# Clipsal Professional Active Series 

10/100 Mbps Fast Ethernet Switches Series<br>4- Ports Gigabit Switches<br>Media Converter Series



## PRODUCT FEATURES

- Complies with IEEE802.3u, 100Base-TX, IEEE802.3 10Base-T standards.
- 100Base-TX Fast Ethernet Switch.
- 24 port models, Filtering / Forwarding rate for 100 Mbps is 148800pps and that for 10Mbps is 14880pps.
- $802.3 x$ full-duplex flow control, half-duplex back-pressure flow-control to prevent packet lost for 16 \& 24 ports switches.


## CUSTOMER BENEFITS

- In the 24 ports model, users do not have to worry if the cable connected is a straight through or cross over cable.
- By using Store \& Forward technology, a faster error recovery rate can be achieved than if using cut-through technology. - Network Bandwidth will be optimised by eliminating erroneous packets through Runt and CRC filtering.


Model: 95ESW16P10/


Model:95ESW24P10/


Model:95ESW5P10/ (top) Model:95ESW8P10/ (bottom)

## 10/100 Mbps Fast Ethernet Switches Series

The Clipsal Datacomms 10/100 Base Switches Series is a simple, high-speed networking solution designed for growing businesses. It's powerful enough to support your needs. New applications provide outstanding network availability, and help ensure access to the network from anywhere. The 10/100 Base Switches Series lets you scale your network as your requirements change.
For the Clipsal Datacomms 5 and 8 port 10/100 Base Switches, the 'Easy to install and use', 'Compact-sized design' and 'Simple Troubleshooting' concepts provide a very cost effective series which offers 10/100 Mbps auto-negotiating full-duplexing Ethernet ports.
The LEDs on the front panel allow network administrators to inspect the network status and easily diagnose problems. In addition, the 24-port Switch provides MDI auto detection. The 10/100 Base Switches Series help administrators get rid of complicated switching management by providing simple and easy installation and administration.

TECHNICAL SPECIFICATIONS

| Model | 95ESW16P10/ | 95ESW24P10/ |
| :---: | :---: | :---: |
| Standard Compliance | IEEE 802.310 Base-T, IEEE 802.3 1 100 Base-TX | IEEE 802.310 Base-T, IEEE 802.3u 100 Base-TX |
| Ports | 16 | 24 |
| Network Speed | TP: Auto-Negotiation, 10/20Mbps, 100/200Mbps | TP: Auto-Negotiation, 10/20Mbps, 100/200Mbps |
| Switching Topology | Store \& Forward | Store \& Forward |
| Filtering/ Forwarding Rate | 100Mbps: 1488000 packets/second 10Mbps: 14880 packets/second | 100Mbps: 1488000 packets/second 10Mbps: 14880 packets/second |
| MAC entry | 8K-entry | 4K-entry |
| LED indicator/port | 3 (Link / Act, 100Mbps, FDX / COL) | 3 (Link / Act, 100Mbps, FDX / COL) |
| Data Buffer | 32 K per port | 32 K per port |
| Power Supply | 100-240VAC auto-sensing | 100-240VAC auto-sensing |
| Operation Environment | Temperature: 0-50 ${ }^{\circ} \mathrm{C}$ (0perating), $-30-70^{\circ} \mathrm{C}$ (Storage) Humidity: $0-90 \%$ non condensing (Operating and Storage) | Temperature: 0-50 ${ }^{\circ} \mathrm{C}$ (Operating), $-30-70^{\circ} \mathrm{C}$ (Storage) Humidity: $0-90 \%$ non condensing (Operating and Storage) |
| Dimensions (mm) | $400 \times 172 \times 45$ | $400 \times 172 \times 45$ |
| Network Media | 100 Base-TX: RJ45 STP/UTP, Category 5 Cable 10 Base-T: RJ45 STP/UTP Category 3-5 Cable | 100 Base-TX: RJ45 STP/UTP, Category 5 Cable 10 Base-T: RJ45 STP/UTP Category 3-5 Cable |
| Certification | FCC class A, CE, IISPR Class A VCCI-I | FCC class A, CE, CISPR Class A VCCI-I |
| Safety | UL,TUV/GS (EN60950) | UL,TUV/GS (EN60950) |


| Model | 95ESW5P10/ | 95ESW8P10/ |
| :---: | :---: | :---: |
| Standard Compliance | IEEE 802.310 Base-T, IEEE 802.3u 100 Base-TX | IEEE 802.310 Base-T, IEEE 802.3u 100 Base-TX |
| Ports | 5-STP | 8-STP |
| LED display | One for Power, Three for Speed Link / Active and FDX / COL per port | One for Power, Three for Speed Link / Active and FDX / COL per port |
| Dimensions (mm) | $171 \times 100 \times 28$ | $171 \times 100 \times 28$ |
| Power Requirement | 7.5VDC, 800mA | $7.5 \mathrm{VDC}, 800 \mathrm{~mA}$ |
| Temperature | $0-50^{\circ} \mathrm{C}$ (Operating), $-10-70^{\circ} \mathrm{C}$ (Storage) | $0-50^{\circ} \mathrm{C}$ ( Operating), $-10-70^{\circ} \mathrm{C}$ (Storage) |
| Humidity | 10-80\% non-condensing (Operating and Storage) | 10-80\% non-condensing (Operating and Storage) |
| Emission | FCC class A, CE | FCC class A, CE |
| Safety | Depends on power adaptor | Depends on power adaptor |



## PRODUCT FEATURES

- 4 RJ-45 ports, 10/100/1000Mbps Ethernet Switch which support 10Base-T, 100Base-TX, and 1000Base-T for 10/100/1000Mbps bandwidth.
-64Mbit shared data memory buffering.
- Port mirroring allows you to monitor the traffic status any port in real time.
- Built-in IEEE802.1p four priority queues each port.


## CUSTOMER BENEFITS

- Uses Stored \& Forward technology for a faster error recovery rate than the cut-through technology
- 1M MAC address table, automatic source address learning and ageing.
- Trunk port support for other brands switches linkage.


## 4-Ports Gigabit Switches

Clipsal Datacomms Gigabit Ethernet Switch provides a backbone switch which allows up to 1000 Mbps UTP network switching functions. Its 10/100/1000 Mbps auto-negotiation function offers high networking flexibility. It is an ideal solution to connect different sub workgroup switches together with simple and easy installation. In addition, it provides a very cost effective way to upgrade your existing 10/100 base networks to 1000 base networks.

The port mirroring function allows administrators to monitor the traffic crossing any port in real time, and provides easy trouble shooting. Plug and play functionality allows for quick and simple installation.

TECHNICAL SPECIFICATIONS
Model 95ESG4P10/

| Ports | $4 * 10 / 100 / 1000$ Base-T RJ-45, MDI / MDI-X ports, |
| :--- | :--- |
| 1 RS-232 DB-9 male |  |
| Dimensions <br> (LxW xH,mm) | $430 \mathrm{~mm}(\mathrm{~L}) \times 220 \mathrm{~mm}(\mathrm{~W}) \times 44 \mathrm{~mm}(\mathrm{H})(1$ unit) |
| Weight | 2.5 kg |
| Power Requirement | $100-240 \mathrm{VAC}, 50-60 \mathrm{~Hz}$ |
| Power Consumption / <br> Dissipation | 45 Watts maximum / 150 BTU / hr maximum |
| Maximum Current <br> (@110 /240VAC) | 0.50A / 0.20A |
| Switching Technology | Store \& Forward |
| Address Table | 1K entries, auto learning / ageing |
| Queue Buffer | 2MB per 1000 Mbps port |
| Flow Control | Back pressure for half duplex, IEEE 802.3x for full duplex |
| Packet Control | Runt \& CRC filtering, Broadcast storm control |

Switch Management

| System Management | Console port |
| :--- | :--- |
| VLAN's | Up to 4 groups |
| Link Aggregation | IEEE802.3ad, 2-TP ports per trunk |
| Port Mirroring | Mirroring port's in /out, in, out traffic |
| Traffic Prioritisation | Supports four levels of priority |

Standard Compliance

| CE Mark | $\begin{aligned} & \text { EN50081-1, EN55022 Class A; EN50082-1, } \\ & \text { IEC 1000-4-2 /3/45 / } 6 \\ & \hline \end{aligned}$ |
| :---: | :---: |
| Emissions | FCC Class A, VCCI Class A, CISPR 22 Class A |
| Safety | CSA / NRTL (C.22.2.950, UL1950), TUV / GS (EN60950) |
| Immunity | IEC 801-2 / 3 / 4,EN60555-2 Class A, EN60555-3 |
| Temperature | IEC 68-2-14, Standard <br> Operating: 0 to $50^{\circ} \mathrm{C}\left(32 \sim 122^{\circ} \mathrm{F}\right)$ <br> Storage -40 to $70^{\circ} \mathrm{C}\left(-40 \sim 158^{\circ} \mathrm{F}\right)$ |
| Humidity | 5\% to 95\% (Non-condensing) |
| Standard | IEEE 802.3 (Ethernet), IEEE 802.3u (Fast Ethernet), |
|  | IEEE 802.3ab (Gigabit Ethernet), IEEE 8023x (flow contro) |

## Media Converter Series

Clipsal Datacomms Media Converters are designed to connect copper and fibre optic media. They provide a simple and easy way to extend the connection distance between Fast Ethernet UTP networks via optical fibre cabling, without performance degradation. Clipsal Media Converters are an ideal solution for extending distances between servers and workgroups located on different floors or different buildings.

## PRODUCT FEATURES

## Model: 95MC100STRJ \& 95MC100SCRJ

- Converts 100Base-TX STP interface to 100FX(ST/SC)
interface. The fibre port of converter operates at 1300 mm and uses SC, ST connectors.


## CUSTOMER BENEFITS

- Users can extend the copper networks limited distance by using the fibre network.
- Easy product installation and management.


100TX-100FX (ST) Multi-mode Fibre Converter

| TECHNICAL SPECIFICATIONS |  |
| :--- | :--- |
| Model | 95MC100STRJ |
|  | 95MC100SC100 |
| Protocol | IEEE 802.3u, 100 Base-FX, 100 Base-TX |

## Connectors and Cables

Twisted Pair STP RJ45, Category 5 (EIA/TIA 568)
Multi-mode Fibre $\quad 50 / 125 \mu \mathrm{~m}, 62.5 / 125 \mu \mathrm{~m}$
Support Distances

| Twisted Pair STP | $100 \mathrm{~m} / 328 \mathrm{ft}$. |
| :--- | :--- |
| Multi-mode Fibre | $412 \mathrm{~m} / 1,350 \mathrm{ft}$. (Half-Duplex), 2km / 1.2mi. (Full-Duplex) |
| Dimensions | $70 \mathrm{~mm}(\mathrm{~L}) \times 94 \mathrm{~mm}(\mathrm{~W}) \times 26 \mathrm{~mm}(\mathrm{H})$ |
| Weight | 210 g (net) |
| Power | 5 V DC, 1A, max. |

## Environmental

| Temperature | $0-40^{\circ} \mathrm{C}$ |
| :--- | :--- |
| Humidity | $0-90 \%$ (non-condensing) |

