# 9-Port Industrial 2.5G DIN-Rail PoE++ Switch with 10G SFP+ Port (24 – 57V)

TI-BG5091B (V1)

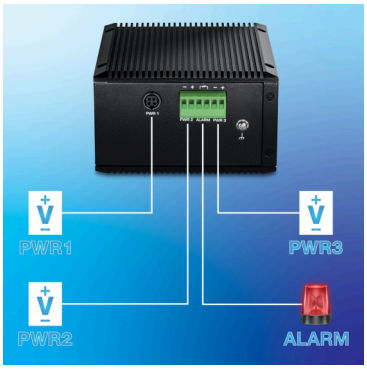
- 8 x 2.5G PoE++ ports
- 1 x 10G SFP+ port
- Up to 480W PoE power budget
- 60Gbps switching capacity
- Hardened IP50 rated metal switch
- Fast PoE minimizes wait time for powering up PoE devices
- Includes DIN-Rail and wall mounts
- Extreme operating temperature range of -40° – 75° C (-40° – 167° F)
- Multiple power inputs for redundancy
- Alarm output triggered by power failure
- Power supply sold separately (TI-S48048, TI-S24052, 48VDC3000)
- Lifetime Warranty
- NDAA / TAA compliant (U.S. and Canada only)

TRENDnet's 9-Port Industrial 2.5G DIN-Rail PoE++ Switch with 10G SFP+ Port (24 – 57V), model TI-BG5091B, delivers network connectivity to rugged environments, while saving you on installation costs and setup time using Power over Ethernet technology. The industrial variable voltage switch features a rugged IP50 rated metal enclosure, designed to withstand a high degree of vibration and shock, while operating in both high and low temperatures for industrial environments within -40° – 75° C (-40° – 167° F). This adjustable voltage switch features eight 2.5G PoE++ ports, and a 10G SFP+ port for long-distance fiber networking applications.

Installers and integrators can save on equipment costs and reduce installation time with TRENDnet's voltage booster PoE++ switch by delivering up to 95W per port of PoE power and data over existing Ethernet cables. With PoE technology inside this industrial variable voltage switch, users only need one cable to deliver both data and power. The switch also features Fast PoE technology, which minimizes wait time for PoE devices by providing power immediately at boot up. Dual 24 – 57V DC power inputs on this adjustable voltage switch provide redundancy with power failure alarm relay.

### PoE++

Up to a 480W PoE power budget supports up to eight Power over Ethernet devices with PoE (15.4W), PoE+ (30W), or PoE++ (95W) power.




### Fault Tolerance

The industrial variable voltage switch features dual 24 – 57V DC power inputs for redundancy with overload current protection.

### Industrial Hardened Design

Rugged IP50 enclosure with a high degree of vibration and shock resistance, ESD/EMI/surge protection, and a wide operating temperature range of -40° - 75° C (-40°- 167° F).

## FEATURES

**PoE Power Budget**
Up to a 480W PoE power budget on this industrial variable voltage switch supports up to eight Power over Ethernet devices with PoE (15.4W), PoE+ (30W), or PoE++ (95W) power

**Fast PoE**
With Fast PoE, the industrial variable voltage switch provides power to a connected PoE device within a few seconds of the switch receiving power—no need to wait for the switch to fully boot up

**Network Ports**
8 x 2.5G PoE++ ports and 1 x 10G SFP+ port

**DIN-Rail/Wall Mounts**
Metal enclosure with included DIN-Rail and wall mount hardware

**IP50 Housing**
IP50 rated metal housing protects the industrial variable voltage switch from most environments with dust particles

**Power Redundancy**
The voltage booster PoE++ switch features dual 24 – 57V DC power inputs for redundancy with overload current protection

**Alarm Relay**
Alarm relay is triggered by power failure of primary and/or redundant power

**Jumbo Frame**
Sends larger packets, or Jumbo Frames (up to 12KB), for increased performance

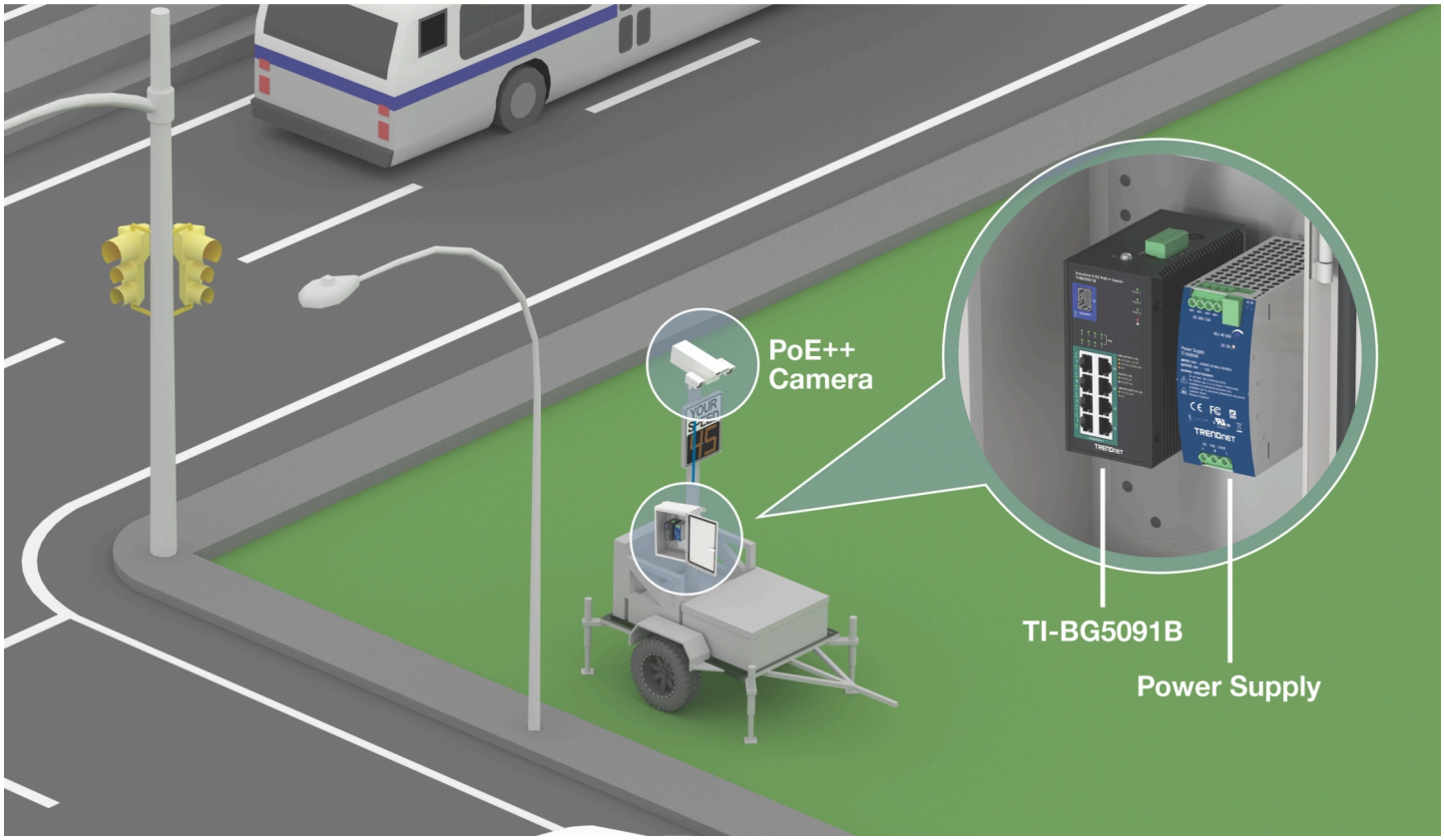
**Industrial Design**
Rugged design to withstand a high degree of vibration and shock for harsh environments

**Operating Temperature**
Operates within an extreme temperature range of -40° - 75° C (-40° - 167° F)

**Shock and Vibration Resistant**
Rated for shock (IEC 60068-2-27), freefall (IEC 60068-2-31), and vibration (IEC 60068-2-6)

**Grounding Point**
Grounding point on the industrial variable voltage switch protects equipment against external electrical surges

# NETWORKING SOLUTION



# SPECIFICATIONS

### Standards
- IEEE 802.3
- IEEE 802.3u
- IEEE 802.3ab
- IEEE 802.3z
- IEEE 802.3x
- IEEE 802.3ae
- IEEE 802.3af
- IEEE 802.3an
- IEEE 802.3at
- IEEE 802.3bt
- IEEE 802.3bz

### Device Interface
- 8 x 2.5G PoE++ ports (10Mbps/100Mbps/1Gbps/2.5Gbps)
- 1 x 10G SFP+ port (1Gbps/10Gbps)
- 6-pin removable terminal block
- LED indicators
- DIN-Rail mount
- Wall mount
- Grounding point

### Data Transfer Rate
- Ethernet: 10Mbps (half duplex), 20Mbps (full duplex)
- Fast Ethernet: 100Mbps (half duplex), 200Mbps (full duplex)
- Gigabit: 2Gbps (full duplex)
- 2.5 Gigabit: 5Gbps (full duplex)
- 1G Fiber: 2Gbps (full duplex)
- 10G Fiber: 20Gbps (full duplex)

### Performance
- Data RAM Buffer: 1MB
- Switching Fabric: 60Gbps
- MAC Address Table: 4K entries
- Jumbo Frame: 12KB
- Forwarding rate: 44.64Mpps (64-byte packet size)

### Special Features
- Hardened components rated for extreme temperatures
- Fast PoE
- Multiple power inputs
- Auto-Negotiation
- Support VLAN pass through
- Auto store and forward architecture
- Automatic address learning and address aging
- ESD 6kV protection

### DC Power
- Input: 24 - 57V DC
- Compatible power supply: TI-S24052, TI-S48048 (sold separately)
- Max. consumption: 12.4W @24V (no PD)

### AC Power
- Input 100 – 240V AC, 50/60Hz, 2A
- Compatible power adapter: 48VDC3000 (sold separately)
- Output: 48V DC, 3.34A 160W max.

### PoE
- PoE: up to 15.4W per port
- PoE+: up to 30W per port
- PoE++: up to 95W per port
- Power budget: 240W @ 24V
- Power budget: 480W @ 56V

### Terminal Block
- 6-pin terminal block
- Alarm relay contact
- Wire range: 0.34mm^2 to 2.5mm^2
- Solid wire (AWG): 12-28
- Stranded wire (AWG): 12-28
- Torque: 5 lb. – In / 0.5Nm / 0.56 Nm
- Wire strip length: 7-8mm

### Alarm Relay Contact
- Relay outputs with current carrying capacity of 1A, 24V DC
- Short circuit mode when two power sources are connected
- Open circuit mode when only one power source is connected

### MTBF
- 1,1160,603 hours @ 25°C

### Housing
- IP50 metal case
- DIN-Rail mount
- Wall mount
- Grounding point
- 6kV ESD protection

### Operating Temperature
- - 40° – 75° C (-40 – 167° F)

### Operating Humidity
- Max. 95% non-condensing

### Dimensions
- 134 x 124 x 73mm (5.3 x 4.88 x 2.87 in.)

### Weight
- 1.4kg (3 lb.)

### Certifications
- CE
- FCC
- LVD
- Shock (IEC 60068-2-27)
- Freefall (IEC 60068-2-31)
- Vibration (IEC 60068-2-6)
- IEC 61000-6-2
- IEC 61000-6-4
- IEC 61000-4-5

### Warranty
- Lifetime

### Package Contents
- TI-BG5091B
- Removable terminal block
- DIN-Rail and wall mount kit

All references to speed are for comparison purposes only. Product specifications, size, and shape are subject to change without notice, and actual product appearance may differ from that depicted herein.

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