



- 8 x Gigabit Ethernet ports with IEEE 802.3at PoE+ & 2 x Gigabit SFP Slot
- Built for harsh environments and -40~75°C wide temperature range application
- RSTP, ERPS, LACP for Network Redundancy
- QoS CoS/DSCP to increase determinism
- Supports IGMP Snooping v1/v2, up to 1023 groups
- DHCP Relay Option 82 for policies IP address assignment
- SNMP v1/v2c/v3 for network management
- Supports Storm Protection
- USB storage for configuration-free replacement
- Support industrial automation protocol Modbus TCP
- Supports PoE PD Alive Check Function for PoE Device Power Recycle
- DI (Digital Input) & DO (Digital Output)

## **Industrial 8-port 10/100/1000M PoE+ with 2 SFP Uplink Slots PoE Switch**

### **Introduction**

INEO-IGM0820P is a DIN Rail type industrial Gigabit managed Power over Ethernet Switch is designed with eight 10/100/1000M PoE+ ports and two Gigabit SFP slots for highly critical PoE applications such as real time IP video surveillance, WiMAX systems and Wireless APs. All of the 8 ports of the switch are compliant with both IEEE 802.3af PoE and IEEE 802.3at high power PoE standards and can deliver up to 15.4W and 30W power per port to enable the high-power requiring devices, such as Wireless Aps, PTZ and dome network cameras, etc.

### **Ethernet Ring Protection Switching (ERPSv2)**

Ring network topology ensures the reliability of the connections among all the switches in the network. INEO-IGM0820P supports ERPSv2 with easy to set up user interface, which allows it to recover from network disconnection in less than 20ms with 250 INEO-IGM0820P connected in a ring network topology while transmitting/receiving data at full network speed. Also, INEO-IGM0820P supports multiple ERPS instances, allowing different VLANs have their own ERPS instances.

### **USB Port for Save/Restore Configuration & System Log/Firmware Storage**

INEO-IGM0820P comes with a USB port for connecting a USB storage device to the industrial switch. Configuration files, switch system log and firmware can be stored in the USB storage device for the switch to access. When a USB storage device is connected to INEO-IGM0820P, it will load the configuration file in the storage device and apply all the settings, saving on-site installation time and effort.

## Redundant Power Inputs & Embedded Protecting Circuit

INEO-IGM0820P provides two power inputs that can be connected simultaneously to live DC power source. If one of the power input fails, the other live source acts as a backup to automatically support the switch's power needs without compromising network service qualities. Also, it supports automatic protection switching and load balance, while its embedded protecting circuit can protect your system from over input/output voltages and rectifier malfunctions.

## Outstanding Management and Enhanced Security

This switch provides various network control and security features to ensure the reliable and secure network connection. To optimize the industrial network environment the switch supports advanced network features, such as Tag VLAN, IGMP Snooping, Quality of Service (QoS), Link Aggregation Control Protocol (LACP), Rate Control, etc. The PoE switch can be smartly configured through Web Browser, SNMP Telnet and RS-232 local console with its command like interface. The failure notifications are sent through e-mail, SNMP trap, Local/Remote system log, multiple event alarm relay.

## Technical Specifications

### Interface

- 10/100/1000 Base RJ45 PoE Ports : 8
- 1000Base-X SFP Slot : 2
- Console Port for CLI Management : 1
- USB Port : 1x USB 2.0 storage for firmware update, configuration backup, restore, boot up and system log
- DI/DO

### L2 Features

- Auto-negotiation
- Auto MDI/MDIX
- Flow Control (Duplex) :
  - 802.3x (Full)
  - Back-Pressure (Half)
- Spanning Tree :
  - IEEE 802.1D (STP)
  - IEEE 802.1w (RSTP)
  - IEEE 802.1s (MSTP)
- VLAN
  - VLAN Group : 4K
  - Tagged Based
  - Port-based
  - Voice VLAN
- Link Aggregation : IEEE 802.3ad with LACP
- IGMP Snooping :
  - IGMP Snooping v1/v2/v3 : Supports 1023 IGMP groups
  - IGMP Static Multicast Addresses
  - Querier, Immediate Leave
- Storm Control
- G.8032 - Ethernet Ring Protection Switching (ERPS)

### System Performance

- Packet Buffer : 12Mbits
- MAC Address Table Size : 16K
- Switching Capacity : 20Gbps
- Forwarding Rate : 14.88Mpps

### PoE Features

- IEEE 802.3 af/at
- Number of PSE Ports : 8
- System Power Consumption : Max. 17W
- Max. PoE Budget : 240W, 30W for each PoE port
- PoE Mode : Mode A (1, 2+ & 3, 6-)
- Power Feeding Detecting Capability on PD
- PD Classification
- Power Management (per-port) :
  - Enable/Disable PoE Per Port
  - Priority Setting Per Port
  - Power Level Setting Per Port
  - Overloading Protection

### QoS Features

- CoS
- DSCP
- WRR/SPQ Queuing

### Security

- Management System User Name/Password Protection
- IEEE 802.1x Port-based Access Control
- RADIUS (Authentication, Authorization, Accounting)
- HTTP & SSL (Secure Web)

- Jumbo Frame Support : 9.6KB

## Management

- Command Line Interface (CLI)
- Web Based Management
- Telnet
- Firmware Upgrade via HTTP
- Dual Firmware Images
- Configuration Download/Upload
- SNMP (v1/v2c/v3)
- RMON (1,2,3,&9 groups)
- DHCP (Client/Relay/Option82)
- System Event/Error Log
- NTP/LLDP
- Port Mirroring : One to One or Many to One
- Industrial Profiles : Modbus TCP

## Industrial Standard

- Alarm Contact : 1 relay output with current carrying capacity of 1A @ 24 VDC
- Reverse Polarity Protection
- Overload Current Protection
- Casing : IP30 protection, aluminum alloy case
- EMI : FCC Part 15 Subpart B Class A, CE EN 55022 Class A
- EMS
  - IEC61000-4-2 (ESD Level 4), IEC61000-4-3 (RS Level 3)
  - IEC61000-4-4 (EFT Level 4), IEC61000-4-5 (Surge Level 4)
  - IEC61000-4-6 (CS Level 3), IEC61000-4-8 (Magnetic Field Level 4)
- Shock : IEC60068-2-27
- Free Fall : IEC60068-2-32
- Vibration : IEC60068-2-6
- Green : RoHS Compliant
- Installation : DIN-Rail mounting or optional wall mounting

## Dimensions (mm)

- SSH v2.0 (Secured Telnet Session)

## Mechanical

- Input Power : DC 48~57V, Dual Redundant
- Power Connection : 1 removable 4-contact terminal block
- Dimension (HxWxD) : 72 x 145 x 118 mm
- Weight : 0.88kg
- LED :
  - Per unit : PWR1, PWR2, Fault, Ring Master, Ring State
  - Ports : Link/Active with highest speed (Green), low speed (Amber)
  - PoE : Output Power
- Button : 1 multiple function reset button
- Operating Temperature : -40 to 75°C
- Storage Temperature : -40~85°C
- Operating Humidity : 5~95% (non-condensing)
- MTBF : >100,000 Hours

## Standard

- IEEE 802.3 - 10BaseT
- IEEE 802.3u - 100BaseTX
- IEEE 802.3ab - 1000BaseT
- IEEE 802.3z 1000BaseSX/LX
- IEEE 802.3af Power over Ethernet (PoE)
- IEEE 802.3at Power over Ethernet (PoE+)
- IEEE 802.3x - Flow Control
- IEEE 802.1Q - VLAN
- IEEE 802.1p - Class of Service
- IEEE 802.1D - Spanning Tree
- IEEE 802.1w - Rapid Spanning Tree
- IEEE 802.1s - Multiple Spanning Tree
- IEEE 802.3ad - Link Aggregation Control Protocol (LACP)
- IEEE 802.1AB - LLDP (Link Layer Discovery Protocol)
- IEEE 802.1X - Access Control
- ITU-T G.8032/Y.1344 - Ethernet Ring Protection Switching (ERPS)

