Tag import from GX Works3 Global Label XML or CSV.

Siemens

S7 communication for S7-300/400 and S7-1200/1500. Data-block addressing, CSV tag import from TIA Portal.

Allen-Bradley

EtherNet/IP · CIP to ControlLogix / CompactLogix with symbolic tags. Import Studio 5000 L5X incl. UDTs.

FROM ENGINEERING DESK TO PANEL

01

Design

Draw screens and write ST, Ladder or Sequence logic in Logivyx Studio on Windows 10/11.

02

Simulate

Test screens and logic together on the built-in simulator before the panel is mounted.

03

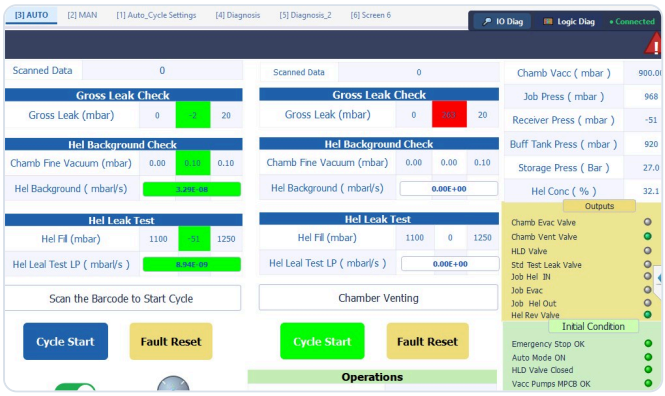
Deploy

Network-deploy to FieldCore — HMI and controller go live together, on site or remotely.

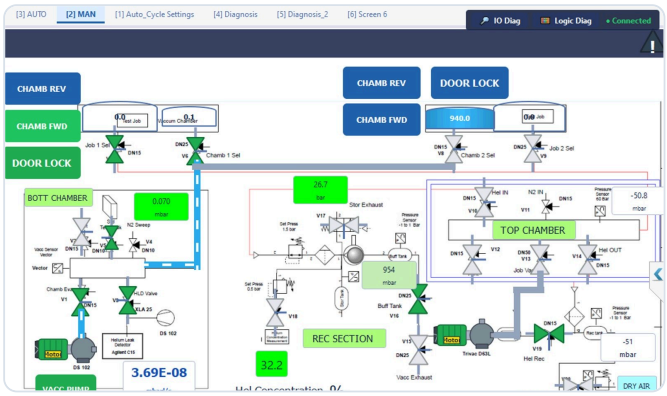
PROVEN ON REAL MACHINES

Same project file, any Logivyx panel.

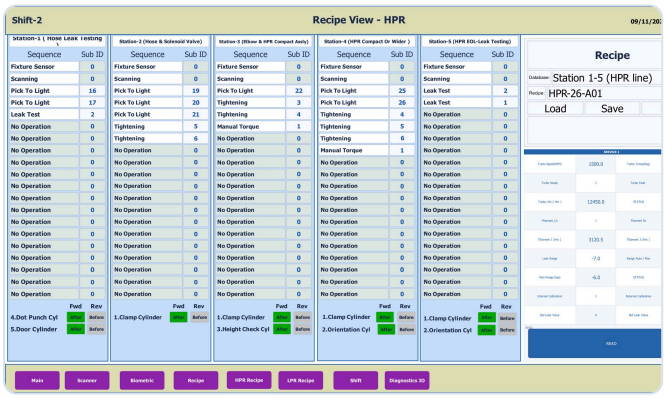
FieldCore runs the same .hmi project as every Logivyx Runtime target. These screens come from production Logivyx projects — a helium leak-testing machine and a multi-station hose assembly line. For a 7-inch panel, lay out fewer widgets per screen and spread content across tabs or popups.



Helium Leak Testing — AUTO. Gross-leak, background and helium-leak results per stage with cycle counters and live alarms.



Helium Leak Testing — P&ID. Valves, vacuum chambers, pumps and gas lines animated live from Soft PLC tags.



Hose Assembly — Recipe view. Operation sequence of every station for the selected product, loaded from the recipe database.



Hose Assembly — Biometric link. Operator log-in per station read from the fingerprint system's SQL database.

IDEAL APPLICATIONS

Compact SPMs
Single-station assembly, crimping and press-fit.

Leak & test benches
RS232 instruments, logged results, PDF certificates.

Remote pump stations
Level control and alarms over 4G.

Utilities & energy
Modbus RTU meters, compressors, chillers.

Process skids
Dosing, tanks, valves and PID loops.

Packaging modules
Recipe-driven cycles and batch reports.

IoT edge gateway
Serial-to-OPC UA / SQL data collection.

Retrofits
Replace a legacy text display or small PLC.

TECHNICAL SPECIFICATIONS

Specifications

Computing — SYSTEM

Processor	Raspberry Pi CM4 · Broadcom BCM2711, 4 × Arm Cortex-A72 @ 1.5 GHz
Memory	2 / 4 / 8 GB LPDDR4 (by variant)
Storage	16 / 32 GB eMMC · microSD slot · internal M.2 B-key (2230/2242 SSD)
Reliability	RTC (CR1220 backup), hardware watchdog, EEPROM, crypto chip, optional supercapacitor
Operating system	Raspberry Pi OS 64-bit (Linux ARM64), pre-configured

Display & touch — HMI

Display	7″ TFT LCD, 1024 × 600, LED backlight
Brightness	400 cd/m² · contrast 800:1 · 85° viewing all sides
Touch	Capacitive multi-point touch
Camera	8 MP front camera (optional)
Audio	3 W speaker, buzzer, 3.5 mm mic-in / line-out jack

Interfaces — I/O

Ethernet	1 × 10/100/1000 + 1 × 10/100 Mbps, RJ45 with LEDs
Serial	2 × RS232 (COM1, COM3) · 2 × RS485 (COM2, COM4), 3.5 mm terminals, 120 Ω termination jumper
USB / video	2 × USB 2.0 Type-A · 1 × HDMI Type-A up to 4K60
Wireless (option)	Wi-Fi 802.11ac dual-band, Bluetooth 5.0 · 4G LTE (Nano SIM), SMA antennas
Service	Reset button · micro-USB eMMC programming port · status LEDs

Power, mechanical & environment — HARDWARE

Power input	9–36 V DC, 2-pin 3.5 mm terminal; reverse-polarity, OV & OC protected · 25 W max
Dimensions / weight	188 × 123 × 43.5 mm (W × H × D, excl. antennas) · approx. 1.1 kg
Mounting	Front panel; cut-out 184 × 119 mm, R6.5 corners
Operating temp.	-20 °C to +60 °C
Certifications	CE · FCC (hardware platform)

Logivyx Runtime — SOFTWARE

Pre-installed	Logivyx Runtime (HMI/SCADA + embedded Soft PLC), per-device licence activated
Engineering	Logivyx Studio on Windows 10/11 64-bit; network deploy to panel
Project format	Single .hmi file — screens, tags, logic, alarms, recipes, reports

Soft PLC — LOGIC

Languages	Structured Text (IEC 61131-3 style), Ladder Diagram, Sequence
Execution	Cyclic scan: input refresh → Main → output write-back; scan-time & overrun counters
Organisation	Main + routines, STARTUP / SHUTDOWN, user UDTs and Function Blocks
Library	TON/TOF/TP, CTU/CTD, R_TRIG/F_TRIG, PID, SCALE, LIMIT, maths, strings, SQL_READ / SQL_WRITE
Motion	CiA 402 drives — MC_Power, MC_Home, MC_Move..., MC_Stop, MC_Reset
Retention	Retentive variables persisted across power cycles

HMI & data — VISUALISATION

Widgets	30+ display, control, chart, process, P&ID and camera widgets
Data services	SQLite logging & recipes, tag-triggered PDF reports, SQL Server read/write
Security	User groups, hashed passwords, screen/dialog/widget authorisation
Remote access	Browser & Android web viewer (read-only); OPC UA server

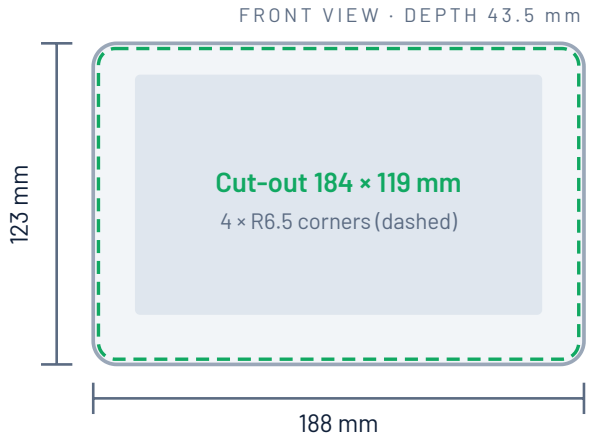
Connectivity — DRIVERS

PLC drivers	Allen-Bradley Logix (EtherNet/IP) · Siemens S7 · Mitsubishi MELSEC (SLMP)
Open protocols	Modbus TCP · Modbus RTU (on-board RS485/RS232) · OPC UA client & server · EtherNet/IP (EDS I/O)
Generic devices	ASCII over TCP, raw TCP, raw serial on COM1–COM4; built-in simulator

Specifications subject to change without notice.

DIMENSIONS & MOUNTING

Front-panel mount in minutes



1. Cut a **184 × 119 mm** opening with R6.5 corners in the cabinet door.
2. Insert FieldCore from the front; fix the four buckles to the side holes with the **M4 × 10** screws.
3. Tighten the **M4 × 16** clamping screws, wire **24 V DC** to the VIN+/GND terminal — the runtime starts automatically.

Fit antennas and SIM first on 4G / Wi-Fi variants. RS485 lines ending at the panel: set the internal 120 Ω termination jumper before mounting.

ORDERING INFORMATION

Order code	Variant	RAM	eMMC	Wi-Fi / BT	4G LTE	Best for
LGX-FC7-S	**FieldCore 7 Standard**	2 GB	16 GB	—	—	Wired machines, HMI + Soft PLC
LGX-FC7-W	**FieldCore 7 Wireless**	4 GB	32 GB	✓	—	Plant Wi-Fi, mobile web viewer
LGX-FC7-L	**FieldCore 7 Connect**	8 GB	32 GB	✓	✓	Remote sites, 4G monitoring

Add suffix **-C** for the optional 8 MP front camera (e.g. LGX-FC7-W-C). 4G modules are supplied for the regional LTE bands of the destination market.

In the box

FieldCore 7 unit with Logivyx Runtime pre-installed and licensed · mounting kit (4 × buckles, 4 × M4×10, 4 × M4×16) · Wi-Fi/BT and/or 4G antennas (wireless variants) · quick-start guide

Recommended accessories

24 V DC DIN-rail power supply · M.2 2230/2242 SSD for extended logging · CR1220 RTC battery (if not fitted) · Logivyx Studio engineering licence

Logivyx

Request a live demo
and see FieldCore run your machine.

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FieldCore 7 hardware platform: EDATEC ED-HMI2120-070C (Raspberry Pi CM4). Raspberry Pi is a trademark of Raspberry Pi Ltd.