IE-SW-SPE05-4T1LMPODL-1TX

The unmanaged SPE switch from Weidmüller offers the solution for reliable and efficient networking. It enables the bridging of large distances of up to 1,000 m using the SPE standard 10Base-T1L (10 Mbit/s). Using this switch eliminates the need for subsystems or gateways, simplifying the network infrastructure and reducing complexity.

- Simple and space-saving installation, as both data transmission and power supply are provided via only one pair of wires (PoDL classes 10 - 14, up to 50 W, SCCP support)
- The unmanaged SPE switch from Weidmüller is compatible with all Ethernet and IP-based protocols and can be used universally
- Provides a reliable and efficient way to optimize network connectivity and increase system efficiency

General ordering data

Order No.	3012120000
Type	IE-SW-SPE05-4T1LMPODL-1TX
GTIN (EAN)	4099986918344
Qty.	1 items

IE-SW-SPE05-4T1LMPODL-1TX

Technical data

Approvals

Approvals	CE cULus LISTED UKCA
ROHS	Conform
UL File Number Search	UL Website
Certificate no. (cULus)	E141197

Dimensions and weights

Depth	108.3 mm	Depth (inches)	4.2638 inch
Height	145.1 mm	Height (inches)	5.7126 inch
Width	28 mm	Width (inches)	1.1024 inch
Net weight	530 g		

Temperatures

Storage temperature	40 °C...85 °C	Operating temperature	-40 °C...70 °C
Humidity	5 to 98% (non-condensing)		

Environmental Product Compliance

RoHS Compliance Status	Compliant with exemption
RoHS Exemption (if applicable/known)	7a, 7cl
REACH SVHC	Lead 7439-92-1, Lead monoxide 1317-36-8
SCIP	9229992a-00b9-4096-8962-200a7f33e289

EMC conformity and approvals

Free fall	According to IEC 60068-2-32	EMC standards	EN 61000-6-2, EN 61000-6-4
Vibration	according to IEC 60068-2-6	Shock	according to IEC 60068-2-27
Railway	EN 50121-4	Safety standard	UL 61010-1, UL 61010-2-201

Environmental conditions

Operating temperature, max.	70 °C
Operating temperature, min.	-40 °C
Humidity	5 to 98% (non-condensing)
Storage temperature, max.	85 °C
Storage temperature, min.	40 °C
Operating altitude	Altitude, max. 2000 m

Guarantee

Time interval	5 years

Interfaces

RJ45 ports	10/100BaseT(X), auto negotiation, Full-/half-duplex mode, Auto MDI/MDI-X port	Function DIP switch	MAC frame filtering (on/off), QoS (on/off), SPE-T1L (on/off), SPE-T1L (master/slave), PoDL (on/

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Technical data

			off), PoDL SCCP (on/off), PoDL (24V/50V)
Number of ports	1x RJ45, 4x SPE port acc. to IEC 63171-2	LED indicator	Power LED: PWR, Port LED: LNK/ACT, 10/100M (RJ45 port), Port LED: LNK/ACT, 10M (SPE port), PoDL indicator

MTBF

MTBF	According to Standard	Telcordia SR-332
	Operating time (hours), min.	692776 h
	Input voltage	24 V

Management features

Network traffic filter	Quality of Service (QoS)	Industrial protocol support	PROFINET device acc. to conformance class A

Power supply

Reverse polarity protection	Yes		
Supply voltage	1 single input		
Overload current protection	Yes		
Connection type	1 removable 2-pin terminal block		
Voltage supply range	Voltage type	DC	
	Voltage, min.	20 V	
	Voltage, max.	30 V	
Current consumption	Voltage	24 V	
	Voltage type	DC	
	Current consumption with Powered Device (PD)	3.47 A	
	Current consumption without Powered Device (PD)	0.09 A	

Switch characteristics

Priority queues	4	MAC table size	1 K
Packet buffer size	128 kbit	Bandwidth backplane	280 Mbit/s

Technical data

Housing main material	Metal	
Type of mounting	DIN rail	
Protection degree	IP30	
Speed	Fast Ethernet, 10BaseT1L	
PoDL output power	Standard	IEEE 802.3cg
	Voltage according to PoDL class	24 V
	PoDL class	10
	Output power	1.85 W
	Standard	IEEE 802.3cg
	Voltage according to PoDL class	24 V
	PoDL class	11
	Output power	4.8 W
	Standard	IEEE 802.3cg
	Voltage according to PoDL class	24 V
	PoDL class	12
	Output power	12.63 W
	Standard	IEEE 802.3cg
	Voltage according to PoDL class	50 V

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Technical data

		PoDL class	13
		Output power	11.54 W
		Standard	IEEE 802.3cg
		Voltage according to PoDL class	50 V
		PoDL class	14
		Output power	30 W
Switch	unmanaged		
PoDL power budget		Voltage type	DC
		Voltage, min.	24 V
		Voltage, max.	30 V
		Power budget	80 W

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, IEEE 802.3x for flow control, IEEE 802.3cg for 10Base-T1L		

Important note

Product information	Only powered devices with the same voltage can be operated at the same time.

Classifications

ETIM 8.0	EC000734	ETIM 9.0	EC000734
ETIM 10.0	EC000734	ECLASS 14.0	19-17-04-02
ECLASS 15.0	19-17-04-02		

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Accessories

IP20 Patch Cable

Single pair Ethernet is a technology that only requires one pair of wires to transmit data and power.
The resulting benefits will make SPE the preferred network at the field level and beyond.Advantages of Single Pair Ethernet
- Consistent: Single Pair Ethernet enables uniform Ethernet-based communication from the sensor to the cloud
- Future-proof: key technology for Industry 4.0 and IIoT
- Flexible: ranges of up to 1000 m and transmission properties of up to 1 Gbps enable use across applications
- Innovative: lighter, less space required, and reduced installation effort

General ordering data

Type	IE-S1DS2VE0010T01T01-E	Version
Order No.	2725850010	Patch cable, SPE plug (IEC 63171-2) - IP20 socket contact straight,
GTIN (EAN)	4050118824544	SPE plug (IEC 63171-2) - IP20 socket contact straight, T1-B, PVC, 1 m
Qty.	1 ST	
Type	IE-S1DS2VE0020T01T01-E	Version
Order No.	2725850020	Patch cable, SPE plug (IEC 63171-2) - IP20 socket contact straight,
GTIN (EAN)	4050118825312	SPE plug (IEC 63171-2) - IP20 socket contact straight, T1-B, PVC, 2 m
Qty.	1 ST	
Type	IE-S1DS2VE0030T01T01-E	Version
Order No.	2725850030	Patch cable, SPE plug (IEC 63171-2) - IP20 socket contact straight,
GTIN (EAN)	4050118825329	SPE plug (IEC 63171-2) - IP20 socket contact straight, T1-B, PVC, 3 m
Qty.	1 ST	
Type	IE-S1DS2VE0150T01T01-E	Version
Order No.	2725850150	Patch cable, SPE plug (IEC 63171-2) - IP20 socket contact straight,
GTIN (EAN)	4064675364658	SPE plug (IEC 63171-2) - IP20 socket contact straight, T1-B, PVC, 15
Qty.	1 ST	m
Type	IE-S1DS2VE0400T01T01-E	Version
Order No.	2725850400	Patch cable, SPE plug (IEC 63171-2) - IP20 socket contact straight,
GTIN (EAN)	4064675364412	SPE plug (IEC 63171-2) - IP20 socket contact straight, T1-B, PVC, 40
Qty.	1 ST	m

AWG22

Single pair Ethernet is a technology that only requires one pair of wires to transmit data and power.
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Accessories

General ordering data

Type	IE-S1DS2LE-100	Version	
Order No.	2926120000	System cable, Single Pair Ethernet (SPE), T1-B, LSZH, 100	
GTIN (EAN)	4099986643253		
Qty.	1 ST		
Type	IE-S1DS2UE-100	Version	
Order No.	2926110000	System cable, Single Pair Ethernet (SPE), T1-B, PUR, 100	
GTIN (EAN)	4099986643246		
Qty.	1 ST		
Type	IE-S1DS2UE-500	Version	
Order No.	2924340000	System cable, Single Pair Ethernet (SPE), T1-B, PUR, 500	
GTIN (EAN)	4099986624573		
Qty.	1 ST		

AWG26

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General ordering data

Type	IE-S1ES2LE-100	Version	
Order No.	2926140000	System cable, Single Pair Ethernet (SPE), T1-B, LSZH, 100	
GTIN (EAN)	4099986643277		
Qty.	1 ST		
Type	IE-S1ES2LE-500	Version	
Order No.	2924370000	System cable, Single Pair Ethernet (SPE), T1-B, LSZH, 500	
GTIN (EAN)	4099986624818		
Qty.	1 ST		
Type	IE-S1ES2UE-100	Version	
Order No.	2926130000	System cable, Single Pair Ethernet (SPE), T1-B, PUR, 100	
GTIN (EAN)	4099986643260		
Qty.	1 ST		
Type	IE-S1ES2UE-500	Version	
Order No.	2924360000	System cable, Single Pair Ethernet (SPE), T1-B, PUR, 500	
GTIN (EAN)	4099986624801		
Qty.	1 ST		

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Accessories

Single Pair Ethernet tool-free

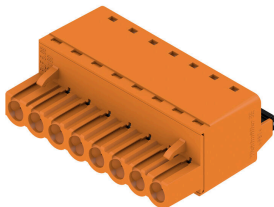Single pair Ethernet is a technology that only requires one pair of wires to transmit data and power.
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General ordering data

Type	IE-PS-SP0-S-FH-180	Version
Order No.	2726040000	SPE fieldattachable plug, SPE-Plug acc. to IEC 63171-2, IDC, 2-core,
GTIN (EAN)	4050118810790	IP20
Qty.	1 ST	

BLF 5.08HC/180 SN

Just as reliable as the millionfold proven original and featuring innovative details:
The BLF 5.08HC PUSH IN version of the BLZP 5.08HC female connector is not only different in terms of connection system; it also has a more compact design. Weidmüller's innovative PUSH IN spring connection system stands for the future of easy and tool-free wire connection. HC = High Current.
In terms of versatility, the BLF 5.08HC offers just as much as the version which served as a model:

- 3 tested-and-proven wire outlet directions provide the usual flexibility for application-specific design
- 4 flange variations and the patented release latch allow the locking concept to be based on the requirements of the user
- Use the BLF 5.08HC and SL 5.08HC plug combination to reach the max. rated specifications

General ordering data

Type	BLF 5.08HC/02/180 SN BK...	Version
Order No.	1013430000	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 2,
GTIN (EAN)	4032248721580	180°, PUSH IN with actuator, Clamping range, max. : 3.31 mm², Box
Qty.	180 ST	