Overview

MSA Safety's ProtoNode Gateways provide a cost effective interface to Building Management Systems (BMS) and an immediate IoT Cloud interface. The ProtoNode enables OEMs to compete in a broader market by meeting specifications for BMS connectivity. Integrated SMC Cloud support further enhances the ProtoNode's value by enabling remote monitoring, control and data visualization. The only protocol gateway with a no cost cloud interface, ProtoNode dramatically improves time to market and remote site support for OEM field devices.

A single ProtoNode gateway can seamlessly connect one or many OEM devices into BMS networks including BACnet, LonWorks, KNX, Modbus, M-Bus and others.

Cloud enabled devices change the game for OEMs. Users can view data via a configurable dashboard, download historical data and provide remote monitor/control for any connected device. Additionally, notification functions allow SMS/email for trouble or alarm conditions.

Each gateway is delivered pre-configured for the OEM's specific requirements. No additional programming or mapping is necessary.
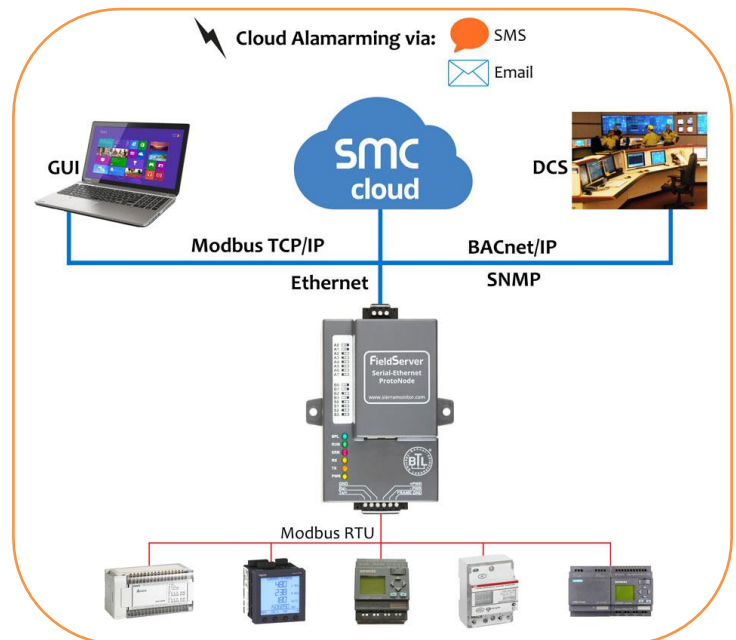
ProtoNode FPC-N34   **ProtoNode FPC-N35**

ProtoNode Features and Benefits

- Short time to market for BMS, industrial protocols and cloud connected devices.

- No configuration files need to be built in the field to support one or multiple of the OEMS devices.

- One ProtoNode connects multiple Serial and Ethernet devices to field protocol networks (BACnet MS/TP, BACnet/IP, Metasys N2, SNMP, XML over HTTP, EtherNet/IP, DNP 3.0, KNX, M-Bus or LonWorks and many others).

- Supports up to 10,000 device points.

- Can support OEM proprietary protocols to building management systems.

- BTL marked and LonMark certified.

- The **optional embedded BACnet Explorer** allows reps and OEMs to quickly validate that their product is working on BACnet MS/TP and/or BACnet/IP without needing a BMS Integrator on site.

- On-board diagnostics allow easy troubleshooting for both serial and Ethernet communications.

Benefits of the SMC Cloud

- Registering ProtoNode BMS/IoT Gateways on MSA Safety's tenant based IoT Cloud Platform, effortlessly connects the OEM's devices to the cloud, allowing secure remote access for diagnostics, monitoring, alarming and configuration of their products in the field.

- The SMC Cloud Platform Dashboard provides enriched data metrics (averages and real-time values displayed in gauges and graphs) enabling collaboration and comparison across multiple sites.

- No annual subscription to connect FieldServers to the SMC Cloud Platform until 2023.

SMC Cloud

ProtoNode	Interface Connections							Point Count			Certifications	
	RS-232	RS-485	RS-422	Ethernet	LonWorks	KNX	M-Bus	Level I	Level II	Level III	BTL	LonMark
FPC-N34		2		1				1500	5000	10000	Yes	
FPC-N35		1		1	1			1500	4096	n/a	Yes	Yes
FPC-N36		1	1	1				1500	5000	10000	Yes	
FPC-N37			1	1	1			1500	4096	n/a	Yes	Yes
FPC-N38	1	1		1				1500	5000	10000	Yes	
FPC-N39	1			1	1			1500	4096	n/a	Yes	Yes
FPC-N40		1		1		1		1500	5000	10000	Yes	
FPC-N41				1		1		1500	4096	n/a	Yes	Yes
FPC-N42		1		1			1	1500	5000	10000	Yes	
FPC-N43				1	1		1	1500	4096	n/a	Yes	Yes

Specifications

Power Requirements
Power: 9-30 VDC or 12-24 VAC
(RS-422 = 15-30 VDC or 12-24 VAC)

Current Draw:
FPC-N34 @ 12V = 240 mA
FPC-N35 @ 12V = 250 mA
FPC-N36 @ 15V = 200 mA
FPC-N37 @ 15V = 210 mA

M-Bus:
Slave: 550 mA @ 12V
Master (1 Slave): 580 mA @ 12V
Master (64 Slave): 980 mA @ 12V

Environmental
Operating Temp: -40°F to 167°F (-40°C to 75°C)
Relative Humidity: 5-90% RH, non-condensing

Enclosure
Dimensions (HxWxD): 4.5 x 3.2 x 1.6 in.
(11.5 x 8.2 x 4.0 cm)

BACnet Support
- Alarm & Event notification read properties multiples
- BACnet COV's, Trend Logging, BBMD and optional BACnet Router support.
- Support up to 10,000 BACnet Objects
- DIP switches are for setting MAC Address, Node-ID, Baud Rate on the RS-485 Field protocol

LonMark Certification on the ProtoNode
SPID: 80:00:95:46:00:84:04:07
Profiles: 0000 - Node object (1)
0001 - Open Loop Sensor Object (5)
0003 - Open Loop Actuator Object (5)

Serial Port Isolation
- 1500v galvanic isolation

Warranty
2 years

Approvals
BACnet Testing Labs (BTL) B-ASC Ver. 16
LonMark 3.4 Certified - ProtoNode Series
UL 916 and CAN/CSA C22.2
RoHS3 and WEEE compliant
DNP 3.0 Conformance Tested
CE and FCC Class B & C Part 15

*****Specifications subject to change without notice**

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