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# BSB612 Industrial Unmanaged Ethernet Switch

with 1 × 10/100Base-T(x) Port and BPL  
(Broadband Power Line) Link



**BSB Series Industrial Unmanaged Ethernet Switches are designed for industrial-grade Ethernet, and particularly for facilities of rugged industry and infrastructure.**

## Main Features

- Supports 1 x 10/100Base-T(X) ports + 1 x BPL link
- 3 phase input, 110V–240V/50-60Hz wide range power input
- Supports Full/Half-Duplex, auto MDI/MDI-X on each port
- Wide operating temperature range from -40 to 85 °C
- Rugged Metal IP-40 housing design
- DIN-Rail mounting
- Supports up to 30Mbps PHY rate on BPL with Up to 10 hops and 1000 nodes
- Up to 432 sub-carriers from 2 to 28MHz analog bandwidth
- Support LDPC-C FEC with 128-bit AES core
- Plug and play with Master/Slave selection via switch

BSB Series Industrial Unmanaged Ethernet Switches are tailored to perform various features such as wide temperature, wide range power input range... etc. Thus, BSB Series Industrial Unmanaged Ethernet Switches are the best choice for facility management, sewage treatment, power utility, telecommunication, transportation and all other applications that require reliable Ethernet connectivity. REDZ Broadband Power Line (BPL) link allows device to communicate with full transparent TCP/IP standard over Low Voltage power lines and allows easy connection between TCP/IP based terminals without use of extra cables.

## Technical Specifications

### Technology

Ethernet Standards	IEEE 802.3 for 10Base-T IEEE 802.3u for 100Base-T(X) IEEE 802.3x Flow Control
Mac Table	1K MAC address entry
Processing	Store-and-Forward
Memory	448K bits packet buffer memory
Auto Power Saving Mode	Automatically enters this mode if no cable link is established.



## BPL (Broadband Powerline) Technology

PHY Data Rate	Up to 240 MHz
MAC Layer Protocol	CSMA/CA
Modulation Technology	OFDM-432
VLAN	IEEE802.1q / IEEE802.1p / IEEE802.3d

## Interface & Indicators

Power indicator	Power LED
10 / 100 TX RJ45	Activity LEDs
LEDs	<ul style="list-style-type: none"> <li>BPL Activity</li> <li>BPL Link</li> <li>Master Indication</li> </ul> <p><b>LED ON: Master    LED OFF: Slave</b></p>
Master/Slave Switch for BPL	Selection for BPL whether to operate as Master or Slave

## Physical & Environmental Characteristics

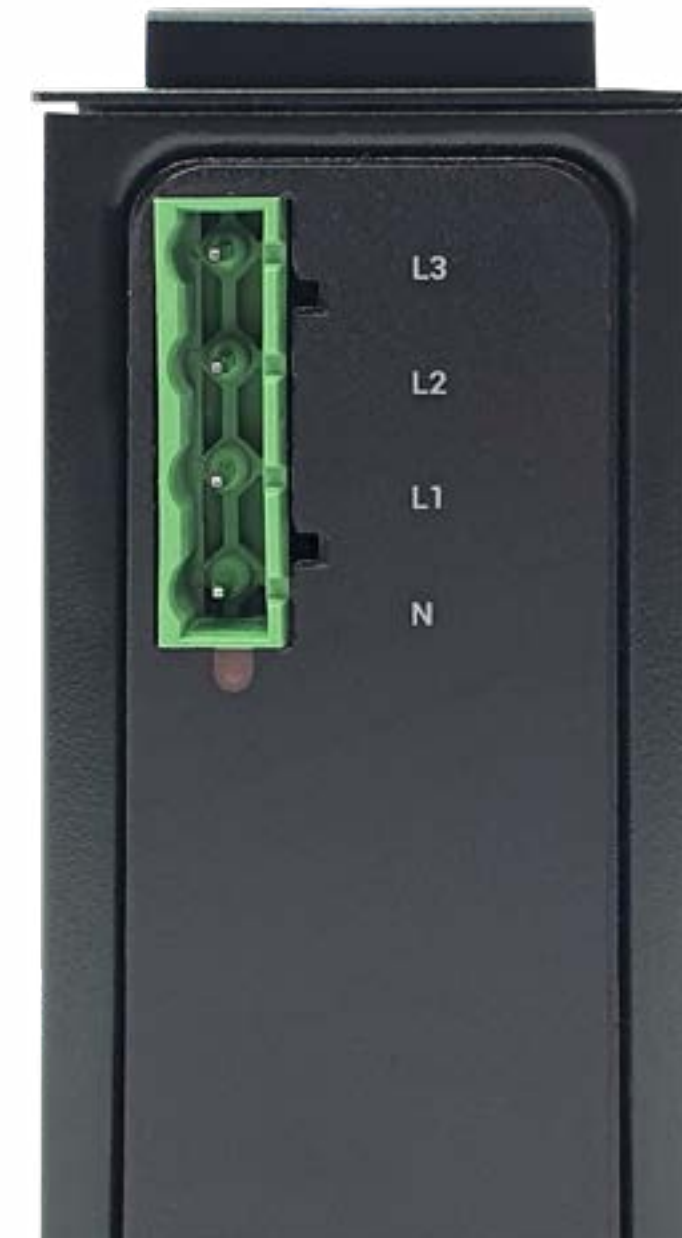
Enclosure	Metal, IP 40
Dimensions	43 × 95 × 124 (w × d × h) mm
Weight	382 gr
Storage Temperature	– 65 to 150 °C
Operating Temperature	– 40 to 85 °C
Operating Humidity	5% to 95% Non-condensing

## Applied Standards

EMI	FCC Part 15, CISPR (EN55022) class A
EMS	EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11
Shock	IEC60068-2-27
Free Fall	IEC60068-2-32
Vibration	IEC60068-2-6
Safety	EN60950
Warranty	3 years

## Power

Input Range	3 phase input, 110 V – 240 V / 50 – 60 Hz
Power and Data	AC Power supply use L1-N only. Phase 2-3 connections are used to BPL signal transmission





# Ordering Information

**BSB612**  
**Industrial Unmanaged Ethernet Switch,**  
**1 × 10/100 T(x) ETH ports + 1 × BPL (Broadband Power Line) Link,**  
**3 Phase AC Power Input,**  
**110 V – 240 V / 50 – 60 Hz**

**Product Selection**

Model	5 – 60V DC Power input	90 – 265V AC (100 – 370V DC), 47Hz to 63Hz AC Power Input	3 Phase AC Power input, 110 V – 240 V / 50 – 60 Hz AC Power Input	8 × 10/100 T(x) ETH ports	7 × 10/100 T(x) ETH ports	5 × 10/100 T(x) ETH ports	4 × 10/100 T(x) ETH ports	1 × 10/100 T(x) ETH ports	BPL (Broadband Power Line) Link
BSB115	●					●			
BSB118	●			●					
BSB215		●				●			
BSB218		●		●					
BSB612			●					●	●
BSB615			●				●		●
BSB618			●		●				●