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# groov ACCESSORIES

### **Features**

- > Additional or replacement parts designed specifically for *groov*
- > Replacement terminals accept wire sizes from 28–14 AWG
- > Cable includes six-foot (1.8 meter) wires pre-inserted into groov® I/O module terminal connectors for easy replacement
- > Pre-assigned wire colors offer convenience and consistency
- > Heat-shrink neck band helps keep wires bundled together, minimizing entanglement



*groov* accessories include replacement parts, like field wiring connectors, and helpful additional products, like pre-made cables that save you time and expense.



**GRV-TERM26-5** is a package of five terminal connectors for wiring field devices to a *groov* I/O module. These terminals accept wire sizes from 28–14 AWG

The same connector is used for most *groov* I/O modules, no matter their type or number of channels. See the list of modules on page xx.

### **GROOV TEX CABLES**

*groov* TEX cables like the **GRV-TEX-26F6** save time and expense during installation, maintenance, and debugging by reducing the time and effort required to connect field devices to *groov* I/O modules.

The wires are 20 AWG, offering significantly more flexibility, tighter radius bends, and an over-all easier cable management experience. The wires are ferruled before being inserted into the *groov* I/O module terminal connector, ensuring a proper connection and enhancing durability.

Pre-assigned wire colors help provide visual consistency across multiple modules, making pin assignments easier to remember. You can use the convenient "Pin/Wire Color/Device Assignments Worksheet" on page 4 to note which wire is connected to which device. Then make copies of the form to store in the field and in a central location for easy reference.



GRV-TERM26-5



GRV-TEX-26F6 Cable

The six-foot wires and vinyl sheath that bundles the wires can be trimmed to any length. The heat-shrink neck band can be placed at the end of the vinyl sheath, preventing fraying of the vinyl sheath and keeping the wires securely bundled at the end of the sheath.

#### **Part Numbers**

Part	Description
GRV-TEX-26F6	26-wire cable for <i>groov</i> I/O modules. Straight-through; no common terminals. Flying leads.
GRV-TERM26-5	groov I/O module terminal, 5-pack



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## **SPECIFICATIONS**

### groov Terminal Connectors

Specification	GRV-TERM26-5		
Wire size	28–14 AWG		
Torque for connector screw	2.5 in-lb (0.28 N-m)		



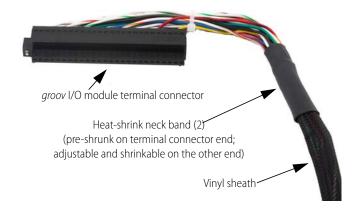
### groov I/O modules used with GRV-TERM26-5:

GRV-CSERI-4		
GRV-IAC-24		
GRV-IACDCTTL-24		
GRV-IACDCTTLS-24		
GRV-IACHV-24		
GRV-IACHVS-24		
GRV-IACI-12		
GRV-IACIHV-12		
GRV-IACIHVS-12		
GRV-IACIS-12		
GRV-IACS-24		
GRV-IDC-24		
GRV-IDCI-12		
GRV-IDCIFQ-12		
GRV-IDCIS-12		
GRV-IDCS-24		
GRV-IICTD-12		

GRV-IMA-24
GRV-IMAI-8
GRV-ITR-12
GRV-IV-24
GRV-OAC-12
GRV-OACI-12
GRV-OACIS-12
GRV-OACS-12
GRV-ODCI-12
GRV-ODCIS-12
GRV-ODCSRC-24
GRV-OMRIS-8
GRV-OVMAILP-8
GRV-OVMALC-8

## groov TEX Cable

Specification	GRV-TEX-26F6		
Number of wires	26		
Wire gauge	20 AWG		
Temperature (operating)	-20 °C to +70 °C		
Temperature (storage)	-40 °C to +85 °C		
Humidity (non-condensing)	5–95% RH		
Agency Approvals	CE, RoHS, DFARS		
Warranty	30 months		



## Pin-to-Wire Color Assignments

### groov TEX Cable

Pin#	Color	Pin#	Color
1	White	14	White with Orange stripe
2	White with Black stripe	15	Gray
3	Red	16	White with Gray stripe
4	White with Red stripe	17	Violet
5	Black	18	White with Violet stripe
6	Black with White stripe	19	Pink
7	Green	20	Pink with Black stripe
8	White with Green stripe	21	Red with Black stripe
9	Yellow	22	Blue with Black stripe
10	White with Yellow stripe	23	Red with White stripe
11	Blue	24	Blue with White stripe
12	White with Blue stripe	25	Yellow with White stripe
13	Orange	26	Red with Blue stripe



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# PIN/WIRE COLOR/DEVICE ASSIGNMENTS WORKSHEET

The following worksheet is provided for your convenience.

Pin#	# Wire Color(s)	Name/Description/Notes
1	White	
2	White with Black stripe	
3	Red	
4	White with Red stripe	
5	Black	
6	Black with White stripe	
7	Green	
8	White with Green stripe	
9	Yellow	
10	White with Yellow stripe	
11	Blue	
12	White with Blue stripe	
13	Orange	
14	White with Orange stripe	
15	Gray	
16	White with Gray stripe	
17	Violet	
18	White with Violet stripe	
19	Pink	
20	Pink with Black stripe	
21	Red with Black stripe	
22	Blue with Black stripe	
23	Red with White stripe	
24	Blue with White stripe	
25	Yellow with White stripe	
26	Red with Blue stripe	

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# More about Opto 22

# **OPTO 22**

### **PRODUCTS**

Opto 22 develops and manufactures reliable, easy-to-use, open standards-based hardware and software products.

Industrial automation, process control, building automation, industrial refrigeration, remote monitoring, data acquisition, and industrial internet of things (IIoT) applications worldwide all rely on Opto 22.

# groov EPIC® System

Opto 22's *groov* Edge Programmable Industrial Controller (EPIC) system is the culmination of over 40 years of experience in designing products for the automation industry.

groov EPIC gives you an industrially hardened system with guaranteed-for-life I/O, a flexible Linux®-based controller with gateway functions, and software for your IIoT application or any application.

#### groov EPIC I/O

I/O provides the local connection to sensors and equipment. *groov* I/O offers up to 24 channels on each I/O module, with a spring-clamp terminal strip, integrated wireway, and swingaway cover.

Opto 22 I/O is so reliable, we can afford to guarantee it for life. *groov* I/O is hot swappable, UL Hazardous Locations approved, and ATEX compliant.

### groov EPIC Controller

The heart of the system is the *groov* EPIC controller. It handles a wide range of digital, analog, and serial functions for data collection, remote monitoring, process control, and discrete and hybrid manufacturing.

In addition, the EPIC provides secure data communications among physical assets, control systems, software applications, online services, and more, both on premises and in the cloud.

Configuring and troubleshooting I/O and networking is easier with the EPIC's integrated high-resolution touchscreen. Authorized users can see your *groov* View HMI locally on the touchscreen or on a monitor connected via the HDMI or USB ports.

#### groov EPIC Software

Software includes:

- Flowchart-based PAC Control for control programming, or build your own custom application with optional secure shell access
- groov View for building and viewing your own deviceindependent HMI
- Node-RED for creating simple logic flows from pre-built nodes

Ignition Edge® from Inductive Automation®, with OPC-UA drivers to Allen-Bradley®, Siemens®, and other control systems, and MQTT/Sparkplug communications for efficient IIoT data transfer

## groov Edge Appliance

Visualization, data handling, and connectivity in a compact, industrial box: that's the *groov* Edge Appliance. Included are:

- *groov* View for building and viewing operator interfaces on PCs and mobile
- Node-RED for building simple logic flows
- Ignition Edge from Inductive Automation, for OPC-UA drivers and MQTT/Sparkplug IIoT communications

### Older products

From solid state relays (our first products) to world-famous G4 and SNAP I/O, to SNAP PAC controllers, Opto 22 products last a long time. You can count on us to give you the reliability and service you expect.



### **OUALITY**

Founded in 1974, Opto 22 has established a worldwide reputation for high-quality products. All are made in the U.S.A. at our manufacturing facility in Temecula, California.

Because we test each product twice before it leaves our factory rather than testing a sample of each batch, we can guarantee most solid-state relays and optically isolated I/O modules for life.

### FREE PRODUCT SUPPORT

Opto 22's California-based Product Support Group offers free, comprehensive technical support for Opto 22 products from engineers with decades of training and experience. Support is available in English and Spanish by phone or email, Monday–Friday, 7 a.m. to 5 p.m. PST.

Support is always available on our website, including how-to videos, user's guides, the Opto 22 KnowledgeBase, troubleshooting tips, and OptoForums. In addition, free hands-on training is available at our Temecula, California headquarters, and you can register online.

### **PURCHASING OPTO 22 PRODUCTS**

Opto 22 products are sold directly and through a worldwide network of distributors, partners, and system integrators. For more information, contact Opto 22 headquarters at **800-321-6786** (toll-free in the U.S. and Canada) or **+1-951-695-3000**, or visit our website at www.opto22.com.

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