# Amphenol



# **PwrMAX® I/O Cable Connector System**

## HIGH-DENSITY POWER AND SIGNAL CABLE CONNECTOR

PwrMAX<sup>®</sup> I/O is the highest density power and signal cable connector available. It is capable of carrying up to 50A/Contact (100A/column) with 12 adjacent contacts powered. A range of 6AWG – 8AWG wire options are available for power contacts and 22AWG for signal contacts. This connector series also offers slide-to-lock or squeeze-to-release latching options. These latches offer higher mated retention and ensure a reliable connection between contacts. Panel-mounted or standard configurations are available for large power distribution systems. PwrMAX<sup>®</sup> I/O was designed to have highly configurable power and signal contacts to accommodate a wide range of power-dense applications.

- Distributes up to 50A/contact (100A/column) for 12 adjacent contacts
- GCS<sup>®</sup> plating for power contacts, GXT<sup>®</sup> plating for signal contacts
- Slide-to-lock and squeeze-to-release latching options available
- Highly configurable contact and housing design



#### **FEATURES**

- Rated up to 50A/Contact (100A/column) without exceeding 30°C temperature rise in still air
- Latching options available
- Patented GCS<sup>®</sup> and GXT<sup>®</sup> plating
- Highly configurable product design
- 6AWG 8AWG for power contacts and 22AWG for signal contacts

#### BENEFITS

- Highest current density cable solution available
- Offers higher mated retention, and ensures a reliable connection between contacts
- 1.0m $\Omega$  end-of-life contact resistance
- Wide range of power and signal contact combinations available
- Different wiring options available depending on application requirements

## **TECHNICAL INFORMATION**

#### MATERIAL

- Power Contacts Copper Alloy
- Signal Contacts Copper Alloy
- Housing High temperature thermoplastic, UL 94V-0 compliant
- Retention Clip Copper Alloy
- Contact Finish: GCS<sup>®</sup> or GXT<sup>®</sup> for Power contacts, GXT<sup>®</sup> for Signal contacts

#### **MECHANICAL PERFORMANCE**

- Mating Force: 7N max. per power contact
- Insertion Force: 27N max.
- Retention Force: 13.5N min.
- Durability: 200+ mating cycles

#### **ELECTRICAL PERFORMANCE**

Wire size	Power contact (12 contacts)	Signal contact (24 contacts)
6AWG	50A/contact (2contacts/column; 100A/column)	/
8AWG	40A/contact (2contacts/column; 80A/column)	/
22AWG	1	1A

- Current Rating: Up to 50A per contact and 100A per column (30°C temperature rise in still air)
- Operating Voltage: 300VAC&DC for Power Contacts, 110VAC&DC for Signal Contacts
- 9.00mm power contact pitch
- 2.50mm signal contact pitch
- Contact Resistance: 1.0mΩ max. at end-of-life conditions

#### **ENVIRONMENTAL**

- Operating Temperature Range: -55°C to +95°C
- RoHS Information: This product is compatible according to the European Union Directive 2011/65/EU

#### **APPROVALS & CERTIFICATION**

- UL 1977
- EIA 364
- UL94V-0 Flammability

#### PACKAGING

- Header: Trays
- Cable: Bags

#### SPECIFICATIONS

- Product Specification: GS-12-1687
- Application Specification: GS-20-0690

#### **TARGET MARKETS/APPLICATIONS**



Telecom



Server/Storage Datacom/Networking Equipment Switched



Industrial Equipment

### www.amphenol-cs.com

#### Disclaimer