IE-SW-SL28M-HV

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
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www.weidmueller.com



Features of SubstationLine managed switch series

The SubstationLine includes Ethernet switches complying with the IEC 61850-3 and IEEE 1613 standards, making them robust enough for operation in harsh environments. The family includes variants for mounting on DIN rails and in 19" racks.
All products have a redundant power supply to ensure reliability in critical environments. The new family ranges from managed Fast Ethernet switches to 10-Gigabit Ethenet products with all the necessary features to operate according to the most demanding requirements.

- DIN-rail and 19″ rack variants
- IEC 61850-3 and IEEE 1613 compliance
- Redundant power supply modules in all models
- Wide operating temperature range of -40°C up to 85°C
- Modular switch version with high flexibility in number and type of ports
- Fast/Gigabit/10-Gigabit interfaces

General ordering data

Version	Layer 2 Network Switch, Modular, 19" rack mount, managed, Fast/Gigabit/10-Gigabit Ethernet, IEC 61850-3 / IEEE 1613, high voltage, Number of ports: up to 28 (depending on used media interface modules), IP30, -40 °C...85 °C
Order No.	2779010000
Type	IE-SW-SL28M-HV
GTIN (EAN)	4064675048275
Qty.	1 pc(s).

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Technical data

Dimensions and weights

Depth	325 mm	Depth (inches)	12.795 inch
Height	44 mm	Height (inches)	1.732 inch
Width	440 mm	Width (inches)	17.323 inch
Net weight	7,670 g		

Temperatures

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

EMC conformity and approvals

EMC standards	EN 55032, CISPR 22, EN 61000-3-2, EN 61000-3-3, FCC Part 15 Subpart B Class A, EN 55035, IEC 61000-4-2 ESD: Contact: 6 kV; Air: 8 kV, IEC 61000-4-3 RS: 80 MHz to 3 GHz: 10 V/m, IEC 61000-4-4 EFT: Power: 4 kV; Signal: 4 kV, IEC 61000-4-6 CS: 10 V, IEC 61000-4-8, IEC 61000-4-11	Free fall	IEC 60870-2-2 class Cm
Power Transmission & Distribution Systems acc. to standard	IEEE 1613, IEC 61850-3	Safety standard	SELV according to EN 62368-1, UL 61010-1, UL 61010-2-201
Shock	IEC 60870-2-2 class Cm	Vibration	IEC 60870-2-2 class Cm and class Bm

Environmental conditions

Humidity	5 to 95 % (non-condensing)	Operating altitude	≤ 2000 m
Operating temperature, max.	85 °C	Operating temperature, min.	-40 °C
Storage temperature, max.	85 °C	Storage temperature, min.	-40 °C

Guarantee

Time interval	5 years

Interfaces

Console port interface	RS-232 (RJ45 connector)	
Function reset button	<5 sec: System reboot, >5 sec: Factory default	
Number of ports	up to 28 (depending on used media interface modules)	
Supported media interface modules	Media module interface slot	M1, M2, M3
	Supported module	IE-SWM-SL04-4SC IE-SWM-SL04-4SCS IE-SWM-SL04-4ST IE-SWM-SL04-4STS IE-SWM-SL08-8GT IE-SWM-SL08-8GESFP
	Media module interface slot	M4
	Supported module	IE-SWM-SL04-4GESFP IE-SWM-SL02-2GESFP+ IE-SWM-SL04-4GESFP+

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MTBF

MTBF	According to Standard	Telcordia SR-332
	Operating time (hours), min.	647,420 h

Management features

Device configuration	Webbrowser (HTTP/HTTPS), SNMP v1/v2c/v3, Telnet console, Command Line Interface (CLI), Local serial console port (RS-232 via RJ-45 port), Upload of a configuration file via web-interface, TFTP-Server or external backup module	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, Ethernet cable diagnostics on RJ-45 ports
Network redundancy	Spanning Tree Protocol (STP), Rapid Spanning Tree Protocol (RSTP), Multiple Spanning Tree Protocol (MSTP), O-Ring (recovery time <10/30 ms at Fast/Gigabit Ethernet interface), O-Chain (recovery time <10/30 ms at Fast/Gigabit Ethernet interface), Link Aggregation Control Protocol (LACP), Fast recovery	Network traffic filter	Quality of Service (QoS), Tag based VLAN, IGMP v2/v3, Traffic Rate Limiting
IP-address management	Static, DHCP-Client, DHCP-Server (port based, pool-based), DHCP Option 82, DHCP-Relay	Security functions	VLAN segmentation, Enable/disable ports, TACACS+ and IEEE 802.1X User Authentication, DoS/DDoS auto prevention, Access Control List, DHCP snooping, Loop protection, Management access security via privilege level configuration for different user roles
Time synchronization management	SNTP server, SNTP client, PTPv2	Industrial protocol support	Modbus/TCP slave, EtherNet/IP, PROFINET device acc. to conformance class A

Power supply

Connection type	1x 10-pin fork/ring lug connection	
Current consumption	Voltage	110 V DC
	Current	0.363 A
	Voltage	220 V DC
	Current	0.18 A
	Voltage	110 V AC
	Current	0.67 A
	Voltage	220 V AC
	Current	0.43 A
Overload current protection	Yes	
Reverse polarity protection	Yes	
Voltage supply	110/220 V DC, 110/220 V AC, 2 redundant isolated inputs	

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Voltage supply range	Voltage type	DC
	Voltage, min.	100 V
	Voltage, max.	370 V
	Voltage type	AC
	Voltage, min.	100 V
	Voltage, max.	240 V

Switch characteristics

Bandwidth backplane	128 Gbps	Jumbo frame support	up to 10 KB
MAC table size	8 K	Max. number of available VLANs	4,095
Memory (Flash)	16 MB	Memory (RAM)	128 MB
Packet buffer size	32 Mbit	Priority queues	8
VLAN-ID max	4,094	VLAN-ID min	1

Technical data

Housing main material	Metal	Protection degree	IP30
Speed	Fast/Gigabit/10-Gigabit Ethernet	Switch	managed
Type of mounting	19" rack mounting		

Technology

Data switching	Store and Forward	Flow control	IEEE 802.3x flow control
Standard	IEEE 802.3 for 10BASE-T, IEEE 802.3u for 100BASE-TX and 100BASE-FX, IEEE 802.3ab for 1000BASE-T, IEEE 802.3z for 1000BASE-X, IEEE 802.3ae for 10-Gigabit Ethernet, IEEE 802.3x for flow control, IEEE 802.3ad for port trunk with LACP, IEEE 802.1D for the Spanning Tree protocol, IEEE 802.1w for Rapid STP, IEEE 802.1s for the Multiple Spanning Tree Protocol (MSTP), IEEE 802.1p for Class of Service, IEEE 802.1Q for VLAN tagging, IEEE 802.1X for authentication, IEEE 802.1AB for Link Layer Discovery protocol (LLDP), IEEE 1588 PTPv2 for time synchronization		

Classifications

ETIM 6.0	EC000734	ETIM 7.0	EC000734
ETIM 8.0	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		

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Approvals

Approvals	
ROHS	Conform
UL File Number Search	E141197

Downloads

Approval/Certificate/Document of Conformity	EU Declaration of Conformity RCM Declaration of Conformity
Software	SNMP private MIB
User Documentation	Hardware Installation Guide
Catalogues	Catalogues in PDF-format