

IES-2050A



ORing WEB-site

Industrial 5-port slim type lite-managed Ethernet switch with 5x10/100Base-T(X)

Features

- World's fastest Redundant Ethernet Ring: O-Ring (recovery time < 10ms over 250 units of connection)
- O-Chain allow multiple redundant network rings
- Provided Fast recovery technology for Ethernet multi-redundancy
- Support STP/RSTP standard redundant protocol
- SNMP v1/v2c/v3, http server, telnet server support
- Support LLDP protocol
- Web-based interface, telnet server and Windows utility (Open-Vision) configuration
- Event notification through Syslog, Email, SNMP trap and relay
- Provided Web / Windows Utility / DIP-Switch function to set Ring
- Rigid IP-30 housing design
- DIN-Rail and wall mounting enabled



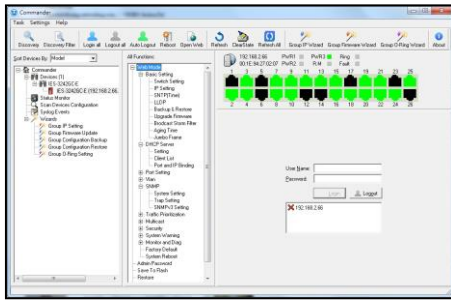
Introduction

IES-2050A is a lite-managed Ethernet switch. With very compact size of housing, you can install IES-2050A easily. In addition, it also supports of Ethernet Redundancy protocol, O-Ring (recovery time < 10ms over 250 units of connection), O-Chain and STP/RSTP (IEEE802.1w/D) can protect your mission-critical applications from network interruptions or temporary malfunctions with its fast recovery technology. IES-2050A provides the setting ability of Web-GUI and Windows Utility, also support the simple DIP-Switch setting function which offer great flexibility to set up the Ring. IES-2050A is with rigid IP-30 housing design and can operate under harsh environment. The feature of wide operating temperature ranges from -40°C to 75°C can satisfy most requirement of operation.

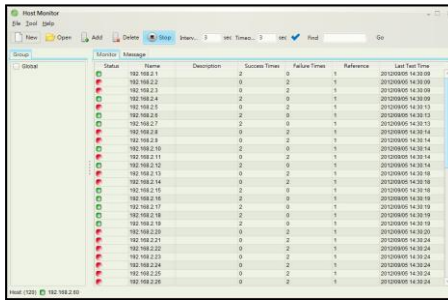
- **O-Ring:** O-Ring is ORing's proprietary redundant ring technology, with recovery time of less 10 milliseconds and up to 250 nodes. The O-Ring redundant ring technology can protect mission-critical application from network interruptions or temporary malfunction with its fast recover technology.
- **O-Chain:** O-Chain is the revolutionary network redundancy technology that provides the add-on network redundancy topology for any backbone network, O-Chain allows multiple redundant network rings of different redundancy protocols to join and function together as a larger and more robust compound network topology. O-Chain providing ease-of-use while maximizing fault-recovery swiftness, flexibility, compatibility, and cost-effectiveness in one set of network redundancy topology.

Open-Vision

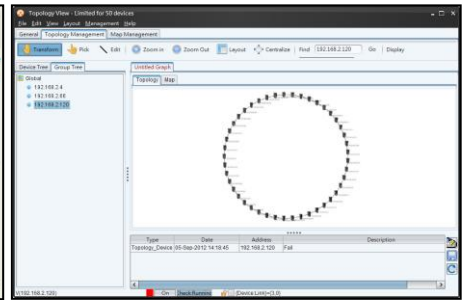
ORing's switches are intelligent switches. Different from other traditional redundant switches, ORing provides a set of Windows Utility (Open-Vision) for user to manage and monitor all industrial Ethernet switches on the industrial network.



Commander



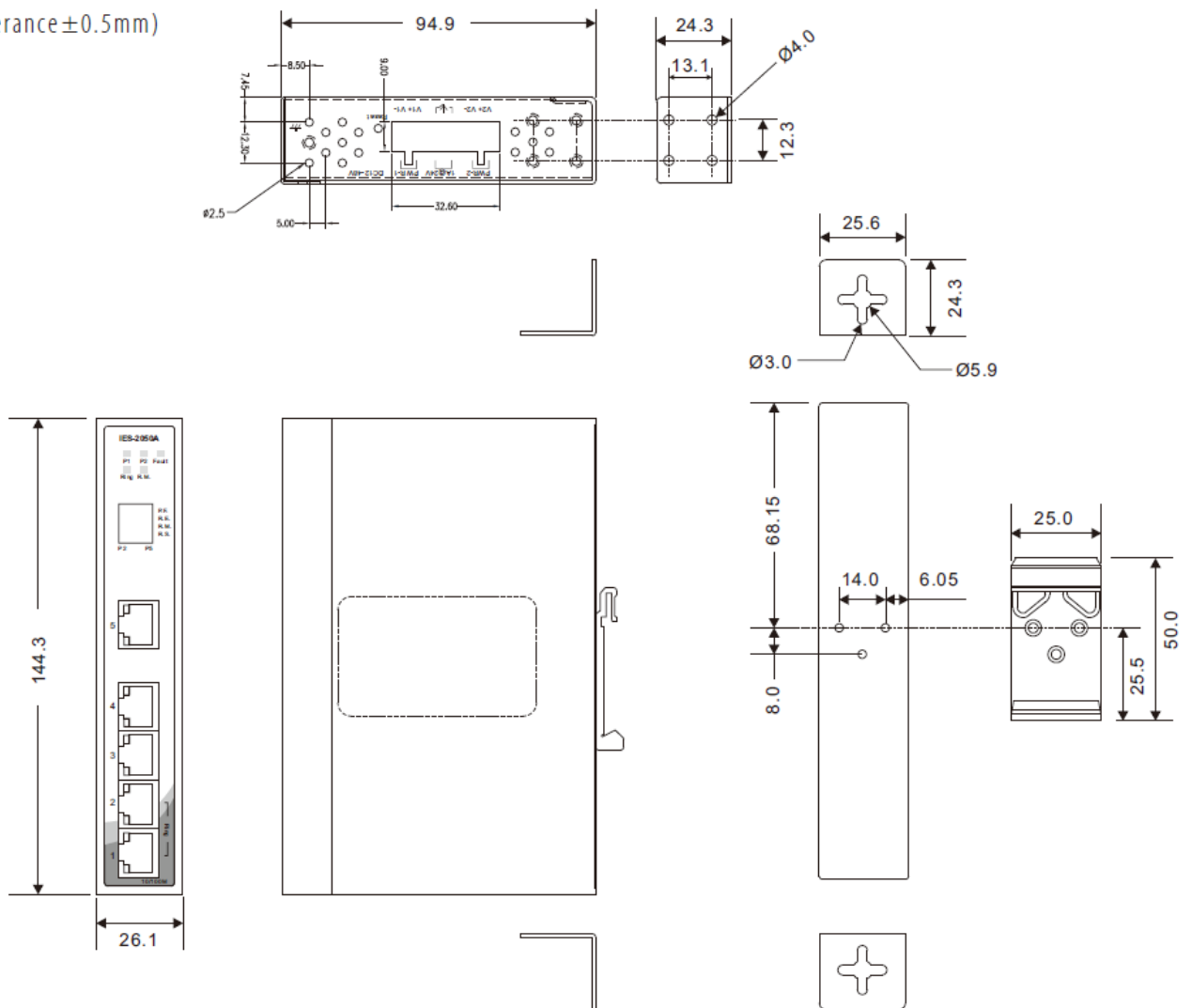
Host Monitor



Topology View

Dimensions

Unit = mm (Tolerance ±0.5mm)



Specifications

ORing Switch Model	IES-2050A
Physical Ports	
10/100Base-T(X) Ports in RJ45 Auto MDI/MDIX	5
Technology	
Ethernet Standards	IEEE 802.3 for 10Base-T IEEE 802.3u for 100Base-TX IEEE 802.3x for Flow control IEEE 802.1D for STP (Spanning Tree Protocol) IEEE 802.1w for RSTP (Rapid Spanning Tree Protocol) IEEE 802.1AB for LLDP (Link Layer Discovery Protocol)
MAC Table	2K
Packet Buffer Size	1Mbits
Priority Queues	4
Processing	Store-and-Forward
Switch Properties	Switching latency: 8.94 μ s Switching bandwidth: 1Gbps Throughput (packet per second): 744Kpps@64Bytes packet VLAN: Port based
Security Features	Enable/disable ports VLAN to segregate and secure network traffic
Software Features	STP/RSTP (IEEE 802.1D/w) Redundant Ring (O-Ring) with recovery time less than 10ms over 250 units DHCP Client Port Base VLAN LLDP (Link Layer Discovery Protocol) Port configuration, status, statistics, monitoring, security SNMP v1/v2c/v3 and private MIB support
Network Redundancy	O-Ring O-Chain Fast recovery RSTP/STP
DIP-Switch Setting	
P.F.	When power fault enables relay warning system (On: Enable, Off: Disable function)
R.E.	Enable/Disable O-Ring function (On: Enable, Off: Disable)
R.M.	Enable/Disable Ring Master Mode (On: Enable, Off: Disable)
R.S.	O-Ring redundant port select (On: ring port set to port-1 and port-5, Off: ring port set to port-1 and port-2)
LED Indicators	
Power Indicator (PWR)	Green: Power LED x 2
Ring Master Indicator (R.M.)	Green: Indicates that the system is operating in O-Ring Master mode
O-Ring Indicator (Ring)	Green: Indicates that the system operating in O-Ring mode Green Blinking: Indicates that the Ring is broken.
Fault Indicator (Fault)	Amber: Indicate unexpected event occurred
10/100Base-T(X) RJ45 Port Indicator	Green for Link/Act indicator: On for link-up, Off for link-down, Blinking for act. Amber for Duplex/Collision indicator: On for Full-duplex, Off for Half-duplex, Blinking for Half-duplex and collision occurred.
Fault Contact	
Relay	Relay output to carry capacity of 1A at 24VDC
Reset Function	
Reset Button	< 5 sec: System reboot, > 5 sec: Factory default
Power	
Redundant Input Power	Dual DC inputs, 12~48VDC on 6-pin terminal block
Power Consumption (Typ.)	≤6Watts, 12-48VDC/0.5A-0.12A