

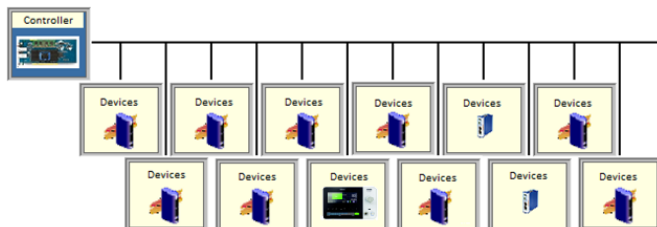
O24 - Profinet

Communication interface for automated industrial PLC systems

Description

PROFINET stands for Process Field Net and is an Ethernet-based standard for high-performance, easy-to-configure industrial data exchange.

At the Supervisory Control And Data Acquisition (SCADA) level and below, Industrial Ethernet protocols have evolved to meet specific requirements associated with process automation. A particular requirement is support for deterministic control, often in real-time, with permissible latencies of less than one second.



Industrial Ethernet protocols have already been adopted to meet the growing data "hunger" of today's industrial enterprises. This has allowed them to respond more quickly to customer requests, while quality has increased and costs have decreased.

Industrial automation, largely based on SCADA systems, has for many years adopted Ethernet-based communications to take advantage of its increased speed, improved efficiency and ability to support future evolutions.

The convergence towards very common specifications (such as Profinet) allows to exploit the reliability of a communication optimized for industrial automation able to manage real-time and mission-critical interactions, as well as ensuring interoperability between modules made by different manufacturers able to perform very specialized tasks.

Industrial Ethernet protocols have focused on a small number of popular specifications such as Profinet.

Thanks to the wide range of application profiles, device families can use Profinet in the same way, thus ensuring interoperability and interchangeability of devices and systems from different manufacturers.

The Profinet I/O profile provides an interface for connecting devices such as ForTest leak testers to monitor status and send commands such as Start/Abort to a test run.

Easy installation and configuration are guaranteed by the GSDML file supplied and compatible with all major PLC systems (Siemens 1200, 1500, TIA Portal).

Profinet is also designed to handle special industrial requirements, such as safe operation in hazardous environments where Ethernet cannot be used.

Profinet manages these operations through "proxies" (in practice intermediaries) that allow secure fieldbus terminals to connect equipment located in hazardous areas to the Ethernet-based infrastructure.

This allows you to support a variety of fieldbus specifications, including PROFIBUS DP, PROFIBUS PA, Interbus, DeviceNet, Foundation Fieldbus, and so on, as well as non-"intelligent" devices using profiles such as Profinet I/O.



GSDML configuration files, protocol documents and application examples are provided with the device.

The material can be downloaded at the following address:

<http://downloads.fortest-leak-testing.it>

Technical code

Within the technical code, the field defining the Profinet option is located in position 24.

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