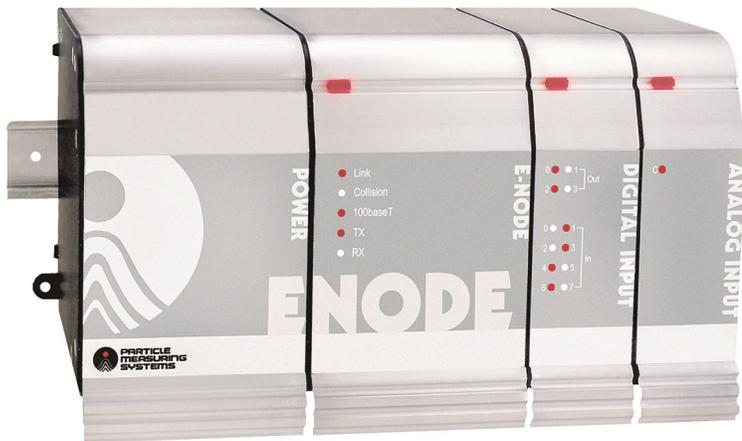


# ENODE®

Distributed I/O Controller



The ENODE® controller is an open architecture, modular Ethernet device that can be integrated directly into Facility Net software. This controller monitors modules of isolated digital and analog inputs, and monitors alarm output contacts (digital or relay).

## FEATURES

- Modular I/O components allow for flexible system designs
- Ethernet 10BaseT/100BaseT connectivity to local networks
- Data buffer stores samples when connection to software is lost
- 16 analog channels per module; 4-20 mA and 0 – 10 V signal compatible with an overall accuracy of 0.25%
- 16 digital input channels per module
- 12 relay output contacts
- 12 digital outputs

## BENEFITS

### Cost Effective

- Modular design allows for up to 48 signal inputs and 24 relay outputs per monitoring device, reducing cost per point
- Sample interval is configured per channel, reducing the number of modules required for different applications
- 4-20 mA and 0 –10 V analog input types are configured per channel, not per module, also reducing the number of modules

### Easy to Use

- Plug and play modules allow for ease of system expansion
- Auto recognition through Facility Net software speeds up system configuration
- DIN rail mounting and removable screw terminals allow for simple installation
- Distributed architecture allows for modules to be installed anywhere throughout the facility

### Superior Performance

- High accuracy, 12-bit analog converter gives 0.25% full scale overall accuracy
- 10,000 sample data buffer stores data when offline from Facility Net software; data is exported on reconnection
- TCP/IP Ethernet communication ensures reliability of data transmission
- One-second sample interval for fast data-logging

## APPLICATIONS

- Environmental monitoring and control
  - Differential pressure, temperature, humidity, air velocity, and other sensor signals
  - Alarm lamp or traffic light control
  - Flashing modes
- Process monitoring and control
  - Doors and switches monitored at each stage of process
- Networked data-logging
- Remote data acquisition

### Processor Unit

Operating system	Windows® CE 3.0
Processor	AMD Elan SC400, 32-bit, 66 MHz
Ethernet	10/100BaseT (RJ-45)
RAM	64 MB
Non-volatile storage	32 MB
Serial ports	One, RS-232 (Up to 115 K Baud)
Power	5 VDC @ 1 A max.
Dimensions (l, w, h)	4.6 x 3.4 x 6 in (11.6 x 8.5 x 15.0 cm)

### Power Module

Input connector	90 – 260 VAC, 50-60 Hz IDE
Output	5 V, 10 A max.
Dimensions (l, w, h)	4.5 x 3.4 x 6 in (11.6 x 15.0 x 8.5 cm)

### Relay Outputs

Single pole/single throw	12 channels
DC	2 A @ 30 VDC
Isolation	Channel to channel 500 V Input to output 1500 V
Current consumption	5 VDC 200 mA max.
Dimensions (l, w, h)	4.6 x 1.7 x in (11.6 x 4.2 x 15.0 cm)

### Analog Input Module

Inputs	16 single-ended, 8 differential
Resolution	12-bits (1 in 4096)
Input ranges	0 – 10 V or 0 – 20 mA
Over-voltage protection	Power on or off, - 40 V to + 55 V
Overall accuracy	± 0.25% full scale
Dimensions (l, w, h)	4.6 x 1.7 x 6 in (11.6 x 4.2 x 15.0 cm)

### Digital Input Module

Digital input	Opto isolators 16 inputs
Turn-on time	6 msec min.
Turn-off time	35 msec max.
Isolation	Channel to channel 500 V Input to output 1500 V
Current consumption	5 VDC 500 mA max.
Dimensions (l, w, h)	4.6 x 1.7 x 6 in (11.6 x 4.2 x 15.0 cm)

### Digital Outputs

Open drain	24 VDC
Isolation	Channel to channel 500 V Input to output 1500 V
Current consumption	5 VDC 160 mA max.
Dimensions (l, w, h)	4.6 x 1.7 x 6 in (11.6 x 4.2 x 15.0 cm)

ENODE® is a registered trademark of Particle Measuring Systems, Inc.

Windows® is a registered trademark of Microsoft Corporation.

All other trademarks are the property of their respective owners.

Particle Measuring Systems, Inc. reserves the right to change specifications without notice.

© 2018 Particle Measuring Systems, Inc.

All rights reserved.

### HEADQUARTERS

5475 Airport Blvd  
Boulder, Colorado 80301 USA  
T: +1 303 443 7100, +1 800 238 1801

Instrument Service & Support  
T: +1 800 557 6363

Customer Response Center  
T: +1 877 475 3317  
E: info@pmeasuring.com

www.pmeasuring.com  
info@pmeasuring.com



**PARTICLE  
MEASURING  
SYSTEMS®**  
a spectris company

### GLOBAL OFFICES

AUSTRIA  
T: +43 512 390 500  
E: pmsaustria@pmeasuring.com

BENELUX  
T: +32 10 23 71 56  
E: pmsbelgium@pmeasuring.com

BRAZIL  
T: +55 11 5188 8227  
E: pmsbrazil@pmeasuring.com

CHINA  
T: +86 21 6113 3600  
E: pmschina@pmeasuring.com

FRANCE  
T: 33(0)1 60 10 32 96  
E: pmsfrance@pmeasuring.com

GERMANY  
T: +49 6151 6671 632  
E: pmsgermany@pmeasuring.com

ITALY  
T: +39 06 9053 0130  
E: pmsrl@pmeasuring.com

JAPAN  
T: +81 3 5298 8175  
E: pmsjapan@pmeasuring.com

KOREA  
T: +82 31 286 5790  
E: pmskorea@pmeasuring.com

MEXICO  
T: +52 55 2271 5106  
E: pmsmexico@pmeasuring.com

NORDIC  
T: +45 707 028 55  
E: pmsnordic@pmeasuring.com

PUERTO RICO  
T: +1 787 718 9096  
E: pmspuertorico@pmeasuring.com

SINGAPORE  
T: +65 6496 0330  
E: pmsingapore@pmeasuring.com

SWITZERLAND  
T: +41 71 987 01 01  
E: pmsswitzerland@pmeasuring.com

TAIWAN  
T: 886-3-5525300 Ext: 301  
E: pms taiwan@pmeasuring.com