# **DES-3082GP-P**



Industrial 10-port desktop managed Ethernet switch with 8x10/100Base-T(X) and 2x100/1000Base-X, SFP socket, power supply included

#### **Features**

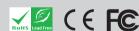
- World's fastest Redundant Ethernet Ring: O-Ring (recovery time < 10ms over 250 units of connection)
- Open-Ring support the other vendor's ring technology in open architecture
- 0-Chain allow multiple redundant network rings
- Support standard IEC 62439-2 MRP\*NOTE (Media Redundancy Protocol) function
- 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 support) for filtering multicast traffic
- Support QoS (IEEE 802.1p and TOS/DiffServ) to increase determinism
- 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
- Port lock to prevent access from unauthorized MAC address
- Event notification through Syslog, Email, SNMP trap, and Relay Output
- Windows utility (Open-Vision) support centralized management and configurable by Web-based ,Telnet, Console(CLI)
- Rigid IP-30 housing design













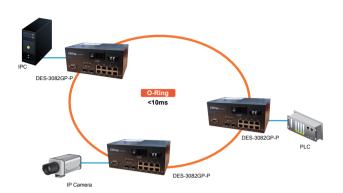


#### Introduction

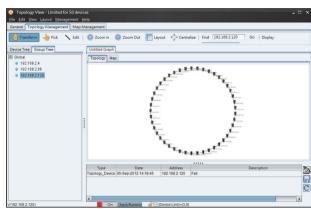
DES-3082GP-P is desktop managed Redundant Ring Ethernet switch with 8x10/100Base-T(X) and 2x100/1000Base-X SFP ports. With completely support of Ethernet Redundancy protocol, O-Ring (recovery time < 10ms over 250 units of connection), Open-Ring, O-Chain and MSTP/RSTP:2004/STP (IEEE 802.1s/w/D) can protect 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 faultrecovery swiftness, flexibility, compatibility, and cost-effectiveness in one set of network redundancy topology. All function of DES-3082GP-P 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 choices for highly-managed Fiber Ethernet application.

### **Open-Vision**

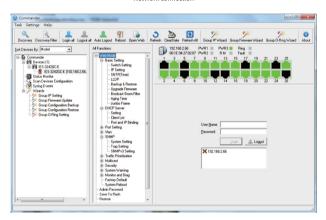
ORing's switches are intelligent switches. Different from other traditional redundant switches, Oring provides a set of Windows utility (Open-Vision) for user to manage and monitor all of industrial Ethernet switches on the industrial network.



Network connection

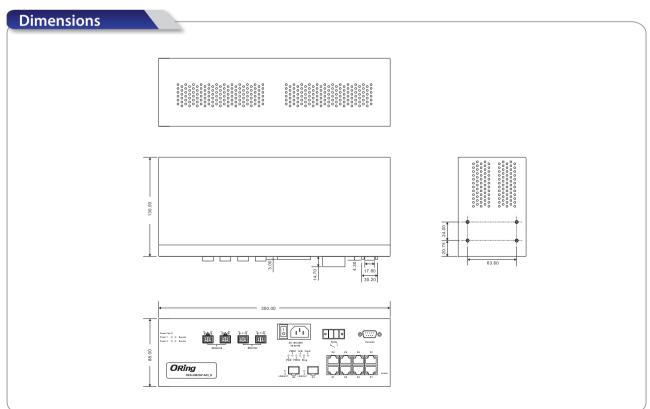


Topology View





Monitoring and Configuration interface



(Unit—mm

# Specifications

| ORing Switch Model                          | lel DES-3082GP-P   |  |  |  |  |
|---|--|--|--|--|--|
| Physical Ports                              |  |  |  |  |  |
| 10/100 Base-T(X) Port in RJ45 Auto MDI/MDIX | 8  |  |  |  |  |
| 100/1000Base-X SFP Port                     | 2  |  |  |  |  |
| Technology                                  |  |  |  |  |  |
| Ethernet Standards                          | IEEE 802.3 for 10Base-T IEEE 802.3u for 100Base-TX IEEE 802.3z for 1000Base-X IEEE 802.3ab for 1000Base-T IEEE 802.3ab for 1000Base-T IEEE 802.3x for Flow control IEEE 802.3x for Flow control IEEE 802.1p for COS (Class of Service) IEEE 802.10 for VLAN Tagging IEEE 802.10 for STP (Spanning Tree Protocol) IEEE 802.1D for STP (Spanning Tree Protocol) IEEE 802.1v for RSTP (Rapid Spanning Tree Protocol) IEEE 802.1s for MSTP (Multiple Spanning Tree Protocol) 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: 7 us Switching bandwidth: 5.6Gbps 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                           | P/RSTP:2004/MSTP (IEEE 802.1D/w/s) dundant Ring (0-Ring) with recovery time less than 10ms over 250 units odbus/TCP supported S supported S/Diffserv supported ality of Service (802.1p) for real-time traffic AN (802.10) with VLAN tagging and GVRP supported MP Snooping for multicast filtering rt configuration, status, statistics, monitoring, security TP for synchronizing of clocks over network pport PTP Client (Precision Time Protocol) clock synchronization CCP Server / Client support rt Trunk support rt Trunk support r(Multicast VLAN Registration) support |  |  |  |  |
| Network Redundancy                          | O-Ring Open-Ring O-Chain MRP*NOTE STP/RSTP:2004/MSTP   |  |  |  |  |
| Warning / Monitoring System                 | Relay output for fault event alarming<br>Syslog server / client to record and view events<br>Include SMTP for event warning notification via email<br>Event selection support  |  |  |  |  |
| RS-232 Serial Console Port                  | RS-232 in DB9 connector with console cable. 9600bps, 8, N, 1   |  |  |  |  |
| LED Indicators                              |  |  |  |  |  |
| Power Indicator                             | Green: Power LED x 1   |  |  |  |  |
| Status Indicator (Status)                   | Green: Power LED x 1   |  |  |  |  |
| R.M. Indicator (R.M)                        | Green: Indicate system operated in O-Ring master mode  |  |  |  |  |

<sup>\*</sup>NOTE: This function is available by request only

| O-Ring Indicator (Ring)   | Green : Indicate system operated in O-Ring mode  |  |  |  |  |  |
|---|--|--|--|--|--|--|
| Fault Indicator (Fault)   | Green for port Link/Act. Amber for Duplex/Collision  |  |  |  |  |  |
| 10/100Base-T(X) RJ45 Port Indicator   | Green for port Link/Act. Amber for Duplex/Collision  |  |  |  |  |  |
| 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   | Input Power One 100~240VAC with power cord   |  |  |  |  |  |
| Power Consumption (Typ.)  | 9 Watts  |  |  |  |  |  |
| Overload Current Protection   | Protection Present   |  |  |  |  |  |
| Physical Characteristic   |  |  |  |  |  |  |
| Enclosure   | IP-30  |  |  |  |  |  |
| Dimension (W x D x H)   | 200 (W) x 130 (D) x 88(H) mm (7.87 x 5.12 x 3.46 inch)   |  |  |  |  |  |
| Weight (g)  | 1385 g   |  |  |  |  |  |
| Environmental   |  |  |  |  |  |  |
| Environmental   |  |  |  |  |  |  |
| Storage Temperature   | -40 to 85°C (-40 to 185°F)   |  |  |  |  |  |
|   | -40 to 85°C (-40 to 185°F)<br>-40 to 70°C (-40 to 158°F)   |  |  |  |  |  |
| Storage Temperature   |  |  |  |  |  |  |
| Storage Temperature Operating Temperature   | -40 to 70°C (-40 to 158°F)   |  |  |  |  |  |
| Storage Temperature Operating Temperature Operating Humidity  | -40 to 70°C (-40 to 158°F)   |  |  |  |  |  |
| Storage Temperature Operating Temperature Operating Humidity Regulatory approvals                                   | -40 to 70°C (-40 to 158°F)  5% to 95% Non-condensing   |  |  |  |  |  |
| Storage Temperature Operating Temperature Operating Humidity Regulatory approvals EMI                               | -40 to 70°C (-40 to 158°F)  5% to 95% Non-condensing  FCC Part 15, CISPR (EN55022) class A  EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8,  |  |  |  |  |  |
| Storage Temperature Operating Temperature Operating Humidity Regulatory approvals EMI EMS                           | -40 to 70°C (-40 to 158°F)  5% to 95% Non-condensing  FCC Part 15, CISPR (EN55022) class A  EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11   |  |  |  |  |  |
| Storage Temperature Operating Temperature Operating Humidity Regulatory approvals EMI EMS Shock                     | -40 to 70°C (-40 to 158°F)  5% to 95% Non-condensing  FCC Part 15, CISPR (EN55022) class A  EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11  IEC60068-2-27                              |  |  |  |  |  |
| Storage Temperature Operating Temperature Operating Humidity Regulatory approvals EMI EMS Shock Free Fall           | -40 to 70°C (-40 to 158°F)  5% to 95% Non-condensing  FCC Part 15, CISPR (EN55022) class A  EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11  IEC60068-2-27  IEC60068-2-32               |  |  |  |  |  |
| Storage Temperature Operating Temperature Operating Humidity Regulatory approvals EMI EMS Shock Free Fall Vibration | -40 to 70°C (-40 to 158°F)  5% to 95% Non-condensing  FCC Part 15, CISPR (EN55022) class A  EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11  IEC60068-2-27  IEC60068-2-32  IEC60068-2-6 |  |  |  |  |  |

# **Ordering Information**



| Code Definition  |                       | 10/100Base-T(X) Port Number |   | Additional Port Number   |  | Additional Port Type                 |  |
|--|-----------------------|-----------------------------|---|--|--|--------------------------------------|--|
| Option   | - <b>08</b> : 8 ports |                             |   | <b>- 2 :</b> 2 ports   |  | - <b>GP</b> : 100/1000BaseX SFP port |  |
| Available<br>Model   |                       | Model Name                  | Description   |  |  |                                      |  |
|  | DES-                  | DFN=3087(1P=P UN            |   | Industrial 10-port desktop managed Ethernet switch with 8x10/100Base-T(X) and 2x100/1000Base-X, SFP socket, power supply included, US power cord |  |                                      |  |
|  | DES-                  | -3082GP-P_EU                | Industrial 10-port desktop managed Ethernet switch with 8x10/100Base-T(X) and 2x100/1000Base-X, SFP socket, power supply included, EU power cord                                      |  |  |                                      |  |
| Packing List DES-3082GP-P Power Cable ORing Tool CD Quick Installation Guide |                       |                             | Optional Accessories (Can be purchased separately)  Open-Vision M500: Powerful Network  Management Windows Utility Suit, 500 IP devices  SFP 1G series: 1Gbps SFP optical transceiver |  |  |                                      |  |