

DATALIGHT® Switch 12+4-Port 1000

product description:

Switch for distribution and conversion of optical signals, connections for 12 Duplex Fibre 2.2 DATALIGHT, 2 RJ45 jacks for connecting network devices, 2 SFP slots, e.g. for glass fibre applications.

The Switch provides 12 ports for optical fibres to create a link to other DATALIGHT devices like Access Points, Media Converters or more Switches in the network. For the Uplink, the connection of devices like Router or Firewall or for the connection between several switches, additional RJ45 and SFP ports are provided. With various management functionalities many applications can be realised which afford a high level of QoS, different VLAN's or IGMP-Snooping.



2 x RJ45 / 2 x SFP / 12 x GE-POF



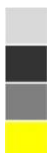
Art-No.:	Type	Content	PU	Overall-width mm	Overall-height mm	Depth mm	PU/kg
257 30 412	1 G	1	PCS	440	43	220	2,5

Characteristics	
Number of ports	2 x RJ45, 2 x SFP+, 12 x Gigabit Ethernet POF
Data rate	1 Gbit/s
Operating temperature	0 °C bis +42 °C (32°F bis 107°F)
Protecting class according to DIN EN 60529	IP 20
Safety class according to DIN EN 61140	II
Installation	19" Rack, Desktop
external power supply	•
Additional RJ45 ports (1 Gbps)	•
USB Port for Firmwareupgrade, Download/Upload of Configuration	•

Electrical characteristics	
Voltage	100 - 240 V ~ 50-60 Hz
Maximum power consumption	36 W max.

Connector/outlet characteristics	
Connection technique	RJ45-connection: DIN EN 60603-7-3: 2011-03 optical connection: 2.2 mm Duplex GE-POF (ETSI TS 105 175-1) SFP+ Interface (1 G: up to 1 Gbps)

Optical characteristics	
data transmission rate	1000 Mbps, adaptively lower beyond specified power budget
Gigabit Ethernet output power (sender)	-5.8 dBm min.
Gigabit Ethernet input power (receiver)	-16.5 dBm min.
Gigabit Ethernet transmission length	typ. 50 m (164 ft.) with POF 2.2 mm class A4.a2 regarding IEC 60793-2
maximum transmission length	typ. 90 m (295 ft.) with POF 2.2 mm class A4.a2 regarding IEC 60793-2
Backwards compatability	Backwards compatible to 802.3-FX (100 Mbps POF)
Wavelength	650 nm typ.



DATALIGHT® Switch 12+4-Port 1000

Basic Features:

RJ-45 connection for 10BASE-T/100BASE-TX/1000BASE-T,
Mini GBIC/SFP Slots

Auto medium dependent interface (MDI) and MDI crossover (MDI-X)

Auto negotiate/manual setting

Reset Button

LEDs: System, Gigabit Link/Act, Speed

Security Features

802.1X and MAC authentication with NAP

MD5 Encryption

Port security-MAC-based filtering

Management Access Control

2K L2-L5 ACLs incl. IPv4/IPv6

Layer 2 Feature Set

Up to 16K L2 Forwarding Entries	Green Ethernet	Secured Bridge Features:
802.1w Rapid Spanning Tree	Loopback detection	DHCP Snooping Op82
802.1s Spanning Tree Protocol	802.3x PAUSE	IP Source Guard
802.3ad Link Aggregation/LACP	Static MAC Addresses	802.1AB Link Layer Discovery Protocol
16 LAGs	IGMPv1,2,3 Snooping	Port Mirroring
802.1Q VLANs (256-4K VLANs)	MLDv1,2 Snooping	Jumbo Frames (9216 Bytes)

QOS

Priority levels 8 hardware queues	Shaping per port / per queue	802.1p VLAN priority based
Scheduling:	Rate limiting for different packets	IPv4/v6 IP DSCP based
Strict Priority(SP) queuing	Advanced QoS with Class of Service:	
Weighted Round-Robin (WRR)	Port based	

Management MIBs

Fully MIB managed device	RFC 1493 - BRIDGE-MIB
RFC 1213 - MIB-II	IF-MIB
Ether-like MIB	RMON-MIB
SNMP-FRAMEWORK-MIB	

Layer 3 Routing

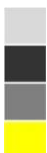
Static Routing
ECMP with up to 8 alternative routes

Network Management

10/100/1000 Mgmt Ports	RADIUS	WEB management
RS-232 Serial Console Port	Tacacs	File download via HTTP
IPv4/IPv6 Dual Stack	AAA	SNMP v1/2/3
Syslog	Simple Network Time Protocol (SNTP)	Secured Management over SSL/SSH

Model unique features

Port Count: 14xGE + 2x10GE SFP	Flash Memory: 32 MB	
Aggregate Forwarding Bandwidth: 84 Gbit/s	Main Memory: 256 MB DDR3	
CPU: 400 MHz	Serial Ports: 1	



DATALIGHT® Switch 12+4-Port 1000

IEEE Compliance

802.1D Bridging and Spanning Tree	802.1s Spanning Tree Protocol	802.3ab 1000BASE-T
802.1p COS	802.1AB Link Layer Discovery Protocol	802.3z Gigabit Ethernet
802.1Q VLAN Tagging	802.3ad Link Aggregation with LACP	ETSI TS 105 175-1 ATTM POF
802.1w Rapid Spanning Tree	802.3x Flow Control	

Standardisation

EN 60950-1:2006 Information technology equipment - Safety - Part 1: General requirements
Source: Official Journal of the European Union of 11.09.2014 / Applied in full

EN 60825-2:2004 Safety of laser products - Part 2: Safety of optical fibre communication systems (OFCS)
Source: Official Journal of the European Union of 11.09.2014 / Applied in full

EN 55022:2010 Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement
Applied in full

EN 55025:2010 Information technology equipment - Immunity characteristics - Limits and methods of measurement
Applied in full

EN 50581:2013-02 Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances
Applied in full

Risk analysis

The product has been manufactured and tested according to the harmonized standards EN 60950-1:2006 and EN 60825-2:2004 in the sense of harmonization legislation of the EU. All safety-relevant tests have been adhered to. This product poses no further risk.

Accessories

Medium duty corrugated plastic conduit	FFKuS DATALIGHT®	257 10 025
Data line	Duplex Fibre 2.2 DATALIGHT®	257 80 102
Auxiliary tool	Cutter	257 90 001
Connector	Connector 2.2	257 50 002
Network access socket	WLAN Access Point 100 DATALIGHT®	257 21 111
Network access socket	LAN Access Point 2-Port 100 DATALIGHT®	257 20 121
Network access socket	LAN Access Point 2-Port 1000 DATALIGHT®	257 20 021

Hotline

Since technical developments cannot be foreseen, electrical installations should provide the possibility to be expanded at any time.

If you generously install a system of unused conduits today, you can easily expand your electrical installations later.

You save lots of time, money and effort!

We are happy to help you with any technical questions.

Prompt information can be obtained from our technical consultants at +49 9525 88-8123.

