

PD1000 Power Transducer

Ethernet-enabled revenue class multifunction meter for power measurement, power quality analysis, and power usage reporting.



PD1000 power transducer is designed for continuous monitoring of 3 phase system. All essential power parameters including current, voltage, power, active and reactive energy are integrated in a single meter. Its bi-directional energy measurement and harmonic analysis function makes PD1000 suitable for modern industrial power management. The built-in Ethernet and rich communication abilities enable PD1000 to be easily connected with most modern third-party SCADA systems.

Features

- Class 0.5 bi-directional energy and full power parameters measurement.
- Block or Rolling power demand measurement.
- THD, individual harmonics, and sag/swell power quality records.
- Data logging for alarm, sag, swell events with time-stamped.
- Report generation for daily and monthly power usage including kWh, Demand, peak THD, peak voltage, max/min kW ...etc.
- Communication interfaces : RS485, Ethernet & LonTalks
- Communication protocol: Modbus over TCP/IP for Ethernet, Modbus or DNP 3.0 for RS485.
- Up to 4 channels of re-transmission analog outputs for field integration.
- 12 digital inputs for power system status monitoring.
- 2 digital relays for kWh pulse or alarm outputs.

Specification

Power parameters measure	<p>Current : 3 phase, neutral, accuracy 0.1%</p> <p>Voltage : 3 phase phase-phase, phase-neutral, accuracy 0.1%</p> <p>Frequency : 50/60 Hz</p> <p>Total power : Active, reactive, apparent power, accuracy 0.5%</p> <p>Power per phase : Active, reactive, apparent power, accuracy 0.5%</p> <p>Power factor : Total, per phase</p>
Energy measure	<p>Energy : Active, reactive, apparent energy, accuracy 0.5%</p> <p>Bi-directional energy : Deliver and receive kWh, kVARh, kVAh</p>
Demand measure *	Bi-directional Block/Rolling demand
Power Quality measure *	<p>Harmonic : V, I THD and individual harmonics</p> <p>Sag/Swell : Configurable setting points</p>
Report and event logging *	<p>Report : Daily report : this day, yesterday</p> <p style="padding-left: 40px;">Regular report : this period, last reset</p> <p>Event logging : Sag, swell, alarm logging</p>
Display and input/output	<p>Panel display : Mono 128 x 128 STN-LCD</p> <p>Digital input : 12 channels dry contact inputs</p> <p>Digital output : 2 channels relay for alarm or kWh pulse output</p> <p>Analog input : 4 channels 4-20mA input</p> <p>Analog output : 4 channels 4~20mA for V, I, kW, kVA, kVAR</p> <p>Voltage connection : 1~600V</p> <p>Current connection : 2mA~5A</p> <p>Power supply : 86~242VAC or 100~125VDC</p>
Communication	<p>Primary port : RS485 Modbus or DNP 3.0 protocol</p> <p>Secondary port* : Ethernet : 10/100 Mbps, Modbus over TCP/IP protocol</p> <p>Free topology twist pair* : LonTalks protocol</p>
Environmental & Physical	<p>Operation temperature : -10°C to 55°C</p> <p>Storage temperature : -25°C to 60°C</p> <p>Humidity : 20 to 80%RH (non-condensing)</p> <p>Dimensions : 142mm(L) x 142mm(W) x 94mm(H)</p>

* : only in advanced model

Ordering Code

PD1000 -

Model

0 : Standard

1 : Advance (with * in specification)

Secondary Port

0 : None

1 : Ethernet (in advanced model only)

2 : Free topology twist pair LonTalks
(To be available in near future)

Analog Input

0 : None

1 : With Analog Input

Analog Output

0 : None

1 : With Analog Output

- **Note: Standard model does not offer secondary port**

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