



# Power over Ethernet

600 N. River Street • Derby, Kansas 67037 • 316-788-2000 • Fax 720-293-9393 • sales@brgproducts.com • www.brgprecision.com



BRG Precision Products is proud to introduce its fully licensed Power over Ethernet time displays. PoE is an exciting technology that dramatically simplifies wiring and installation requirements.

## What is PoE?

Power-over-Ethernet (PoE) is a network standard based on IEEE 802.3af that provides a means of delivering power to devices connected to the Local Area Network (LAN).

## Why PoE?

This technology eliminates AC electrical wiring, wall transformers, allows centralized UPS backup, and is fully compatible with both powered and non-powered Ethernet devices. System installers need only run a single Ethernet cable that carries both power and data to each clock. This allows

greater flexibility placing clocks and, in most cases, significantly decreases installation costs.

## How does PoE work?

PoE begins with an Ethernet power source such as a PoE compatible switch or a mid-span power "Injector". These devices insert power onto the Ethernet cable. The power source is typically installed in the "Wiring Closet" near the Ethernet switch or hub. PoE is able to supply a maximum of about 15-Watts of power over the Ethernet cable. The voltage injected is 48 volts DC. BRG Precision Products time displays come with the internal components to tap into this power. For customers who do not already have PoE compliant hardware, there are models that come with a single port mid-span injector that plugs directly into a 110v outlet.

## Ethernet Synchronization.

The powerful Ethernet interface supports NTP, SNTP, UDP, DHCP, and Fixed IP addresses. NTP is a uniform method of sending time over a computer network. By default, the clock will act as a client to public or local NTP time servers. The clock can also be configured to receive NTP broadcasts. NTP provides Universal Coordinated Time UTC to the clock. The clock implements offsets and daylight savings rules to display the correct local time. Once the clock is connected to the network, DHCP is used to automatically assign each clock an IP address on the network. Then, each clock will search the Internet or LAN for time servers. The correct time will display within a few minutes of obtaining a timer server lock. The clock includes a list of 10 Internet NTP time servers. Local NTP time servers may also be used. Using the easy to use control program on a PC within the same intranet, you can change NTP servers, Clock IP address, Net mask, Gateway IP address, and optionally Name Server IP address.

## Clock Processors.

BRG Precision Products time and date displays come in two variations. The Mega series provide a time display only and are useful for less demanding requirements. The more powerful Tiger series is available for customers with more demanding applications, such as alarm schedules for notifying break schedules or hall passing times. The Alpha Clock series of displays use the Tiger processor to be able to show time and alphanumeric date information in any layout in up to four languages (English, Spanish, French, and German). Both processors are able to accommodate time zone offsets, incremental offsets, and daylight savings rules for any location on earth.



PENM625 showing Hours:Minutes and Seconds



PEAC12-10-01G Showing various formats.



# Power over Ethernet Mega Series

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Digital Model	Digits	Display Height	Color	Sides	Viewing Distance	Dimensions			Price MSRP
						H	W	D	
PENM418B	4	1.8"	Blue	1	40 ft	6.25	12.25	2.25	\$ 424
PENM418B-2S	4	1.8"	Blue	2	40 ft	6.25	12.25	4.50	\$ 766
PENM418G	4	1.8"	Green	1	40 ft	6.25	12.25	2.25	\$ 424
PENM418G-2S	4	1.8"	Green	2	40 ft	6.25	12.25	4.50	\$ 766
PENM418R	4	1.8"	Red	1	40 ft	6.25	12.25	2.25	\$ 376
PENM418R-2S	4	1.8"	Red	2	40 ft	6.25	12.25	4.50	\$ 622
PENM425B	4	2.5"	Blue	1	75 ft	6.25	12.25	2.25	\$ 490
PENM425B-2S	4	2.5"	Blue	2	75 ft	6.25	12.25	4.50	\$ 849
PENM425G	4	2.5"	Green	1	75 ft	6.25	12.25	2.25	\$ 490
PENM425G-2S	4	2.5"	Green	2	75 ft	6.25	12.25	4.50	\$ 849
PENM425R	4	2.5"	Red	1	75 ft	6.25	12.25	2.25	\$ 419
PENM425R-2S	4	2.5"	Red	2	75 ft	6.25	12.25	4.50	\$ 705
PENM440B	4	4.0"	Blue	1	100 ft	8.25	15.25	2.25	\$ 575
PENM440B-2S	4	4.0"	Blue	2	100 ft	8.25	15.25	4.50	\$ 996
PENM440G	4	4.0"	Green	1	100 ft	8.25	15.25	2.25	\$ 575
PENM440G-2S	4	4.0"	Green	2	100 ft	8.25	15.25	4.50	\$ 996
PENM440R	4	4.0"	Red	1	100 ft	8.25	15.25	2.25	\$ 479
PENM440R-2S	4	4.0"	Red	2	100 ft	8.25	15.25	4.50	\$ 804
PENM470R	4	7.0"	Red	1	300 ft	9.87	31.25	2.25	\$ 804
PENM618B	6	1.8"	Blue	1	40 ft	6.25	15.25	2.25	\$ 563
PENM618B-2S	6	1.8"	Blue	2	40 ft	6.25	15.25	4.50	\$ 1,014
PENM618G	6	1.8"	Green	1	40 ft	6.25	15.25	2.25	\$ 563
PENM618G-2S	6	1.8"	Green	2	40 ft	6.25	15.25	4.50	\$ 1,014
PENM618R	6	1.8"	Red	1	40 ft	6.25	15.25	2.25	\$ 467
PENM618R-2S	6	1.8"	Red	2	40 ft	6.25	15.25	4.50	\$ 821
PENM625B	6	2.5"-1.8"	Blue	1	75 ft	6.25	18.25	2.25	\$ 644
PENM625B-2S	6	2.5"-1.8"	Blue	2	75 ft	6.25	18.25	4.50	\$ 1,118
PENM625G	6	2.5"-1.8"	Green	1	75 ft	6.25	18.25	2.25	\$ 644
PENM625G-2S	6	2.5"-1.8"	Green	2	75 ft	6.25	18.25	4.50	\$ 1,118
PENM625R	6	2.5"-1.8"	Red	1	75 ft	6.25	18.25	2.25	\$ 524
PENM625R-2S	6	2.5"-1.8"	Red	2	75 ft	6.25	18.25	4.50	\$ 878
PENM640B	6	4.0"-2.5"	Blue	1	100 ft	8.25	24.25	2.25	\$ 772
PENM640B-2S	6	4.0"-2.5"	Blue	2	100 ft	8.25	24.25	4.50	\$ 1,375
PENM640G	6	4.0"-2.5"	Green	1	100 ft	8.25	24.25	2.25	\$ 772
PENM640G-2S	6	4.0"-2.5"	Green	2	100 ft	8.25	24.25	4.50	\$ 1,375
PENM640R	6	4.0"-2.5"	Red	1	100 ft	8.25	24.25	2.25	\$ 603
PENM640R-2S	6	4.0"-2.5"	Red	2	100 ft	8.25	24.25	4.50	\$ 1,039

Analog Model	Trim	Dial	Case	Sides	MSRP
PE12P	Black Polycarbonate	10.19"	11.75"	Single	\$ 207
PE12P-2S	Black Polycarbonate	10.19"	11.75"	Double	\$ 385
PE15P	Black Polycarbonate	12.81"	14.75"	Single	\$ 225
PE15P-2S	Black Polycarbonate	12.81"	14.75"	Double	\$ 431
PE12A	Brushed Aluminum	11.00"	11.81"	Single	\$ 221
PE12A-2S	Brushed Aluminum	11.00"	11.81"	Double	\$ 413
PE15A	Brushed Aluminum	13.06"	14.88"	Single	\$ 240
PE15A-2S	Brushed Aluminum	13.06"	14.88"	Double	\$ 461



# Power over Ethernet Tiger Series

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Model	Digits	Display Height	Color	Sides	Viewing Distance	Dimensions			Price MSRP
						H	W	D	
PENT418B	4	1.8"	Blue	1	40 ft	6.25	12.25	2.25	\$ 457
PENT418B-2S	4	1.8"	Blue	2	40 ft	6.25	12.25	4.50	\$ 799
PENT418G	4	1.8"	Green	1	40 ft	6.25	12.25	2.25	\$ 457
PENT418G-2S	4	1.8"	Green	2	40 ft	6.25	12.25	4.50	\$ 799
PENT418R	4	1.8"	Red	1	40 ft	6.25	12.25	2.25	\$ 409
PENT418R-2S	4	1.8"	Red	2	40 ft	6.25	12.25	4.50	\$ 655
PENT425B	4	2.5"	Blue	1	75 ft	6.25	12.25	2.25	\$ 523
PENT425B-2S	4	2.5"	Blue	2	75 ft	6.25	12.25	4.50	\$ 882
PENT425G	4	2.5"	Green	1	75 ft	6.25	12.25	2.25	\$ 523
PENT425G-2S	4	2.5"	Green	2	75 ft	6.25	12.25	4.50	\$ 882
PENT425R	4	2.5"	Red	1	75 ft	6.25	12.25	2.25	\$ 452
PENT425R-2S	4	2.5"	Red	2	75 ft	6.25	12.25	4.50	\$ 738
PENT440B	4	4.0"	Blue	1	100 ft	8.25	15.25	2.25	\$ 608
PENT440B-2S	4	4.0"	Blue	2	100 ft	8.25	15.25	4.50	\$ 1,029
PENT440G	4	4.0"	Green	1	100 ft	8.25	15.25	2.25	\$ 608
PENT440G-2S	4	4.0"	Green	2	100 ft	8.25	15.25	4.50	\$ 1,029
PENT440R	4	4.0"	Red	1	100 ft	8.25	15.25	2.25	\$ 512
PENT440R-2S	4	4.0"	Red	2	100 ft	8.25	15.25	4.50	\$ 837
PENT470R	4	7.0"	Red	1	300 ft	9.87	31.25	2.25	\$ 837
PENT618B	6	1.8"	Blue	1	40 ft	6.25	15.25	2.25	\$ 596
PENT618B-2S	6	1.8"	Blue	2	40 ft	6.25	15.25	4.50	\$ 1,047
PENT618G	6	1.8"	Green	1	40 ft	6.25	15.25	2.25	\$ 596
PENT618G-2S	6	1.8"	Green	2	40 ft	6.25	15.25	4.50	\$ 1,047
PENT618R	6	1.8"	Red	1	40 ft	6.25	15.25	2.25	\$ 500
PENT618R-2S	6	1.8"	Red	2	40 ft	6.25	15.25	4.50	\$ 854
PENT625B	6	2.5"-1.8"	Blue	1	75 ft	6.25	18.25	2.25	\$ 677
PENT625B-2S	6	2.5"-1.8"	Blue	2	75 ft	6.25	18.25	4.50	\$ 1,151
PENT625G	6	2.5"-1.8"	Green	1	75 ft	6.25	18.25	2.25	\$ 677
PENT625G-2S	6	2.5"-1.8"	Green	2	75 ft	6.25	18.25	4.50	\$ 1,151
PENT625R	6	2.5"-1.8"	Red	1	75 ft	6.25	18.25	2.25	\$ 557
PENT625R-2S	6	2.5"-1.8"	Red	2	75 ft	6.25	18.25	4.50	\$ 911
PENT640B	6	4.0"-2.5"	Blue	1	100 ft	8.25	24.25	2.25	\$ 805
PENT640B-2S	6	4.0"-2.5"	Blue	2	100 ft	8.25	24.25	4.50	\$ 1,408
PENT640G	6	4.0"-2.5"	Green	1	100 ft	8.25	24.25	2.25	\$ 805
PENT640G-2S	6	4.0"-2.5"	Green	2	100 ft	8.25	24.25	4.50	\$ 1,408
PENT640R	6	4.0"-2.5"	Red	1	100 ft	8.25	24.25	2.25	\$ 636
PENT640R-2S	6	4.0"-2.5"	Red	2	100 ft	8.25	24.25	4.50	\$ 1,072



# Power over Ethernet Alpha Series Time and Date

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Model	Height	Display			Maximum Pages	Viewing Distance	Dimensions			Price MSRP
		Color	Digits	Rows			H	W	D	
PEAC12-10-01G	1.2"	Green	10	1	25	35 ft	4.25	16.25	2.25	\$ 408
PEAC12-10-01R	1.2"	Red	10	1	25	35 ft	4.25	16.25	2.25	\$ 408
PEAC12-10-01Y	1.2"	Yellow	10	1	25	35 ft	4.25	16.25	2.25	\$ 408
PEAC12-15-01G	1.2"	Green	15	1	17	35 ft	4.25	18.25	2.25	\$ 488
PEAC12-15-01R	1.2"	Red	15	1	17	35 ft	4.25	18.25	2.25	\$ 488
PEAC12-15-01Y	1.2"	Yellow	15	1	17	35 ft	4.25	18.25	2.25	\$ 488
PEAC20-05-01G	2.0"	Green	5	1	51	60 ft	5.25	15.25	2.25	\$ 428
PEAC20-05-01R	2.0"	Red	5	1	51	60 ft	5.25	15.25	2.25	\$ 428
PEAC20-05-01Y	2.0"	Yellow	5	1	51	60 ft	5.25	15.25	2.25	\$ 428
PEAC20-05-02G	2.0"	Green	5	2	25	60 ft	10.25	15.25	2.25	\$ 608
PEAC20-05-02R	2.0"	Red	5	2	25	60 ft	10.25	15.25	2.25	\$ 608
PEAC20-05-02Y	2.0"	Yellow	5	2	25	60 ft	10.25	15.25	2.25	\$ 608
PEAC20-10-01G	2.0"	Green	10	1	25	60 ft	5.25	24.25	2.25	\$ 608
PEAC20-10-01R	2.0"	Red	10	1	25	60 ft	5.25	24.25	2.25	\$ 608
PEAC20-10-01Y	2.0"	Yellow	10	1	25	60 ft	5.25	24.25	2.25	\$ 608
PEAC20-15-01G	2.0"	Green	15	1	17	60 ft	5.25	33.25	2.25	\$ 788
PEAC20-15-01R	2.0"	Red	15	1	17	60 ft	5.25	33.25	2.25	\$ 788
PEAC20-15-01Y	2.0"	Yellow	15	1	17	60 ft	5.25	33.25	2.25	\$ 788







# Options

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## PoE Injectors

Option	Price	Description
POEI	\$ 58.00	Single port mid-span injector
BRG9778A	\$ 2,414.29	48 port mid-span injector

## Additional Function Options

Option	MSRP	Unit	Description
AB	\$ 28.78	Per Clock	Auto Brightness Option
IR	\$ 100.00	Per Clock	Infrared Remote Control and Receiver
IR1	\$ 45.00	Each	Additional Handheld Infrared Remote Control
LG018	\$ 27.79	Per Clock	Lexan Guard for 4, 6 or 8 digit 1.8 Inch LED clocks
LG025	\$ 48.63	Per Clock	Lexan Guard for 4, 6 or 8 digit 2.5 Inch LED clocks
LG040	\$ 69.48	Per Clock	Lexan Guard for 4, 6 or 8 digit 4.0 Inch LED clocks
NE1.5	\$ 104.00	Per Clock	NEMA4x Enclosure for 4 digit 1.8 inch and 2.5 inch
NE2	\$ 116.13	Per Clock	NEMA4x Enclosure for 4 digit 4.0 inch and 6 digit 1.8 inch
NE3	\$ 176.67	Per Clock	NEMA4x Enclosure for 6 digit 2.5 inch and 4.0 inch
RB1	\$ 60.00	Per Clock	Recessed Box for 4 digit displays
RB2	\$ 75.00	Per Clock	Recessed Box for 6 digit displays
TS	\$ 28.78	Per Clock	Temperature Sensor

## Available Mounting Options for Double Sided Clocks (Wire Hang Default)

Option	MSRP	Unit	Description
HMC	\$ 28.00	Per Clock	Hug Mount, Ceiling (2 sided clocks)
HMW	\$ 28.00	Per Clock	Hug Mount, Wall (2 sided clocks)
PM1	\$ 28.00	Per Clock	Pole Mount, Single (2 or 4 sided clocks)

## Alarm and Sound Devices for Tiger Series Only

Option	MSRP	Description
AP	\$ 34.74	Peizzo Buzzer (85 db at the clock)
AL	\$ 28.78	Single Channel Ouput Relay (Dry Contact)
AL4	\$ 118.11	4 Channel Ouput Relay for Zone Control (Dry Contact)

## Available Frame Configurations

Option	Price	Description
F1	\$ -	Black with a rounded front edge (Default)
F3	\$ -	Silver with a rounded front edge
F4	\$ -	Black with a flat 90° front edge



# TERMS

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## GSA Customers - Contract Number GS-02F-0030U

Shipping to North American destinations is free of charge on UPS Ground. Shipping to APO/FPO addresses is free of charge on DHL with street address or the United States Postal Service. Tracing is unavailable on USPS and claims for lost shipments cannot be filed for 75 days. For these reasons, DHL is the preferred international shipment method.

## Commercial and Industrial Customers

First time and international customers must be prepaid. Shipping to United States destinations is 4.75% of order total on UPS Ground. International destinations will be quoted. All freight arrangements are the responsibility of the customer if other carriers are required. International shipping charges are responsibility of customer for both order and warranty repairs.

## Lead Time

Allow up to 3 weeks for standard production. Certain models are built to stock and will have a 1 week lead time. Fast Track Production within 5 business days is available on select models. Fast Track Production requires prepayment and costs 10% of the order total.

## Warranty

See [www.brgprecision.com/support/warranty.php](http://www.brgprecision.com/support/warranty.php) for full warranty and return policy information. Standard warranty is 1 year with a 2 year extended warranty available at an additional cost.