

Automation and Network Solutions



King of the Automation Network Jungle:

LION-24 TP

- Control Room Switch • Fully Managed
- State of the Art Feature-set
- Port-based Network Access Control
- Advanced Security Protocols

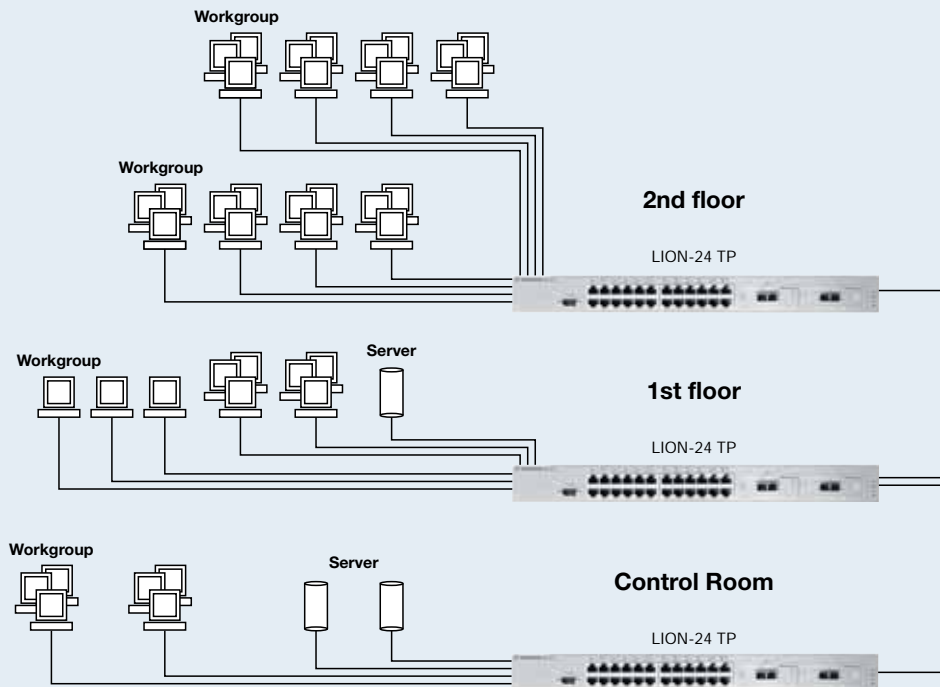


HIRSCHMANN

Applications

The Lion-24 TP is designed for use where the industrial and office networks clash – the control room. Advanced VLAN control enables accurate and secure communication to 24/7 processes on the factory floor. High performance uplink ports

ensure production data reaches relevant ERP systems. The homogenous Hirschmann environment guarantees reliable performance of the automation network jungle.



The LION-24 TP also offers a powerful connection to the backbone in the production environment.

Times are changing. So are the requirements.

The new Control Switch LION-24 TP.

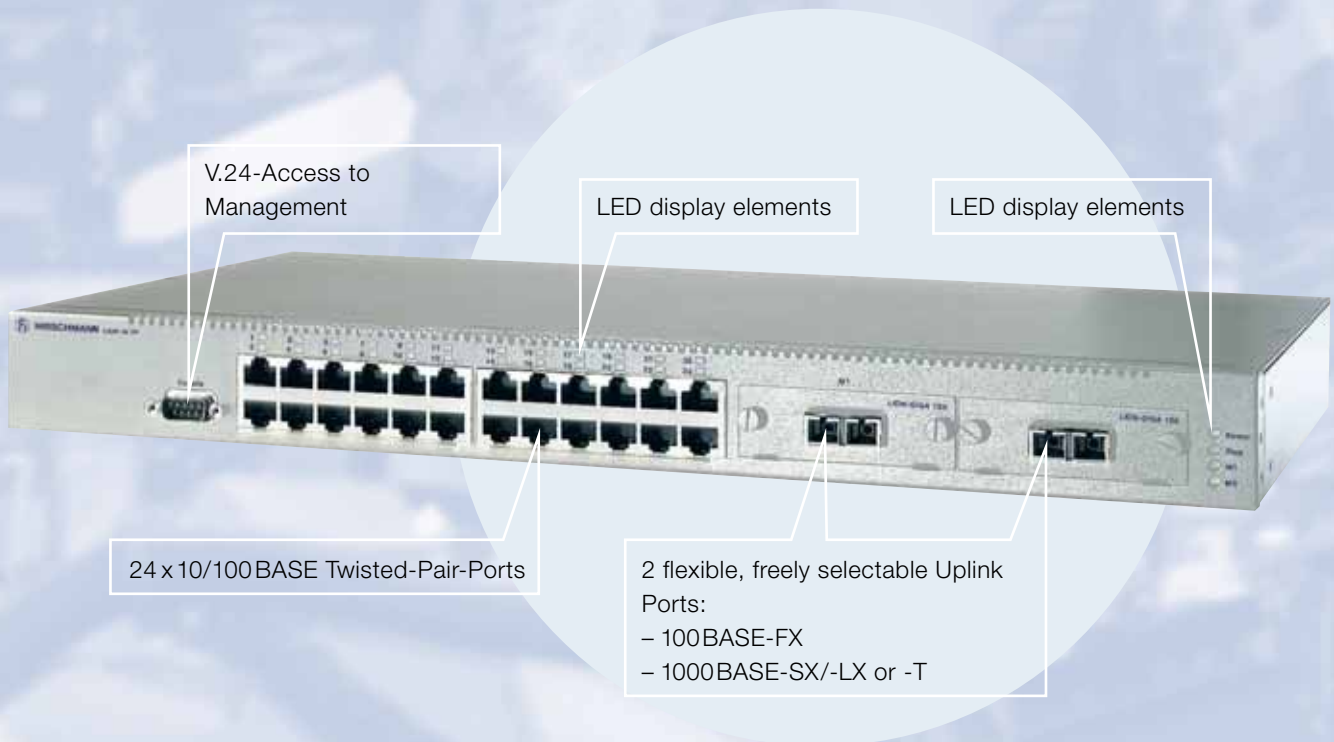
Requirements and Solutions

Welcome to the Automation Network Jungle!
As ETHERNET becomes more widespread in the industrial environment, the need for advanced industrial features in the control room becomes paramount. The new LION-24 TP integrates

advanced industrial features with relevant office standards: state-of-the-art in terms of throughput, data prioritization, redundancy and management features, with 19" rack mounting, it can truly claim its place as King of the Automation Network Jungle.

LION-24 TP: Predatory Performance.

At a reasonable price.



Product Features

The Lions powerful features include:

- Flexible uplink modules
- Port based Network Access Control
- SNMP, Web and Telnet management
- Enhanced VLAN support
- Advanced multicast control
- Standards based security protocols



The LION-24 TP happily roams in the office or automation network jungle.

Facts and Figures

Product description LION family	
Description	Fast ETHERNET managed switch, store-and-forward forwarding scheme
Port type and quantity	24 x 100BASE-T ports (RJ-45 connectors) and another 2 expansion slots for Gigabit or 100BASE-FX fiber interface
Type	LION-24 TP
Order No.	943 118-005
More Interfaces	
V.24 Interface	Outband management connection via V.24
Power supply	non-heating appliance socket
Network size – length of cable	
Twisted pair (TP)	0 – 100 m
Network size – cascability	
Line-/star topology	any
Power requirements	
Operating voltage	100 – 240 V
Service	
Management	SNMP v1 and SNMP v2c management functions RMON (groups 1, 2, 3 and 9) Web-based management TELNET console interface BOOTP and DHCP for IP address assignment Firmware upgraded by TFTP file transfer protocol through the ETHERNET network Dual firmware images Configuration file upload/download by TFTP protocol Two or more configuration files SNMP access IP filtering configuration MAC based port security
VLAN	IEEE 802.1Q tagging VLAN, Port-based VLAN Up to 255 active VLANs GVRP protocol for automatic VLAN registration and dynamic VLAN management Private VLAN
Security	RADIUS (Authentication) TACACS+ SSL SSH (v1.5) Access Control IEEE 802.1x port based security
Quality of Service	L2/L3/L4 Traffic Classification/Priority Management CoS by IEEE 802.1p 4 priority queues control Traffic Classification/Priority Management WRR for priority queues Strict scheduling for priority queue Rate Limiting Random Early Detection (RED)
Other services	Auto MDI/MDIX on all 10/100 Base-TX ports Up to 8K MAC address entries 4M-bit for packet buffer size Flow control mechanism: backpressure for half duplex; IEEE802.3x for full duplex operation HOL (Head of Line) blocking prevention Port mirroring Load Balance for both Unicast and Multicast traffics IGMP (v1/v2) Snooping and Query function Broadcast Storm control
Redundancy	
Redundancy functions	IEEE 802.1D Spanning Tree Protocol IEEE 802.1w Rapid Spanning Tree Link Aggregation Up to 8 ports in one trunk Up to 4 trunk groups 802.3ad (LACP) Cisco Ether-channel (static truck)
Ambient conditions	
Operating temperature	0 to 50 °C
Storage/transport temperature	-40 to 70 °C
Relative humidity (non-condensing)	10 % to 90 %
Mechanical construction	
Dimensions (W x H x D)	440 mm x 43 mm x 324 mm
Mounting	19" cabinet or table unit
Protection class	IP 20
Scope of delivery	
Scope of delivery	Device, AC power cord, serial cable, mounting brackets

Uplink Ports		
Name	Order No.	Description
LION-01FX-MM	943 118-105	10/100 Uplink Module. 1-port 100BASE-FX module with SC connector, MMF
LION-01FX-SM	943 118-205	10/100 Uplink Module. 1-port 100BASE-FX module with SC connector, SMF
LION-GIGA-1SX	943 118-305	Gigabit Uplink Module. 1-port 1000BASE-SX module with SC connector, MMF
LION-GIGA-1LX	943 118-405	Gigabit Uplink Module. 1-port 1000BASE-LX module with SC connector, SMF
LION-GIGA-1T	943 118-505	Gigabit Uplink Module. 1-port 1000BASE-T module with RJ45 connector
LION-GBIC	943 118-605	Gigabit Uplink Module. 1-port 1000BASE-X module with GBIC connector



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