IES-A3162GC

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❱❱ *Industrial C1D2/ATEX 18-port managed Ethernet switch with 16x10/100Base-T(X) and 2xGigabit combo ports, SFP socket*

Features

- C1D2 and ATEX compliant for harsh industrial environments application
- World's fastest Redundant Ethernet Ring: O-Ring (recovery time < 10ms over 250 units of connection)
- Open-Ring support the other vendor's ring technology in open architecture
- O-Chain allow multiple redundant network rings
- Support standard IEC 62439-2 MRP*NOTE (Media Redundancy Protocol) function
- STP/RSTP:2004/MSTP supported
- Support IPv6 new internet protocol version
- Support PTP Client (Precision Time Protocol) clock synchronization
- Provided HTTPS/SSH protocol to enhance network security
- Support Modbus/TCP protocol
- IGMP v2/v3 (IGMP snooping for support) filtering multicast traffic
- Port Trunking for easy of bandwidth management
- SNMP V1/V2c/V3 support for secured network management
- RMON for traffic monitoring
- Support LLDP protocol
- Support TACACS+ and 802.1x User Authentication for security
- Event notification through Syslog, Email, SNMP trap, and Relay Output
- Port lock to prevent access from unauthorized MAC address
- Windows utility (Open-Vision) support centralized management and configurable by Web-based ,Telnet, Console (CLI)
- Support two Gigabit combo ports
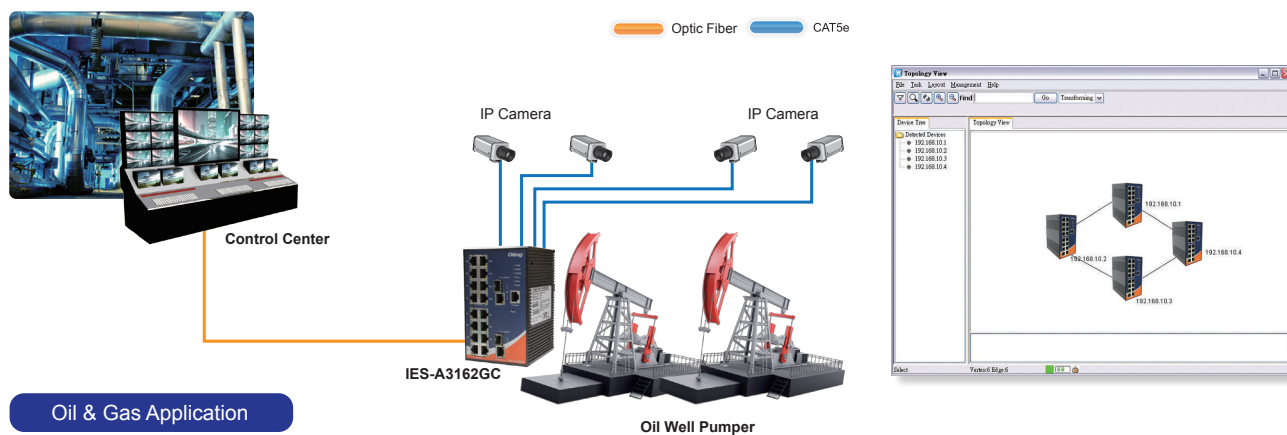- Rigid IP-30 housing design
- DIN-Rail and wall mounting enabled

Introduction

IES-A3162GC is managed Redundant Ring Ethernet switch with 16x10/100Base-T(X) ports and 2xgigabit combo ports which is specifically designed for the C1D2/ATEX certified with hazardous locations requirement. With completely support of Ethernet Redundancy protocol, O-Ring (recovery time < 10ms over 250 units of connection), Open-Ring, O-Chain, MRP*NOTE and MSTP/RSTP:2004/STP (IEEE 802.1s/w/D) can protect your mission-critical applications from network interruptions or temporary malfunctions with its fast recovery technology. Another Open-Ring technology is also supported which can applied for other vendor's proprietary ring. 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. All function of IES-A3162GC can be managed centralized and convenient by a powerful windows utility — Open-Vision. In addition, the wide operating temperature range from -40 to 70°C can satisfy most of operating environment. Therefore, the switch is one of the most reliable choice for highly-managed and Fiber Ethernet in hazardous location application.

*NOTE: This function is available by request only

Industrial Ethernet Switch

Industrial Media Converter

Industrial Device Server

Industrial Wireless Access Point

Industrial Cellular VPN Router

Industrial M2M Gateway

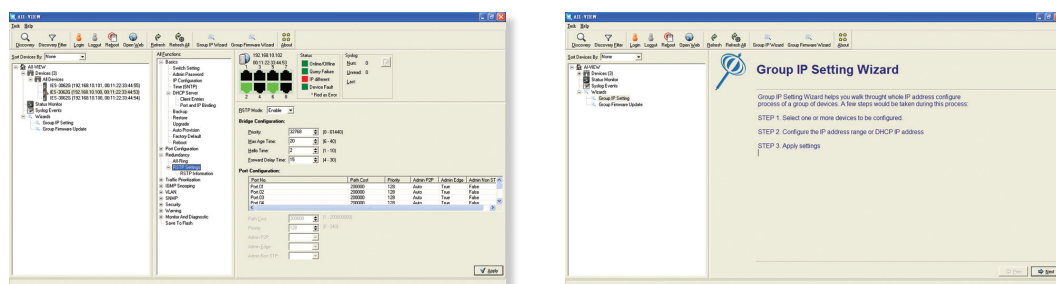Accessories

Network Management Software

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 of industrial Ethernet switches on the industrial network.
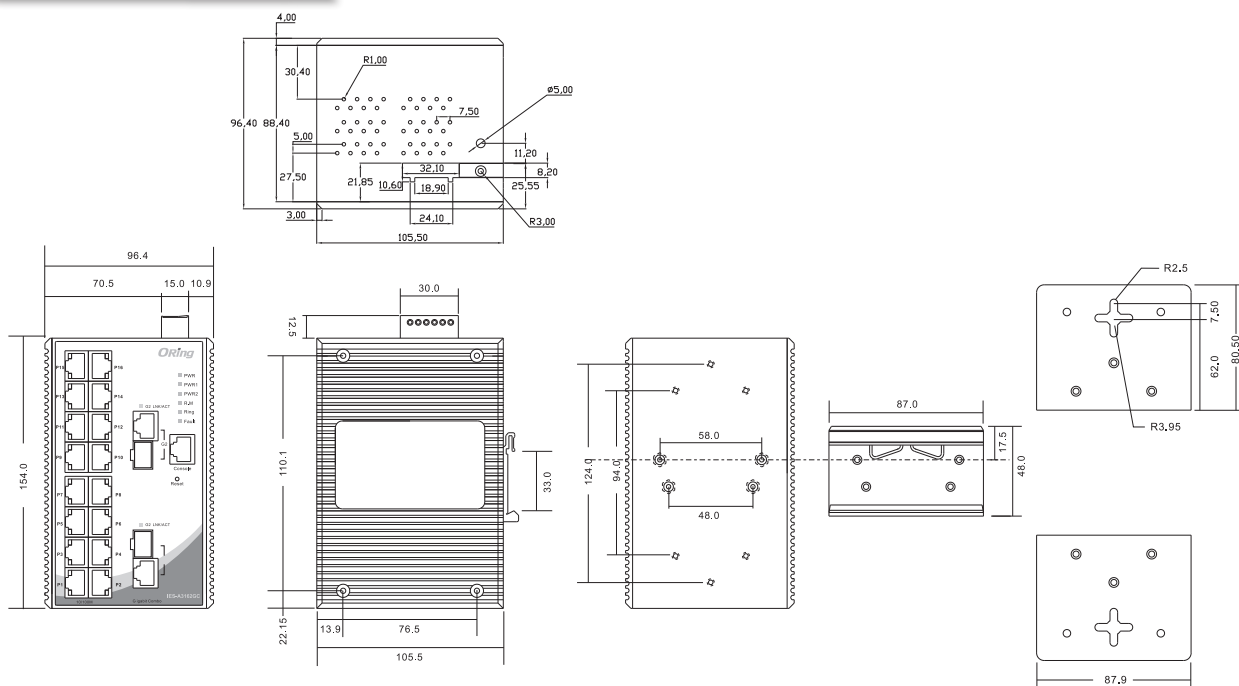
Optic Fiber   CAT5e

IP Camera   IP Camera

Control Center

IES-A3162GC

Oil & Gas Application

Oil Well Pumper

Network connection

Topology View

Monitoring and Configuration interface

Dimensions

(Unit=mm)

Specifications

ORing Switch Model	IES-A3162GC
Physical Ports	
10/100 Base-T(X) Ports in RJ45	16
Auto MDI/MDIX	2
Technology	
Ethernet Standards	IEEE 802.3 for 10Base-T IEEE 802.3u for 100Base-TX and 100Base-FX IEEE 802.3z for 1000Base-X IEEE 802.3ab for 1000Base-T IEEE 802.3x for Flow control IEEE 802.3ad for LACP (Link Aggregation Control Protocol) IEEE 802.1D for STP (Spanning Tree Protocol) IEEE 802.1D-2004 for RSTP:2004 (Rapid Spanning Tree Protocol 2004) IEEE 802.1w for RSTP (Rapid Spanning Tree Protocol) IEEE 802.1s for MSTP (Multiple Spanning Tree Protocol) IEEE 802.1p for COS (Class of Service) IEEE 802.1Q for VLAN Tagging IEEE 802.1x for Authentication IEEE 802.1AB for LLDP (Link Layer Discovery Protocol)
MAC Table	8192 MAC addresses
Priority Queues	4
Processing	Store-and-Forward
Switch Properties	Switching latency: 9 us Switching bandwidth: 7.2Gbps Max. Number of Available VLANs: 4096 IGMP multicast groups: 1024 Port rate limiting: User Define
Security Features	Enable/disable ports, MAC based port security Port based network access control (802.1x) VLAN (802.1Q) to segregate and secure network traffic Supports Q-in-Q VLAN for performance & security to expand the VLAN space Radius centralized password management SNMP V1/V2c/V3 encrypted authentication and access security HTTPS/SSH enhance network security
Software Features	STP/RSTP/MSTP (IEEE 802.1D/w/s) Redundant Ring (O-Ring) with recovery time less than 10ms over 250 units TOS/Diffserv supported Quality of Service (802.1p) for real-time traffic VLAN (802.1Q) with VLAN tagging and GVRP supported IGMP Snooping for multicast filtering Port configuration, status, statistics, monitoring, security SNTP for synchronizing of clocks over network Support PTP Client (Precision Time Protocol) clock synchronization DHCP Server / Client support Port Trunk support MVR (Multicast VLAN Registration) support Modbus TCP
Network Redundancy	O-Ring Open-Ring O-Chain MRP**NOTE** STP / RSTP:2004 / MSTP
Warning / Monitoring System	Relay output for fault event alarming Syslog server / client to record and view events Include SMTP for event warning notification via email Event selection support
RS-232 Serial Console Port	RS-232 in RJ45 connector with console cable. 9600bps, 8, N, 1
LED indicators	
Power indicator	Green : Power LED x 3
R.M. Indicator	Green : Indicate system operated in O-Ring master mode
O-Ring Indicator	Green : Indicate system operated in O-Ring mode
Fault lindicator	Amber : Indicate unexpected event occurred
10/100Base-T(X) RJ45 port Indicator	Green for port Link/Act. Amber for Duplex/Collision

*NOTE: This function is available by request only

10/100/1000Base-T(X) RJ45 Port Indicator	Green for port Link/Act. Amber for 100Mbps indicator
100/1000Base-X SFP Port Indicator	Green for port Link/Act.
Fault contact	
Relay	Relay output to carry capacity of 1A at 24VDC
Power	
Redundant Input Power	Dual DC inputs. 12 ~ 48VDC on 6-pin terminal block
Power Consumption (Typ.)	12 Watts
Overload Current Protection	Present
Reverse Polarity Protection	Present on terminal block
Physical Characteristic	
Enclosure	IP-30
Dimension (W x D x H)	96.4(W)x108.5(D)x154(H) mm (3.8 x 4.27 x 6.06 inch)
Weight (g)	1220g
Environmental	
Storage Temperature	-40 to 85°C (-40 to 185°F)
Operating Temperature	-40 to 70°C (-40 to 158°F)
Operating Humidity	5% to 95% Non-condensing
Regulatory approvals	
EMC	EN 55022, EN 55024(CE EMC), FCC, EN 61000-6-2, EN 61000-6-4,IEC 61000-3-2 ,IEC 61000-3-3
EMI	CISPR 22, EN 55011, FCC Part 15B Class A
EMS	EN 61000-4-2 (ESD), EN 61000-4-3 (RS), EN 61000-4-4 (EFT), EN 61000-4-5 (Surge), EN 61000-4-6 (CS),
EN 61000-4-8 (PFMF), EN 61000-4-11 (DIP)	-40 to 70°C (-40 to 158°F)
Shock	IEC60068-2-27
Free Fall	IEC 60068-2-31 (IEC 60068-2-32)
Vibration	IEC60068-2-6
Safety	EN60950-1, UL/cUL Class 1 Division 2 Group A/B/C/D, ATEX Class 1 Zone 2
Warranty	5 years

Ordering Information

IES-A3 AA B CC

Code Definition	10/100Base-T(X) Port Number	Additional Port Number	Additional Port Type
Option	**- 16:** 16 ports	**- 2:** 2 ports	**- GC:** Gigabit combo port

Available Model	Model Name	Description
	IES-A3162GC	Industrial C1D2/ATEX 18-port managed Ethernet switch with 16x10/100Base-T(X) and 2xGigabit combo ports, SFP socket

Packing List
- IES-A3162GC x 1
- DIN-Rail Kit x 1
- ORing Tool CD x 1
- Wall-mount Kit x 2
- Quick Installation Guide x 1
- Console Cable x 1

Optional Accessories (Can be purchased separately)
- Open-Vision M500 : Powerful Network Management Windows Utility Suit, 500 IP devices
- DR-45 series : 45 Watts DIN-Rail power supply
- DR-120 series : 120 Watts DIN-Rail power supply
- SFP100 series : 100Mbps SFP optical transceiver
- SFP 1G series : 1Gbps SFP optical transceiver
- DR-75 series : 75 Watts DIN-Rail power supply

Mouser Electronics

Authorized Distributor

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ORing:
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