

I/O modules now conformance Class B certified and integrate fast start-up technology



[Molex Incorporated](#) [1] announces that its [Brad HarshIO PROFINET I/O Modules](#) [2], recently launched with Fast Start-Up (FSU) technology to provide reliable solutions for connecting industrial controllers to I/O devices and to start and operate the module in less than 500ms, are now certified by the PNO ([PROFIBUS Nutzerorganisation](#) [3]) in accordance with PROFINET specifications meeting all requirements for conformance class B. Typical applications can be found in automation systems with higher-level machine control and a deterministic data cycle.

During the successful certification, all requirements for conformance class B were met including: easy, user-friendly Brad HarshIO replacement without the need for an engineering tool, Simple Network Management Protocol (SNMP) support thus extending Brad HarshIO diagnostics of network functions such as port status messages, and a performance-adapted Media Redundancy Protocol (MRP) to increase data reliability.

“Conformance Class B certification of Brad HarshIO PROFINET I/O Modules approves both the conformity to the PROFINET standard and the trouble-free interoperability with other certified devices,” says Eric Gory, global product manager, Molex.

When PROFINET is used to control the sensors/actuators on the robot tooling – such as on a welding robot – it is sometimes necessary to perform quick change of tools. “Fast Start-Up technology for PROFINET enables the Brad HarshIO Ethernet I/O Module to start and operate in less than 500ms,” adds Gory, “a tool change period that is defined by manufacturers in the automotive industry. By bringing exceptional speed to the market, FSU technology offers flexibility to all industries

using robots for repetitive tasks with precision, as well as in harsh environments where liquids or vibrations may be present.”

Additionally, the Brad HarshIO PROFINET I/O Modules support safety automation architectures using separate power supplies to power the inputs (sensors) and the outputs (actuators). The Brad HarshIO power connector includes separate grounding isolation between the input/logic ground and the output ground. This feature allows powering the module with 2 distinct power supplies commonly used in safety applications. “Often, system designers are using safety relays that regularly perform pulse tests to be able to detect short-circuit, ground fault or an earth fault,” explains Gory. “If an error is detected, the safety function is triggered and unwanted and dangerous plant conditions are therefore avoided.”

The Brad HarshIO modules are complemented by a wide range of Molex products, including cordsets, receptacles, field-attachable connectors, Ethernet switches, PC interfaces, gateways, diagnostic tools and simulations software. For additional information, please visit: www.molex.com/link/harshio.html [4]

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<http://www.ecnmag.com/product-releases/2012/04/i/o-modules-now-conformance-class-b-certified-and-integrate-fast-start-technology>

Links:

[1] <http://www.molex.com/>

[2] http://www.molex.com/molex/products/family?key=brad_harshio_ip67_modules&channel=products&chanName=family&pageTitle=Introduction

[3] <http://www.profibus.com/>

[4] <http://www.molex.com/link/harshio.html>