i-Vu® Building Automation System
IPS1-04
Managed IP Ethernet Switch

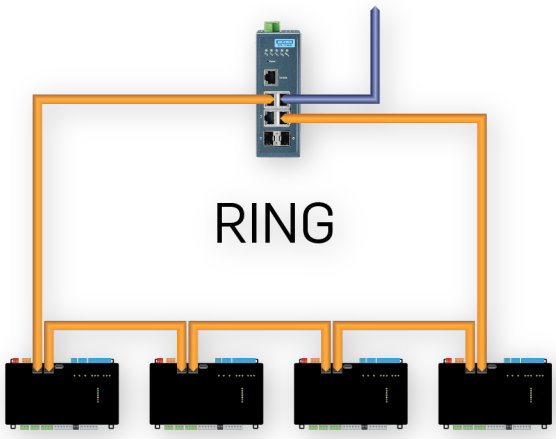


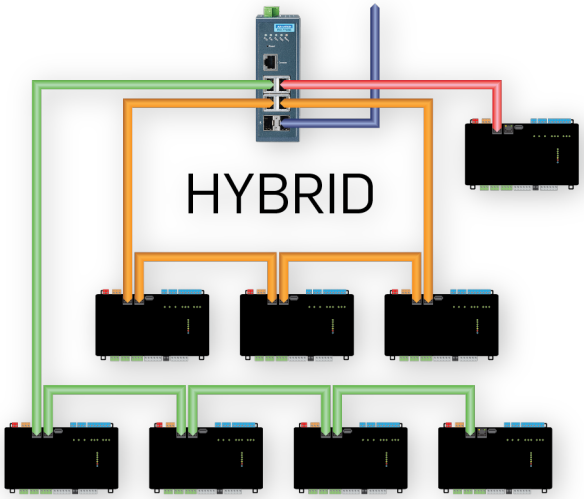
The IPS1-04 is ideal for implementing a ring or hybrid network with Carrier's TruVu™ dual IP controllers. The IPS1-04 features four gigabit Ethernet ports that support Rapid Spanning Tree Protocol (RSTP) for a completely redundant network connection. Rugged construction and din rail mounting make it well suited for panel installation in many HVAC applications.

Features

- 4 10/100 MB Ethernet ports + 2 SFP ports
- SFP socket for easy and flexible fiber expansion (optional accessory)
- Redundancy: X-Ring Pro (ultra high-speed recovery time < 20 ms), RSTP/STP (802.1w/1D)
- IXM function enables fast deployment
- Security: 802.1x (Port-based, MD5/TLS/TTLS/PEAP encryption), RADIUS
- Management: SNMP v1/v2c/v3, WEB, Telnet, standard MIB, private MIB
- -10 ~ 60 °C (14 ~ 140 °F) operating temperature
- Dual 12~48 VDC power input and 1 relay output for power failure notification
- 4 Ethernet ports support auto negotiation, MDI/MDI-X function, Full/Half duplex
- Supports security pack to fight against internal and external cyber threats
- Store and forward

Suggested Network Topologies





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Specifications

Interface
I/O Port: 4 x 10/100/1000BASE-T/TX RJ-45
2 x SFP (mini-GBIC) port
Console port: RS-232 (RJ45)
Power Connector: 6-pin screw terminal block (including relay)

Physical
Enclosure: Metal Shell
Protection Class: IP 30
Installation: DIN-Rail
Switch Fabric Speed: 12Gbps
Jumbo Frame: 9,216Bytes
Dimensions (W x H x D): 43 x 120 x 84 mm (1.69" x 4.72" x 3.31")

LED Display
System LED: PWR1, PWR2, SYS, Alarm and R.M.
Port LED: Link / Speed / Activity

Environment
Operating Temperature: -10 ~ 60 °C (14 ~ 140 °F)
Storage Temperature: -40 ~ 85 °C (-40 ~ 185 °F)
Ambient Relative Humidity: 10 ~ 95% (non-condensing)
Humidity: 10 ~ 95% (non-condensing)

Power
Power Consumption: 5.28W @ 48VDC (System)
Power Input: 12~48 VDC, redundant dual power input
Fault Output: 1 Relay Output 1A @ 24VDC Max
Reverse polarity protection: Supported
Overload current protection: Supported

QoS
Priority Queue: WRR (Weighted Round Robin), SP (Strict Scheduling Priority) hybrid priority
Class of Service: IEEE 802.1p based CoS, IP TOS, DSCP based CoS
Rate Limiting: Ingress rate limit, egress rate limit
Link Aggregation: IEEE 802.3ad dynamic port trunking, static port trunking

Certification
EMI: CE, FCC Class A
Safety: UL 61010, EN LVD 62368-1
EMC: EN 61000-4-2
EN 61000-4-3
EN 61000-4-4
EN 61000-4-5
EN 61000-4-6
EN 61000-4-8
Shock: IEC 60068-2-27
Freefall: IEC 60068-2-32
Vibration: IEC 60068-2-6
Railway Trackside: EN 50121-4

L2 Features
L2 MAC Address: 8K
Packet Buffer: 4.1 Mbit
VLAN Group: 256 (VLAN ID 1~4094)
VLAN Arrange: Tag-based VLAN, Q-in-Q (VLAN Stacking), GVRP
Port Mirroring: Per port, multi-source port
IP Multicast: IGMP snooping v1/v2/v3, MLD Snooping, IGMP immediate leave
Storm Control: Broadcast, multicast, unknown unicast
Redundancy: IEEE 802.1D-STP, IEEE 802.1s-MSTP, IEEE 802.1w-RSTP, X-Ring Pro, with ultra high-speed recovery time less than 20ms
IEEE Standard: 802.3, 802.3u, 802.3ab, 802.3x, 802.3z, 802.1D, 802.1w, 802.1p, 802.1Q, 802.1x, 802.3ad

Security
Port Security: Static, Dynamic IP Source Guard, ARP Spoofing Prevention, Access Control List, DHCP Snooping
Authentication: 802.1x (Port-Based, MD5/TLS/TTLS/PEAP Encryption), TACACS+

Management
DHCP: Client, server, option 66/67/82
Access: SNMP v1/v2c/v3, WEB, Telnet, RMON, standard MIB, private MIB
Security access: SSH2.0, SSL
Software upgrade: TFTP, HTTP, dual image
NTP: SNTP client

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