

## CABLES - CLASSIC

### Features

- > 50-conductor ribbon cables
- > Pre-made in convenient standard lengths
- > Header connectors and card edge connectors are both available

### DESCRIPTION

Opto 22 supplies several standard cables that interface with host controllers. There are two series of cables, designated according to the type of connector on each end.

- The HH series has a header connector on both ends. These cables are used to connect to racks with G4 I/O modules.
- The CA series has an edge connector on both ends.
- The OD series has a card edge connector on one end and a header connector on the other end. These cables are used to connect to racks with G1 I/O modules.

The three cable types use 50-conductor ribbon cable and can be ordered in convenient pre-defined lengths. See Part Numbers table at right.

### Building Your Own Cables

If the standard cables listed in this data sheet do not meet your requirements, the following list can help in choosing the appropriate connectors and cable.

Cable (50-Conductor):

3M	p/n 3365/50
ALPHA	p/n 3580/50 or 3583/50

Connectors for HH Series (Header-Header):

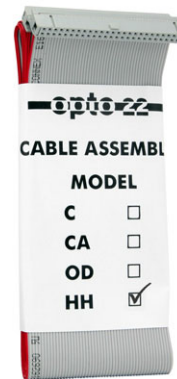
Circuit Assemblies, Inc.	p/n CA50IDS2-C-SPT
--------------------------	--------------------

Connectors for CA (Edge-Edge) and OD Series (Edge-Header):

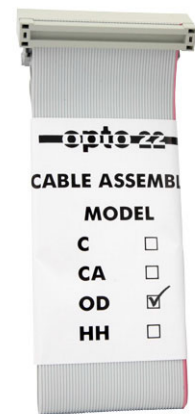
End #1 (Edge Connector)—3M	p/n 3415-0001
End #1 (Edge Connector)—Panduit	p/n 055-050-455
End #2 (Header Connector)—Circuit Assemblies	p/n CA50IDS2-C-SPT

Connectors with Strain Relief:

Use only Panduit Corporation p/n 050A050-455



Cable with header connector



Cable with edge and header connectors

### Part Numbers

Part	Description
HH1.5	1.5-foot header-to-header cable
HH4	4-foot header-to-header cable
HH6	6-foot header-to-header cable
HH8	8-foot header-to-header cable
HH10	10-foot header-to-header cable
CA2	2-Ft Cable Edge to Edge
CA4	4-Ft Cable Edge to Edge
CA8	8-Ft Cable Edge to Edge
OD2	2-foot edge-to-header cable
OD4 [OBSOLETE]	[OBSOLETE] 4-foot edge-to-header cable
OD6	6-foot edge-to-header cable
OD8 [OBSOLETE]	[OBSOLETE] 8-foot edge-to-header cable
OD10	10-foot edge-to-header cable

## PRODUCTS

Opto 22 develops and manufactures reliable, easy-to-use, open standards-based hardware and software products. Industrial automation, process control, remote monitoring, data acquisition, and industrial internet of things (IIoT) applications worldwide all rely on Opto 22.

### groov RIO®

[groov RIO edge I/O](#) offers a single, compact, PoE-powered industrial package with web-based configuration and IIoT software built in, support for multiple OT and IT protocols, and security features like a device firewall, data encryption, and user account control.

Standing alone, *groov* RIO connects to sensors, equipment, and legacy systems, collecting and securely publishing data from field to cloud. Choose a universal I/O model with thousands of possible field I/O configurations, with or without Ignition from Inductive Automation®, or a [RIO EMU energy monitoring unit](#) that reports 64 energy data values from 3-phase loads up to 600 VAC, Delta or Wye.

You can even write an IEC 61131-3 compliant control program to run on *groov* RIO, using CODESYS. You can also use *groov* RIO with a Modbus/TCP master or as remote I/O for a *groov* EPIC system.

### groov EPIC® System

Opto 22's [groov Edge Programmable Industrial Controller \(EPIC\)](#) system gives you industrially hardened control with a flexible Linux®-based processor with gateway functions, guaranteed-for-life I/O, and software for your automation and IIoT applications.

#### groov EPIC Processor

The heart of the system is the *groov* EPIC processor. 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, and online services, both on premises and in the cloud. No industrial PC needed.

Configuring and troubleshooting I/O and networking is easier with the EPIC's integrated high-resolution color touchscreen. Authorized users can manage the system locally on the touchscreen, on a monitor connected via the HDMI or USB ports, or on a PC or mobile device with a web browser.

#### groov EPIC I/O

*groov* I/O connects locally to sensors and equipment. Modules have a spring-clamp terminal strip, integrated wireway, swing-away cover, and LEDs indicating module health and discrete channel status. *groov* I/O is hot swappable, UL Hazardous Locations approved, and ATEX compliant.

### groov EPIC Software

The *groov* EPIC processor comes ready to run the software you need:

- Programming: Choose flowchart-based PAC Control, CODESYS Development System for IEC61131-3 compliant programs, or secure shell access (SSH) to the Linux OS for custom applications
- Node-RED for creating simple IIoT logic flows from pre-built nodes
- Efficient MQTT data communications with string or Sparkplug data formats
- Multiple OPC UA server options
- HMI: *groov* View to build your own HMI viewable on touchscreen, PCs, and mobile devices; PAC Display for a

Windows HMI; Node-RED dashboard UI

- Ignition or Ignition Edge® from Inductive Automation (requires license purchase) with OPC-UA drivers to Allen-Bradley®, Siemens®, and other control systems, and MQTT communications

### Older products

From solid state relays, to world-famous G4 and SNAP I/O, to SNAP PAC controllers, older Opto 22 products are still supported and working hard at thousands of installations worldwide. You can count on us for the reliability and service you expect, now and in the future.

## QUALITY

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 afford to 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 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 [free online training](#) at OptoU, how-to [videos](#), [user's guides](#), the Opto 22 KnowledgeBase, and [OptoForums](#).

## 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](http://www.opto22.com).

