









Managed Gigabit Ethernet Switches

Full control on the network

The **wienet** managed gigabit series offers full industry functionality. The series was developed for an incredibly reliable, fault-tolerant, and extremely fast network connection in a harsh environment. The **wienet** managed gigabit series, with its compact top-hat rail housing design, enables a choice between different connection combinations: 10/100/1000 BASE-T (X) RJ45 connection, 1000 BASE-X SFP connection, and IEEE 802.3af/at PoE RJ45. As several compatible rings are also supported, **wienet** may be the best option for extending an existing infrastructure without any problems and without jeopardizing the topology of the network and the existing work pattern. And that's not all. With automation in mind, the switches have been conceived so that they are compatible with Profinet CC-B and Ethernet/IP.

-  **Full gigabit power on all ports**
-  **PoE+ support, i.e. full 30 W on every PoE port**
-  **More data flow control on the network**
-  **Suitable for Profinet up to CC B and Ethernet IP**
-  **Data flow optimization through segmentation via VLANs**
-  **Ring topologies ERPS, RSTP, STP, MRP (Client)**
-  **Ethernet packet prioritization for data with real-time requirement**
-  **IEEE 1588v2 Precision Time Protocol HW-Based Transparent Clock**

Overview of Managed Gigabit Ethernet Switches

Item number	Type	Description	10/100 RJ45 ports	10/100/1000 RJ45 ports	10/100/1000 SFP ports	Max. PoE ports
83.040.0300.0	L2MS 4G	4-port managed gigabit switch	-	4	-	
83.040.0301.0	L2MS 4G-4PoE	4-port managed gigabit switch with 4 PoE ports	-	4	-	4
83.040.0302.0	L2MS 4G-2SFP	4-port managed gigabit switch with 2 SFP slots	-	2	2	
83.040.0303.0	L2MS 4G-2PoE-2SFP	4-port managed gigabit switch with 2 SFP slots and 2 PoE ports	-	2	2	2
83.040.0310.0	L2MS 8G	8-port managed gigabit switch	-	8	-	-
83.040.0312.0	L2MS 8G-4SFP	8-port managed gigabit switch with 4 SFP slots	-	4	4	-
83.040.0313.0	L2MS 8G-4PoE-4SFP	8-port managed gigabit switch with 4 SFP slots and 4 PoE ports	-	4	4	4
83.040.0314.0	L2MS 8G-8PoE	8-port managed gigabit switch with 8 PoE ports		8	-	8

(4) Combo ports: either RJ45 or SFP per port



4-port managed gigabit switches

wienet L2MS 4G
wienet L2MS 4G-4PoE
wienet L2MS 4G-2SFP
wienet L2MS 4G-2PoE-2SFP

- 2 or 4 10/100/1000 Base-T(X) ports
- 2 SFP uplink combo ports
- 2 or 4 PoE ports 802.3af (15.4 W) or 802.3at (30 W) with L2MS 4G-4PoE or L2MS 4G-2PoE-2SFP
- ERPS ring (recovery time < 20 ms with 40 switches, STP/RSTP for network redundancy)
- Access via web browser, Telnet console, Serial console, and **wienet** Manager software
- Suitable for Profinet (CC A and CC B), Ethernet IP, and Modbus TCP



Standards

IEEE 802.3 for 10 Base-T, IEEE 802.3u for 100 Base-T(x), IEEE 802.3z for 1000 Base-X, IEEE 802.3ab for 1000 Base-T, IEEE 802.3Q for VLAN Tagging, IEEE 802.3p for Class of Service, IEEE 802.3x for Flow Control, IEEE 802.3af for PoE (15.4 W), IEEE 802.3at for PoE+ (30 W), IEEE 802.3x for Flow Control, IEEE 802.3az for Energy Efficient Ethernet, IEEE 802.1D-2004 for Spanning Tree Protocol, IEEE 802.1s for Multiple Spanning Tree Protocol, IEEE 802.1w for Rapid STP, IEEE 802.1X for Authentication, IEEE 802.3ad for Port Trunking with LACP

Protocols

IPv4, IPv6, IGMPv1/v2/v3, IGMP Snooping, GARP, GRMP, GVRP, SNMP v1/v2c/v4, SNMP inform, ICMP, Telnet, SSH, DHCP Server/Relay/Client, DHCP Option 66/67/82, BootP, RARP, TFTP, NTP Server/Client, SNTP, SMTP, SMTP (Gmail), RMON, HTTP, HTTPS, Syslog, MRP (Client), LLDP, IEEE 1588 PRP v1/v2, IEEE 1588 Hardware Transparent Clock, 802.1x, EAP, RADIUS, TACACS+, Mirror Port, QoS, ACL, ITU-T G.803.2 ERPS Ring, Serial console, U-Ring, STP, RSTP, MSTP, Redundancy Compatible Ring, Profinet, Ethernet IP, Modbus TCP

Type	Art. No.		
wienet L2MS 4G	83.040.0300.0		
wienet L2MS 4G-4PoE		83.040.0301.0	
wienet L2MS 4G-2SFP			83.040.0302.0
wienet L2MS 4G-2PoE-2SFP			83.040.0303.0

Technical data				
Power supply				
Operating voltage	9-57 V DC			
with PoE as per IEEE 802.3 af	45 - 57 V DC			45 - 57 V DC
with PoE as per IEEE 802.3 at	51 - 57 V DC			51 - 57 V DC
Power consumption with PoE IEEE 802.3 af	Max. 1.6 A at 45 V DC			Max. 1.6 A at 45 V DC
Power consumption with PoE IEEE 802.3 at	Max. 2.8 A at 51 V DC			Max. 2.8 A at 51 V DC
Power consumption typical DC without PoE	Max. 1.4 A at 9 V DC			
Reverse polarity protection	Exists			
Ethernet				
Number of SFP ports 1000Base-X	-	-	2	2
Number of PoE	-	4	-	2
Power per PoE port (802.3 af)	-	15.4 W	-	15.4 W
Power per PoE port (802.3 at)	-	30 W	-	30 W
Maximum total power PoE	-	120 W	-	60 W
Type	Managed			
Number of 10/100 Base-T(X) ports	4			
Ethernet transfer rates	10/100/1000 Mbps			
Automation profiles	Profinet v2.33 CC-B certified, Ethernet IP, Modbus TCP device status registers provided			
Transmission length	up to 100 m			
Topologies	Star, line, mesh, ring			
Data flow control	Back pressure and pause frame-based flow control schemes			
Switch properties				
Technique	Store and forward			
MAC address table	16K			
Priority levels	8			
Packet buffer	12 Mbit			
VLAN ID range	VID 1 to 4094			
Static IGMP groups	256			
Dynamic IGMP groups	256			
Connection	Push-in terminals, pluggable			
Interface				
LED displays	PWR1, PWR2, Alarm, Run, Ring, Ring Master, RJ45 Act/Link, SFP Link, PoE			
Console	RS232 (RJ45 connection)			
Relay output	2 relay outputs with max. 1 A at 24 V DC			
DIP switch	Ring control			
Reset switch	Yes			
Physical properties				
Housing	Metal housing IP30 according to EN 60529			
Dimensions (mm) W x H x D	approx. 54 x 113 x 145			
Weight	approx. 800g max.			
Installation	Top-hat rail			
Ambient conditions				
Operating temperature	-20 °C ... 70 °C			
Storage temperature	-40 °C ... 85 °C			
Relative humidity	5 % ... 95 % (55 °C) Non-condensing			
Approvals				
Safety	UL 60950-1 2nd Ed./CSA C22.2 No. 60950-1-07 2nd Ed./EN60950-1/CB			
EMC	FCC Part 15, Subpart B, Class A / EN55032, EN55024, EN61000-3-2, EN61000-3-3, EN61000-6-2, EN61000-6-4			
Test				
	What		Value	Level
IEC 61000-4-2	ESD	Contact Discharge	± 6 kV	3
		Air Discharge	± 8 kV	3
IEC 61000-4-3	RS	80-1000MHz	10 V/m	3
		1.4-2.0GHz	3 V/m	3
		2.0-2.7GHz	10 V/m	3
IEC 61000-4-4	EFT	AC Power Port	± 2 kV	3
		DC Power Port	± 2 kV	3
		Signal Port	± 1 kV	3
		Surge	AC Power Port Line-to-Line ± 1 kV	3
		AC Power Port Line-to-Earth ± 2kV	3	
		DC Power Port Line-to-Line ± 1 kV	3	
		DC Power Port Line-to-Earth ± 2kV	3	
		Signal Port Line-to-Earth ± 1 kV	3	
IEC 61000-4-6	CS	Conducted (Enclosure)	10 Vrms	3
IEC 61000-4-8	PfMF	(Enclosure)	30 A/m	4
IEC 61000-4-11	DIP	AC Power Port	-	-
Shock	MIL-STD-810G Method 516.5			
Fall	MIL-STD-810F Method 516.5			
Vibration	MIL-STD-810F Method 514.5 C-1&C-2			
Flow control	NEMA TS-2			
RoHs	Yes			
MTBF	20 years			

8-port managed gigabit switches

- wienet L2MS 8G**
- wienet L2MS 8G-4SFP**
- wienet L2MS 8G-4PoE-4SFP**
- wienet L2MS 8G-8PoE**

- 2 or 4 10/100/1000 Base-T(X) ports
- 2 SFP uplink combo ports
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- Access via web browser, Telnet console, Serial console, and **wienet** Manager software
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Standards

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Type	Art. No.		
wienet L2MS 8G	83.040.0310.0		
wienet L2MS 8G-4SFP		83.040.0312.0	
wienet L2MS 8G-4PoE-4SFP			83.040.0313.0
wienet L2MS 8G-8PoE			83.040.0314.0
Technical data			
Power supply			
Operating voltage	9 - 57 V DC		
with PoE as per IEEE 802.3 af		45 - 57 V DC	
with PoE as per IEEE 802.3 at		51 - 57 V DC	
Power consumption with PoE IEEE 802.3 af		Max. 2.9 A at 45 V DC	
Power consumption with PoE IEEE 802.3 at		Max. 5.0 A at 51 V DC	
Power consumption typical DC without PoE	Max. 1.4 A at 9 V DC		
Reverse polarity protection	Exists		
Ethernet			
Number of SFP ports 1000Base-X	-	4	-
Number of PoE	-	4	8
Power per PoE port (802.3 af)	-	15.4 W	15.4 W
Power per PoE port (802.3 at)	-	30 W	30 W
Maximum total power PoE	-	120 W	60 W
Type	Managed		
Number of 10/100 Base-T(X) ports	8		
Ethernet transfer rates	10/100/1000 Mbps		
Automation profiles	Profinet v2.33 CC-B certified, Ethernet IP, Modbus TCP device status registers provided		
Transmission length	up to 100 m		
Topologies	Star, line, mesh, ring		
Data flow control	Back pressure and pause frame-based flow control schemes		
Switch properties			
Technique	Store and forward		
MAC address table	16K		
Priority levels	8		
Packet buffer	12 Mbit		
VLAN ID range	VID 1 to 4094		
Static IGMP groups	256		
Dynamic IGMP groups	256		
Connection	Push-in terminals, pluggable		
Interface			
LED displays	PWR1, PWR2, Alarm, Run, Ring, Ring Master, RJ45 Act/Link, SFP Link, PoE		
Console	RS232 (RJ45 connection)		
Relay output	2 relay outputs with max. 1 A at 24 V DC		
DIP switch	Ring control		
Reset switch	Yes		
Physical properties			
Housing	Metal housing IP30 according to EN 60529		
Dimensions (mm) W x H x D	approx. 54 x 113 x 145		
Weight	approx. 800g max.		
Installation	Top-hat rail		
Ambient conditions			
Operating temperature	-20 °C ... 70 °C		
Storage temperature	-40 °C ... 85 °C		
Relative humidity	5 % ... 95 % (55 °C) Non-condensing		
Approvals			
Safety	UL 60950-1 2nd Ed./CSA C22.2 No. 60950-1-07 2nd Ed./EN60950-1/CB		
EMC	FCC Part 15, Subpart B, Class A / EN55032, EN55024, EN61000-3-2, EN61000-3-3, EN61000-6-2, EN61000-6-4		
Test	What	Value	Level
IEC 61000-4-2	ESD	Contact Discharge	± 6 kV 3
		Air Discharge	± 8 kV 3
IEC 61000-4-3	RS	80-1000MHz	10 V/m 3
		1.4-2.0GHz	3 V/m 3
		2.0-2.7GHz	10 V/m 3
IEC 61000-4-4	EFT	AC Power Port	± 2 kV 3
		DC Power Port	± 2 kV 3
		Signal Port	± 1 kV 3
IEC 61000-4-5	Surge	AC Power Port Line-to-Line	± 1 kV 3
		AC Power Port Line-to-Earth	± 2 kV 3
		DC Power Port Line-to-Line	± 1 kV 3
		DC Power Port Line-to-Earth	± 2 kV 3
		Signal Port Line-to-Earth	± 1 kV 3
IEC 61000-4-6	CS	Conducted (Enclosure)	10 Vrms 3
IEC 61000-4-8	PFMF	(Enclosure)	30 A/m 4
IEC 61000-4-11	DIP	AC Power Port	- -
Shock	MIL-STD-810G Method 516.5		
Fall	MIL-STD-810F Method 516.5		
Vibration	MIL-STD-810F Method 514.5 C-1&C-2		
Flow control	NEMA TS-2		
RoHs	Yes		
MTBF	20 years		

SFP transceivers

Fast Ethernet LWL wienet SFP F MM LED wienet SFP F SM FP

- Single mode up to 30 km
- Multi mode up to 2 km



(Picture similar)

Type	Art. No.	
wienet SFP F MM LED	83.040.0700.0	
wienet SFP F SM FP		83.040.0701.0
Technical data		
Data rate	155 Mbps	155 Mbps
Wavelength	1310 nm	1310 nm
Light source	LED	FP
Media type	Multi mode	Single mode
Tx power	-20 ... -14 dbm with 62.5/125µm fiber	-15 ... -8 dbm with 9/125µm fiber
Rx sensitivity	-31 dbm	-34 dbm
Link budget	11 dbm	19 dbm
Saturation	-8 dbm	0
Distance	2 km	30 km
Ambient conditions		
Operating temperature	-40 °C ... 85 °C	-40 °C ... 85 °C
Approvals		
Safety	UL/TÜV	UL/TÜV

Gigabit LWL wienet SFP G MM VCSEL wienet SFP G MM FP wienet SFP G SM FP wienet SFP G SM DFB

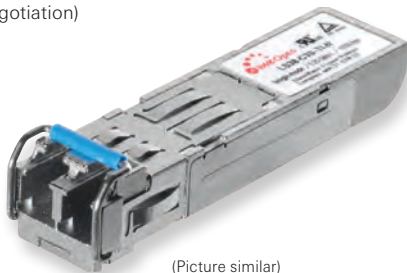
- Single mode up to 30 km
- Multi mode up to 2 km



Type	Art. No.			
wienet SFP G MM VCSEL	83.040.0710.0			
wienet SFP G MM FP		83.040.0711.0		
wienet SFP G SM FP			83.040.0712.0	
wienet SFP G SM DFB				83.040.0713.0
Technical data				
Data rate	1250 Mbps	1250 Mbps	1250 Mbps	1250 Mbps
Wavelength	850 nm	1310 nm	1310 nm	1310 nm
Light source	VCSEL	FP	FP	DFB
Media type	Multi mode	Multi mode	Single mode	Single mode
Tx power	-9.5 ... -4 dbm with 50/125 µm or 62.5/125 µm fiber	-9 ... -1 dbm with 50/125 µm or 62.5/125 µm fiber	-9.5 ... -3 dbm with 9/125 µm fiber	-4 ... +1 dbm with 9/125 µm fiber
Rx sensitivity	-18 dbm	-19 dbm	-20 dbm	-24 dbm
Link budget	8.5 dbm	10 dbm	10.5 dbm	20 dbm
Saturation	0 dbm	-1 dbm	-3 dbm	-3 dbm
Distance	550 m	2 km	10 km	30 km
Ambient conditions				
Operating temperature	-40 °C ... 85 °C	-40 °C ... 85 °C	-40 °C ... 85 °C	-40 °C ... 85 °C
Approvals				
Safety	UL/TÜV	UL/TÜV	UL/TÜV	UL/TÜV

Fast/Gigabit Ethernet RJ45 wienet SFP G RJ45 wienet SFP F/E (auto-neg) RJ45

- RJ45 transceiver with 1000 Mbps
- RJ45 transceiver with 10/100/1000 Mbps (auto-negotiation)



(Picture similar)

Type	Art. No.	
wienet SFP G RJ45	83.040.0714.0	
wienet SFP F/E (auto-neg) RJ45		83.040.0715.0
Technical data		
Data rate	1000 Mbps	10/100/1000 Mbps
Maximum data transfer rate	1.25 Gbps	1.25 Gbps
Auto-negotiation	No	Yes
Number of RJ45 ports	1	1
Media type	Copper	Copper
Standards	IEEE 802.3ab 1000BASE-T	IEEE 802.3ab 1000BASE-T
IEEE 802.3ab 1000BASE-T	11 dbm	19 dbm
Distance	100 m	100 m
Ambient conditions		
Operating temperature	-0 °C ... 70 °C	-0 °C ... 70 °C
Approvals		
Safety	UL/TÜV	UL/TÜV