Fidelix

FDX Compact FX-3000-C

All-in-one BMS controller

- Freely programmable PLC with webserver, history logging, energy reports, trending, weather forecast anticipation, user management, ...
- BACnet, Modbus and M-Bus communication
- Integrated WiFi router
- DIN-rail mountable

Full control, ultimate compatibility

The FX-3000-C is a building automation controller with BACnet B-BC profile. Unique in its kind, it is 100% freely configurable. It communicates using Modbus, M-Bus or BACnet, serial, UDP or TCP and has an on-board NAT router.

Fully equipped with web server, history recording, user management, energy reporting capabilities and many more features, the FX-3000-C is an all-you-need solution for all your building management needs.

Parametrising the FX-3000-C is done with our software suite FX-Editor, offering a clear and efficient project overview. It makes programming the controller not only an easy, but also a speedy task.

When connecting field devices to the FX, multiple FX-controllers to each other, and all controllers to a SCADA server, running a building really becomes a piece of cake.

Technical features

Dimensions: **99 x 68 x 112 mm**
Weight: **350 gr**
Power consumption and operating voltage: **3-6 W @ 24 VDC (+/- 15%)**
Operating / storage temperature: **0 to +40 °C / -40 to +85°C**
Maximum relative humidity for operation: **90%, no condensation**
IP-Class: **20**

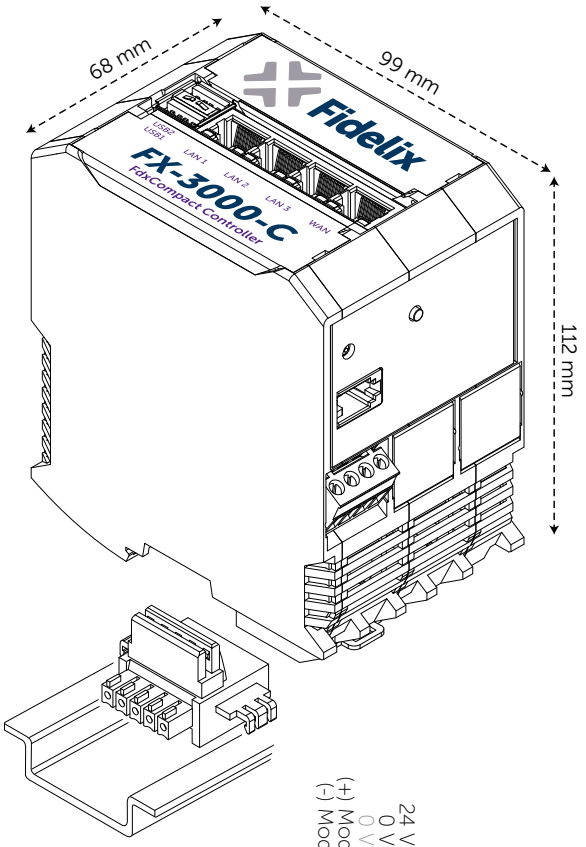
Power supply: Power can be provided either from the side (next to the RJ9 SMS modem connector), or from the bottom, through the click-on connector inside the DIN rail. With this connector, FdxCompact modules can be connected to the same power supply. The controller can handle a load of maximum 7A.

Modbus communication: The controller has one built-in serial port (RS485) to connect up to 63 FdxCompact modules. Using the click-on connector inside the DIN rail, they can be connected directly to the controller, and will be automatically detected when they are.

With the Fdx-Terminal-C set, the Modbus communication loop can be closed at the last module, or continued towards classic modules or other equipment.

Using the multiLINK, more serial ports can be added.

USB: The controller has 2 USB ports. With the Update Tool software, the USB1 port can be used to update, consult or reset certain settings that require local intervention. The USB2 port is allocated to the internal router.



Networking: The controller has one Ethernet port, marked 'WAN', to connect the controller to an external network. The three other ports, marked 'LANx' can be used to connect a VISIO-15-C touchscreen display, extend the local network, connect multiLINK modules, or to connect field devices. All ports operate at 10/100 Mbit/sec and have automatic speed negotiation (MDI / MDI-X). The built-in router operates fully independent and offers IEEE 802.1X support.

Network ports' LEDs: The orange LEDs indicate network activity for each port, the green LEDs are used for other indications; the green LED of LAN1 indicates write operations to the memory stick connected to USB1. The green LED of LAN3 is the controller's "heart beat"; slow blinking with 2 second intervals indicates normal CPU operation. The green LED of LAN2 is briefly lit when the power supply is switched on. The green LED of the WAN port is not used.

Web server: The FdxCompact FX-3000-C has an embedded FTP and web server. This means that the user interface shown on the optional FdxCompact VISIO-15-C touchscreen display is the exact same as what is shown remotely in a browser.

Programming: With the Integrated Development Environment, FX-Editor, the user interface (HTML pages), point programming, and PLC code (IEC 61131-3), are easily combined to create, manage, and maintain projects fast and efficiently.

µSD card: The µSD card sits behind the lower little door at the front side of the controller. The FX-3000-C automatically makes weekly backups to the µSD card.

Button on the side: Pressing the reset button will trigger a saving of the point data and restart the controller.

Power consumption: The controller is to be powered with 24 VDC and consumes between 3 and 6 W, with peak load up to 10 W.

Hardware specifics: The controller has an NVidia Tegra 2 dual core Cortex-A9, 1 GHz processor, 512 MB NAND Flash memory (8 bit), 256 MB DDR2 RAM memory (32 bit) and runs Microsoft Windows Embedded CE 6.

The EMC immunity / emission conforms to the EN 50491-5-2 standard.

The internal real time clock is powered by a replaceble CR2016 battery when the controller's power supply is not connected.