

# RY-LPIGE-804GBTME

Industrial L2/L3 Switch with management, PoE and PoE+ and DMS

- Top hat rail mounting
- Copper ports: 8x10/100/1000TX, RJ45, PoE/PoE+
- Optical fibre ports: 4x100/1000SFP
- Managed, Layer 2/3, ring redundant, DMS
- IEEE 1588 V2, PTP
- Power supply 48-57VDC, redundant



This series includes high quality switches of robust construction for the implementation of powerful 10, 100 and 1000MBit/s Ethernet ring structures as per IEEE802.x. All eight copper ports are with Power over Ethernet PoE and PoE+. These switches are especially suitable for video networks. By way of two or more connections, the switch enables the construction of one or more fault-tolerant optical fiber rings.

In case of an interruption the rings close automatically in less than 50ms, which improves the availability of the system. There are four SFP slots for the backbone for 100/1000BaseSX/LX/ZX which can be implemented for multimode or singlemode. The switches can also be used as single devices, for point-to-point connections or as connection modules. The extended possibilities of the management software enable the use of the switch in high demanding network systems. Easy top hat rail mounting. Normed plugs (RJ45 resp. LC) ensure all electrical and optical connections.

## Video network special features

### Active monitoring of the camera

Switch-powered cameras by PoE are constantly monitored. In case of a camera failure the switch automatically restarts the camera. If this is not possible the switch alarms by SNMP.

### Active monitoring PoE-supply

The switch alarms by SNMP in case of sudden excessive power consumption by a defect camera for example.

### Active management of the PoE-performance

The PoE-ports can be started by time intervals so as to prevent an overload of the PoE power supplies.

### Further video-friendly features:

Extra high backplane performance for a smooth video transmission with all ports assigned. Support of Jumbo



Frames up to 9600Bytes by 100MBit/s. MAC-address restriction ensures port security.

## More information

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Special features	USB-config-port: For FW-Update, backup, restore, boot up and syslog, USB2.0 A-Typ
System notes	The switch supports PTP, precision time protocol according to IEEE1588 v2 and IEC 61588, a feature used in industrial automation, professional audio-video applications for audio-video bridging and telecommunications, among others.

## DMS

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This switch disposes of an integrated network monitoring and control system which gives the user a good overview over the whole network in an easy way. This DMS-system has the following qualities:

### Graphical network map

The network map gives a quick overview over all switches and terminal devices such as IP-cameras or servers indicating the IP-address, type of device and equipment. Plans and maps can be saved as background pictures and thus enable the user to access to certain devices without knowledge of the entire IP-structure.

### Device search

This function enables the access to a specific device also in large networks. Recently added devices, as per example a new IP-camera, are immediately displayed and thus enable a direct access.

### Data traffic display

Graphical display of data traffic per port in a time axis.

### Error handling and security

Network diagnosis between master switch and terminal devices. Protective mechanisms such as data flow restriction guarantee an effective protection against inadvertent access. IEEE802.3ah and IEEE802.1ag provide tools for structuring of networks.



## Technical data

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### General properties

supply voltage	48-57VDC, redundant supply is possible, screw terminal
power consumption	15W max (without PoE)
MTBF	25°C: 476'206h 75°C: 92'110h
operating temperature	-40°C to +75°C Rel. humidity: 5% to 95%, non-condensing
dimensions	135x62x130mm (HxWxL)
weight	0,7kg
Testing standards	EMV: IEC61000-4-2, 4-3, 4-4, 4-5, 4-6, 4-8 EMI: FCC Part 15 Class A, EN61000-3-2, -3-3, -6-4, EN55022, EN55011 Free fall: IEC60068-2-32 Shock: IEC60068-2-27 Vibration: IEC60068-2-6 Railway standard: EN50121-4, EN50155 Transport: NEMA TS2 Substation: IEC61850-3, IEEE1613

### interfaces

copper ports	8 x 10/100/1000TX, 8xPoE+ 802.3af/at Maximum PoE performance for all ports: 240W
optical fibre ports	4 x 100/1000, SFP  We recommend the use of our barox SFPs. We do not test or guarantee the compatibility of our devices with SFPs of other manufacturers.
console port	RS232, 115,2kBit/s, 8, N, 1, RJ45



## network properties

backplane	24 GBit/s
MAC-table	8k
configuration	Console, Webserver, Telnet, CLI, SNMP v1/v2/v3, TFTP, SSH, SSL, RMON, USB
PoE Management	
port settings	As per port: Port disable/enable, auto negotiation 10/100/1000, full- & halfduplex, flow control disable/enable, data rate
port status	As per port: Data rate, duplex, link, flow control, auto negotiation, trunk
VLAN	max. 64 VLAN ID & 802.1Q VLAN & port based
link aggregation	802.3ad LACP, static trunk, 12 groups with 16 ports
QoS	Class of Service IEEE 802.1p per port 8 priorities
security	FCC Class A, CE, SSH v1 and v2, SSL for GUI User authentication with private key
multicast	IGMP v1, v2, v3 MVR, Multicast VLAN registration
standards	802.3, 10Base-T Ethernet 802.3u, 100BaseTX and 100BaseFX Fast Ethernet 802.3ab, 1000Base-T 802.3z, 1000Base-X 802.3x, Flow Control und Back Pressure 802.1d, Spanning Tree 802.1w, Rapid Spanning Tree 802.1s, Multiple Spanning Tree ITU-TG.8032 / Y.1344 Ethernet Ring Protection Switch 802.3ad, Port Trunk mit LACP 802.3af Power over Ethernet 802.3at Power over Ethernet PoE+ 802.1p, Class of Service 802.1q, VLAN Tag 802.1x, User Authentication (RADIUS) 802.1ab LLDP IEEE 1588 V2, PTP



## Product variants

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**RY-LPIGE-804GBTME**

without SFPs  
without power supply

*Version 13.11.2023, Changes without notice*