

# Vi30018

## 18-Port L2 High Power PoE Managed Switch

### Features

- Provides 16 ports of high power up to 36W PoE at 10/100Mbps
- Provides up to 72W UPoE on 8 ports for powering PTZ domes
- Provides 2 shared fiber/copper Uplink ports @ 1000Mbps to allow for full use of all 16 ports
- Provides over current, over voltage, over temperature and short protection and auto restart
- SNMP for communicating error messaging to local computers
- Automatic IP and PoE connection and reconnection
- Automatic programmable MAC identification for all connected devices
- Individual port MAC detection and binding for port security
- 460W total power supply with 370W PoE budget
- Programmable Web Access Filtering (WAF) to prevent unauthorized access
- Transient Protect™ intelligent PoE sensing to prevent damage from short
- Intelligent Power Limit - automatically determines actual PoE power requirements
- Provides 9G bytes fabric switching rate for handling largest megapixels IP cameras
- SecurPort™ provides individual port and complete switch protection against hacking and ghosting



### Applications

- Upgrading existing analog CCTV installations to digital
- Core network switch for any networking application
- CCTV system for casinos, airports, school campuses, and many more

Vigtron's Vi30018 is the next generation L2 managed switch designed for High power PoE and high bandwidth network applications. It provides a reliable infrastructure for your business network. The Vi30018 delivers unique intelligent features providing unmatched reliability for critical PoE, bandwidth, and port security. The Vi30018 enables individual port programming to apply PoE individually to each port lowering the potential for power overload resulting in potential damage to the switch and connected devices.

- High Power PoE Budget: Total 460W power supply with 370W PoE budget providing IEEE 802.3at up to 36W on 16 ports and UPoE up to 72W on 4 ports at 65W.
- With programmable PoE up to 36W, with individual port output up to 72W providing power to PTZ domes with heaters and blowers. Additional power is reserved to handle camera surge during start-up and application of auxiliary functions such as day/night, avoiding port PoE shut down.
- Transient Protect™ determines the difference between the need from additional PoE power and potential damaging shorts providing extra power when required or shutting down port PoE to protect connected devices.
- The 9Gbps switch fabric provides all required bandwidth, even with all ports at their maximum bandwidth to keep video and data quality.
- Automatic connection, re-connection, and port monitoring with PoE application for more reliable start-ups and reducing downtime potentials.
- Programmable multicasting for compatibility and performance with largest IP video network systems.
- Programmable Rapid Spanning Tree for redundant network configuration assuring maintenance of network communication using multiple paths.
- Automatic MAC address detection for connected devices for easy connection verification and security programming.
- Programmable and auto detect MAC address binding limiting access for potential hacking.
- Layer 2 network switch compliance
- Web filtering and MAC address binding provide a two stage protection against hacking.
- SecurPort™ provides complete protection against ghosting when attempts are made to connect unauthorized devices by copying device MAC and IP addresses.

# Technical Specification

## Electrical

Ethernet Interface	16 Ports RJ45 @ 10/100Mbps 2 Combination Ports RJ45 @ 1000Mbps 2 Combination Ports MSA Compliant Fiber @ 1000Mbps
Addresses	IvP4: IP TOS/DSCP based (IPv4/IPv6)
Throughput	63.75Mbps
Power	100-240VAC 50/60Hz, internal, universal
Status LEDS	Power, Traffic, Link, and PoE
Total Power Supply	460W
Total PoE Budget	370W
Port PoE	36W
Max. PoE/port	65W, UPoE
Switch Fabric	9.5MPPS, 9Gbps
Connectors	10/100Mbps Ports: 24 x RJ45 Connectors 1000Mbps Uplink Ports: 2 x RJ45 Connectors 1000Mbps Uplink Ports: 2 x SFP Console Port: USB
PoE Compatibility	IEEE 802.3af/at Supports per port PoE configuration function
Packet Size	1536 Bytes @ 10/100/1000Mbps
MAC Table	Up to 4K MAC addresses
Port Security	MAC Address Based IP Address Based TCP/UDP Port Based

## Regulatory

FCC	Part 15, Class A
Safety	CE, UL, cUL
Environmental	RoHS, WEEE

## Environmental

Humidity	0 to 95%, non-condensing
Temperature	Operating: 32° to 104° F; 0° to 40° C Storage: -4° to 158° F; -20° to 70° C

## Mechanical

Dimensions	1.75 x 17.5 x 11 in, 4.5 x 44.5 x 27.9 cm (HxWxL)
Weight	9.1 lb (4.1 Kg)
Housing	Extruded Aluminum & Steel sheetmetal

## Accessories

- Power Cord
- Mounting Kit
- USB Drive: Operations Manual

## Minimum Requirements

- Web Browser: Mozilla Firefox v2.5 or later, Microsoft Internet Explorer v6 or later
- Category 5 Ethernet network cable
- TCP/IP, network adapter, and network operating system (such as Microsoft Windows or Linux) installed on each computer in the network

## Ordering Information

Part No.	Description
Vi30018	18-Port, L2, Hybrid PoE Switch

## Vi30018 Compatible ANSI/IEEE Standards

IEEE/ANSI Standard	Description
IEEE 802.3	Ethernet 10baseT UTP
IEEE 802.3u	Fast Ethernet 1000baseTX UTP
IEEE 802.3ab	Ethernet 1000baseTX UTP
IEEE 802.3z	Ethernet 1000baseX
IEEE 802.3x	Flow control Capability
IEEE 802.1q	VLAN
IEEE 802.1p	Class of Service
IEEE 802.1x	Access Control
IEEE 802.1d	Spanning Tree
IEEE 802.1w	Rapid Spanning Tree
IEEE 802.1s	Multiple Spanning Tree
IEEE 802.1ad	Link Aggregation Control Protocol (LACP)
IEEE 802.1AB	Link Layer Discovery Protocol (LLDP)
IEEE 802.3ad	Trunking
IEEE 802.1Q	Tag Based VLAN
ANSI/IEEE 802.3	Auto – negotiation



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# Technical Specifications

## Layer 2

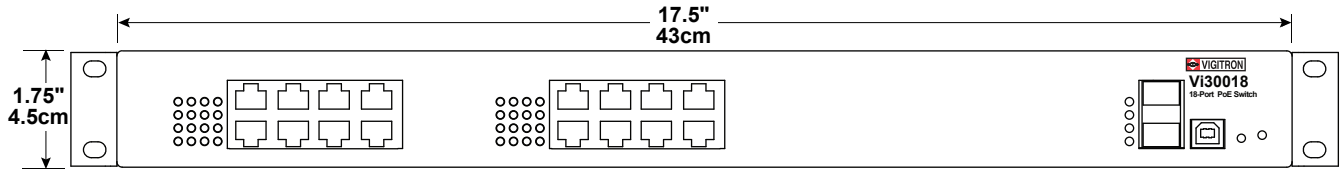
Spanning Tree Protocol (STP)	Standard Spanning Tree 802.1d Rapid Spanning Tree (RSTP) 802.1w Multiple Supports up to 5 different protocol states
Trunking	Link Aggregation Control Protocol (LACP) IEEE 802.3ad <ul style="list-style-type: none"> <li>Up to 3 groups (Ports 0-3/Ports 4-7/Ge ports 25/26)</li> <li>Up to 4 ports per group @ 10/100Mbps, 2 groups @ 1000Mbps</li> </ul> Destination and source MAC address
VLAN	Supports <ul style="list-style-type: none"> <li>Port-based VLAN</li> <li>802.1Q tag-based VLAN</li> <li>VID Based VLAN</li> </ul>
Class of Services	Port Based 802.1Q priority tag based IP TOS/DSCP based for IPv4/IPv6 TCP/UDP port based 2 level priority per port WRRR/First Come-First Serve/Strict Priority
Broadcast Storm Control	Broadcast rate control per port Block broadcast packet not belonging to ARP or IP Packet forwarded to CPU port
Bandwidth Control	480 configurable levels from 32Kbps to 63.75Mbps @ 10/100Mbps 508 configurable levels from 32Kbps to 510Mbps @ 1000Mbps
Spanning Tree Protocol	Blocking/listening/learning/forwarding/disabling/forwarding BPDUs to CPU port
Capture and Port Forwarding	BPDUs, LACP, 802.1x, GMRP, GVRP, ARP, ICMP, IGMP, OSPF, Specific TCP/UDP port numbers
Specific Packet Capture with Forwarding to CPU Port	BPDUs, LACP, 802.1x, GMRP, GVRP, ARP, ICMP, IGMP, TCP, UDP, OSPF Packets with specific TCP/UDP port
MAC Table	Binding User programmable Programmable aging 55 seconds to 15.7 hours

## Security

Port Security	MAC address based IP address based TCP/UDP port based Port Based SecurPort™ ghosting protection
MAC Based Port Security	Learning Programmable
Log on	Programmable username and password
Storm Control	Prevents traffic on a LAN from being disrupted by a broadcast, multicast, or unicast storm on a port
ACLs	Drop or rate limitation based on source and destination MAC, VLAN ID or IP address, protocol, port, differentiated services code point (DSCP) / IP precedence, TCP/UDP source and destination ports, 802.1p priority, Ethernet type, Internet control message protocol (ICMP) packets, IGMP packets, TCP flag. Supports up to 256 entries.



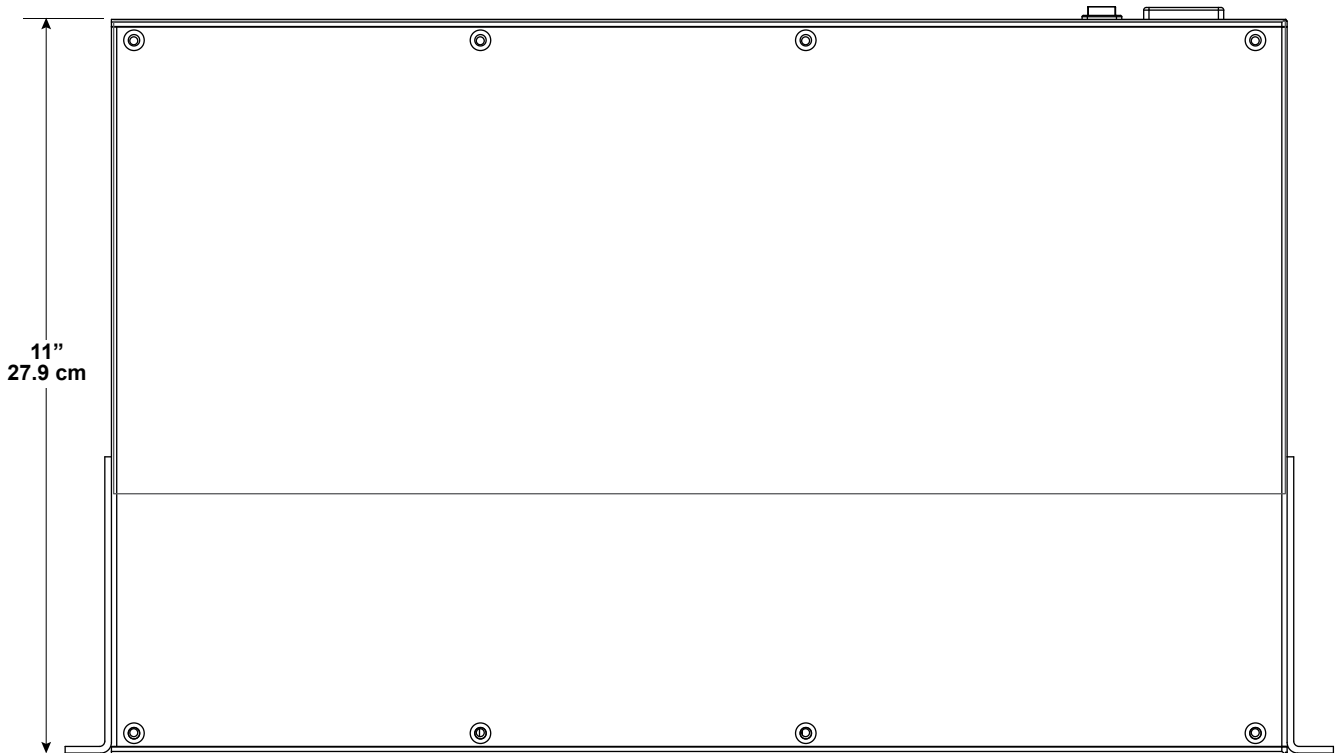
# Mechanical Drawings



Front View



Rear View

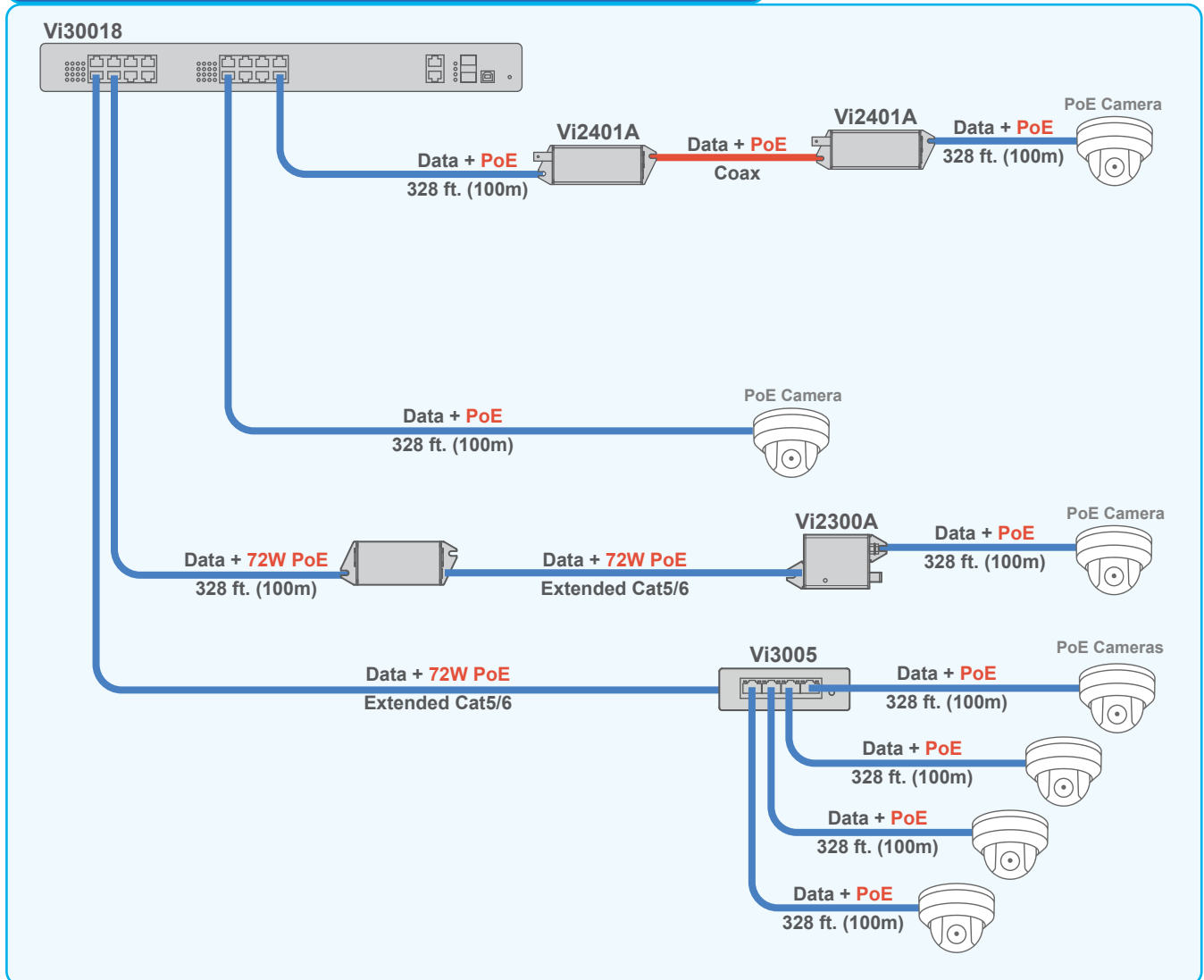


Top View

# Application Drawings



## Data and transmission over standard and extended UTP



The Vi30018 can transmit data and PoE up to 72W over standard UTP cables.