

FOR IMMEDIATE RELEASE

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Opto 22 releases *groov* RIO EMU distributed energy monitoring unit

GRV-R7-I1VAPM-3 offers three-phase industrial AC monitoring in a standalone edge I/O module

Temecula, CA - February 3, 2022 – Opto 22 has expanded its *groov* RIO edge I/O series with a new energy monitoring unit (EMU) designed to help plant managers, machine operators, and financial analysts understand electrical costs and track changes in load that might give early warning of equipment faults. Using 0.333 V, 1 V, or 5 A current transformers (CTs), *groov* RIO EMU measures live AC power and energy consumption from any three-, twin-, or single-phase load up to 600 V and provides 64 simultaneous field measurements and calculated values directly to analytics software, databases, and other connected systems.

For many industrial rate-payers, a lack of visibility into energy consumption means that operational costs may be higher than necessary. Relatively simple changes and operational improvements can often reduce peak power usage, resulting in significant savings. But without strategic data collection, these improvements can be difficult to identify. Additionally, measuring power draw at the machine level is an effective way to assess machine health, detect impending problems, and make timely adjustments to equipment such as motors, bearings, filter pressures, and lubrication, without instrumenting each component.

The *groov* RIO EMU module measures AC RMS voltage and current for up to three phases (Wye or Delta) and is rated to UL 61010-3 measurement category III. From the measured field inputs, additional values are calculated for each phase including true, reactive, and apparent power; power factor; frequency; and net energy; as well as combined totals for all phases. The small form factor allows for installation at the point of use, permitting granular measurement of electrical loads: pumps, heating/cooling systems, solar power generation, and many others.

groov RIO EMU is built on Opto 22's proven edge I/O platform. It includes Power over Ethernet (PoE) and a wide operating temperature range for easy installation. Module operation and data distribution are protected with cybersecurity features including mandatory user authentication, a configurable firewall, and SSL/TLS encryption. Both OT and IT communication options are supported, including a full REST API, VPN client, and MQTT/Sparkplug client. *groov* RIO EMU is compatible with traditional control programming and SCADA systems. Data can also be accessed through the embedded Node-RED IoT programming environment and IT programming languages like C++, Python, and Java.

Availability

groov RIO EMU modules (GRV-R7-I1VAPM-3, \$895 USD) are available through Opto 22's global network of distributors and system integrators and directly via +1-800-321-OPTO and www.opto22.com. Free technical support is provided for all Opto 22 products from pre-sales through the life of the system.

About *groov* RIO

Opto 22's *groov* RIO product line combines real-time I/O sensing with the connectivity many of today's projects require: field sensors and devices, legacy PLC systems, software applications, remote equipment, and cloud services. These flexible edge I/O modules quickly and securely connect common industrial data sources directly to Ethernet networks and data consumers without intermediary control or communication hardware..

About Opto 22

Opto 22 designs and manufactures industrial control products and Internet of Things platforms that bridge the gap between information technology (IT) and operations technology (OT). Based on a core design philosophy of leveraging open, standards-based technology, Opto 22 products are deployed worldwide in industrial automation, process control, building automation, industrial refrigeration, remote monitoring, and data acquisition applications. Designed and manufactured in the U.S.A., Opto 22 products have a worldwide reputation for ease-of-use, innovation, quality, and reliability. For over 40 years OEMs, machine builders, automation end-users, and information technology and operations personnel have and continue to trust Opto 22 to deliver high-quality products with superior reliability. The company was founded in 1974 and is privately held in

Temecula, California, U.S.A. Opto 22 products are available through a global network of distributors and system integrators. For more information, contact Opto 22 headquarters at +1-951-695-3000 or visit www.opto22.com. Follow us on [Instagram](#), [Twitter](#), [Facebook](#), [LinkedIn](#), [YouTube](#).

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