# **IES-2050-M12**

Fastest Redundant Ethernet Ring : O-Ring (recovery time < 10ms over 250 units of connection)</li>

• **Open-Ring** support the other vendor's ring technology in open architecture

Multiple Redundant Ethernet technology RSTP/STP, O-Ring supported to

Configurable by Web-based and Windows utility (Open-Vision)

- Environmentally sealed by IP-67 grade protection and ultrarugged enclosure

• **O-Chain** support the multiple redundant ring technology

SNMP v1/v2c/v3 support for secured network management

• Event notification through Syslog, Email, and SNMP trap

Waterproof M12 connector (A-coding)

protect your industrial network

Supports 5 ports 10/100Base-T(X)

for toughest industrial usages

- DIN-Rail and wall mounting enabled



v1.6 / Dec, 2011

Network

> Industrial 5-port lite-managed Ethernet switch with 5x10/100Base-T(X), M12 connector, IP-67 grade

> (EFCC

#### Introduction

Support LLDP Protocol

**Features** 

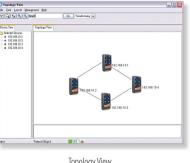
IES-2050-M12 is a waterproof lite-managed redundant ring Ethernet switch with 5x10/100Base-T(X) ports which is full compliant with IP-67 standard. With complete support of Ethernet redundancy protocol, Open-Ring, O-Chain and STP/RSTP(IEEE802.1w/D) can protect your mission-critical applications from network interruptions or temporary malfunctions with its fast recovery technologies. It is specifically designed for the toughest industrial environments. In combination with its IP-67 design and the superb management functionalities. IES-2050-M12 is constructed of a rugged aluminum case and designed with IP-67 rated RJ45 Ethernet ports (M12 type connector), which provide a waterproof, and dust-tight connection. IES-2050-M12 can be managed centralized 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. The IES-2050-M12 can be easily adopted in almost all kinds of applications and provides the most rugged solutions for managing your network in outdoor. Therefore, IES-2050-M12 is one of the most reliable choices for industrial networking applications.

#### **Open-Vision**

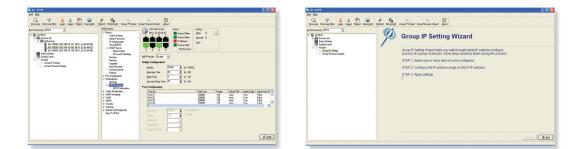
ORing's switches are intelligent switches. Being different from other traditional redundant switches, ORing provides a set of Windows utility (**Open-Vision**) for users to manage and monitor all of industrial Ethernet switches on the industrial network.



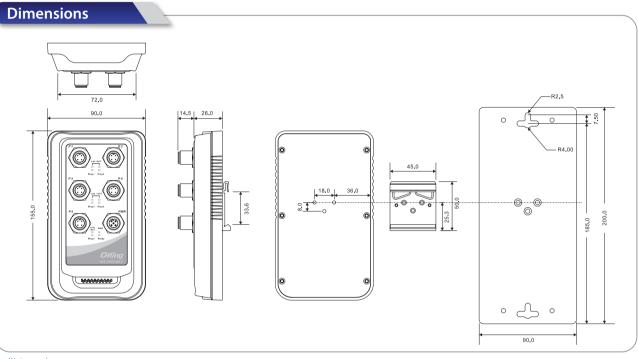
Network connection



**Topology View** 



Monitoring and Configuration interface



(Unit=mm)

### Specifications

ORing Switch Model	IES-2050-M12
Physical Ports	
10/100 Base-T(X) Ports in RJ45 Auto MDI/MDIX	5
Connector Type	M12 Waterproof (A-coding)
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	2048 MAC addresses
Priority Queues	4
Processing	Store-and-Forward
Switch Properties	Switching Dandwidth : 1.0Gbps VLAN: Port Based
Security Features	Enable/Disable ports VLAN to segregate and secure network traffic SNMPv3 encrypted authentication and access security
Software Features	STP/RSTP (IEEE 802.1D/w) Redundant Ring (O-Ring) with recovery time less than 10ms over 250 units Port configuration, status, statistics, monitoring, security

Industrial Ethernet Switch

Industrial Media Converter

Industrial Device Server

Industrial Wireless Access Point

Industrial Cellular VPN Router

Industrial M2M Gateway

Accessories

Network Management Softwae

were Indicator         Green: Power LED x 1           add / Ring Master Indicator         Amber LED : Light on firs system ready Light of firs system ready Light of firs system faile           Ring Indicator         Amber : Indicate port operated in 0-Ring mode (per port)           VTODBASE-T(X) R45 Port Indicator         Green Power LED x 1           power         Term Power LED x 1           put Power         12-48 VDC power input           mencor Type         M12 Waterpoof (A-coding)           wer Consumption (Typ.)         3 Watts           ver Consumption (Typ.)         3 Watts           ver Consumption (Typ.)         3 Watts           ver Consumption (Typ.)         9 Work 0.5(D) x 155(H) mm (3.54x159x6.1 inch.)           ver Consumption (Typ.)         9 Work 0.5(D) x 155(H) mm (3.54x159x6.1 inch.)           reling femperature <th>Network Redundancy</th> <th>O-Ring</th> <th>Open-Ring</th> <th>0-Chain</th> <th>Fast recovery</th> <th>STP</th> <th>RSTP</th>	Network Redundancy	O-Ring	Open-Ring	0-Chain	Fast recovery	STP	RSTP	
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Image: fety         EN60950-1           TBF (Hours) (MIL-HDBK-217F2, GB, GC, 25°C)         662,177	Free Fall	IEC60068-2	IEC60068-2-32					
TBF (Hours) (MIL-HDBK-217F2, GB, GC, 25°C)         662,177	Vibration	IEC60068-2	IEC60068-2-6					
	Safety	EN60950-1						
arranty 5 years	MTBF (Hours) (MIL-HDBK-217F2, GB, GC, 25°C)	662,177	662,177					
	Warranty	5 years	5 years					

## **Ordering Information**

# IES-2 AAB-M12

	Code Definition	10/100Base-T(X) Port Number	Additional Port Number				
Option		- <b>05:</b> 5 ports	- <b>0:</b> 0 ports				
Available	Model Name	Description					
Model	IES-2050-M12	Industrial 5-port lite-managed Ethernet switch with 5x10/100Base-T(X), M12 connector, IP-67 grade					
Packing List • IES-2050-M12 • DIN-Rail Kit • Wall-mount Ki • ORing Tool CD • Quick Installati	it	Optional Accessories (Can be purchased separately) <ul> <li>Open-Vision M500, Powerful network management windows Utility Suite, 500 IP devices</li> <li>DR-45 series, 45W DIN-Rail power supply</li> <li>DR-75 series, 75W DIN-Rail power supply</li> <li>DR-120 series, 120W DIN-Rail power supply</li> <li>SDR-240-48, 240W DIN-Rail power supply</li> <li>SDR-480-48, 480W DIN-Rail power supply</li> <li>M12C series, Cables with M12 connectors</li> </ul>					