

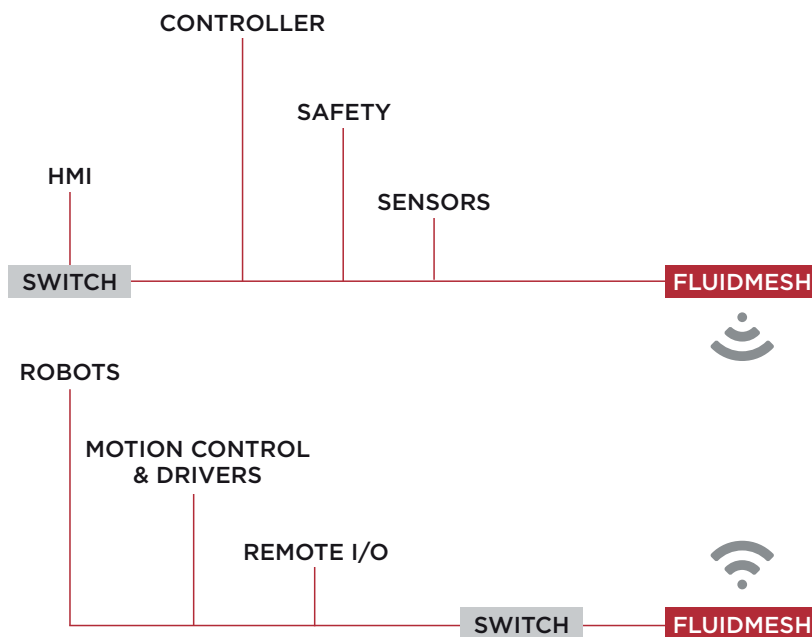
PROFINET (Process Field Net) is an open standard for Industrial Ethernet communication developed for production automation, process automation and drive control and monitoring. Born in factory automation, today PROFINET is being deployed in several vertical markets such as automotive, machine building, food industry, packaging, logistics, and also marine and railway applications.

PROFINET can run on cabled networks and wireless systems.

PROFINET SYSTEM DESIGN

PROFINET I/O recognizes three classes of devices:

- I/O devices
- I/O controllers
- I/O supervisors



An **I/O controller** is a programmable logic controller (PLC) that controls I/O devices and exchanges data such as configuration, alarms, and I/O data through an automation program. The I/O controller and the I/O supervisor exchange diagnostic information. The I/O controller shares configuration and input/output information with the I/O device and receives alarms from the I/O device.

An **I/O supervisor** is an engineering station, such as a human machine interface (HMI) or PC, used for commissioning, monitoring, and diagnostic analysis. The I/O supervisor exchanges diagnostic, status, control, and parameter information with the I/O device.

An **I/O device** is a distributed input/output device such as a sensor, an actuator, or a motion controller.

SYSTEM ARCHITECTURE

PROFINET can run at different levels, depending on the application and response time needed:

- **TCP/IP based communication**, for non-critical data transmission such as control signals and monitoring with reaction times around 100ms
- **Real-Time (RT) communication** protocol for PROFINET IO applications with reaction times around 1ms.

Data transmission can be delivered on different physical media including wireless and, due to the to the stringent requirements CLASS B PROFINET represents a tough challenge for any **wireless system**.

The TCP/IP based PROFINET can run on Fluidmesh radios without the need of additional plugins while for the most demanding Real-Time communications, Fluidmesh developed a specific PROFINET CC-B (Conformance Class B) plugin, that can be purchased and activated when needed.

APPLICATIONS



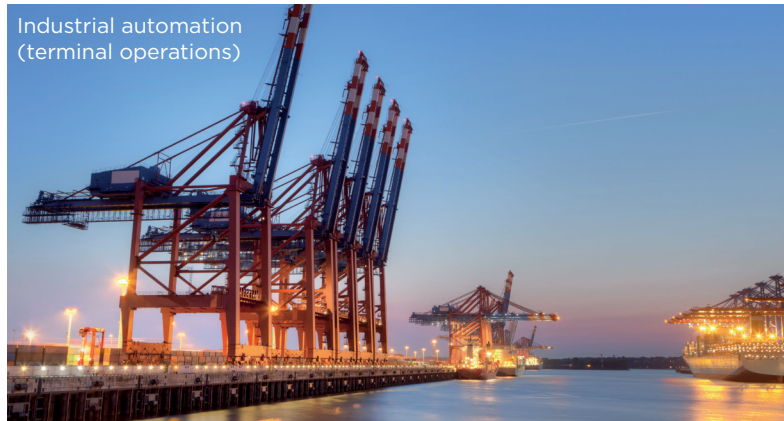
Vehicle remote control



Mining



Entertainment



Industrial automation
(terminal operations)

HOW TO ENABLE PROFINET SUPPORT ON FLUIDMESH NETWORKS

PART NUMBERS

FM-PROFINET	<p>PROFINET Plug-in. Enables support to Layer 2 ethertype 0x8892 on one Fluidmesh product. It requires also QoS support and the VLAN plug-in. All Fluidmesh hardware devices in a network must have these plug-ins to operate.</p>
FM-VLAN	<p>VLAN Plug-in. Enables port-based and MAC address-based VLANs on a single Fluidmesh product. All Fluidmesh hardware devices in a network must have a plug-in for VLAN to operate.</p>

Fluidmesh Networks products are installed locally by professional System Integrators and are available worldwide through a network of Authorized Dealers. For additional information please call +1.617.209.6080 or visit us at fluidmesh.com



HEADQUARTERS.
81 PROSPECT ST.
BROOKLYN
NY 11201, USA

TELEPHONE
+1.617.209.6080
FAX.
+1.866.458.1522

EMAIL.
INFO@FLUIDMESH.COM
WEB.
FLUIDMESH.COM