

**10-Port managed Fast/Gigabit Ethernet Switches**

- Meets IEC 61850-3 / IEEE 1613 standards
- Redundant power supply modules
- Extensive set of management features enable the set-up of various redundancy, monitoring, traffic filter and security functions
- Suitable for use in harsh industrial environment thanks to rugged design and wide operating temperature range of -40°C up to 85°C
- SFP-ports for fiber optic transmission over long distances



**Technical data**

Technology	
Standards	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 802.3x for flow control IEEE 802.3ad for port trunk with LACP IEEE 802.1D for the Spanning Tree protocol (STP) IEEE 802.1w for Rapid Spanning Tree protocol (RSTP) IEEE 802.1D-2004 for Rapid Spanning Tree Protocol 2004 (RSTP:2004) IEEE 802.1s for MSTP (Multiple Spanning Tree Protocol) IEEE 802.1p for Class of Service IEEE 802.1Q for VLAN Tagging IEEE 802.1X for Authentication IEEE 802.1AB for LLDP (Link Layer Discovery Protocol)
Processing type	Store and Forward
Flow control	IEEE 802.3x flow control
Switch characteristics	
MAC table size	8K
Packet buffer size	1 Mbit
Priority queues	4
Number of available VLANs	4095 (1 to 4094)
IGMP groups	1024
Management features	
Device configuration	Webbrowser (HTTP/HTTPS), SNMP v1/v2c/v3, Telnet console, CLI, Local serial console port, Upload of a configuration file via web-interface or TFTP-Server
Monitoring function	SNMP v1/v2c/v3, LLDP, Port mirroring, Port statistics, Port monitoring, Syslog, RMON, Event based warning via E-Mail, relay, SNMP trap
Network redundancy	STP, RSTP, MSTP, LACP, O-Ring, O-Chain, Fast recovery
Network traffic filter	Quality of Service (QoS), Differentiated Services Code Point (DSCP), Port based VLAN, Tag based VLAN, IGMP v2/v3, Multicast VLAN Registration (MVR), 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, Access control (Port based via IEEE 802.1X), Access Control List (IP-based, MAC-based), Management access security via secure IP-list and configuration of allowed access methods (web-interface, telnet, SSH), Loop protection
Time synchronization management	NTP server, SNTP client
Industrial protocol support	PROFINET device acc. to conformance class A, Modbus/TCP slave
Interfaces	
RJ45 ports	10/100BASE-T(X) or 10/100/1000BASE-T(X), auto negotiation, Full/half-duplex mode, Auto MDI/MDI-X port
Fibre optic ports	100/1000BaseSFP-slot
Serial console port	RS-232 (RJ45 connector)
Relay Contact	1 relay output with a current capacity of 1 A at 24 V DC
Reset button	< 5 sec: System reboot ; > 5 sec: Factory default
Power supply	
Connection type	IE-SW-SL10M-7TX-3GC-HV: 2x 3-pin fork/ring lug connection IE-SW-SL10M-7TX-3GC-LV: 2 removable 2-pin terminal blocks

Power supply		
Input voltage	IE-SW-SL10M-7TX-3GC-HV: 110/220 V DC (88 - 373 V), 110/220 V AC (85 - 264 V), 2 redundant isolated inputs IE-SW-SL10M-7TX-3GC-LV: 48 V DC (12 - 52 V), 2 redundant inputs	
Power consumption	12 W (max.)	
Overload current protection	yes	
Reverse polarity protection	yes	
Physical characteristics		
Housing main material	Metal	
Protection degree	IP30	
Type of mounting	DIN rail	
Dimensions (W x H x D)	96.4 x 154 x 148.5 mm (3.8 x 6.06 x 5.85 in)	
Weight	IE-SW-SL10M-7TX-3GC-HV: 1935 g IE-SW-SL10M-7TX-3GC-LV: 1415 g	
Environmental conditions		
Operating temperature	-40 to 85 °C (-40 to 185 °F)	
Storage temperature	-40 to 85 °C (-40 to 185 °F)	
Humidity	5 to 95 % (non-condensing)	
Operating altitude	≤ 2000 m	
EMC conformity and approvals		
EMC	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: 4 kV; Signal: 4 kV IEC 61000-4-5 Surge: Power: 4 kV; Signal: 4 kV IEC 61000-4-6 CS: 10 Vrms	
Safety	EN 62368-1	
Substation compliance	IEC 61850-3, IEEE 1613	
Shock	IEC 60870-2-2 class Cm	
Vibration	IEC 60870-2-2 class Cm and Class Bm	
Free fall	IEC 60870-2-2 class Cm	
MTBF		
Time	IE-SW-SL10M-7TX-3GC-HV: 599,113 hrs IE-SW-SL10M-7TX-3GC-LV: 528,570 hrs	
Database	Telcordia SR332	
Guarantee		
Time interval	5 years	
Ordering Information		
Version	Model Type	Order No.
7x RJ45 10/100 Mbit/s, 3x combo-ports usable as RJ45 10/100/1000 Mbit/s or SFP 100/1000Mbit/s), High Voltage	IE-SW-SL10M-7TX-3GC-HV	2778950000
7x RJ45 10/100 Mbit/s, 3x combo-ports usable as RJ45 10/100/1000 Mbit/s or SFP 100/1000Mbit/s), Low Voltage	IE-SW-SL10M-7TX-3GC-LV	2778960000
Accessories		Order No.
19" Rack Mounting Kit	RM-KIT	1241440000
Note		
Corresponding SFP modules for SubstationLine switches, see page I.4 - I.5.		

**20-Port managed Gigabit Ethernet Switches**

- Meets IEC 61850-3 / IEEE 1613 standards
- Redundant power supply modules
- Extensive set of management features enable the set-up of various redundancy, monitoring, traffic filter and security functions
- Suitable for use in harsh industrial environment thanks to rugged design and wide operating temperature range of -40°C up to 85°C
- SFP-ports for fiber optic transmission over long distances



**Technical data**

Technology	
Standards	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 802.3x for flow control IEEE 802.3ad for port trunk with LACP IEEE 802.1D for the Spanning Tree protocol (STP) IEEE 802.1w for Rapid Spanning Tree protocol (RSTP) IEEE 802.1s for 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 LLDP (Link Layer Discovery Protocol) IEEE 1588 PTPv2 for time synchronization
Processing type	Store and Forward
Flow control	IEEE 802.3x flow control
Switch characteristics	
MAC table size	8K
Packet buffer Size	4 Mbit
Jumbo frame support	up to 9.6 KB
Priority queues	8
Number of available VLANs	4096 (1 to 4095)
IGMP groups	256 per VLAN
Management features	
Device configuration	Webbrowser (HTTP/HTTPS), SNMP v1/v2c/v3, Telnet console, CLI, Local serial console port, Upload of a configuration file via web-interface, TFTP-Server or external backup module
Monitoring function	SNMP v1/v2c/v3, LLDP, Port mirroring, Port statistics, Port monitoring, Syslog, RMON, Event based warning via E-Mail, relay, SNMP trap, Ethernet cable diagnostics on RJ-45 ports
Network redundancy	STP, RSTP, MSTP, LACP, O-Ring, O-Chain, 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 (IP-based, MAC-based), Loop protection, Management access security via privilege level configuration for different user roles
Time synchronization management	SNTP server, SNTP client, PTPv2
Industrial protocol support	PROFINET device acc. to conformance class A, Modbus/TCP slave, EtherNet/IP
Interfaces	
RJ45 ports	10/100/1000BASE-T(X), auto negotiation, Full/half-duplex mode, Auto MDI/MDI-X port
Fibre optic ports	100/1000BaseSFP-slot
Serial console port	RS-232 (RJ45 connector)
Relay Contact	1 relay output with a current capacity of 1 A at 24 V DC
Reset button	< 5 sec: System reboot ; > 5 sec: Factory default
Power supply	
Connection type	IE-SW-SL20M-8GT-12GESFP-HV: 2x 3-pin fork/ring lug connection IE-SW-SL20M-8GT-12GESFP-LV: 2 removable 2-pin terminal blocks

Power supply		
Input voltage	IE-SW-SL20M-8GT-12GESFP-HV: 110/220 V DC (88 - 373 V), 110/220 V AC (85 - 264 V), 2 redundant isolated inputs IE-SW-SL20M-8GT-12GESFP-LV: 48 V DC (12 - 52 V), 2 redundant isolated inputs	
Power consumption	23 W (max.)	
Overload current protection	yes	
Reverse polarity protection	yes	
Physical characteristics		
Housing main material	Metal	
Protection degree	IP30	
Type of mounting	DIN rail	
Dimensions (W x H x D)	115 x 154 x 159 mm (4.5 x 6.06 x 6.26 in)	
Weight	IE-SW-SL20M-8GT-12GESFP-HV: 1870 g IE-SW-SL20M-8GT-12GESFP-LV: 1520 g	
Environmental conditions		
Operating temperature	-40 to 85 °C (-40 to 185 °F)	
Storage temperature	-40 to 85 °C (-40 to 185 °F)	
Humidity	5 to 95 % (non-condensing)	
Operating altitude	≤ 2000 m	
EMC conformity and approvals		
EMC	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: 4 kV; Signal: 4 kV IEC 61000-4-5 Surge: Power: 4 kV; Signal: 4 kV IEC 61000-4-6 CS: 10 Vrms	
Safety	EN 62368-1	
Substation compliance	IEC 61850-3, IEEE 1613	
Shock	IEC 60870-2-2 class Cm	
Vibration	IEC 60870-2-2 class Cm and Class Bm	
Free fall	IEC 60870-2-2 class Cm	
MTBF		
Time	IE-SW-SL20M-8GT-12GESFP-HV: 421,961 hrs IE-SW-SL20M-8GT-12GESFP-LV: 273,551 hrs	
Database	Telcordia SR332	
Guarantee		
Time interval	5 years	
Ordering Information		
Version	Model Type	Order No.
8x RJ45 10/100/1000 Mbit/s, 12x SFP 100/1000 Mbit/s, High Voltage	IE-SW-SL20M-8GT-12GESFP-HV	<b>2778970000</b>
8x RJ45 10/100/1000 Mbit/s, 12x SFP 100/1000 Mbit/s, Low Voltage	IE-SW-SL20M-8GT-12GESFP-LV	<b>2778980000</b>
Accessories		Order No.
19" Rack Mounting Kit	RM-KIT	<b>1241440000</b>
Configuration backup and restore module	IE-EBR-MODULE-RS232-ALM	<b>2682610000</b>
Note		
Corresponding SFP modules for SubstationLine switches, see page I.4 - I.5.		

**26-Port 19" managed Fast/Gigabit Ethernet Switches**

- Meets IEC 61850-3 / IEEE 1613 standards
- Redundant power supply modules
- Extensive set of management features enable the set-up of various redundancy, monitoring, traffic filter and security functions
- Suitable for use in harsh industrial environment thanks to rugged design and wide operating temperature range of -40°C up to 85°C
- SFP-ports for fiber optic transmission over long distances



**Technical data**

Technology	
Standards	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 802.3x for flow control IEEE 802.3ad for port trunk with LACP IEEE 802.1D for the Spanning Tree protocol (STP) IEEE 802.1w for Rapid Spanning Tree protocol (RSTP) IEEE 802.1s for 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 LLDP (Link Layer Discovery Protocol) IEEE 1588 PTPv2 for time synchronization
Processing type	Store and Forward
Flow control	IEEE 802.3x flow control
Switch characteristics	
MAC table size	8K
Packet buffer Size	4 Mbit
Priority queues	8
Number of available VLANs	4095 (1 to 4094)
IGMP groups	256 per VLAN
Management features	
Device configuration	Webbrowser (HTTP/HTTPS), SNMP v1/v2c/v3, Telnet console, CLI, Local serial console port, Upload of a configuration file via web-interface, TFTP-Server or external backup module
Monitoring function	SNMP v1/v2c/v3, LLDP, Port mirroring, Port statistics, Port monitoring, Syslog, RMON, Event based warning via E-Mail, relay, SNMP trap, Ethernet cable diagnostics on RJ45 ports
Network redundancy	STP, RSTP, MSTP, LACP, O-Ring, O-Chain, 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 (IP-based, MAC-based), Loop protection, Management access security via privilege level configuration for different user roles
Time synchronization management	SNTP server, SNTP client, PTPv2
Industrial protocol support	PROFINET device acc. to conformance class A, Modbus/TCP slave, EtherNet/IP
Interfaces	
RJ45 ports	10/100BASE-T(X) or 10/100/1000BASE-T(X), auto negotiation, Full-/half-duplex mode, Auto MDI/MDI-X port
Fibre optic ports	100/1000BaseSFP-slot
Serial console port	RS-232 (RJ45 connector)
Relay Contact	1 relay output with a current capacity of 1 A at 24 V DC
Reset button	< 5 sec: System reboot ; > 5 sec: Factory default
Power supply	
Connection type	1x 10-pin fork/ring lug connection

Power supply	
Input voltage	IE-SW-SL26M-24TX-2GC-HV: 110/220 V DC (100 - 370 V), 110/220 V AC (100 - 240 V), 2 redundant isolated inputs IE-SW-SL26M-24TX-2GC-LV: 48 V DC (24 - 72 V), 2 redundant isolated inputs
Power consumption	23 W (max.)
Overload current protection	yes
Reverse polarity protection	yes
Physical characteristics	
Housing main material	Metal
Protection degree	IP30
Type of mounting	19" rack mounting
Dimensions (W x H x D)	443.7 x 44 x 262.5 mm (17.46 x 1.73 x 10.33 in)
Weight	IE-SW-SL26M-24TX-2GC-HV: 4050 g IE-SW-SL26M-24TX-2GC-LV: 3535 g
Environmental conditions	
Operating temperature	-40 to 85 °C (-40 to 185 °F)
Storage temperature	-40 to 85 °C (-40 to 185 °F)
Humidity	5 to 95 % (non-condensing)
Operating altitude	≤ 2000 m
EMC conformity and approvals	
EMC	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: 4 kV; Signal: 4 kV IEC 61000-4-5 Surge: Power: 4 kV; Signal: 4 kV IEC 61000-4-6 CS: 10 Vrms
Safety	EN 62368-1
Substation compliance	IEC 61850-3, IEEE 1613
Shock	IEC 60870-2-2 class Cm
Vibration	IEC 60870-2-2 class Cm and Class Bm
Free fall	IEC 60870-2-2 class Cm
MTBF	
Time	IE-SW-SL26M-24TX-2GC-HV: 262,968 hrs IE-SW-SL26M-24TX-2GC-LV: 297,924 hrs
Database	Telcordia SR332
Guarantee	
Time interval	5 years

Ordering Information		
Version	Model Type	Order No.
24x RJ45 10/100 Mbit/s, 2x combo-ports usable as RJ45 10/100/1000 Mbit/s or SFP 100/1000 Mbit/s), High Voltage	IE-SW-SL26M-24TX-2GC-HV	<b>2778990000</b>
24x RJ45 10/100 Mbit/s, 2x combo-ports usable as RJ45 10/100/1000 Mbit/s or SFP 100/1000 Mbit/s), Low Voltage	IE-SW-SL26M-24TX-2GC-LV	<b>2779000000</b>

**Note**  
Corresponding SFP modules for SubstationLine switches, see page I.4 - I.5.

**28-Port 19" modular managed Fast/Gigabit/10-Gigabit Ethernet Switches**

- Meets IEC 61850-3 / IEEE 1613 standards
- Modular design to allocate up to 28 ports with up to 10-GbE speed
- Extensive set of management features enable the set-up of various redundancy, monitoring, traffic filter and security functions
- Suitable for use in harsh industrial environment thanks to rugged design and wide operating temperature range of -40°C up to 85°C
- SFP-ports for fiber optic transmission over long distances



**Technical data**

Technology	
Standards	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 (STP) IEEE 802.1w for Rapid Spanning Tree protocol (RSTP) IEEE 802.1s for 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 LLDP (Link Layer Discovery Protocol) IEEE 1588 PTPv2 for time synchronization
Processing type	Store and Forward
Flow control	IEEE 802.3x flow control
Switch characteristics	
MAC table size	8K
Packet buffer Size	32 Mbit
Memory (Flash)	16 MB
Memory (RAM)	128 MB
Jumbo frame support	up to 10 KB
Priority queues	8
Number of available VLANs	4095 (1 to 4094)
IGMP groups	128 per VLAN
Management features	
Device configuration	Webbrowser (HTTP/HTTPS) SNMP v1/v2c/v3 Telnet console, CLI Local serial console port Upload of a configuration file via web-interface TFTP-Server or external backup module
Monitoring function	SNMP v1/v2c/v3 LLDP Port mirroring Port statistics Port monitoring Syslog RMON Event based warning via E-Mail relay SNMP trap Ethernet cable diagnostics on RJ-45 ports

Management features	
Network redundancy	STP RSTP MSTP LACP O-Ring O-Chain, 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 (IP-based, MAC-based) Loop protection Management access security via privilege level configuration for different user roles
Time synchronization management	SNTP server SNTP client PTPv2
Industrial protocol support	PROFINET device acc. to conformance class A, Modbus/TCP slave, EtherNet/IP
Interfaces	
Supported media interface modules at slots 1 - 3	IE-SWM-SL08-8GT: 8 x 10/100/1000BASE-T(X) ports IE-SWM-SL08-8GESFP: 8 x 100/1000BaseSFP ports IE-SWM-SL04-4SC: 4 x 100Base-FX ports (SC-duplex, multimode) IE-SWM-SL04-4SCS: 4 x 100Base-FX ports (SC-duplex, singlemode) IE-SWM-SL04-4ST: 4 x 100Base-FX ports (ST-duplex, multimode) IE-SWM-SL04-4STS: 4 x 100Base-FX ports (ST-duplex, singlemode)
<b>Note:</b> Supported media interface modules for module slots 1-3, see page C.20	
Supported media interface modules at slot 4	IE-SWM-SL04-4GESFP: 4 x 1000BaseSFP slots IE-SWM-SL02-2GESFP+: 2 x 10GBaseSFP+ slots IE-SWM-SL04-4GESFP+: 4 x 10GBaseSFP+ slots
<b>Note:</b> Supported media interface modules for module slot 4, see page C.21	
Serial console port	RS-232 (RJ45 connector)
Relay Contact	1 relay output with a current capacity of 1 A at 24 V DC
Reset button	< 5 sec: System reboot ; > 5 sec: Factory default

Power supply	
Connection type	1x 10-pin fork/ring lug connection
Input voltage	IE-SW-SL28M-HV: 110/220 V DC (100 - 370 V), 110/220 V AC (100 - 240 V), 2 redundant isolated inputs IE-SW-SL28M-LV: 48 V DC (24 - 72 V), 2 redundant isolated inputs
Power consumption	41 W (max.)
Overload current protection	yes
Reverse polarity protection	yes
Physical characteristics	
Housing main material	Metal
Protection degree	IP30
Type of mounting	19" rack mounting
Dimensions (W x H x D)	440 x 44 x 325 mm (17.32 x 1.73 x 12.80 in)
Weight	IE-SW-SL28M-HV: 6600 g IE-SW-SL28M-LV: 6450 g
Environmental conditions	
Operating temperature	-40 to 85 °C (-40 to 185 °F) -20 to 60 °C (-4 to 140 °F) if 10G SFP+ module is used
Storage temperature	-40 to 85 °C (-40 to 185 °F)
Humidity	5 to 95 % (non-condensing)
Operating altitude	≤ 2000 m
EMC conformity and approvals	
EMC	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: 4 kV; Signal: 4 kV IEC 61000-4-5 Surge: Power: 4 kV; Signal: 4 kV IEC 61000-4-6 CS: 10 Vrms
Safety	EN 62368-1, UL 61010-1, UL 61010-2-201 (IE-SW-SL28M-HV only)
Substation compliance	IEC 61850-3, IEEE 1613
Shock	IEC 60870-2-2 class Cm
Vibration	IEC 60870-2-2 class Cm and Class Bm
Free fall	IEC 60870-2-2 class Cm
MTBF	
Time	IE-SW-SL28M-HV: 647,420 hrs IE-SW-SL28M-LV: 608,907 hrs
Database	Telcordia SR332
Guarantee	
Time interval	5 years

Ordering Information		
Version	Model Type	Order No.
Modular 19" rack mounting switch with 4 media interface slots for up to 28 ports, High voltage	IE-SW-SL28M-HV	2779010000
Modular 19" rack mounting switch with 4 media interface slots for up to 28 ports, Low Voltage	IE-SW-SL28M-LV	2779020000
Accessories	Model Type	Order No.
Configuration backup and restore module	IE-EBR-MODULE-RS232-ALM	2682610000

Media interface modules for modular switch - Fast/Gigabit Ethernet

- Modular design provides wide variety of media interface types (RJ-45, SFP, SC/ST-Duplex)



available  
Q3 2021



Technical data

Interfaces	
RJ45 ports	10/100/1000BASE-T(X), auto negotiation, Full/half-duplex mode, Auto MDI/MDI-X port
Fibre optic ports	100BASE-FX (SC/ST-Duplex connector) or 100/1000BaseSFP-slot
Fibre optic transceiver characteristics	
Transmission rate	100 Mbps
Connector type	SC-Duplex or ST-Duplex
Transceiver type	Multimode Singlemode
Fiber cable type	50/125 µm 62.5/125 µm 9/125 µm
Transmission distance, typical	2 km 30 km
Wavelength, typical	1310 nm
Optical power RX range	-32to -8 dBm -34 to 0 dBm
Optical power TX range	-23.5 to -14 dBm -15 to -8 dBm
Link-budget	8.5 dB 19 dB
Power supply	
Voltage supply	via Ethernet switch
Power consumption	IE-SWM-SL04-4SC/4SCS/4ST/4STS: 5.5 W IE-SWM-SL08-8GT: 8 W IE-SWM-SL08-8GESFP: 0.5 W (w/o SFP-transceiver)
Physical characteristics	
Housing main material	Metal
Type of mounting	Insert in module slot 1, 2 or 3 of IE-SW-SL28M series
Dimensions (W x H x D)	99 x 40.7 x 107 mm (3.9 x 1.6 x 4.2 in)
Weight	326 g
Environmental conditions	
Operating temperature	-40 to 85 °C (-40 to 185 °F)
Storage temperature	-40 to 85 °C (-40 to 185 °F)
Humidity	5 to 95 % (non-condensing)
Operating altitude	≤ 2000 m
MTBF	
Time	IE-SWM-SL04-4SC: 315,658 hrs IE-SWM-SL04-4SCS: 401,287 hrs IE-SWM-SL04-4ST: 314,863 hrs IE-SWM-SL04-4STS: 401,287 hrs IE-SWM-SL08-8GT: 1,303,990 hrs IE-SWM-SL08-8GESFP: 3,712,062 hrs
Database	Telcordia SR332
Guarantee	
Time interval	5 years

Ordering Information

Version	Model Type	Order No.
Media interface module, 4x SC Multimode 100Mbit/s	IE-SWM-SL04-4SC	2779170000
Media interface module, 4x SC Singlemode 100Mbit/s	IE-SWM-SL04-4SCS	2779160000
Media interface module, 4x ST Multimode 100Mbit/s	IE-SWM-SL04-4ST	2779190000
Media interface module, 4x ST Singlemode 100Mbit/s	IE-SWM-SL04-4STS	2779180000
Media interface module, 8x RJ45 10/100/1000 Mbit/s	IE-SWM-SL08-8GT	2779140000
Media interface module, 8x SFP 100/1000 Mbit/s	IE-SWM-SL08-8GESFP	2779150000

Note

Corresponding SFP modules for SubstationLine switches, see page I.4 - I.5.

## Media interface modules for modular switch - Gigabit/10-Gigabit Ethernet



available  
Q3 2021



## Technical data

Interfaces	
Fibre optic ports	1000BaseSFP-Slot or 10GBaseSFP+ slot
Power supply	
Voltage supply	via Ethernet switch
Power consumption	IE-SWM-SL04-4GESFP: 0.5 W (w/o SFP-transceiver) IE-SWM-SL02-2GESFP+: 7 W (w/o SFP-transceiver) IE-SWM-SL04-4GESFP+: 14 W (w/o SFP-transceiver)
Physical characteristics	
Housing main material	Metal
Type of mounting	Insert in module slot 4 of IE-SW-SL28M series
Dimensions (W x H x D)	99 x 40.7 x 136 mm (3.9 x 1.6 x 5.35 in)
Weight	314 g
Environmental conditions	
Operating temperature	IE-SWM-SL04-4GESFP: -40 to 85 °C (-40 to 185 °F) IE-SWM-SL02-2GESFP+: -40 to 60 °C (-40 to 140 °F) IE-SWM-SL04-4GESFP+: -40 to 60 °C (-40 to 140 °F)
Storage temperature	-40 to 85 °C (-40 to 185 °F)
Humidity	5 to 95 % (non-condensing)
Operating altitude	≤ 2000 m
MTBF	
Time	IE-SWM-SL04-4GESFP: 4,419,625 hrs IE-SWM-SL02-2GESFP+: 3,814,097 hrs IE-SWM-SL04-4GESFP+: 1,871,812 hrs
Database	Telcordia SR332
Guarantee	
Time interval	5 years

## Ordering Information

Version	Model Type	Order No.
Media interface module, 4x SFP 1000 Mbit/s	IE-SWM-SL04-4GESFP	2779200000
Media interface module, 2x SFP+ 10 Gbit/s	IE-SWM-SL02-2GESFP+	2779210000
Media interface module, 4x SFP+ 10 Gbit/s	IE-SWM-SL04-4GESFP+	2779220000

## Note

Corresponding SFP modules for SubstationLine switches, see page I.5 – I.6.