



IPC News

Micropac Industries, Inc

Volume 1, Issue 1

IPC now UL Recognized

Micropac Industries, Inc., (MPAD), is pleased to announce the UL508 and CSA-C22.2 Recognition (file number E354703) of the IPC01 family of Industrial Power Controllers. These patent pending isolated controllers combine the functionality of a solid state relay, resettable circuit breaker, and output status monitor all in one convenient panel mount "hockey puck" style package.



Micropac Industries Announces the IPC01 Family of Industrial Power Controllers

June 24, 2013 – Micropac Industries introduces the IPC01 series of Industrial Power Controllers. The IPC01 devices are available in 400VDC / 5A, 75VDC / 10A, 280VAC / 5A, and 40VAC / 10A versions, each allowing remote switching, load protection and output status monitoring. Upon detecting an overload condition, the IPC01 immediately shuts off the load and provides a status for monitor by the system controller. The system controller may then take the appropriate action such as resetting the IPC01 (control signal reset, no need to cycle power), implementing contingency or backup systems, or logging for maintenance. If reset, the IPC01 will continue to monitor for overload conditions and provide load protection.



High Voltage Industrial Power Controllers

the system controller providing positive feedback. If an overload is detected the IPC01 will turn off the load and report "Off" to the system controller providing a direct indication of the overload. Only the affected load is shutdown, all other IPC01 and respective loads remain operational. The system controller can command the "tripped" IPC01 "Off" and

then "On" to reset and turn on the IPC01. System designers may utilize that status to implement backup / contingency operations, load shedding, maintenance logging, or another appropriate action based on the reported fault.

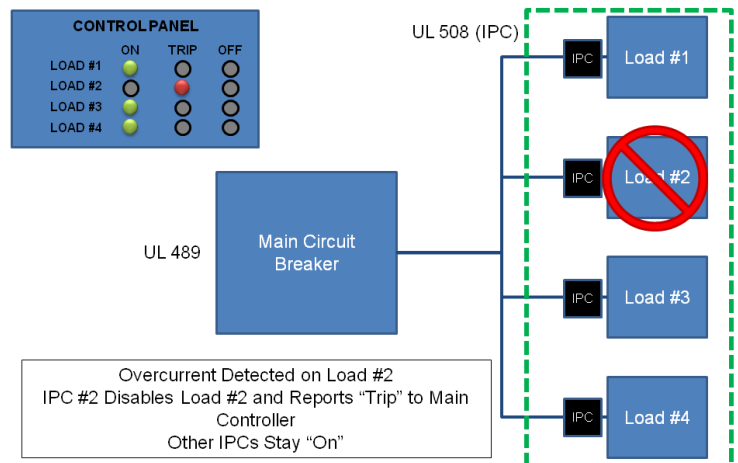
The IPC01 is designed for harsh industrial applications and is fully temperature rated for operation from -40° C to +80° C with no heatsink, simplifying system thermal design considerations. These devices can be mounted in enclosures with limited ventilation or directly to hot equipment.

For more information see www.micropac.com/SplashPage-IPC.html

Inside this issue:

- UL Recognition 1
- IPC01 Announcement 1
- Who is Micropac? 2
- 50th Anniversary 2
- Benefits & Features 2
- Application Spotlight 2

A typical application could include a single and appropriate upstream branch protection device, multiple loads switched and protected by individual IPC01 devices, and a system controller. When main power is applied, the IPC01 devices power up in the "Off" state and report "Off" to the system controller. The system controller can then turn on one or more IPC01 controlled loads. As the IPC01 turns on it will report "On" to





Solutions through Technology

Micropac Industries, Inc

905 E. Walnut St.
Garland, TX 75040
Phone: (972) 272-3571
Fax: (972) 494-2281
E-mail: sales@micropac.com

Founded in 1963, Micropac Industries, Inc. is a diversified, high technology company located in Garland, Texas, specializing in high reliability microcircuit multi-chip modules, Hall Effect devices and optoelectronic components/assemblies. Micropac develops and manufactures complete custom designs to meet specific customer applications and requirements. Our products are being used throughout the world in a wide variety of military/aerospace, space, medical and industrial applications. Visit www.micropac.com for more information.

Features & Benefits of IPC01

Compact

Combines a circuit breaker and solid state relay in the same solid state relay package

Familiar Hockey-Puck package

Multiple load voltage and current ratings in the same package footprint simplifies system layout considerations

Interface

Computer / Controller Friendly

- TTL / CMOS compatible output enable and output status
- Trip reset by cycling output enable
- Output status provides positive notification of an overload condition

“System Designer Friendly”

- Initial protection during I & T
- Thermal and power derating
- Controlled turn-on soft start

Safety

Self protecting

- Instant trip when commanded “On” into a short
- Overload protection without nuisance tripping due to in-rush current demand
- Repeated turn-on into an overload condition results in quicker trip response due to “thermal memory” feature

Slip on cover protects equipment / people from potentially hazardous voltage

Reliability

Designed for Harsh Industrial Environments

- No moving parts
- No contacts to bounce, wear or arc
- -40°C to +80°C with a option for -55°C to +125°C
- Full power and thermal derating over the entire operating temperature range



Application Spotlight

Below are two schematic illustrations. The drawing on the left shows a relay wired into a circuit. The relay is switching power to drive a motor. The illustrated status lamp is lit when the relay is activated. The drawing on the right shows how the Micropac Industrial Power Controller could be integrated into the same motor application. Note the addition of the remote monitor and status reporting fault status to the microprocessor or controller.

