IE-SW-PL16M-14TX-2ST

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany

www.weidmueller.com

Product image

Weidmüller's Premium Line consists of high-end switches with advanced management and security features. It is suitable for demanding network solutions. The equipment can be delivered with Fast Ethernet or Gigabit Ethernet ports. With their advanced ring redundancy technology (recovery time ≤ 20 ms), these devices raise the reliability and availability of your industrial networks. The optional SFP transceiver can be fitted offering a high degree of flexibility. Gigabit versions permit use in networks with a high volume of communications

- Managed Fast Ethernet versions in a high-quality metal housing (IP 30)
- Versions with 10 or 18 ports and Gigabit uplink ports
- Full Gigabit switch with 9 ports
- Supports all standard TCP/IP-based protocols in industrial networks (for example Ethernet/IP, Modbus/TCP)
- Integrated redundancy mechanisms (recovery time ≤ 20 ms) increase the reliability in network ring structures
- Approvals: CE, FCC, cULus, Class I Div. 2 / ATEX, DNV / GL

General ordering data

Version	Network switch, managed, Fast Ethernet, Number of ports: 14x RJ45, 2 * ST Multi-mode, IP30, 0 °C...60 °C
Order No.	1241130000
Type	IE-SW-PL16M-14TX-2ST
GTIN (EAN)	4050118029024
Qty.	1 pc(s).

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Technical data

Dimensions and weights

Depth	142.7 mm	Depth (inches)	5.618 inch
Height	135 mm	Height (inches)	5.315 inch
Net weight	1,586 g	Width	94 mm
Width (inches)	3.701 inch		

Temperatures

Storage temperature	-40 °C...85 °C	Operating temperature	0 °C...60 °C
Humidity	5 to 95 % (non-condensing)		

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1

EMC conformity and approvals

EMC standards	EN 55032, EN 55024, CISPR 32, FCC Part 15 Subpart B Class A, IEC 61000-4-2 ESD: Contact: 6 kV; Air: 8 kV, IEC 61000-4-3 RS: 80 MHz to 1 Ghz: 10 V/m, IEC 61000-4-4 EFT: Power: 1 kV; Signal: 0,5 kV, IEC 61000-4-5 Surge: Power: 2 kV; Signal: 1 kV, IEC 61000-4-6 CS: 10 V, IEC 61000-4-8	Explosive risk zone	UL/cUL, Class I, Division 2, Groups A, B, C and D, ATEX Zone 2 Ex nA nC IIC T4 Gc
Free fall	According to IEC 60068-2-32	Safety standard	UL508, UL 60950-1, EN 60950-1
Shock	according to IEC 60068-2-27	Vibration	according to IEC 60068-2-6

Environmental conditions

Humidity	5 to 95 % (non-condensing)	Operating temperature, max.	60 °C
Operating temperature, min.	0 °C	Storage temperature, max.	85 °C
Storage temperature, min.	-40 °C		

Fibre optic transceiver characteristics

Transmission rate	100 Mbps	
Transceiver type	Multimode	
Connector type	ST-Duplex	
Transmission distance, typ.	5 km	
Wavelength	typ.	1,300 nm
	Wavelength	TX
	min.	1,260 nm
	max.	1,360 nm
	Wavelength	RX
	min.	1,100 nm
	max.	1,600 nm
Receive power	min.	-32 dBm
	max.	-3 dBm

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Transmission power	min.	-20 dBm
	max.	-10 dBm
Link-budget	12 dB	

Guarantee

Time interval	5 years

Interfaces

Alarm contact	2 relay outputs with a current capacity of 1 A at 24 V DC	Console port interface	RS-232
Digital inputs	2 inputs with the same ground, isolated • +13 To +30 V for logic "1" • -30 To +3 V for logic "0" • Max. input current: 8 mA	Fibre-optic ports	100BaseFX ports (ST connector), Multimode
LED indicator	PWR1, PWR2, FAULT, MSTR/HEAD, CPLR/TAIL, 10/100M (TP-Port), 100M (fibre-optic port).	Number of ports	14x RJ45, 2 * ST Multi-mode
RJ45 ports	10/100BaseT(X), auto negotiation, Full-/half-duplex mode, Auto MDI/MDI-X port		

MTBF

MTBF	247,000 hrs	Database	Telcordia (Bellcore), GB

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Management features

Device configuration	Webbrowser (HTTP/HTTPS), SNMP v1/v2c/v3, Telnet console, Local serial console port (RS-232 via RJ-45 port), Windows tool	Monitoring function	SNMP v1/v2c/v3, Link Layer Discovery Protocol (LLDP), Port mirroring, Port statistics, Port monitoring, Syslog, RMON (Remote monitoring), Event based warning via E-Mail, Event based warning via relay, Event based warning via SNMP trap
Network redundancy	Spanning Tree Protocol (STP), Rapid Spanning Tree Protocol (RSTP), Turbo-Ring (recovery time <20 ms), Turbo-Chain (recovery time <20 ms), Link Aggregation Control Protocol (LACP)	Network traffic filter	Quality of Service (QoS), Tag based VLAN, Port based VLAN, IGMP v1/v2, GMRP, Traffic Rate Limiting
IP-address management	Static, BootP, RARP, DHCP-Client, DHCP-Server (port based), DHCP Option 82 (Relay Agent)	Security functions	VLAN segmentation, Enable/disable ports, Access control (port based via IEEE 802.1X), Access control list (MAC-based), Loop protection, TACACS + and IEEE 802.1X User Authentication
Time synchronization management	SNTP client, NTP client, PTPv1	Industrial protocol support	PROFINET device acc. to conformance class B, EtherNet/IP, Modbus/TCP slave

Power supply

Connection type	2 removable 6-pin terminal blocks	
Current consumption	Voltage	24 V DC
	Current	0.51 A
Overload current protection	Existing	
Reverse polarity protection	Yes	
Supply voltage, max.	45 V DC	
Voltage supply	12/24/48 V DC, 2 redundant inputs	
Voltage supply range	Voltage type	DC
	Voltage, min.	12 V
	Voltage, max.	45 V

Switch characteristics

Bandwidth backplane	3.2 Gbps	IGMP-Groups	256
MAC table size	8 K	Max. number of available VLANs	64
Packet buffer size	2 Mbit	Priority queues	4
VLAN-ID max	4,094	VLAN-ID min	1

Technical data

Housing main material	metal	Protection degree	IP30
Speed	Fast Ethernet	Switch	managed
Type of mounting	DIN rail, Panel (with optional mounting kit)		

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Technology

Data switching	Store and Forward	Flow control	IEEE 802.3x flow control, Back pressure flow control
MIB	MIB-II, Ethernet-Like MIB, P-BRIDGE MIB, Q-BRIDGE MIB, Bridge MIB, RSTP MIB, RMON MIB Group 1, 2, 3, 9	Standard	IEEE 802.3 for 10BaseT, IEEE 802.3u for 100BaseT(X) and 100BaseFX, IEEE 802.3x for flow control, IEEE 802.1D-2004 for the Spanning Tree protocol, IEEE 802.1w for Rapid STP, IEEE 802.1Q for VLAN tagging, IEEE 802.1p for Class of Service, IEEE 802.1X for authentication, IEEE 802.3ad for port trunk with LACP

Classifications

ETIM 6.0	EC000734	ETIM 7.0	EC000734
ECLASS 9.0	19-17-01-06	ECLASS 9.1	19-17-01-06
ECLASS 10.0	19-17-04-01	ECLASS 11.0	19-17-04-01

Approvals

Approvals	
ROHS	Conform
UL File Number Search	E141197

Downloads

Approval/Certificate/Document of Conformity	ODVA Certificate DNV-GL certificate ATEX certificate EU Declaration of Conformity
Engineering Data	STEP
Product Change Notification	Firmware Release Notes
Software	SNMP MIB file GSDML IE-SW-PL16M-series EDS IE-SW-PL16M-series Managed Switch Configuration Utility Firmware Version 3.4.18
User Documentation	Hardware Installation Guide Manual 20191204 Security Advisory IE Managed Switches