

**10-port Managed Outdoor PoE Switch**

## Electra-M10-Outdoor-200

10-port Managed  
Outdoor Ethernet  
PoE Switch

*Integrated PSU, air  
breaker and fiber tray  
in water-resistant case*

### Overview

Ernitec's Electra-M10-Outdoor-200 is a managed industrial PoE switch, integrated into an IP66 protection rated water-resistant housing. The box can be mounted on wall or pole and includes a 200W industrial PSU, air-breaker, surge protector, optical fiber tray and cooling fan. It delivers an ideal solution for surveillance applications such as security monitoring, road monitoring and industrial applications.

The switch has 8x10/100/1000BaseT 802.3af/at PoE ports and 2x1000Base-X SFP interfaces. PoE management features include total power consumption control, single port PoE ON/OFF and port output priority. In addition to the built-in surge and ESD protection, it also has an integrated lightning arrester. The rich L2 management functions enable integration into complex networking environment and allow remote monitoring and trouble shooting. Support for IGMP v1/v2/v3 and MLD protocols is essential in surveillance applications where multicast networking is used. Wide range of security features such as TACACS/RADIUS authentication, DHCP filter, MAC filter, ARP association, DoS protects the network from unauthorized access.

### Key features

- > 8 x 10/100/1000BASE-T RJ45 PoE + 2 x 1000Base-X SFP LAN interfaces, one RJ45 Console interface
- > Up to 30W 802.3af/at PoE+ output per port, max. 185W PoE output total
- > IP66 housing with mechanical lock,
- > Integrated air breaker, 4 x SC port fiber tray, surge protector, cooling fan
- > Extended operating temperature -20°C~65°C
- > 6KV surge, 6KV contact/8KV air ESD protection
- > Wide range of managed L2 features including VLAN, ACL, QoS and multicast support
- > CLI, Telnet, SSH v1/v2, SNMP v1/v2/v3 and HTTP/HTTPS support

## Specifications

## Hardware

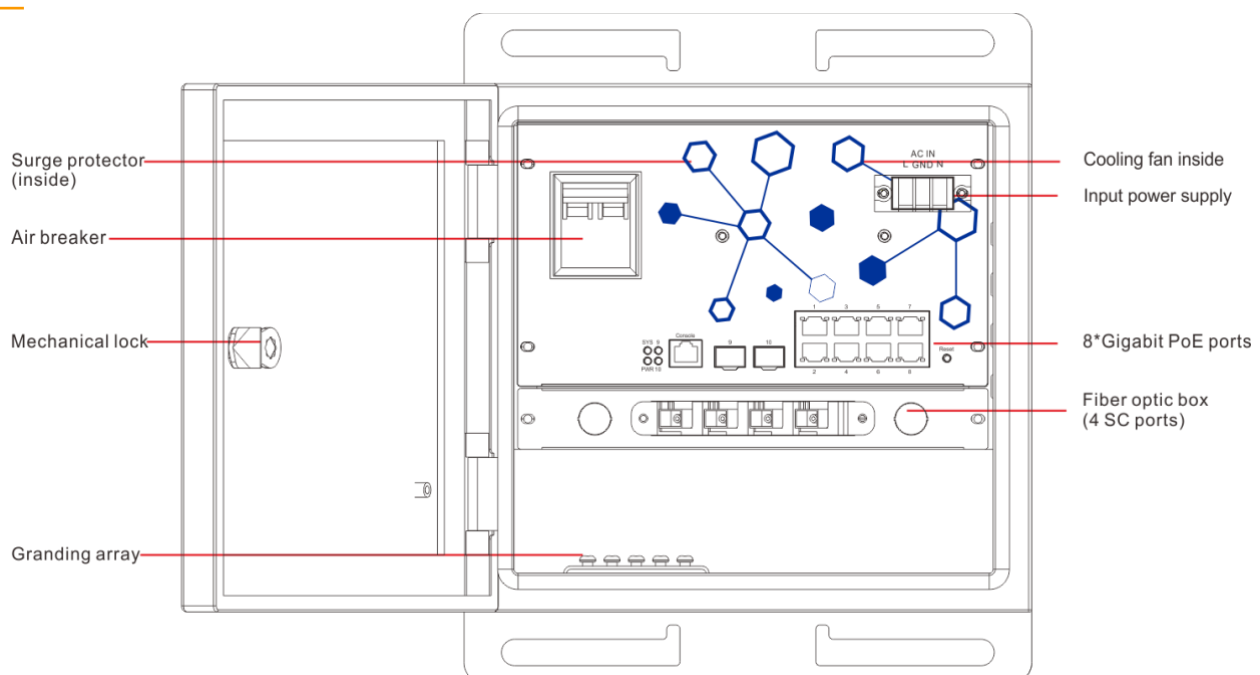
|                          |                         |                                                                          |
|--------------------------|-------------------------|--------------------------------------------------------------------------|
| Interface Specifications |                         |                                                                          |
|                          | Fiber port              | 2 * 1G SFP                                                               |
|                          | Copper port             | 8 * 10/100/1000Base-T PoE (RJ45)                                         |
|                          | Management Port         | 1 * RJ45 Console                                                         |
|                          | Reset button            | Short press - Restart<br>> 5s press- reset the switch to factory default |
| Power Specifications     |                         |                                                                          |
|                          | Input voltage           | 100-240VAC, 50/60Hz<br>Built-in power supply                             |
|                          | Power consumption       | Own hardware ≤ 15W<br>Up to 185W total PoE budget                        |
|                          | Over-voltage protection | Supported                                                                |
|                          | Over-current protection | Supported                                                                |
| LED Indicators           |                         |                                                                          |
|                          | PWR (Red)               | Power on indicator                                                       |
|                          | LNK/ACT (Green)         | RJ45 port link up/down/act indicator per port                            |
|                          | PoE (Yellow)            | RJ45 PoE status indicator per port                                       |
|                          | LNK/ACT (Green)         | SFP port link up/down/act indicator per port                             |
| Switch Specifications    |                         |                                                                          |
|                          | Switching capacity      | 20Gbps                                                                   |
|                          | Packet forwarding rate  | 14.88Mpps                                                                |
|                          | MAC address table       | 8K                                                                       |
|                          | VLAN                    | 4K                                                                       |
|                          | Buffer                  | 1Mb                                                                      |
|                          | Auto MDI/MDIX           | Supported                                                                |
| Protection               |                         |                                                                          |
|                          | Surge protection        | IEC 61000-4-5 6KV                                                        |
|                          | ESD contact             | IEC 61000-4-2 6KV                                                        |
|                          | ESD air                 | IEC 61000-4-2 8KV                                                        |
|                          | SPD                     | AC lightning arrester, 385v AC@20KA                                      |
|                          | IP Rating               | IP66)                                                                    |
| Environment              |                         |                                                                          |
|                          | Operating temperature   | -20℃~65℃                                                                 |
|                          | Storage temperature     | -40℃~85℃                                                                 |
|                          | Relative humidity       | 0% to 95% (non-condensing)                                               |
| Physical                 |                         |                                                                          |
|                          | Dimensions (LxWxH)      | 280mm×200mm×260mm                                                        |
|                          | Weight                  | 8kg                                                                      |
|                          | Material                | Metal                                                                    |
|                          | Color                   | White                                                                    |

## Software

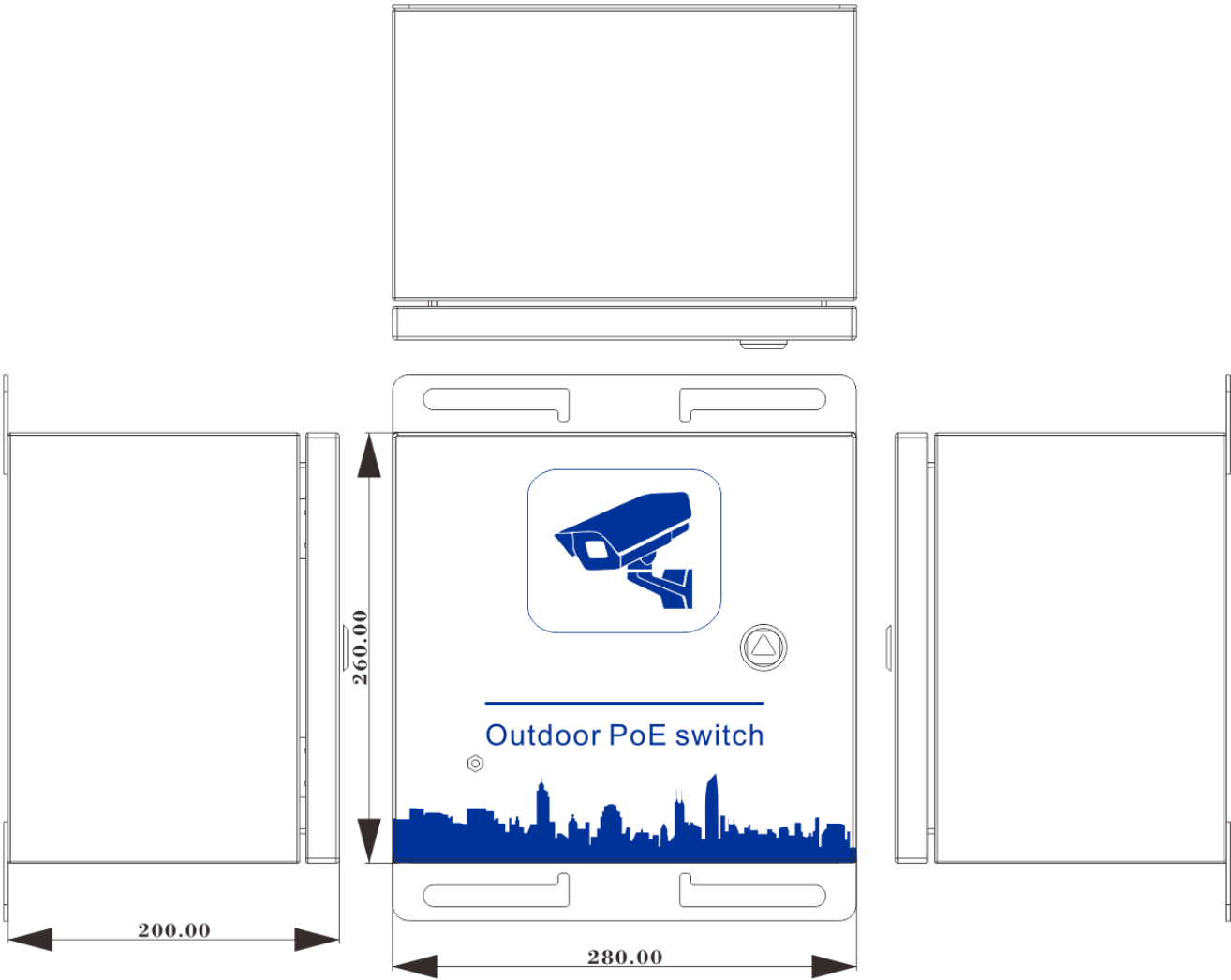
| L2 Features |                          |                                                                                                                                                                                                                                                                                                                                                                 |
|-------------|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|             | Port configuration       | Auto-negotiation<br>Flow Control<br>Port Mirror<br>Traffic statistics                                                                                                                                                                                                                                                                                           |
|             | Ling Aggregation         | Static link aggregation<br>LACP<br>Algorithm based on Source/Destination MAC<br>Algorithm based on Source/Destination IP<br>8 groups<br>8 ports per group                                                                                                                                                                                                       |
|             | VLAN                     | 4K Active VLANs<br>4K VID<br>802.1Q Tag VLAN<br>Port VLAN<br>Protocol VLAN<br>MAC VLAN<br>Management VLAN<br>Voice VLAN<br>Q-in-Q<br>Private VLAN<br>GARP/GVRP                                                                                                                                                                                                  |
|             | MAC Table                | Aging Time<br>Static MAC address<br>Dynamic MAC address management                                                                                                                                                                                                                                                                                              |
|             | Multicast                | IGMPv1, v2 & v3<br>IGMP Snooping                                                                                                                                                                                                                                                                                                                                |
|             | ACL                      | 64 ACLs<br>L2, L3 e L4<br>Time-based ACL                                                                                                                                                                                                                                                                                                                        |
|             | Quality of Service (QoS) | 4 priority queues<br>CoS port-based<br>CoS 802.1p-based<br>CoS DSCP-based<br>Scheduling algorithms SP, WRR, SP+WRR<br>Storm Control (Broadcast, Multicast, Unknown Unicast)<br>Bandwidth control per port                                                                                                                                                       |
|             | Security Features        | Port Security<br>MAC address filter<br>ARP Association (Manual, ARP scanning, DHCP snooping) up to 200 entries<br>ARP Protection<br>DoS (Denial of Service)<br>Classification of packages based on: End.MAC, IP End, TCP / UDP Ports, Protocol Type<br>802.1x authentication (port-based e MAC-based)<br>TACACS/TACACS+ authentication<br>RADIUS authentication |

|                |                                                                                                                                                                                                                                                     |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                | DHCP Filter<br>Guest VLAN<br>SSLv2/SSLv3/TLSv1<br>SSHv1/SSHv2<br>Restriction of WEB access based on: IP Address,<br>And. MAC and Port<br>Port Isolation<br>Local User Name Password Authentication (2<br>levels)<br>Loopback detection              |
| Management     | SNMP v1/v2c/v3<br>RMON 4 groups<br>WEB (HTTP/HTTPS)<br>CLI (Telnet, Console, SSHv1/v2)<br>Firmware upgrade via console/web/TFTP<br>Configuration Backup/Reload<br>All possible configurations in the CLI must exist<br>in the WEB interface<br>LLDP |
| Maintenance    | Ping and Tracert<br>System log (Local and Remote)<br>Memory and CPU Monitoring                                                                                                                                                                      |
| Other Features | DHCP Relay<br>DHCP Client<br>DHCP Snooping<br>DHCP Option 82<br>SNTP Client<br>BOOTP Client                                                                                                                                                         |

## Layout



Dimensions



Ordering information

| Model                   | Description                                                                                                                                                                                                         |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Electra-M10-Outdoor-200 | 10-port Managed Outdoor PoE Switch, IP66 protection, 8x 10/100/1000Mbps RJ-45 PoE + 2x GbE SFP ports, PoE-auto check. Built-in 200W Power Supply, Air-breaker, Optical Fiber Tray, Surge Protector and Cooling Fan. |