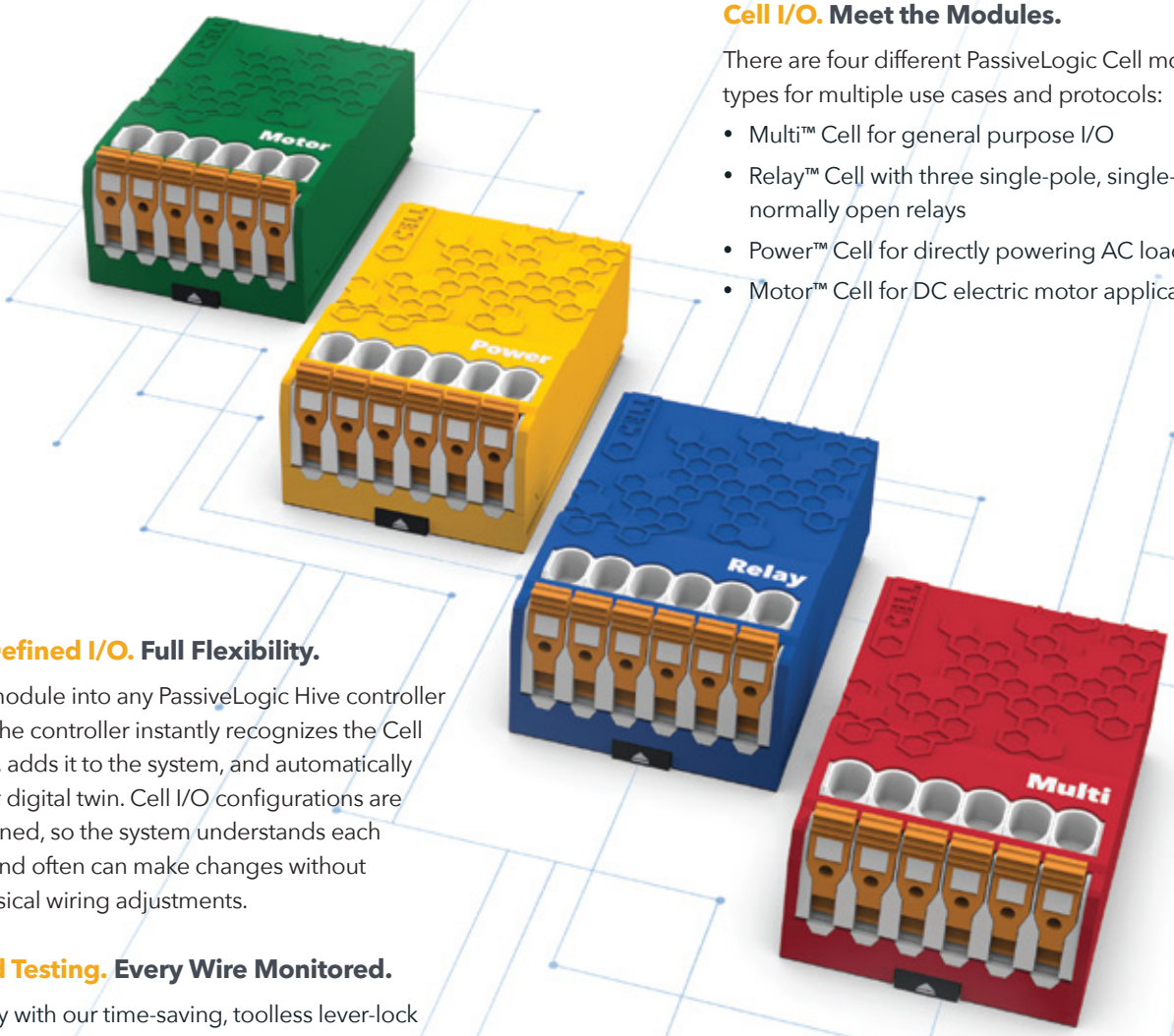
PassiveLogic®

Plug & Play Autonomous Control. Palm Sized I/O.

Cell Modules

PassiveLogic® Cell® modules are smart, distributable controllers—the building blocks of the PassiveLogic autonomous building platform. Cell modules adapt to most applications in any location. They plug into the PassiveLogic Hive™ and PassiveLogic Hive Mini™ controllers, providing software-definable I/O in the PassiveLogic Builder™ app. With just a few clicks you generatively design your I/O, step through guided wiring, and create a custom configuration to meet any project's requirements. The Cell modules were designed with installers in mind—the modules ensure accuracy and virtually eliminate manual commissioning through built-in power monitoring, automated I/O testing, and digital point mapping and labeling.



Cell I/O. Meet the Modules.

There are four different PassiveLogic Cell module types for multiple use cases and protocols:

- Multi™ Cell for general purpose I/O
- Relay™ Cell with three single-pole, single-throw, normally open relays
- Power™ Cell for directly powering AC loads
- Motor™ Cell for DC electric motor applications

Software Defined I/O. Full Flexibility.

Slide a Cell module into any PassiveLogic Hive controller to lock it in. The controller instantly recognizes the Cell module type, adds it to the system, and automatically updates your digital twin. Cell I/O configurations are software-defined, so the system understands each connection and often can make changes without needing physical wiring adjustments.

Automated Testing. Every Wire Monitored.

Wiring is easy with our time-saving, toolless lever-lock terminals and LED indicators. Every Cell module terminal has built-in voltage, current, and power monitoring. Cell modules continuously monitor their wired connections to ensure that the system is properly configured and running optimally. Continuous commissioning is now a practical reality.

PassiveLogic®

Plug & Play. Literally.

Cell Modules

The PassiveLogic Ecosystem

All Cell® modules are compatible with the PassiveLogic Hive™ and PassiveLogic Hive Mini controllers. In the PassiveLogic Hive controller, use up to eight Cell modules for a total of 48 control points. In the Mini, you can install two Cell modules for a total of 12 control points.

Push a Cell module into the PassiveLogic Hive or Mini controllers and it locks into place, then eject it with the push of a button. Cell module types are automatically identified by the PassiveLogic Hive and Mini controllers. Only use the Cell modules you need—no more tricky point-license pricing structures.

In the Builder™ app, I/O is software-defined, and the visual wiring assistant helps you avoid common errors during the wiring and installation process. On a Cell module, the solid green LED indicator light means you're good to go.

Cell Modules Specifications

Multi Cell Module (6 universal, software-defined ports)

Input Support			
Temperature	Thermistors	**Digital**	0–24VDC
Voltage	0–24VAC, 0–24VDC	**Frequency**	0–10kHz
Current	0–20mA	**Resistance**	0–1MΩ, auto-ranging
Output Support Per Channel (Up to 6)			
DC output	0–24VDC, 0–60mA (programmable)	**AC output**	24VAC, 500mA
Ground			
All ports	Software-defined and individually groundable		
Serial Communications			
Protocols	BACnet MS/TP, Modbus RTU, 1-Wire		

Relay Cell Module (3 single-pole, single-throw, normally open relays)

Supports	Motors, fans, pumps, lighting, and more
Features	Voltage, current, and power monitoring for contacts of each relay
Contacts	Rated 240VAC (330VDC), up to 10A per terminal pair

Power Cell Module (2 power control blocks)

Supports	Motors, fans, pumps, lighting, and more
Features	Voltage, current, and power monitoring for each output
Power	2 outputs, up to 1 Amp, voltage same as PassiveLogic Hive power supply

Motor Cell Module (2 DC motor control blocks)

Supports	DC motors, motor control
Features	PWM speed control, voltage, current, and power monitoring, overcurrent/torque protection, optional tachometer feedback external drivers
Power	Up to 12VDC at 2 Amps or 24VDC at 1 Amp

Wire Options (All)

Wire gauge	10–24 AWG

Mechanical (All)

Depth | Height | Width	3.05 in (77.53 mm) | 1.27 in (32.34 mm) | 1.98 in (50.20 mm)
Weight (varies by Cell)	≈ 2.8 oz (80 g)