



ARCHITECTURAL AND ENGINEERING SPECIFICATION

PRODUCT: MX-FR9R

FUNCTIONAL OVERVIEW

Lightware's hybrid modular matrix routers allow building custom I/O sizes that meet the user's requirements. Different types of input and output boards give the maximum flexibility for rental and installation signal transmission. The hybrid architecture allows signal routing between boards even if they have different connectors. This way any input can be routed to any one or more outputs if the output interface is capable of transmitting the signal.

I/O BOARD SPECIFICATION

- Rack height: 4U
- Max. input boards: 1
- Max. input ports: 9
- Max. output boards: 1
- Max. output ports: 9
- INFO: The maximum number of input and output ports includes the Test input and Preview output port of the MX-CPU2 processor board.

POWERING

- Power supply option: Swappable PSU
- Supported power source: 100-240 V AC; 50/60 Hz
- Power supply unit(s) type: MX-PSU-350
- Power consumption (max) of MX-FR9R: 115 W
- Heat dissipation: 1194 BTU/h
- AC power connector: IEC C14 receptacle
- Certain frames have redundant power supplies.
- Every PSU has its own standard IEC power connector and works with 100 to 240 Volts AC, 50 Hz or 60 Hz power source.
- Frame type: PSU location: built-in; Number of PSUs: 2; Output/PSU (max): 350W
- A 2-pole Phoenix connector is used for 12V DC input for TP and TPS boards and 48V for TPS2 boards.
- External power adaptor is needed when I/O boards power TP or TPS extenders remotely.

CONTROL

- Front Panel Control
- Lightware Device Controller (LDC)
- Built-in Website
- Ethernet Control: Multiple simultaneous TCP/IP connections are available with simple ASCII based protocol for controlling and configuring the matrix router.
- USB Control: Easily accessible front panel USB configuration port.
- RS-232 or RS-422 Control: Simple ASCII-based protocol can be used for switching, preset calling, status request, etc.

GENERAL

- Rack mount: Yes, 4U high
- Enclosure material: 1 mm steel
- Dimensions in mm: W482 x D300 x H176
- Dimensions in inch: W19.0 x D11.8 x H6.9
- Weight of the frame (with MX-CPU2 board): 11.7 kg (25.8 lbs)
- Rack mounting: standard rack unit installation using supplied rack mounting ears (fixed to the frame).
- Supplied accessories:
 - IEC power cable
 - RS-232 straight serial cable
 - Safety and Warranty Info; Quick Start Guide
- Safety / electrical class: Class I apparatus construction (protective earth required).
- Compliance: CE; Safety: EN 60065:2014, Class I.
- Warranty period: 3 years.
- Cooling / ventilation requirement: ensure enough free space around the appliance; do not cover the appliance; leave ventilation holes free; never block or bypass ventilators (if any).

DOCUMENT REVISION HISTORY

Document	Release Date	Changes	Checked by
v1	2026-08-24	Initial version	Tamas Forgacs