

# Industrial Ethernet active and passive

Product Information

# Industrial Ethernet active

**Unmanaged Switches  
Basic Line**



**Unmanaged Switches  
Value Line**



**Managed Switches  
Value Line**



**Managed Switches  
Premium Line**



**Power-over-Ethernet  
Switches**



**Media Converter**



**Serial / Ethernet converter**



**Industrial wireless**



**Accessories**

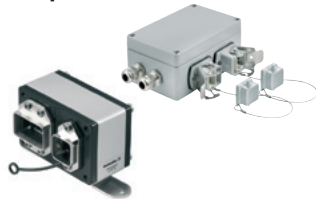


# Industrial Ethernet passive

IP67 plug-in connector



IP65 connection components



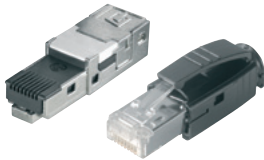
Mounting rail outlets



FrontCom® Micro



RJ45 Connectors IP20



Accessories



Bulk – cables  
AdvancedLine



System cables  
AdvancedLine



Patch cables  
CabinetLine





# Industrial Ethernet

<b>Industrial Ethernet active</b>	Übersicht Produktfamilien	6
	Unmanaged Switches Fast Ethernet	8
	Unmanaged Switches Gigabit Ethernet	10
	Managed Switches Fast Ethernet	11
	Managed Switches Gigabit Ethernet	13
	Power-over-Ethernet Switches	16
	Media converter	18
	Serial / Ethernet converter	19
	Industrial wireless	20
	SFP modules	21
	Backup-/Restore module / RM-KIT	22
<b>Industrial Ethernet passive</b>	Connector overview	24
	Cabeling solution overview	25
	IP67 – AdvancedLine	26
	IP20 – AdvancedLine	28
	Accessories	29
	Bulk – cables – AdvancedLine	30
	System cables – AdvancedLine	31
	Patch cables – CabinetLine	34

# Industrial Ethernet active

## Basic Line

---



Weidmüller's Basic Line consists of unmanaged Plug & Play switches in a rugged IP30 rated aluminium housing. The devices are available with Fast Ethernet and Gigabit Ethernet and provide an economical solution for Industrial Ethernet ports networks. One model is equipped with Fast Ethernet and Power-over-Ethernet ports. All devices have been developed for applications in harsh industrial environments and have international approvals such as CE, cULus, Class I Div. 2 / Atex and DNV / GL and are thus international applicable for different applications.

- Plug & Play switches in a rugged aluminium housing (IP30)
- Compact design
- Cost efficient entry-level switches
- Fast Ethernet variants with 5 and 8 Ports
- Versions with copper or fibre optic interface (multimode and single-mode)
- 5 port Full-Gigabit Plug & Play Switch
- Power-over-Ethernet switch with 6 Fast Ethernet ports, thereof 4 PoE+ ports
- Approvals: CE, FCC, cULus, Class I Div. 2 / Atex, DNV / GL

## Value Line

---



Weidmüller's Value Line consists of unmanaged and managed switches in a high quality IP30 rated metal housing. The devices are available with Fast Ethernet and Gigabit Ethernet ports. Managed switches of the Value Line support a variety of useful management functions, such as fast ring redundancy, port-based VLAN, QoS, RMON, bandwidth management, port mirroring and warning by email message or relay. The ring redundancy can be set up easily using the web-based management interface, or with the DIP switches located on the top panel of the switches.

- Unmanaged Plug & Play switches in a high quality metal housing (IP30)
- Price-sensitive mid-range class
- Managed switches for entry into configurable network infrastructure
- Unmanaged 8 port Full-Gigabit switches
- Approvals: CE, FCC, cULus, Class I Div. 2 / Atex, DNV / GL

## Premium Line

---

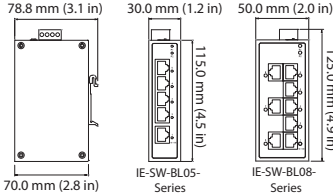


Weidmüller's Premium Line consists of high-end managed switches with advanced management and security features and is therefore suitable for most demanding network solutions. The devices are available with Fast Ethernet or Gigabit Ethernet ports. One model is equipped with Fast Ethernet and Power-over-Ethernet ports. With their advanced ring redundancy technology (recovery time  $\leq 20$  ms), these devices increase the reliability and availability of your industrial network. The optional use of SFP transceivers offers a high degree of flexibility and the Gigabit variants allow use in networks with high traffic loads also.

- Managed Fast Ethernet variants in a high quality metal housing (IP30)
- Managed Power-over-Ethernet switch with 6 Fast Ethernet ports, thereof 4 PoE+ ports
- Variants with 10 or 18 ports and Gigabit uplink ports
- Full-Gigabit switch with 9 ports
- Supports all standard protocols in TCP/IP-based industrial networks (e.g. Ethernet/IP, Modbus/TCP)
- Built-in redundancy mechanisms (recovery time  $\leq 20$  ms) for increased reliability in network ring structures
- Approvals: CE, FCC, cULus, Class I Div. 2 / Atex, DNV / GL

Unmanaged Fast Ethernet Switches

- 10/100BaseT(X) (RJ45 connector), 100BaseFX (multi/singlemode, SC or ST connector)
- Redundant dual 12/24/48 V DC, 18 to 30 V AC power inputs
- IP30 aluminum housing
- Rugged hardware design well suited for hazardous locations (Class I Div. 2 /ATEX) and maritime environments (DNV/GL)
- -40 to 75 °C operating temperature range (T models)



Technical data

Technology	
Standards	IEEE 802.3 for 10BaseT IEEE 802.3u for 100BaseT(X) and 100BaseFX IEEE 802.3x for Flow Control
Processing Type	Store and Forward
Flow Control	IEEE 802.3x flow control, back pressure flow control
Switch Properties	
MAC Table Size	1 K
Packet Buffer Size	512 Kbit
Interface	
Fiber Ports	100BaseFX ports (SC/ST connector, multimode, singlemode)
RJ45 Ports	10/100BaseT(X) auto negotiation speed, Full/Half duplex mode, and auto MDI/MDI-X connection
DIP Switches	Enable/Disable broadcast storm protection
LED Indicators	Power, 10/100M (TP port), 100M (fiber port)
Optical Fiber	
	100BaseFX
	multimode
	singlemode
Wavelength	1300 nm
Max. TX	-10 dBm
Min. TX	-20 dBm
RX Sensitivity	-32 dBm
Link Budget	12 dB
Typical Distance	5 km (50/125 µm multimode cable) 4 km (62.5/125 µm multimode cable)
Saturation	-6 dBm
	-3 dBm
Power Requirements	
Input Voltage	12/24/48 V DC (9.6 to 60 V DC), 18 to 30 V AC (47 to 63 Hz), redundant dual inputs
Input Current	IE SW BL05 5TX: 0.1 A @ 24 V IE SW BL05 SC/ST/SCS: 0.11 A @ 24 V IE SW BL08 8TX: 0.13 A @ 24 V IE SW BL08 2SC/2ST: 0.22 A @ 24 V IE SW BL08 SCS: 0.17 A @ 24 V
Overload Current Protection	1.1 A
Connection	1 removable 4-contact terminal block
Reverse Polarity Protection	Present
Physical Characteristics	
Housing	Aluminum, IP30 protection
Dimensions W x H x D	IE-SW-BL05-Series: 30 x 115 x 70 mm (1.18 x 4.52 x 2.76 in) IE-SW-BL08-Series: 50 x 115 x 70 mm (1.96 x 4.52 x 2.76 in)
Weight	IE-SW-BL05-5TX: 175 g IE-SW-BL08-8TX: 275 g
Installation	DIN-Rail mounting
Environmental Limits	
Operating Temperature	Standard Models: -10 to 60 °C (14 to 140 °F) Wide Temp. Models: -40 to 75 °C (-40 to 167 °F)
Storage Temperature	-40 to 85 °C (-40 to 185 °F)

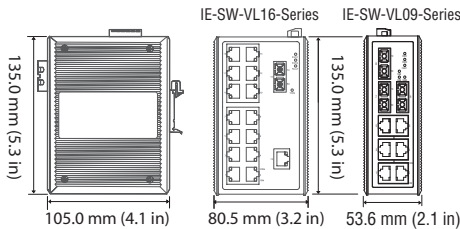
Environmental Limits			
Ambient Relative Humidity	5 to 95 % (non-condensing)		
Regulatory Approvals			
Safety	UL508		
Hazardous Location	UL/cUL Class I, Division 2, Groups A, B, C and D; ATEX Zone 2, Ex nC IIC		
EMI	FCC Part 15, CISPR (EN55022) class A		
EMS	EN61000-4-2 (ESD), level 3; EN61000-4-3 (RS), level 3; EN61000-4-4 (EFT), level 3; EN61000-4-5 (Surge), level 3; EN61000-4-6 (CS), level 3; EN61000-4-8; EN61000-4-11		
Maritime	DNV, GL		
Shock	IEC 60068-2-27		
Freefall	IEC 60068-2-32		
Vibration	IEC 60068-2-6		
MTBF (mean time between failures)			
Time	425,000 hrs		
Database	Telcordia (Bellcore), GB		
Warranty			
Warranty Period	5 years		
Ordering Information			
Port Variants	Type	Operating Temperature	Order No.
5 * RJ45	IE-SW-BL05-5TX IE-SW-BL05T-5TX	-10 to +60 °C -40 to +75 °C	1240840000 1240850000
4 * RJ45, 1 * SC-Multimode	IE-SW-BL05-4TX-1SC IE-SW-BL05T-4TX-1SC	-10 to +60 °C -40 to +75 °C	1240890000 1286550000
4 * RJ45, 1 * ST-Multimode	IE-SW-BL05-4TX-1ST IE-SW-BL05T-4TX-1ST	-10 to +60 °C -40 to +75 °C	1240880000 1286540000
4 * RJ45, 1 * SC-Singlemode	IE-SW-BL05-4TX-1SCS IE-SW-BL05T-4TX-1SCS	-10 to +60 °C -40 to +75 °C	1240870000 1286530000
8 * RJ45	IE-SW-BL08-8TX IE-SW-BL08T-8TX	-10 to +60 °C -40 to +75 °C	1240900000 1286560000
6 * RJ45, 2 * SC-Multimode	IE-SW-BL08-6TX-2SC IE-SW-BL08T-6TX-2SC	-10 to +60 °C -40 to +75 °C	1240910000 1240920000
6 * RJ45, 2 * ST-Multimode	IE-SW-BL08-6TX-2ST IE-SW-BL08T-6TX-2ST	-10 to +60 °C -40 to +75 °C	1240930000 1286570000
7 * RJ45, 1 * SC-Singlemode	IE-SW-BL08-7TX-1SCS IE-SW-BL08T-7TX-1SCS	-10 to +60 °C -40 to +75 °C	1240950000 1286580000
Accessories			
	Type		Order No.
19" Rack Mounting Kit	RM-KIT		1241440000





### Unmanaged Fast Ethernet Switches

- Redundant dual 24 V DC power inputs
- Relay output warning for power failure and port break alarm
- Broadcast storm protection
- Transparent transmission of VLAN tagged packets
- -40 to 75 °C operating temperature range (T models)



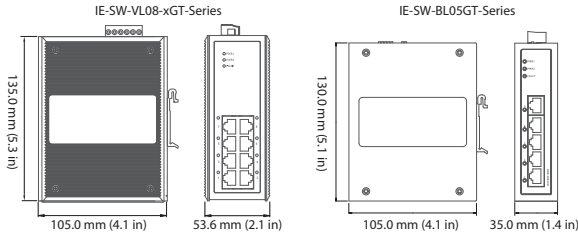
### Technical data

Technology	
Standards	IEEE 802.3 for 10BaseT IEEE 802.3u for 100BaseT(X) and 100BaseFX IEEE 802.3x for Flow Control
Processing Type	Store and Forward
Flow Control	IEEE 802.3x flow control, back pressure flow control
Switch Properties	
MAC Table Size	1 K (IE-SW-VL09...Series), 4 K (IE-SW-VL16...Series)
Packet Buffer Size	512 Kbit (IE-SW-VL09...Series), 1.5 Mbit (IE-SW-VL16...Series)
Interface	
Fiber Ports	100BaseFX ports (SC/ST connector)
RJ45 Ports	10/100BaseT(X) auto negotiation speed, Full/Half duplex mode, and auto MDI/MDI-X connection
DIP Switches	Port break alarm mask
LED Indicators	PWR1, PWR2, FAULT, 10/100M (TP port), 100M (fiber port)
Alarm Contact	1 relay output with current carrying capacity of 1 A @ 24 V DC
Optical Fiber	
	100BaseFX multimode
Wavelength	1300 nm
Max. TX	-10 dBm
Min. TX	-20 dBm
RX Sensitivity	-32 dBm
Link Budget	12 dB
Typical Distance	5 km (50/125 µm multimode cable) 4 km (62,5/125 µm multimode cable)
Saturation	-6 dBm
Power Requirements	
Input Voltage	IE-SW-VL09...16-Ports: 24 V DC (12 to 45 V DC), redundant dual inputs
Input Current	IE-SW-VL09T-6TX-3SC: 0.31 A @ 24 V IE-SW-VL16-16TX: 0.27 A @ 24 V IE-SW-VL16 SC/ST: 0.44 A @ 24 V
Overload Current Protection	IE-SW-VL09/16...Series: 1.6 A
Connection	1 removable 6-pin terminal blocks
Reverse Polarity Protection	Present
Physical Characteristics	
Housing	Metal, IP30 protection
Dimensions W x H x D	IE-SW-VL09...Series: 53.6 x 135 x 105 mm (2.11 x 5.31 x 4.13 in) IE-SW-VL16...Series: 80.5 x 135 x 105 mm (3.16 x 5.31 x 4.13 in)
Weight	IE-SW-VL09: 630 g IE-SW-VL16: 1140 g

Physical Characteristics			
Installation	DIN-Rail mounting		
Environmental Limits			
Operating Temperature	Standard Models: 0 to 60 °C (32 to 140 °F) Wide Temp. Models: -40 to 75 °C (-40 to 167 °F)		
Storage Temperature	-40 to 85 °C (-40 to 185 °F)		
Ambient Relative Humidity	5 to 95 % (non-condensing)		
Regulatory Approvals			
Safety	IE-SW-VL09...Series: UL508, UL60950-1, CSA C22.2 No. 60950-1, EN60950-1 IE-SW-VL16...Series: UL508, UL60950-1, EN60950-1		
Hazardous Location	UL/cUL Class I, Division 2, Groups A, B, C and D; ATEX Zone 2, Ex nC IIC		
EMI	FCC Part 15, CISPR (EN55022) class A		
EMS	EN61000-4-2 (ESD), level 3; EN61000-4-3 (RS), level 3; EN61000-4-4 (EFT), level 3; EN61000-4-5 (Surge), level 3; EN61000-4-6 (CS), level 3;		
Maritime	DNV, GL		
Shock	IEC 60068-2-27		
Freefall	IEC 60068-2-32		
Vibration	IEC 60068-2-6		
MTBF (mean time between failures)			
Time	IE-SW-VL09...Series: 396,000 hrs IE-SW-VL16...Series: 257,000 hrs		
Database	MIL-HDBK-217F, GB 25 °C		
Warranty			
Warranty Period	5 years		
Ordering Information			
Port Variants	Type	Operating Temperature	Order No.
16 * RJ45	IE-SW-VL16-16TX	0 to +60 °C	1241000000
	IE-SW-VL16T-16TX	-40 to +75 °C	1286590000
6 * RJ45, 3 * SC-Multimode	IE-SW-VL09T-6TX-3SC	-40 to +75 °C	1240980000
14 * RJ45, 2 * SC-Multimode	IE-SW-VL16-14TX-2SC	0 to +60 °C	1241030000
	IE-SW-VL16T-14TX-2SC	-40 to +75 °C	1286610000
14 * RJ45, 2 * ST-Multimode	IE-SW-VL16-14TX-2ST	0 to +60 °C	1241050000
	IE-SW-VL16T-14TX-2ST	-40 to +75 °C	1286620000
Accessories			
	Type		Order No.
19" Rack Mounting Kit	RM-KIT		1241440000

Unmanaged Gigabit Ethernet Switches

- Full Gigabit Ethernet on all ports
- Variants with slots for GB SFP transceivers
- Redundant dual 12/24/48 V DC power inputs
- Relay output warning for power failure and port break alarm
- Broadcast storm protection
- Supports jumbo frame transmission (up to 9.6 KB)



Technical data

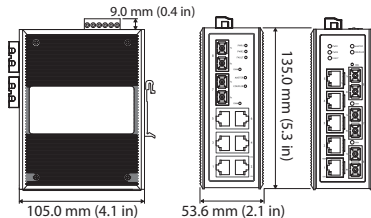
Technology	
Standards	IEEE 802.3 for 10BaseT IEEE 802.3u for 100BaseT(X) and 100BaseFX IEEE 802.3ab for 1000BaseT(X) IEEE 802.3z for 1000BaseX IEEE 802.3x for Flow Control
Processing Type	Store and Forward
Flow Control	IEEE 802.3x flow control, back pressure flow control
Switch Properties	
MAC Table Size	8 K
Packet Buffer Size	1088 Kbit (IE-SW-BL05-5GT), 1408 Kbit (IE-SW-VL08-xGT)
Interface	
Fiber Ports	100/1000BaseSFP slot (IE-SW-VL08-6GT-2GS)
RJ45 Ports	10/100/1000BaseT(X) auto negotiation speed, Full/Half duplex mode, and auto MDI/MDI-X connection
DIP Switches	One for port break alarm, one for Enable/Disable broadcast storm protection
LED Indicators	PWR1, PWR2, FAULT, 10/100/1000M
Alarm Contact	1 relay output with current carrying capacity of 1 A @ 24 V DC
Power Requirements	
Input Voltage	12/24/48 V DC (9.6 to 60 V DC), redundant dual inputs
Input Current	IE-SW-BL05-5GT: 0.20 A @ 24 V IE-SW-VL08-8GT: 0.32 A @ 24 V IE-SW-VL08-6GT-2GS: 0.34 A @ 24 V
Connection	1 removable 6-contact terminal block
Reverse Polarity Protection	Present
Physical Characteristics	
Housing	Metal, IP30 protection
Dimensions	IE-SW-BL05-5GT: 35 x 130 x 105 mm (1.37 x 5.12 x 4.13 in) IE-SW-VL08-xGT: 53.6 x 135 x 105 mm (2.11 x 5.31 x 4.13 in)
Weight	IE-SW-BL05-5GT: 290 g IE-SW-VL08-xGT: 630 g
Installation	DIN-Rail mounting
Environmental Limits	
Operating Temperature	Standard Models: 0 to 60 °C (32 to 140 °F) Wide Temp. Models: -40 to 75 °C (-40 to 167 °F)
Storage Temperature	-40 to 85 °C (-40 to 185 °F)
Ambient Relative Humidity	5 to 95 % (non-condensing)
Regulatory Approvals	
Safety	UL508
Hazardous Location	UL/cUL Class I, Division 2, Groups A, B, C, and D; ATEX Zone 2, Ex nC IIC
EMI	FCC Part 15, CISPR (EN55022) class A

Regulatory Approvals			
EMS		EN61000-4-2 (ESD), level 3; EN61000-4-3 (RS), level 3; EN61000-4-4 (EFT), level 3; EN61000-4-5 (Surge), level 3; EN61000-4-6 (CS), level 3	
Maritime		DNV, GL	
Shock		IEC 60068-2-27	
Freefall		IEC 60068-2-32	
Vibration		IEC 60068-2-6	
MTBF (meantime between failures)			
Time		478,000 hrs (IE-SW-BL05-5GT series) 325,000 hrs (IE-SW-VL08-XGT series)	
Database		Telcordia (Bellcore), GB (IE-SW-VL08-xGT series)	
Warranty			
Warranty Period		5 years	
Ordering Information			
Port Variants	Type	Operating Temperature	Order No.
5 * RJ45 10/100/1000BaseT(X)	IE-SW-BL05-5GT	0 to +60 °C	<b>1241250000</b>
	IE-SW-BL05T-5GT	-40 to +75 °C	<b>1286850000</b>
8 * RJ45 10/100/1000BaseT(X)	IE-SW-VL08-8GT	0 to +60 °C	<b>1241270000</b>
	IE-SW-VL08T-8GT	-40 to +75 °C	<b>1286860000</b>
6 * RJ45 10/100/1000BaseT(X), 2 Combo-Ports (10/100/1000 BaseT(X) or 100/1000BaseSFP)	IE-SW-VL08-6GT-2GS	0 to +60 °C	<b>1241280000</b>
	IE-SW-VL08T-6GT-2GS	-40 to +75 °C	<b>1286870000</b>
Accessories			
19" Rack Mounting Kit	RM-KIT		<b>1241440000</b>



## Managed Entry-level Ethernet Switches

- Turbo Ring and Turbo Chain with fast recovery time (under 20 ms)
- IGMP snooping, QoS, port- and tag-based VLAN
- Configurable error messages via SNMP trap, e-mail or relay output
- User-friendly web-based configuration and management
- External Backup and Restoring Module for easy system reconfiguration (optional accessory)



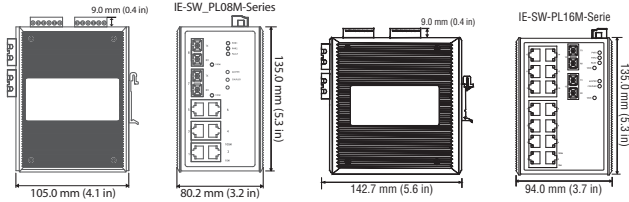
## Technical data

Standards		
IEEE 802.3 for 10BaseT ▪ IEEE 802.3u for 100BaseT (X) and 100BaseFX ▪ IEEE 802.3x for Flow Control ▪ IEEE 802.1D for Spanning Tree Protocol ▪ IEEE 802.1w for Rapid STP ▪ IEEE 802.1p for Class of Service ▪ IEEE 802.1Q for VLAN Tagging		
Protocols		
IGMPv1/v2 ▪ GMRP ▪ GVRP ▪ SNMPv1/v2c/v3 ▪ DHCP Server/Client ▪ TFTP ▪ SNTP ▪ SMTP ▪ RARP ▪ RMON ▪ HTTP ▪ Telnet ▪ Syslog ▪ DHCP Option 66/67/82 ▪ BootP ▪ LLDP ▪ Modbus/TCP ▪ IPv6		
MIB		
MIB-II ▪ Ethernet-Like MIB ▪ P-BRIDGE MIB ▪ Bridge MIB ▪ RSTP MIB ▪ RMON MIB Group 1, 2, 3, 9		
Flow Control		
IEEE 802.3x flow control ▪ back pressure flow control		
Switch Properties		
MAC Table Size	8 K	
Packet Buffer Size	1 MBit	
Interface		
Fiber Ports	100BaseFX ports (SC/ST connector)	
RJ45 Ports	10/100BaseT(X) auto negotiation speed, Full/Half duplex mode, and auto MDI/MDI-X connection	
Console Port	RS-232 (RJ45 connector)	
DIP Switches	Turbo Ring, Master, Coupler, Reserve	
LED Indicators	PWR1, PWR2, FAULT, MSTR/HEAD, CPLR/TAIL, 10/100M	
Alarm Contact	1 relay output with current carrying capacity of 1 A @ 24 V DC	
Optical Fiber		
	100BaseFX	
	multimode	singlemode
Wavelength	1300 nm	1310 nm
Max. TX	-10 dBm	0 dBm
Min. TX	-20 dBm	-5 dBm
RX Sensitivity	-32 dBm	-34 dBm
Link Budget	12 dB	29 dB
Typical Distance	5 km <sup>a</sup> 4 km <sup>b</sup>	40 km <sup>c</sup>
Saturation	-6 dBm	-3 dBm
<sup>a</sup> 50/125 µm, 800 MHz*km fiber optic cable		
<sup>b</sup> 62.5/125 µm, 500 MHz*km fiber optic cable		
<sup>c</sup> 9/125 µm singlemode fiber optic cable		
Power Requirements		
Input Voltage	24 V DC (12 to 45 V DC), redundant dual inputs	
Input Current	IE-SW-VL08M-8TX: 0.26 A @ 24 V IE-SW-VL08M-6TX-2ST/SC: 0.35 A @ 24 V IE-SW-VL08M-5TX-3SC: 0.32 A @ 24 V	
Overload Current Protection	Present	
Connection	1 removable 6-contact terminal block	
Reverse Polarity Protection	Present	

Physical Characteristics			
Housing	Metal, IP30 protection		
Dimensions	53.6 x 135 x 105 mm (2.11 x 5.31 x 4.13 in)		
Weight	IE-SW-VL08M-...8TX/6TX-2SC/6TX-2ST: 650 g IE-SW-VL08M-5TX-3SC: 890 g		
Installation	DIN-Rail mounting		
Environmental Limits			
Operating Temperature	-40 to 75 °C (-40 to 167 °F)		
Storage Temperature	-40 to 85 °C (-40 to 185 °F)		
Ambient Relative Humidity	5 to 95 % (non-condensing)		
Regulatory Approvals			
Safety	UL508, UL60950-1, CSA C22.2 No. 60950-1, EN60950-1		
Hazardous Location	UL/cUL Class I, Division 2, Groups A, B, C, and D; ATEX Zone 2, Ex nC IIC		
EMI	FCC Part 15, CISPR (EN55022) class A		
EMS	EN61000-4-2 (ESD), level 3; EN61000-4-3 (RS), level 3; EN61000-4-4 (EFT), level 3; EN61000-4-5 (Surge), level 3; EN61000-4-6 (CS), level 3; EN61000-4-8		
Maritime	DNV, GL		
Shock	IEC 60068-2-27		
Freefall	IEC 60068-2-32		
Vibration	IEC 60068-2-6		
MTBF (meantime between failures)			
Time	IE-SW-VL08M-...Series: 363,000 hrs		
Database	Telcordia (Bellcore), GB		
Warranty			
Warranty Period	5 years		
Ordering Information			
Port Variants	Type	Operating Temperature	Order No.
8 * RJ45	IE-SW-VL08MT-8TX	-40 to +75 °C	<b>1240940000</b>
5 * RJ45, 3 * SC-Multimode	IE-SW-VL08MT-5TX-3SC	-40 to +75 °C	<b>1240970000</b>
6 * RJ45, 2 * ST-Multimode	IE-SW-VL08MT-6TX-2ST	-40 to +75 °C	<b>1240990000</b>
6 * RJ45, 2 * SC-Singlemode	IE-SW-VL08MT-6TX-2SCS	-40 to +75 °C	<b>1241020000</b>
Accessories			
	Type		Order No.
External Backup and Restore Module	EBR-Modul RS232		<b>1241430000</b>
19" Rack Mounting Kit	RM-KIT		<b>1241440000</b>

Managed Fast Ethernet Switches

- Plug-n-play Turbo Ring and Turbo Chain (recovery time < 20 ms), RSTP/STP (IEEE 802.1w/D) for Ethernet redundancy
- IEEE 1588 PTP, Modbus/TCP, LLDP, SNMP Inform, QoS, IGMP snooping, VLAN, IEEE 802.1X, HTTPS, SNMPv3, and SSH supported
- EBR-Module (External Backup and Restore Module) for system configuration backup (optional accessory)



Technical data

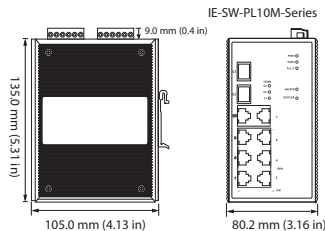
<b>Standards</b>		
IEEE 802.3 for 10BaseT ▪ IEEE 802.3u for 100BaseT (X) and 100BaseFX ▪ IEEE 802.3x for Flow Control ▪ IEEE 802.1D for Spanning Tree Protocol ▪ IEEE 802.1w for Rapid STP ▪ IEEE 802.1Q for VLAN Tagging ▪ IEEE 802.1p for Class of Service ▪ IEEE 802.1X for Authentication ▪ IEEE 802.3ad for Port Trunk with LACP		
<b>Protocols</b>		
IGMPv1/v2 ▪ GVRP ▪ SNMPv1/v2c/v3 ▪ DHCP Server/Client ▪ BootP ▪ TFTP ▪ SNMP ▪ SMTP ▪ RARP ▪ GMRP ▪ LACP ▪ RMON ▪ HTTP ▪ HTTPS ▪ Telnet ▪ Syslog ▪ DHCP Option 66/67/82 ▪ SSH ▪ SNMP Inform ▪ Modbus/TCP ▪ LLDP ▪ IEEE 1588 PTP ▪ IPv6		
<b>MIB</b>		
MIB-II ▪ Ethernet-Like MIB ▪ P-BRIDGE MIB ▪ Q-BRIDGE MIB ▪ Bridge MIB ▪ RSTP MIB ▪ RMON MIB Group 1, 2, 3, 9		
<b>Flow Control</b>		
IEEE 802.3x flow control ▪ back pressure flow control		
<b>Switch Properties</b>		
Priority Queues	4	
Max. Number of Available VLANs	64	
VLAN ID Range	VID 1 to 4094	
IGMP Groups	256	
MAC Table Size	8 K	
Packet Buffer Size	1 Mbit (IE-SW-PL08M), 2 Mbit (IE-SW-PL16M)	
<b>Interface</b>		
Fiber Ports	100BaseFX ports (SC/ST connector)	
RJ45 Ports	10/100BaseT(X) auto negotiation speed, Full/Half duplex mode, and auto MDI/MDI-X connection	
Console Port	RS-232 (RJ45 connector)	
DIP Switches	Turbo Ring, Master, Coupler, Reserve	
LED Indicators	PWR1, PWR2, FAULT, MSTR/HEAD, CPLR/TAIL, 10/100M	
Alarm Contact	2 relay outputs with current carrying capacity of 1 A @ 24 V DC	
Digital Inputs	2 inputs with the same ground, electrically isolated • +13 to +30 V for state "1" • -30 to +3 V for state "0" • Max. input current: 8 mA	
<b>Optical Fiber</b>		
	100BaseFX	
	multimode	singlemode
Wavelength	1300 nm	1310 nm
Max. TX	-10 dBm	0 dBm
Min. TX	-20 dBm	-5 dBm
RX Sensitivity	-32 dBm	-34 dBm
Link Budget	12 dB	29 dB
Typical Distance	5 km (50/125 µm multimode cable) 4 km (62,5/125 µm multimode cable)	40 km (9/125 µm singlemode cable)
Saturation	-6 dBm	-3 dBm
<b>Power Requirements</b>		
Input Voltage	24 V DC (12 to 45 V DC), redundant dual inputs	
Input Current	IE-SW-PL08M-8TX: 0.26 A @ 24 V IE-SW-PL08M-6TX-2SC/ST-2SCS: 0.36 A @ 24 V IE-SW-PL16M-16TX: 0.41 A @ 24 V IE-SW-PL16M-14TX-2SC/ST: 0.51 A @ 24 V	

<b>Power Requirements</b>			
Overload Current Protection	Present		
Connection	2 removable 6-contact terminal blocks		
Reverse Polarity Protection	Present		
<b>Physical Characteristics</b>			
Housing	Metal, IP30 protection		
Dimensions	IE-SW-PL08M: 80.2 x 135 x 105 mm (3.16 x 5.31 x 4.13 in) IE-SW-PL16M: 94 x 135 x 142.7 mm (3.7 x 5.31 x 5.62 in)		
Weight	IE-SW-PL08M: 1040 g, IE-SW-PL16M: 1586 g		
Installation	DIN-Rail mounting		
<b>Environmental Limits</b>			
Operating Temperature	Standard Models: 0 to 60 °C (32 to 140 °F) Wide Temp. Models: -40 to 75 °C (-40 to 167 °F)		
Storage Temperature	-40 to 85 °C (-40 to 185 °F)		
Ambient Relative Humidity	5 to 95 % (non-condensing)		
<b>Regulatory Approvals</b>			
Safety	UL508, UL60950-1, CSA C22.2 No. 60950-1, EN60950-1		
Hazardous Location	UL/cUL Class I, Division 2, Groups A, B, C, and D; ATEX Zone 2, Ex nC IIC		
EMI	FCC Part 15, CISPR (EN55022) class A		
EMS	EN61000-4-2 (ESD): IE-SW-PL08M...Series: level 3 IE-SW-PL16M...Series: level 2; EN61000-4-3 (RS) level 3; EN61000-4-4 (EFT) level 2; EN61000-4-5 (Surge) level 3; EN61000-4-6 (CS) level 3; EN61000-4-8		
Maritime	DNV, GL		
Shock	IEC 60068-2-27		
Freefall	IEC 60068-2-32		
Vibration	IEC 60068-2-6		
<b>MTBF (mean time between failures)</b>			
Time	IE-SW-PL08M...Series: 339,000 hrs IE-SW-PL16M...Series: 247,000 hrs		
Database	Telcordia (Bellcore), GB		
<b>Warranty</b>			
Warranty Period	5 years		
<b>Ordering Information</b>			
<b>Port Variants</b>	<b>Type</b>	<b>Operating Temperature</b>	<b>Order No.</b>
8 * RJ45	IE-SW-PL08M-8TX	0 to 60 °C	1241040000
	IE-SW-PL08MT-8TX	-40 to +75 °C	1286780000
6 * RJ45, 2 * SC-Multimode	IE-SW-PL08M-6TX-2SC	0 to 60 °C	1241070000
	IE-SW-PL08MT-6TX-2SC	-40 to +75 °C	1286790000
6 * RJ45, 2 * ST-Multimode	IE-SW-PL08M-6TX-2ST	0 to 60 °C	1241080000
	IE-SW-PL08MT-6TX-2ST	-40 to +75 °C	1286800000
6 * RJ45, 2 * SC-Singlemode	IE-SW-PL08M-6TX-2SCS	0 to 60 °C	1241090000
	IE-SW-PL08MT-6TX-2SCS	-40 to +75 °C	1286810000
16 * RJ45	IE-SW-PL16M-16TX	0 to 60 °C	1241100000
	IE-SW-PL16MT-16TX	-40 to +75 °C	1286820000
14 * RJ45, 2 * SC-Multimode	IE-SW-PL16M-14TX-2SC	0 to 60 °C	1241120000
	IE-SW-PL16MT-14TX-2SC	-40 to +75 °C	1286830000
14 * RJ45, 2 * ST-Multimode	IE-SW-PL16M-14TX-2ST	0 to 60 °C	1241130000
	IE-SW-PL16MT-14TX-2ST	-40 to +75 °C	1286840000



## Managed Gigabit Ethernet Switches

- 2 Gigabit Ethernet ports for redundant ring and 1 Gigabit Ethernet port for uplink solution
- Turbo Ring, Turbo Chain, and RSTP/STP for network redundancy
- IEEE 1588 PTP, Modbus/TCP, LLDP, SNMP Inform, QoS, IGMP snooping, VLAN, IEEE 802.1X, HTTPS, SNMPv3, and SSH supported
- EBR-Module - External Backup and Restoring Module for easy system reconfiguration (optional accessory)



## Technical data

Standards	
IEEE 802.3 for 10BaseT ▪ IEEE 802.3u for 100BaseT (X) and 100BaseFX ▪ IEEE 802.3ab for 1000BaseT(X) ▪ IEEE 802.3z for 1000BaseX ▪ IEEE 802.3x for Flow Control ▪ IEEE 802.1D for 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	
Protocols	
IGMPv1/v2 ▪ GMRP ▪ GVRP ▪ SNMPv1/v2c/v3 ▪ DHCP Server/Client ▪ BootP ▪ TFTP ▪ SNTP ▪ SMTP ▪ RARP ▪ RMON ▪ HTTP ▪ HTTPS ▪ Telnet ▪ Syslog ▪ DHCP Option 66/67/82 ▪ SSH ▪ SNMP Inform ▪ Modbus/TCP ▪ LLDP ▪ IEEE 1588 PTP ▪ IPv6	
MIB	
MIB-II ▪ Ethernet-Like MIB ▪ P-BRIDGE MIB ▪ Q-BRIDGE MIB ▪ Bridge MIB ▪ RSTP MIB ▪ RMON MIB Group 1, 2, 3, 9	
Flow Control	
IEEE 802.3x flow control ▪ back pressure flow control	
Switch Properties	
Priority Queues	4
Max. Number of Available VLANs	64
VLAN ID Range	VID 1 to 4094
IGMP Groups	256
MAC Table Size	8 K
Packet Buffer Size	1 Mbit
Interface	
Fiber Ports	1000BaseSFP slot
RJ45 Ports	10/100BaseT(X) or 10/100/1000BaseT(X) auto negotiation speed
Console Port	RS-232 (RJ45 connector)
DIP Switches	Turbo Ring, Master, Coupler, Reserve
LED Indicators	PWR1, PWR2, FAULT, 10/100M (TP port), 1000M (Gigabit port), MSTR/HEAD, CPLR/TAIL
Alarm Contact	2 relay outputs with current carrying capacity of 1 A @ 24 V DC
Digital Inputs	2 inputs with the same ground, but electrically isolated from the electronics. <ul style="list-style-type: none"> <li>• +13 to +30 V for state "1"</li> <li>• -30 to +3 V for state "0"</li> <li>• Max. input current: 8 mA</li> </ul>
Power Requirements	
Input Voltage	24 V DC (12 to 45 V DC), redundant dual inputs
Input Current	IE-SW-PL10M-3GT-7TX: 0.65 A @ 24 V IE-SW-PL10M-1GT-2GS-7TX: 0.44 A @ 24 V
Overload Current Protection	Present
Connection	2 removable 6-contact terminal blocks
Reverse Polarity Protection	Present
Physical Characteristics	
Housing	Metal, IP30 protection
Dimensions	80.2 x 135 x 105 mm (3.16 x 5.31 x 4.13 in)
Weight	1170 g
Installation	DIN-Rail mounting

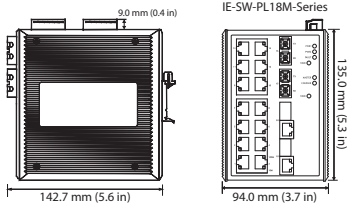
Environmental Limits	
Operating Temperature	Standard Models: 0 to 60 °C (32 to 140 °F) Wide Temp. Models: -40 to 75 °C (-40 to 167 °F)
Storage Temperature	-40 to 85 °C (-40 to 185 °F)
Ambient Relative Humidity	5 to 95 % (non-condensing)
Regulatory Approvals	
Safety	UL508, UL60950-1, CSA C22.2 No. 60950-1, EN60950-1
Hazardous Location	UL/cUL Class I, Division 2, Groups A, B, C, and D; ATEX Zone 2, Ex nC IIC
EMI	FCC Part 15, CISPR (EN55022) class A
EMS	EN61000-4-2 (ESD), level 3; EN61000-4-3 (RS), level 3; EN61000-4-4 (EFT), level 3; EN61000-4-5 (Surge), level 3; EN61000-4-6 (CS), level 3; EN61000-4-8
Maritime	DNV, GL
Shock	IEC 60068-2-27
Freefall	IEC 60068-2-32
Vibration	IEC 60068-2-6
MTBF (mean time between failures)	
Time	204,000 hrs
Database	MIL-HDBK-217J, GB 25 °C
Warranty	
Warranty Period	5 years

Ordering Information			
Port Variants	Type	Operating Temperature	Order No.
3 * RJ45 10/100/1000BaseT(X),	IE-SW-PL10M-3GT-7TX	0 to 60 °C	1241290000
7 * RJ45 10/100BaseT(X)	IE-SW-PL10MT-3GT-7TX	-40 to +75 °C	1286930000
1 * RJ45 10/100/1000BaseT(X),	IE-SW-PL10M-1GT-2GS-7TX	0 to 60 °C	1241300000
2 * Slots 1000BaseSFP,	IE-SW-PL10MT-1GT-2GS-7TX	-40 to +75 °C	1286940000
7 * RJ45 10/100BaseT(X)			

Accessories		
Type		Order No.
External Backup and Restore Module	EBR-Modul RS232	1241430000
19" Rack Mounting Kit	RM-KIT	1241440000

Managed Gigabit Ethernet Switches

- 2 Gigabit Ethernet ports plus 16 Fast Ethernet ports for copper and fibre
- Turbo Ring, Turbo Chain, and RSTP/STP for network redundancy
- IEEE 1588 PTP, Modbus/TCP, LLDP, SNMP Inform, QoS, IGMP snooping, VLAN, IEEE 802.1X, HTTPS, SNMPv3, and SSH supported
- EBR-Module - External Backup and Restoring Module for easy system reconfiguration (optional accessory)



Technical data

Standards	
IEEE 802.3 for 10BaseT ▪ IEEE 802.3u for 100BaseT(X) and 100BaseFX ▪ IEEE 802.3ab for 1000BaseT(X) ▪ IEEE 802.3z for 1000BaseX IEEE 802.3x for Flow Control ▪ IEEE 802.1D for 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	
Protocols	
IGMPv1/v2 ▪ GMRP, GVRP ▪ SNMPv1/v2c/v3 ▪ DHCP Server/Client ▪ BootP ▪ TFTP ▪ SNTP ▪ SMTP ▪ RARP ▪ RMON ▪ HTTP ▪ HTTPS ▪ Telnet ▪ Syslog ▪ DHCP Option 66/67/82 ▪ SSH ▪ SNMP Inform ▪ Modbus/TCP ▪ LLDP ▪ IEEE 1588 PTP ▪ IPv6	
MIB	
MIB-II ▪ Ethernet-Like MIB ▪ P-BRIDGE MIB ▪ Q-BRIDGE MIB ▪ Bridge MIB ▪ RSTP MIB ▪ RMON MIB Group 1, 2, 3, 9	
Flow Control	
IEEE 802.3x flow control, back pressure flow control	
Switch Properties	
Priority Queues	4
Max. Number of Available VLANs	64
VLAN ID Range	VID 1 to 4094
IGMP Groups	256
MAC Table Size	8 K
Packet Buffer Size	2 Mbit
Interface	
Fiber Ports	100BaseFX (SC/ST connector) and 1000BaseSFP slot
RJ45 Ports	10/100BaseT(X) or 10/100/1000BaseT(X) auto negotiation speed
Console Port	RS-232 (RJ45 connector)
LED Indicators	PWR1, PWR2, FAULT, 10/100M (TP port), 100M (fiber port), MSTR/HEAD, CPLR/TAIL
Alarm Contact	2 relay outputs with current carrying capacity of 1 A @ 24 V DC
Digital Inputs	2 inputs with the same ground, but electrically isolated from the electronics. <ul style="list-style-type: none"> <li>• +13 to +30 V for state "1"</li> <li>• -30 to +3 V for state "0"</li> <li>• Max. input current: 8 mA</li> </ul>

Optical Fiber	100BaseFX	
	multimode	singlemode
Wavelength	1300 nm	1310 nm
Max. TX	-10 dBm	0 dBm
Min. TX	-20 dBm	-5 dBm
RX Sensitivity	-32 dBm	-34 dBm
Link Budget	12 dB	29 dB
Typical Distance	5 km (50/125 µm multimode cable) 4 km (62,5/125 µm multimode cable)	40 km (9/125 µm singlemode cable)
Saturation	-6 dBm	-3 dBm

Power Requirements	
Input Voltage	24 V DC (12 to 45 V DC), redundant dual inputs
Input Current	IE-SW-PL18M-2GC-16TX: 0.51 A @ 24 V IE-SW-PL18M-SC/ST/SCS: 0.61 A @ 24 V
Overload Current Protection	Present
Connection	2 removable 6-contact terminal blocks
Reverse Polarity Protection	Present
Physical Characteristics	
Housing	Metal, IP30 protection
Dimensions	94 x 135 x 142.7 mm (3.7 x 5.31 x 5.62 in)
Weight	1630 g
Installation	DIN-Rail mounting
Environmental Limits	
Operating Temperature	Standard Models: 0 to 60 °C (32 to 140 °F) Wide Temp. Models: -40 to 75 °C (-40 to 167 °F)
Storage Temperature	-40 to 85 °C (-40 to 185 °F)
Ambient Relative Humidity	5 to 95 % (non-condensing)
Regulatory Approvals	
Safety	UL508, UL60950-1, CSA C22.2 No. 60950-1, EN60950-1
Hazardous Location	UL/cUL Class I, Division 2, Groups A, B, C, and D; ATEX Zone 2, Ex nC IIC
EMI	FCC Part 15, CISPR (EN55022) class A
EMS	EN61000-4-2 (ESD), level 2; EN61000-4-3 (RS), level 3; EN61000-4-4 (EFT), level 2; EN61000-4-5 (Surge), level 3; EN61000-4-6 (CS), level 3; EN61000-4-8; EN61000-4-12
Maritime	DNV, GL
Shock	IEC 60068-2-27
Freefall	IEC 60068-2-32
Vibration	IEC 60068-2-6
MTBF (meantime between failures)	
Time	240,000 hrs
Database	Telcordia (Bellcore), GB
Warranty	
Warranty Period	5 years

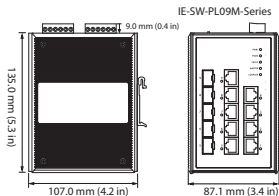
Ordering Information			
Port Variants	Type	Operating Temperature	Order No.
16 * RJ45 10/100BaseT(X), 2 * Combo-Ports <sup>1</sup>	IE-SW-PL18M-2GC-16TX	0 to +60 °C	<b>1241320000</b>
	IE-SW-PL18MT-2GC-16TX	-40 to +75 °C	<b>1286970000</b>
14 * RJ45 10/100BaseT(X), 2 * SC-Multimode 100FX, 2 * Combo-Ports <sup>1</sup>	IE-SW-PL18M-2GC14TX2SC	0 to +60 °C	<b>1241330000</b>
	IE-SW-PL18MT-2GC14TX2SC	-40 to +75 °C	<b>1286990000</b>
14 * RJ45 10/100BaseT(X), 2 * ST-Multimode 100FX, 2 * Combo-Ports <sup>1</sup>	IE-SW-PL18M-2GC14TX2ST	0 to +60 °C	<b>1241340000</b>
	IE-SW-PL18MT-2GC14TX2ST	-40 to +75 °C	<b>1287000000</b>
14 * RJ45 10/100BaseT(X), 2 * SC-Singlemode 100FX, 2 * Combo-Ports <sup>1</sup>	IE-SW-PL18M-2GC14TX2SCS	0 to +60 °C	<b>1241350000</b>
	IE-SW-PL18MT-2GC14TX2SCS	-40 to +75 °C	<b>1287010000</b>

<sup>1</sup> (10/100/1000BaseT(X) or 100/1000BaseSFP)



## Managed Full Gigabit Ethernet Switch

- 4 10/100/1000BaseT(X) ports plus 5 combo (10/100/1000BaseT(X) or 100/1000BaseSFP slot) Gigabit ports
- Turbo Ring, Turbo Chain, and RSTP/STP for network redundancy
- IEEE 1588 PTP, Modbus/TCP, LLDP, SNMP Inform, QoS, IGMP snooping, VLAN, IEEE 802.1X, HTTPS, SNMPv3, and SSH supported
- EBR-Module - External Backup and Restoring Module for easy system reconfiguration (optional accessory)



## Technical data

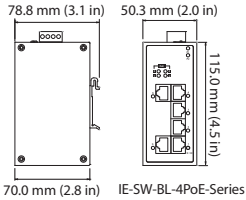
Standards	
IEEE 802.3 for 10BaseT ▪ IEEE 802.3u for 100BaseT (X) and 100BaseFX ▪ IEEE 802.3ab for 1000BaseT(X) ▪ IEEE 802.3z for 1000BaseX ▪ IEEE 802.3x for Flow Control ▪ IEEE 802.1D for Spanning Tree Protocol ▪ IEEE 802.1w for Rapid STP ▪ IEEE 802.1Q for VLAN Tagging ▪ IEEE 802.1p for Class of Service ▪ IEEE 802.1X for Authentication ▪ IEEE 802.3ad for Port Trunk with LACP	
Protocols	
IGMPv1/v2 ▪ GMRP ▪ GVRP ▪ SNMPv1/v2c/v3 ▪ DHCP Server/Client ▪ DHCP Option 66/67/82 ▪ BootP ▪ TFTP ▪ SNTP ▪ SMTP ▪ RARP ▪ RMON ▪ HTTP ▪ HTTPS ▪ Telnet ▪ SSH ▪ Syslog ▪ Modbus/TCP ▪ SNMP Inform ▪ LLDP ▪ IEEE 1588 PTP ▪ IPv6	
MIB	
MIB-II ▪ Ethernet-Like MIB ▪ P-BRIDGE MIB ▪ Q-BRIDGE MIB ▪ Bridge MIB ▪ RSTP MIB ▪ RMON MIB Group 1, 2, 3, 9	
Flow Control	
IEEE 802.3x flow control ▪ back pressure flow control	
Switch Properties	
Priority Queues	4
Max. Number of Available VLANs	64
VLAN ID Range	ID 1 to 4094
IGMP Groups	256
MAC Table Size	8 K
Packet Buffer Size	1 Mbit
Interface	
Fiber Ports	100/1000Base SFP slot
RJ45 Ports	10/100/1000BaseT(X) auto negotiation speed
Console Port	RS-232 (RJ45 connector)
DIP Switches	Turbo Ring, Master, Coupler, Reserve
LED Indicators	PWR1, PWR2, FAULT, 10/100/1000M, MSTR/HEAD, CPLR/TAIL
Alarm Contact	2 relay outputs with current carrying capacity of 1 A @ 24 V DC
Digital Inputs	2 inputs with the same ground, but electrically isolated from the electronics. <ul style="list-style-type: none"> <li>• +13 to +30 V for state "1"</li> <li>• -30 to +3 V for state "0"</li> <li>• Max. input current: 8 mA</li> </ul>
Power Requirements	
Input Voltage	12/24/48 V DC, redundant dual inputs
Input Current	0.81 A @ 24 V
Overload Current Protection	Present
Connection	2 removable 6-contact terminal blocks
Reverse Polarity Protection	Present
Physical Characteristics	
Housing	Metal, IP30 protection
Dimensions	87.1 × 135 × 107 mm (3.43 × 5.31 × 4.21 in)
Weight	1510 g
Installation	DIN-Rail mounting

Environmental Limits			
Operating Temperature	Standard Models: 0 to 60 °C (32 to 140 °F) Wide Temp. Models: -40 to 75 °C (-40 to 167 °F)		
Storage Temperature	-40 to 85 °C (-40 to 185 °F)		
Ambient Relative Humidity	5 to 95 % (non-condensing)		
Regulatory Approvals			
Safety	UL508, EN60950-1		
Hazardous Location	UL/cUL Class I, Division 2, Groups A, B, C, and D (Pending); ATEX Zone 2, Ex nC IIC (Pending)		
EMI	FCC Part 15, CISPR (EN55022) class A		
EMS	EN61000-4-2 (ESD), level 3; EN61000-4-3 (RS), level 3; EN61000-4-4 (EFT), level 3; EN61000-4-5 (Surge), level 3; EN61000-4-6 (CS), level 3; EN61000-4-8		
Maritime	DNV		
Shock	IEC 60068-2-27		
Freefall	IEC 60068-2-32		
Vibration	IEC 60068-2-6		
MTBF (meantime between failures)			
Time	330,000 hrs		
Database	Telcordia (Bellcore), GB		
Warranty			
Warranty Period	5 years		
Ordering Information			
Port Variants	Type	Operating Temperature	Order No.
4 * RJ45 10/100/1000BaseT(X), 5 * Combo Ports	IE-SW-PL09M-5GC-4GT IE-SW-PL09MT-5GC-4GT	0 to 60 °C -40 to +75 °C	<b>1241370000</b> <b>1287020000</b>
10/100/1000BaseT(X) or 100/1000BaseSFP			
Accessories			
	Type		Order No.
External Backup and Restore Module	EBR-Modul RS232		<b>1241430000</b>
19" Rack Mounting Kit	RM-KIT		<b>1241440000</b>



**6-port IEEE 802.3af/at PoE+ unmanaged Ethernet Switch**

- 4 IEEE 802.3af/at compliant PoE and Ethernet combo ports
- Up to 30 watts per PoE port
- 24/48 V DC redundant wide-range power supply
- Integrated DC/DC converter can supply 48V-PoE devices across the entire input voltage range of 24 to 48 V DC
- Intelligent power consumption detection and classification
- Redundant dual V DC power inputs
- Broadcast Storm Protection



**Technical data**

Technology	
Standards	IEEE 802.3at for Power-over-Ethernet IEEE 802.3 for 10BaseT IEEE 802.3u for 100BaseT(X) IEEE 802.3x for Flow Control
Processing Type	Store and Forward
Flow Control	IEEE 802.3x flow control, back pressure flow control
Interface	
RJ45 Ports	10/100BaseT(X) auto negotiation speed, Full/Half duplex mode and auto MDI/MDI-X connection
LED Indicators	PWR1, PWR2, 10/100M, PoE
Power Requirements	
Input Voltage	24/48 (20 to 60 V) V DC
Input Current	Max 7.5 A @ 24 V DC (supports up to 4 ports at 30 watts per PoE port)
Overload Current Protection	Present
Connection	1 removable 4-contact terminal block
Reverse Polarity Protection	Present
Physical Characteristics	
Housing	Metal, IP30 protection
Dimensions	50 x 115 x 70 mm (1.96 x 4.52 x 2.76 in)
Weight	375 g
Installation	DIN-Rail mounting, wall mounting (with optional kit)
Environmental Limits	
Operating Temperature	Standard Models: 0 to 60 °C (32 to 140 °F) Wide Temp. Models: -40 to 75 °C (-40 to 167 °F)
Storage Temperature	-40 to 85 °C (-40 to 185 °F)
Ambient Relative Humidity	5 to 95 % (non-condensing)
Regulatory Approvals	
Safety	UL508
EMI	FCC Part 15, CISPR (EN55022) class A
EMS	EN61000-4-2 (ESD), level 3; EN61000-4-3 (RS), level 3; EN61000-4-4 (EFT), level 4; EN61000-4-5 (Surge), level 4; EN61000-4-6 (CS), level 3; EN61000-4-8
Shock	IEC 60068-2-27
Freefall	IEC 60068-2-32
Vibration	IEC 60068-2-6
Warranty	
Warranty Period	5 years

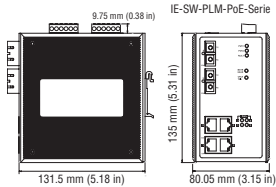
Ordering Information			
Port Variants	Type	Operating Temperature	Order No.
2 * RJ45 10/100 BaseT(X), 4 *	IE-SW-BL06-2TX-4POE	0 to 60 °C	<b>1241380000</b>
RJ45 10/100 BaseT(X) PoE+	IE-SW-BL06T-2TX-4POE	-40 to +75 °C	<b>1286920000</b>
Models with Fiber optic ports on request			
Accessories			
	Type		Order No.
19" Rack Mounting Kit	RM-KIT		<b>1241440000</b>





## 6-port IEEE 802.3af/at PoE+ managed Ethernet Switch

- 4 IEEE 802.3af/at compliant PoE and Ethernet combo ports
- Up to 30 watts per PoE port
- 24/48 V DC redundant wide-range power supply
- Integrated DC/DC converter can supply 48 V-PoE devices across the entire input voltage range of 24 to 48 V DC
- Extended PoE management functions, including PoE error checking or configuring the operational times of connected PoE devices



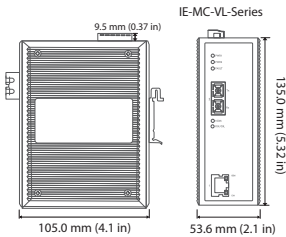
## Technical data

Standards	
IEEE 802.3af/at for Power-over-Ethernet ▪ IEEE 802.3 for 10BaseT ▪ IEEE 802.3u for 100BaseT (X) and 100BaseFX ▪ IEEE 802.3x for Flow Control ▪ IEEE 802.1D for 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	
Protocols	
IGMPv1/v2 ▪ GMRP ▪ GVRP ▪ SNMPv1/v2c/v3 ▪ DHCP Server/Client ▪ DHCP Option 66/67/82 ▪ BootP ▪ TFTP ▪ SNTP ▪ SMTP ▪ RARP ▪ RMON ▪ HTTP ▪ HTTPS ▪ Telnet ▪ SSH ▪ Syslog ▪ Modbus/TCP ▪ SNMP Inform ▪ LLDP ▪ IEEE 1588 PTP ▪ IPv6	
MIB	
MIB-II ▪ Ethernet-Like MIB ▪ P-BRIDGE MIB ▪ Q-BRIDGE MIB ▪ Bridge MIB ▪ RSTP MIB ▪ RMON MIB Group 1, 2, 3, 9	
Flow Control	
IEEE 802.3x flow control ▪ back pressure flow control	
Switch Properties	
Priority Queues	4
Max. Number of Available VLANs	64
VLAN ID Range	VID 1 to 4094
IGMP Groups	256
MAC Table Size	8 K
Packet Buffer Size	1 Mbit
Interface	
RJ45 Ports	10/100BaseT(X) auto negotiation speed, Full/Half duplex mode, and auto MDI/MDI-X connection
Console Port	RS-232 (RJ45 connector)
DIP Switches	Turbo Ring, Master, Coupler, Reserve
LED Indicators	PWR1, PWR2, FAULT, 10/100M, MSTR/HEAD, CPLR/TAIL, PoE
Alarm Contact	2 relay outputs with current carrying capacity of 1 A @ 24 V DC
Digital Inputs	2 inputs with the same ground, electrically isolated <ul style="list-style-type: none"> <li>• +13 to +30 V for state "1"</li> <li>• -30 to +3 V for state "0"</li> <li>• Max. input current: 8 mA</li> </ul>
Power Requirements	
Input Voltage	24/48 (20 to 60 V) V DC
Input Current	Max. 7.8 A @ 24 V DC (supports up to 4 ports at 30 watts per PoE port)
Overload Current Protection	Present
Connection	2 removable 6-contact terminal blocks
Reverse Polarity Protection	Present
Physical Characteristics	
Housing	Metal, IP30 protection
Dimensions	80 x 135 x 131.5 mm (3.15 x 5.31 x 5.18 in)
Weight	1270 g
Installation	DIN-Rail mounting

Environmental Limits			
Operating Temperature	Standard Models: 0 to 60 °C (32 to 140 °F) Wide Operating Temp. Models: -40 to 75 °C (-40 to 167 °F)		
Storage Temperature	-40 to 85 °C (-40 to 185 °F)		
Ambient Relative Humidity	5 to 95 % (non-condensing)		
Regulatory Approvals			
Safety	UL508 (Pending)		
EMI	FCC Part 15, CISPR (EN55022) class A		
EMS	EN61000-4-2 (ESD), level 3; EN61000-4-3 (RS), level 3; EN61000-4-4 (EFT), level 3; EN61000-4-5 (Surge), level 3; EN61000-4-6 (CS), level 3; EN61000-4-8		
Shock	IEC 60068-2-27		
Freefall	IEC 60068-2-32		
Vibration	IEC 60068-2-6		
Warranty			
Warranty Period	5 years		
Ordering Information			
Port Variants	Type	Operating Temperature	Order No.
2 * RJ45 10/100 BaseT(X), 4 *	IE-SW-PL06M-2TX-4PoE	0 to 60 °C	1241390000
RJ45 10/100 BaseT(X) PoE+	IE-SW-PL06MT-2TX-4PoE	-40 to +75 °C	1286910000
Models with Fiber optic ports on request			
Accessories			
	Type		Order No.
External Backup and Restore Module	EBR-Modul RS232		1241430000
19" Rack Mounting Kit	RM-KIT		1241440000

**Industrial Fast Ethernet Media Converter**

- 10/100BaseT(X) auto-negotiation and auto-MDI/MDI-X
- Link Fault Pass-Through (LFP)
- Power failure, port break alarm by relay output
- Redundant power inputs
- Designed for hazardous locations (Class 1 Div. 2/Zone 2)



**Technical data**

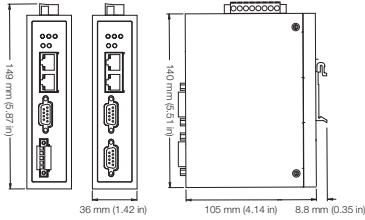
Technology		
Standards	IEEE 802.3 for 10BaseT IEEE 802.3u for 100BaseT(X) and 100BaseFX	
Interface		
Fiber Ports	100BaseFX (SC/ST connectors)	
RJ45 Ports	10/100BaseT(X)	
DIP Switches	100BaseFX Full/Half duplex selection, port break alarm mask	
LED Indicators	PWR1, PWR2, FAULT, 10/100M (TP port), 100M (Fiber port), FDX/COL (Fiber port)	
Alarm Contact	One relay output with current carrying capacity of 1 A @ 24 V DC	
Optical Fiber		
	100BaseFX	
	multimode	singlemode
Wavelength	1300 nm	1310 nm
Max. TX	-10 dBm	0 dBm
Min. TX	-20 dBm	-5 dBm
RX Sensitivity	-32 dBm	-34 dBm
Link Budget	12 dB	29 dB
Typical Distance	5 km <sup>a</sup> 4 km <sup>b</sup>	40 km <sup>c</sup>
Saturation	-6 dBm	-3 dBm
<sup>a</sup> 50/125 μm, 800 MHz*km fiber optic cable		
<sup>b</sup> 62.5/125 μm, 500 MHz*km fiber optic cable		
<sup>c</sup> 9/125 μm, 3.5 PS/(nm*km) fiber optic cable		
Power Requirements		
Input Voltage	24 V DC (12 to 48 V DC), redundant inputs	
Input Current	0.16 A (@ 24 V)	
Connection	Removable terminal block	
Overload Current Protection	1.1 A	
Reverse Polarity Protection	Present	
Physical Characteristics		
Housing	Metal, IP30 protection	
Dimensions	53.6 x 135 x 105 mm (2.11 x 5.31 x 4.13 in)	
Weight	630 g	
Installation	DIN-Rail mounting, wall mounting (with optional kit)	
Environmental Limits		
Operating Temperature	Standard Models: 0 to 60 °C (32 to 140 °F) Wide Temp. Models: -40 to 75 °C (-40 to 167 °F)	
Operating Humidity	5 to 95 % RH	
Storage Temperature	-40 to 85 °C (-40 to 185 °F)	

Regulatory Approvals			
Safety	UL508, UL60950-1, CSA C22.2 No. 60950-1, EN60950-1		
EMI	FCC Part 15, CISPR (EN55022) class A		
EMS	EN61000-4-2 (ESD), level 3 EN61000-4-3 (RS), level 3 EN61000-4-4 (EFT), level 3 EN61000-4-5 (Surge), level 2 EN61000-4-6 (CS), level 3 EN61000-4-8 EN61000-4-11		
Hazardous Location	UL/cUL Class1, Division 2, Groups A, B, C, and D, ATEX Class1, Zone 2, Ex nC IIC		
Freefall	IEC60068-2-32		
Shock	IEC60068-2-27		
Vibration	IEC60068-2-6		
Maritime	DNV, GL		
MTBF	401,000 hrs; Database: MIL-HDBK-217F; GB 25 °C		
Warranty			
Warranty Period	5 years		
Ordering Information			
Port Variants	Type	Operating Temperature	Order No.
1 * RJ45, 1 * SC-Multimode	IE-MC-VL-1TX-1SC	0 to +60 °C	<b>1241400000</b>
	IE-MC-VLT-1TX-1SC	-40 to +75 °C	<b>1286880000</b>
1 * RJ45, 1 * ST-Multimode	IE-MC-VL-1TX-1ST	0 to +60 °C	<b>1241410000</b>
	IE-MC-VLT-1TX-1ST	-40 to +75 °C	<b>1286890000</b>
1 * RJ45, 1 * SC-Singlemode	IE-MC-VL-1TX-1SCS	0 to +60 °C	<b>1241420000</b>
	IE-MC-VLT-1TX-1SCS	-40 to +75 °C	<b>1286900000</b>
Accessories			
	Type	Order No.	
19" Rack Mounting Kit	RM-KIT	<b>1241440000</b>	



1 and 2- port Serial/Ethernet Converter for industrial automation

- High surge protection for the serial ports, LAN ports and power supply connection
- Rugged screw-type terminal blocks for power and serial connectors
- Cascading Ethernet ports for easy wiring
- Redundant DC power inputs
- Warning by relay output and email
- Low power consumption



Technical data

Ethernet Interface	
Number of Ports	2
Speed	10/100 Mbps, auto MDI/MDIX
Connector	8-pin RJ45
Magnetic Isolation Protection	1.5 KV built-in
Ethernet Line Protection	1 KV (level 2) surge protection
Serial Interface	
Number of Ports	IE-CS-2TX-1RS232/485: 1, IE-CS-2TX-2RS232/485: 2
Serial Standards	RS-232/422/485
Connector	IE-CS-2TX-1RS232/485: DB9 for RS-232, terminal block for RS-422/485 IE-CS-2TX-2RS232/485: DB9 for RS-232/422/485
Serial Line Protection	<ul style="list-style-type: none"> <li>• 15 KV ESD protection for all signals</li> <li>• 1 KV (level 2) surge protection</li> </ul>
RS-485 Data Direction Control	ADDC® (automatic data direction control)
Serial Communication Parameters	
Data Bits	5, 6, 7, 8
Stop Bits	1, 1.5, 2
Parity	None, Even, Odd, Space, Mark
Flow Control	RTS/CTS and DTR/DSR (RS-232 only), XON/XOFF
Baud rate	50 to 921.6 Kbps
Serial Signals	
RS-232	TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND
RS-422	Tx+, Tx-, Rx+, Rx-, GND
RS-485-4w	Tx+, Tx-, Rx+, Rx-, GND
RS-485-2w	Data+, Data-, GND
Software	
Network Protocols	ICMP, IP, TCP, UDP, DHCP, BOOTP, Telnet, Rtelnet, DNS, SNMP, HTTP, SMTP, SNTP, IGMP
Configuration Options	Web Console, Serial Console, Telnet Console, Windows Utility
Windows Real COM Drivers	Windows 95/98/ME/NT/2000, Windows XP/2003/Vista/2008/7 x86/x64
Physical Characteristics	
Housing	Metal, IP30 protection
Weight	IE-CS-2TX-1RS232/485: 475 g IE-CS-2TX-2RS232/485: 485 g
Dimensions	36 x 105 x 140 mm (1.42 x 4.13 x 5.51 in)
Environmental Limits	
Operating Temperature	Standard Models: 0 to 60 °C (32 to 140 °F) Wide Temp. Models: -40 to 75 °C (-40 to 167 °F)
Operating Humidity	5 to 95% RH
Storage Temperature	-40 to 85 °C (-40 to 185 °F)
Power Requirements	
Input Voltage	12 to 48 V DC
Power Consumption	IE-CS-2TX-1RS232/485: 12 to 48 V DC; 220 mA @ 12 V DC, 110 mA @ 24 V DC IE-CS-2TX-2RS232/485: 12 to 48 V DC; 250 mA @ 12 V DC, 125 mA @ 24 V DC

Regulatory Approvals	
EMC	CE (EN55022 Class A, EN55024), FCC Part 15 Subpart B Class A
Safety	UL508
Hazardous Location	UL/cUL Class 1 Division 2 Groups A, B, C and D
ATEX	Class I, Zone 2 (Pending)
EMS	EN61000-4-2 (ESD), Level 3 EN61000-4-3 (RS), Level 3 EN61000-4-4 (EFT), Level 4 EN61000-4-5 (Surge), Level 3 EN61000-4-6 (CS), Level 3 EN61000-4-8 EN61000-4-11
Shock	IEC60068-2-27
Freefall	IEC60068-2-32
Vibration	IEC60068-2-6
Reliability	
Alert Tools	Built-in buzzer and RTC (real-time clock)
Automatic Reboot Trigger	Built-in WDT (watchdog timer)
Warranty	
Warranty Period	5 years
Pin Assignment	

RS-232/422/485 DB9 male port	PIN	RS-232	RS-422/RS-485-4w	RS-485-2W
1	DCD	TxD-(A)	-	-
2	RxD	TxD+(B)	-	-
3	TxD	RxD+(B)	Data+(B)	-
4	DTR	RxD-(A)	Data-(A)	-
5	GND	GND	GND	-
6	DSR	-	-	-
7	RTS	-	-	-
8	CTS	-	-	-

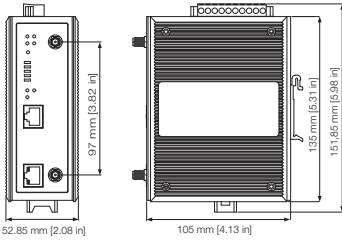
RS-422/485 Terminal Block Wiring	PIN	RS-422/RS-485-4w	RS-485-2w
1	TxD+(B)	-	-
2	TxD-(A)	-	-
3	RxD+(B)	Data+(B)	-
4	RxD-(A)	Data-(A)	-
5	GND	GND	-

Ordering Information			
Models	Type	Operating Temperature	Order No.
Two RJ45; One serial (RS232: Sub-DB9, RS422/485: terminal block)	IE-CS-2TX-1RS232/485	0 to +60 °C	1242080000
Two RJ45; Two serial (RS232/422/485: Two SubDB9)	IE-CST-2TX-1RS232/485	-40 to +75 °C	1285830000
	IE-CS-2TX-2RS232/485	0 to +60 °C	1242090000
	IE-CST-2TX-2RS232/485	-40 to +75 °C	1285840000

Accessories		
Type		Order No.
19" Rack Mounting Kit	RM-KIT	1241440000

Industrial Wireless - Access point/bridge/client

- IEEE 802.11a/b/g compatible single radio module (2.4 GHz or 5 GHz band)
- Power input by redundant 24 V DC power inputs or Power-over-Ethernet
- Multi-SSID and VLAN support
- Turbo Roaming for seamless wireless connections
- Integrated DI/DO for on-site monitoring and warning
- QoS (WMM) support



Technical data

WLAN Interface	
Standards	IEEE 802.11a/b/g for Wireless LAN IEEE 802.11i for Wireless Security IEEE 802.3u for 10/100BaseT(X) IEEE 802.3af for Power-over-Ethernet IEEE 802.1D for Spanning Tree Protocol IEEE 802.1w for Rapid STP IEEE 802.1Q VLAN
Spread Spectrum and Modulation (typical)	<ul style="list-style-type: none"> <li>• DSSS with DBPSK, DQPSK, CCK</li> <li>• OFDM with BPSK, QPSK, 16QAM, 64QAM</li> <li>• 802.11b: CCK @ 11/5.5 Mbps, DQPSK @ 2 Mbps, DBPSK @ 11 Mbps</li> <li>• 802.11a/g: 64QAM @ 54/48 Mbps, 16QAM @ 36/24 Mbps, QPSK @ 18/12 Mbps, BPSK @ 9/6 Mbps</li> </ul>
Operating Channels (central frequency)	US: 2.412 to 2.462 GHz (11 channels) 5.18 to 5.24 GHz (4 channels) EU: 2.412 to 2.472 GHz (13 channels) 5.18 to 5.24 GHz (4 channels)
Security	<ul style="list-style-type: none"> <li>• SSID broadcast enable/disable</li> <li>• Firewall for MAC/IP/Protocol/Port-based filtering</li> <li>• 64-bit and 128-bit WEP encryption, WPA /WPA2-Personal and Enterprise (IEEE 802.1X/RADIUS, TKIP and AES)</li> </ul>
Transmission Rates	802.11b: 1, 2, 5.5, 11 Mbps 802.11a/g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps
TX Transmit Power	802.11b: Typ. 23±1.5 dBm @ 1 to 11 Mbps 802.11g: Typ. 20±1.5 dBm @ 6 to 24 Mbps, Typ. 19±1.5 dBm @ 36 Mbps, Typ. 18±1.5 dBm @ 48 Mbps, Typ. 17±1.5 dBm @ 54 Mbps 802.11a: Typ. 18±1.5 dBm @ 6 to 24 Mbps, Typ. 16±1.5 dBm @ 36 to 48 Mbps, Typ. 15±1.5 dBm @ 54 Mbps
RX Sensitivity	802.11b: -97 dBm @ 1 Mbps, -94 dBm @ 2 Mbps, -92 dBm @ 5.5 Mbps, -90 dBm @ 11 Mbps 802.11g: -93 dBm @ 6 Mbps, -91 dBm @ 9 Mbps, -90 dBm @ 12 Mbps, -88 dBm @ 18 Mbps, -84 dBm @ 24 Mbps, -80 dBm @ 36 Mbps, -76 dBm @ 48 Mbps, -74 dBm @ 54 Mbps 802.11a: -90 dBm @ 6 Mbps, -89 dBm @ 9 Mbps, -89 dBm @ 12 Mbps, -85 dBm @ 18 Mbps, -83 dBm @ 24 Mbps, -79 dBm @ 36 Mbps, -75 dBm @ 48 Mbps, -74 dBm @ 54 Mbps
Protocol Support	
General Protocols:	Proxy ARP, DNS, HTTP, HTTPS, IP, ICMP, SNMP, TCP, UDP, RADIUS, SNMP, PPPoE, DHCP
AP-only Protocols:	ARP, BOOTP, DHCP, dynamic VLAN-Tags for 802.1X-Clients, STP/RSTP (IEEE 802.1D/w)

Interface	
Default Antenna	2 dBi dual-band omni-directional antenna, RP-SMA (male)
Connector for External Antennas	RP-SMA (female)
LAN Port	10/100BaseT(X), auto negotiation speed (RJ45-type)
Console Port	RS-232 (RJ45-type)
LED Indicators	PWR1, PWR2, PoE, FAULT, STATE, signal strength, CLIENT MODE, BRIDGE MODE, WLAN, 10M, 100M
Alarm Contact	1 relay output with current carrying capacity of 1 A @ 24 V DC
Digital Inputs	2 electrically isolated inputs <ul style="list-style-type: none"> <li>• +13 to +30 V for state "1"</li> <li>• +3 to -30 V for state "0"</li> <li>• Max. input current: 8 mA</li> </ul>
Physical Characteristics	
Housing	Metal, IP30 protection
Weight	850 g
Dimensions	53.6 x 135 x 105 mm (2.11 x 5.31 x 4.13 in)
Installation	DIN-Rail mounting

Environmental Limits	
Operating Temperature	Standard Models: 0 to 60 °C (32 to 140 °F) Wide Temp. Models: -40 to 75 °C (-40 to 167 °F)
Storage Temperature	-40 to 85 °C (-40 to 185 °F)
Ambient Relative Humidity	5% to 95% (non-condensing)

Power Requirements	
Input Voltage	12 to 48 V DC, redundant dual DC power inputs or 48 V DC Power-over-Ethernet (IEEE 802.3af compliant)
Connector	10-pin removable terminal block
Power Consumption	<ul style="list-style-type: none"> <li>• 0.121 to 0.494 A @ 12 to 48 V DC</li> <li>• 0.3 A @ 24 V DC</li> </ul>
Reverse Polarity Protection	Present

Regulatory Approvals	
Safety	EN60950-1, UL60950-1
Radio	EN300 328, EN301 893,
EMC	EN301 489-1/-17, FCC Part 15 Subpart B Class B, EN55022/55024
Hazardous Location	UL/cUL Class I, Div. 2; ATEX Class I, Zone 2
MTBF	392.209 hrs

Warranty	
Warranty Period	5 years

Ordering Information			
Models	Type	Operating Temperature	Order No.
IEEE 802.11a/b/g Wireless AP/Bridge/Client (European version)	IE-WL-AP-BR-CL-ABG-EU	0 to +60 °C	<b>1242100000</b>
	IE-WLT-AP-BR-CL-ABG-EU	-40 to +75 °C	<b>1286480000</b>
IEEE 802.11a/b/g Wireless AP/Bridge/Client (US version)	IE-WL-AP-BR-CL-ABG-US	0 to +60 °C	<b>1242110000</b>
	IE-WLT-AP-BR-CL-ABG-US	-40 to +75 °C	<b>1286490000</b>

Accessories		
	Type	Order No.
External Backup and Restore Module	EBR-Modul RS232	<b>1241430000</b>
19" Rack Mounting Kit	RM-KIT	<b>1241440000</b>

### 1-port Gigabit Ethernet SFP modules

- Compliant with IEEE 802.3z
- Differential LVPECL inputs and outputs
- TTL signal detect indicator
- Hot pluggable LC duplex connector
- Class 1 laser product; complies with EN60825-1



### 1-port Fast Ethernet SFP modules

- Compliant with IEEE 802.3u
- Differential PECL inputs and outputs
- TTL signal detect indicator
- Hot pluggable LC duplex connector
- Class 1 laser product; complies with EN60825-1



#### Technical data

Interface								
Ethernet Ports	1							
Connectors	Duplex LC Connector or Simplex LC							
Optical Fiber								
	Gigabit Ethernet							
	SFP-SX	SFP-LSX	SFP-LX	SFP-LHX	SFP-10A	SFP-10B	SFP-20A	SFP-20B
Wavelength	850 nm	1310 nm	1310 nm	1310 nm	TX 1310 nm, RX 1550 nm	TX 1550 nm, RX 1310 nm	TX 1310 nm, RX 1550 nm	TX 1550 nm, RX 1310 nm
Max. TX	-4 dBm	-1 dBm	-3 dBm	1 dBm	-3 dBm	-3 dBm	-2 dBm	-2 dBm
Min. TX	-9.5 dBm	-9 dBm	-9.5 dBm	-4 dBm	-9 dBm	-9 dBm	-8 dBm	-8 dBm
RX Sensitivity	-18 dBm	-19 dBm	-20 dBm	-24 dBm	-21 dBm	-21 dBm	-23 dBm	-23 dBm
Link Budget	8.5 dB	10 dB	10.5 dB	20 dB	12 dB	12 dB	15 dB	15 dB
Typical Distance	550 m <sup>a)</sup>	2 km <sup>b)</sup>	10 km <sup>c)</sup>	40 km <sup>c)</sup>	10 km <sup>c)</sup>	10 km <sup>c)</sup>	20 km <sup>c)</sup>	20 km <sup>c)</sup>
Saturation	0 dBm	-3 dBm	-3 dBm	-3 dBm	-1 dBm	-1 dBm	-1 dBm	-1 dBm

<sup>a)</sup> 50/125 µm, 400 MHz \* km or 62.5/125 µm, 500 MHz \* km @ 850 nm multimode fiber optic cable

<sup>b)</sup> 62.5/125 µm, 750 MHz \* km @ 1310 nm multimode fiber optic cable

<sup>c)</sup> 9/125 µm singlemode fiber optic cable

Note: The actual communication distance depends on many factors, including connector loss, cable deployment, and the age of the cabling system. We recommend doing a link budget analysis and reserving a 3 dB margin for such factors.

Environmental Limits	
Operating Temperature	Standard Models: 0 to 60 °C (32 to 140 °F) Wide Temp. Models: -40 to 75 °C (-40 to 167 °F)
Storage Temperature	-40 to 85 °C (-40 to 185 °F)
Ambient Relative Humidity	5 to 95 % (non-condensing)
Regulatory Approvals	
Safety	UL, TÜV
Warranty	
Warranty Period	3 years

Ordering Information			
SFP Variants	Type	Operating Temperature	Order No.
Gigabit-Ethernet, Multimode, LC Connector, 500 m	IE-SFP-1GSXLC	0 to +60 °C	<b>1241490000</b>
	IE-SFP-1GSXLC-T	-20 to 75 °C	<b>1286700000</b>
Gigabit-Ethernet, Multimode, LC Connector, 2 km	IE-SFP-1GLXLC	0 to +60 °C	<b>1241500000</b>
	IE-SFP-1GLXLC-T	-40 to 85 °C	<b>1286710000</b>
Gigabit-Ethernet, Singlemode, LC Connector, 10 km	IE-SFP-1GLXLC	0 to +60 °C	<b>1241510000</b>
	IE-SFP-1GLXLC-T	-40 to 85 °C	<b>1286720000</b>
Gigabit-Ethernet, Singlemode, LC Connector, 40 km	IE-SFP-1GLHLC	0 to +60 °C	<b>1241520000</b>
	IE-SFP-1GLHLC-T	-40 to 85 °C	<b>1286730000</b>
WDM-Type, Gigabit Ethernet, LC Connector, 10 km, Tx 1310 nm, Rx 1550 nm, must be paired with IE-SFP-1G10BLC	IE-SFP-1G10ALC	0 to +60 °C	<b>1241530000</b>
	IE-SFP-1G10ALC-T	-40 to 85 °C	<b>1286740000</b>
WDM-Type, Gigabit Ethernet, LC Connector, 10 km, Tx 1550 nm, Rx 1310 nm, must be paired with IE-SFP-1G10ALC	IE-SFP-1G10BLC	0 to +60 °C	<b>1241540000</b>
	IE-SFP-1G10BLC-T	-40 to 85 °C	<b>1286750000</b>
WDM-Type, Gigabit Ethernet, LC Connector, 20 km, Tx 1310 nm, Rx 1550 nm, must be paired with IE-SFP-1G20BLC	IE-SFP-1G20ALC	0 to +60 °C	<b>1241550000</b>
	IE-SFP-1G20ALC-T	-40 to 85 °C	<b>1286760000</b>
WDM-Type, Gigabit Ethernet, LC Connector, 20 km, Tx 1550 nm, Rx 1310 nm, must be paired with IE-SFP-1G20ALC	IE-SFP-1G20BLC	0 to +60 °C	<b>1241570000</b>
	IE-SFP-1G20BLC-T	-40 to 85 °C	<b>1286770000</b>

**Note:** WDM-type SFP modules must be used in pairs (e.g. SFP-1GXXALC and SFP-1GXXBLC)

#### Technical data

Interface			
Ethernet Ports	1		
Connectors	Duplex LC Connector		
Optical Fiber			
	Fast Ethernet		
	SFP-M	SFP-S	SFP-L
Wavelength	1300 nm	1310 nm	1550 nm
Max. TX	-18 dBm	0 dBm	0 dBm
Min. TX	-8 dBm	-5 dBm	-5 dBm
RX Sensitivity	-34 dBm	-34 dBm	-34 dBm
Link Budget	26 dB	29 dB	29 dB
Typical Distance	4 km <sup>a)</sup>	40 km <sup>b)</sup>	80 km <sup>b)</sup>
Saturation	0 dBm	-3 dBm	-3 dBm

<sup>a)</sup> 50/125 µm or 62.5/125 µm, 800 MHz \* km @ 1300 nm multimode fiber optic cable

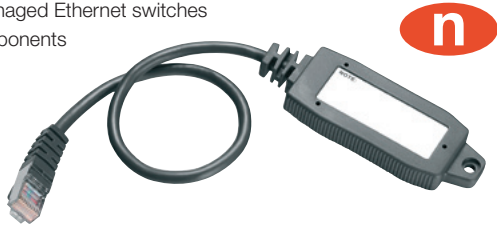
<sup>b)</sup> 9/125 µm singlemode fiber optic cable

Environmental Limits	
Operating Temperature	-40 to 85 °C (-40 to 185 °F)
Storage Temperature	-40 to 85 °C (-40 to 185 °F)
Ambient Relative Humidity	5 to 95 % (non-condensing)
Regulatory Approvals	
Safety	UL, TÜV
Warranty	
Warranty Period	3 years

Ordering Information			
Port Variants	Type	Operating Temperature	Order No.
Fast Ethernet, Multimode, LC Connector, 4 km	IE-SFP-1FEMLC-T	-40 to +85 °C	<b>1241450000</b>
Fast Ethernet, Singlemode, LC Connector, 40 km	IE-SFP-1FESLC-T	-40 to +85 °C	<b>1241470000</b>
Fast Ethernet, Singlemode, LC Connector, 80 km	IE-SFP-1FELLC-T	-40 to +85 °C	<b>1241480000</b>

### External Backup and Restore Module for System Configuration

- Reduce system downtime by simple reconfiguration in case of replacing devices
- Plug-n-Play system backup and restoration
- Compact, rugged, reliable design
- Supports all managed Ethernet switches and WLAN components



#### Technical data

Basic Operation		
Connector	RS232-Interface with RJ45-Connector	
Configuration	Use the WEB-Console of managed Switches	
Power Requirements		
Input Voltage	3 to 5 V DC (through the RS-232 port's RTS signal)	
Physical Characteristics		
Housing	PVC molding, IP40 protection	
Dimensions	32.5 x 97 x 12 mm (8.07 x 3.82 x 0.47 in)	
Weight	50 g	
Mounting possibility	M4 screw (< 4 mm)	
Cable Length	35 cm (including connector)	
Environmental Limits		
Operating Temperature	0 to 60 °C (32 to 140 °F)	
Storage Temperature	-20 to 70 °C (-4 to 158 °F)	
Ambient Relative Humidity	5 to 95 % (non-condensing)	
Regulatory Approvals		
EMI	FCC Part 15, CISPR (EN55022) Class A	
EMS	EN61000-4-2 (ESD), level 2; EN61000-4-3 (RS), level 3; EN61000-4-4 (EFT), level 3; EN61000-4-5 (Surge), level 3; EN61000-4-6 (CS), level 3	
Warranty		
Warranty Period	5 years	
Ordering Information		
Models	Type	Order No.
External Backup and Restore Module	EBR-Modul RS232	1241430000

### Kit for 19"-rack mounting

- For mounting DIN-rail based devices in 19" racks



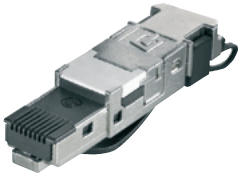
#### Technical data

Physical Characteristics		
Dimensions	481 x 177.8 x 202.4 mm	
Ordering Information		
Models	Type	Order No.
19" Rack Mounting Kit	RM-KIT	1241440000



# Industrial Ethernet passive

## Connectors for copper cable



**RJ45 (IP20)** acc. to IEC 60603-7

For use in office environments, in floor and building distributors, or in the electrical cabinet

The benefits:

- For high-speed transmissions, up to 10-gigabit Ethernet
- Standardized internationally
- Can be used overall
- Sturdy version suitable for industrial applications



**RJ45 (IP67)** acc. to IEC 61076-3-106

For connections between electrical cabinets and for use in the field for gigabit applications

The benefits:

- For high-speed transmissions, up to 10-gigabit Ethernet
- IP67 protection
- Can be assembled in the field



**M12, D-coded** acc. to IEC 61076-2-101

For use near machinery or where a high degree of vibration resistance is required

The benefits:

- Compact design
- IP67 protection
- Can be used with extrusion mould or assembled in the field
- particularly resistant to vibrations

## Connector for fibre-optic cable



**SC duplex** acc. to IEC 61754-4

For use in building distributors, electrical cabinets, together with protective housing it can also be used in the field or for connecting our active components

The benefits:

- For multi-mode, single-mode or POF

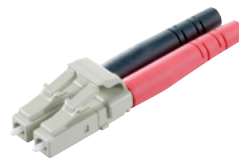


**SC-RJ** acc. to IEC 61754-24

For use in building distributors, electrical cabinets, or together with protective housing it can also be used in the field in compliance with PROFINET directive

The benefits:

- For multi-mode, single-mode and POF



**LC-Duplex** acc. to IEC 61754-20

For use in building distributors, electrical cabinets, or together with protective housing it can also be used in the field in compliance with EtherNet/IP directive

The benefits:

- For multi-mode and single-mode
- In protective housing, also in IP67



**ST** acc. to IEC 61754-2

For use in building distributors, electrical cabinets, or for connecting our active components

The benefits:

- For multi-mode, single-mode and POF



## AdvancedLine



The AdvancedLine from Weidmüller offers all combinations of cables that are possible with the extensive range of plug connections.

This means flexibility and robustness through the high quality of the used components. The range comprises standard cables and customer-specific versions. Standard cables can be found in the catalogue; customer-specific versions can be freely configured online using the “Galaxy” configuration software. All AdvancedLine cables are particularly suitable for industrial use.

- High-quality cables with very good technical characteristics
- Suitable for demanding IP20 to IP67 applications
- Suitable for temperatures from -40 to +70 °C
- High-quality shielding

## CabinetLine











The new Cabinet Line range of patch cables from Weidmüller is available in a variety of colours for visually differentiating between various networks.

Additional advantage:

all Cabinet Line cables are fitted with Weidmüller TM marking sleeves for clearly labelling cables and ports. Cabinet Line is available in the colours grey, blue, red and violet in combination with LSZH sheathing material and transmission power Cat.6<sub>A</sub>. Furthermore, Cabinet Line is also available in the colour green and Cat.5 with PUR or PVC sheathing material. All variants are fitted with protected clips which facilitate, e.g., pulling through a cable duct.







- For applications in switching cabinets and simple environmental conditions
- Suitable for temperatures from 0 to +60 °C
- Simple shielding



**Metal plug**

		Housings		Variant 1 Bayonet		Variant 14 PushPull RJ		Variant 14 PushPull fibre-optic		Variant 5 HDC
										
				With KS	Without KS	With KS	Without KS	With KS	Without KS	Without KS
	RJ45 AWG 24 crimp		1962720000	1962560000	1962550000	1011570000	1011560000	1058110000	1058100000	1962540000
	RJ45 AWG 22 tool-free	TIA-A/-B/-P TIA-A TIA-B PROFINET	1962730000 1132010000 1132020000 1132030000	1963150000	1963140000	1012070000	1012160000			1963110000
	LWL SC	multimode	1067380000	1963270000	1963260000			Please order separately		
		singlemode	1067390000	1963310000	1963300000			Please order separately		
		POF	1067410000	1963290000	1963280000				1191550000	
	LWL LC	multimode	1962780000	1963230000	1963220000			Please order separately		
		singlemode	1962790000	1963250000	1963240000			Please order separately		
	Protective cap			1965690000		1058280000		1058280000		1968930002

KS = anti-kink protection

**Plastic plug**

		Housings		Variant 1 Bayonet		Variant 4 PushPull	
							
				With KS	Without KS	With KS	Without KS
	RJ45 AWG 24 crimp		1962720000	1012460000	1012440000	1962530000	1962520000
	RJ45 AWG 22 tool-free	TIA-A/-B/-P TIA-A TIA-B PROFINET	1962730000 1132010000 1132020000 1132030000	1012560000	1012470000	1963190000	1963180000
	LWL SC	multimode	1067380000	Please order separately		1963370000	1963360000
		singlemode	1067390000	Please order separately		1963410000	1963400000
		POF	1067410000	Please order separately		1963390000	1963380000
	LWL LC	multimode	1962780000	Please order separately		1963330000	1963320000
		singlemode	1962790000	Please order separately		1963350000	1963340000
	Protective cap			1965690000		1963890000	

 Individual components  
 Sets

KS = anti-kink protection

**Outlet boxes IP67**



**Ordering data**

Type	Order No.
Bayonet V 01, 1 port, straight	1966300000
Bayonet V 01, 2 ports, left	1966320000
Bayonet V 01, 2 ports, right	1966310000
Bayonet V 01, 2 ports, straight	1966330000












**Ordering data**

Type	Order No.
Push Pull V 04, 1 port, straight	1966220000
Push Pull V 04, 2 ports, left	1966240000
Push Pull V 04, 2 ports, right	1966230000
Push Pull V 04, 2 ports, straight	1966250000








**Ordering data**



Type	Order No.
RockStar® V 05, 1 port, straight	1966260000
RockStar® V 05, 2 ports, left	1966280000
RockStar® V 05, 2 ports, right	1966270000
RockStar® V 05, 2 ports, straight	1966290000

**Metal flange**

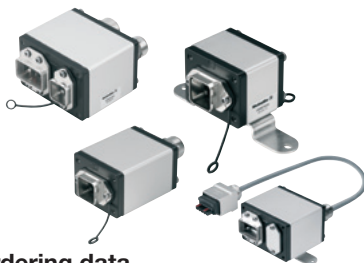
		Housings		Variant 1 Bayonet	Variant 14 PushPull RJ		Variant 14 PushPull fibre-optic		Var. 5 HDC
									
				1963540000	1011540000	1047950000			1963530000
	RJ45 coupling		1962840000	1963470000	1012310000	1058250000			1963510000
	RJ45 module	TIA-A	1962850000	1963480000	1012320000	1058270000			1963460000
		TIA-B	1963840000	Please order separately	Please order separately	Please order separately			Please order separately
		PROFINET	1963830000	Please order separately	1085260000	Please order separately			1963700000
	SC/SCRJ coupling	multimode	1964430000	1964450000			1058120000	1062590000	
		singlemode	1962870000	1963440000			1058140000	1062600000	
	LC Duplex coupling	multimode	1964420000	1964440000			1058130000	1062610000	
		singlemode	1962880000	1963430000			1058150000	1062620000	
	USB coupling		1019570000	Please order separately	Please order separately	Please order separately			Please order separately
	Protective cap			1965700000	1058310000	1058310000	1058310000	1058310000	1968930000

**Plastic flange**

		Housings		Variant 1 Bayonet	Variant 4 PushPull
					
				1016960000	1963520000
	RJ45 coupling		1962840000	1012370000	1963490000
	RJ45 module	TIA-A	1962850000	1012380000	1963500000
		TIA-B	1963840000	Please order separately	1963730000
		PROFINET	1963830000	Please order separately	Please order separately
	SC/SCRJ coupling	multimode	1964430000	Please order separately	1964470000
		singlemode	1962870000	Please order separately	1963420000
	LC Duplex coupling	multimode	1964420000	Please order separately	1964460000
		singlemode	1962880000	Please order separately	1963450000
	USB coupling		1019570000	Please order separately	Please order separately
	Protective cap			1965700000	1963900000

 Individual components  
 Sets

**FreeCon junction boxes V14**



**Ordering data**

Description	Order No.
Double junction box V14 RJ45 / PushPull Power	1068830000
Single junction box V14 RJ45	1068880000
Double junction box V14 RJ45 / PushPull	1068820000
Single junction box V14 RJ45	1068870000
Single junction box V14 Hybrid	1068850000
Single junction box V14 Hybrid	1068840000
Y-Verteiler PushPull Power	1297010000

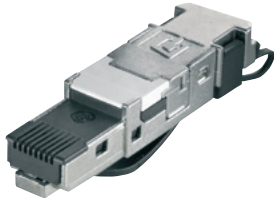
**FrontCom® Micro service interface**



**Ordering data**

Description	Type	Order No.
RJ45 Coupling	IE-FCM-RJ45-C	1018790000
RJ45 TIA-A Module	IE-FCM-RJ45-FJ-A	1018810000
RJ45 TIA-B Module	IE-FCM-RJ45-FJ-B	1018820000
RJ45 Ind. Ethernet Module	IE-FCM-RJ45-FJ-P	1018830000
USB Coupling	IE-FCM-USB-A	1018840000
USB Coupling	IE-FCM-USB-AB	1222550000
Accessories: SwitchMark SM27/18		

**RJ45 plug field installation**



**RJ45 crimp plug**



**Ordering data**

Description	Type	Order No.
Plug A/B/Ind. Ethernet	IE-PS-RJ45-FH-BK	1963600000
Plug TIA - A	IE-PS-RJ45-BK-A	1132040000
Plug TIA - B	IE-PS-RKJ45-BK-B	1132050000
Plug TIA - P	IE-PS-RKJ45-BK-P	1132060000

**Ordering data**

Description	Type	Order No.
Plug with cable bushing in black	IE-PS-RJ45-TH-BK	1963590000
Plug without cable bushing	IE-PM-RJ45-TH	1963580000

**SC duplex connectors**



**SCRJ connectors**



**LC duplex connectors**



**Ordering data**

Description	Type	Order No.
Plug SC duplex, singlemode	IE-PS-SCD-SM	1964410000
Plug SC duplex, multimode	IE-PS-SCD-MM	1964480000
Plug SC duplex, POF	IE-PS-SCD-MM	1962930000

**Ordering data**

Description	Type	Order No.
Plug SCRJ, singlemode	IE-PS-SCRJ1-SM	1206740000
Plug SCRJ, multimode	IE-PS-SCRJ1-MM	1206730000
Plug SCRJ, POF	IE-PS-SCRJ1-POF	1206720000

**Ordering data**

Description	Type	Order No.
Plug LC duplex, singlemode	IE-PS-LCD-SM	1962980000
Plug LC duplex, multimode	IE-PS-LCD-MM	1962970000

**Terminal rail outlets**



**Ordering data**

Description	Type	Order No.
RJ45 module EIA/TIA 568 A	IE-XM-RJ45/IDC	8808360000
RJ45 module EIA/TIA 568 B	IE-XM-RJ45/IDC-B	8891980000
RJ45-RJ45 coupler	IE-XM-RJ45/RJ45	8879050000
ST-ST coupler	IE-XM-ST/ST	8808340000

**Ordering data**

Description	Type	Order No.
RJ45-RJ45 coupler	IE-TO-RJ45-C	8946920000
RJ45 module EIA/TIA 568 A	IE-TO-RJ45-FJ-A	8946930000
RJ45 module EIA/TIA 568 B	IE-TO-RJ45-FJ-B	8946940000
RJ45 module Ind. Ethernet	IE-TO-RJ45-FJ-P	8946950000
USB-A coupler	IE-TO-USB	8946960000

**Ordering data**

Description	Type	Order No.
Adaptor LC Duplex MM	IE-TO-LCD-MM	8947010000
Adaptor LC Duplex SM	IE-TO-LCD-SM	8947020000
Adaptor SC Duplex MM	IE-TO-SCD-MM	8946970000
Adaptor SC Duplex SM	IE-TO-SCD-SM	8946980000
Adaptor SC-RJ MM	IE-TO-SCRJ-MM	8946990000
Adaptor SC-RJ SM	IE-TO-SCRJ-SM	8947000000

### Cable tester



#### Ordering data

Description	Type	Order No.
Tester	LAN USB TESTER	9205400000

### Cable markers



#### Ordering data

Description	Type	Order No.
SlimFix, 4.7 – 5.8 mm	SF 5/21 NEUTRAL WS V0	1696130001
SlimFix, 5.8 – 7.0 mm	SF 6/21 NEUTRAL WS V0	1740870001
TM-I for M12, 18 mm	TM-I 18 NEUTRAL WS	1718431044

### Dismantling tool



#### Ordering data

Description	Type	Order No.
for Ethernet cables	IE-CST	9204350000
for UTP / STP data cables	AM12	9030060000

### Hole punch



#### Ordering data

Description	Type	Order No.
Hand Tool	IE-KO-HAT	1966810000
Insert for Variant 1	IE-KOK-V1	1966780000
Insert for Variant 4	IE-KOK-V4	1966790000
Insert for Variant 5	IE-KOK-V5	9204790000

### Crimping pliers RJ45



#### Ordering data

Description	Type	Order No.
TT 8 RS MP 8		9202800000

### Crimping pliers FO



#### Ordering data

Description	Type	Order No.
SC GOF	IE-CT-SC-GOF	9205320000
SC GOF Profinet	IE-CT-SC-GOF-P	9205350000
SC POF	E-CT-SC-POF	9205340000
LC GOF	IE-CT-LC-GOF	9205330000

Copper cables

Connecting cable



Ordering data

Type	100 m	per meter
Cat.5; 4x2xAWG26/7; PUR	8813200000	8938880000
Cat.5; 4x2xAWG26/7; PVC	8813190000	8955490000
Cat.7; 4x2xAWG26/7; PUR	8813180000	8954300000
Cat.7; 4x2xAWG26/7; PVC	8813170000	8955480000
Cat.5; 4xAWG22/7+6x0.5mm <sup>2</sup> ; PVC*		1172250000
Cat.5; 4xAWG22/7; PVC*	8898990000	8955560000

\* PROFINET

Installation cable



Ordering data

Type	100 m	per meter
Cat.5; 4x2xAWG24/1; PUR	8813160000	8944310000
Cat.5; 4x2xAWG24/1; PVC	8813150000	8953160000
Cat.7; 4x2xAWG23/1; PUR	8813140000	8955350000
Cat.7; 4x2xAWG23/1; PVC	8813130000	8955360000
Cat.5; 4xAWG22/1; PVC*	8899000000	8955950000

\* PROFINET

Dragline cable



Ordering data

Type	100 m	per meter
Cat.5; 4x2xAWG26/7; PUR	8813210000	8936390000
Cat.5; 4xAWG22/7; PUR*	8899010000	8947670000
Cat.5; 4xAWG22/19; PUR; Torsion*		1103010000
Cat.5; 4x2xAWG26/7; PUR; blue	8960670000	8949760000

\* PROFINET

Fibre optic cables

FO connecting cable, zipcord, POF



Ordering data

Type	Order No.
2 x POF 980/1000 µm, Bulk stock starting at 50 m	1242820000

LWL-Dragline cable, Breakout, POF



Ordering data

Type	Order No.
2 x POF 980/1000 µm, Bulk stock starting at 50 m	1172280000

LWL-Dragline cable, Breakout, MM, Fibre-optic



Ordering data

Type	Order No.
2x Core 50 µm, Bulk stock starting at 50 m	8946000000
2x Core 62.5 µm, Bulk stock starting at 50 m	8956060000

Copper cables

Dragline cable Cat.6 RJ45 IP20



Ordering data

Description	Type	Order No.
0,5 m	IE-C5DD4UG0005A20A20-E	1173030005
1 m	IE-C5DD4UG0010A20A20-E	1173030010
2 m	IE-C5DD4UG0020A20A20-E	1173030020
3 m	IE-C5DD4UG0030A20A20-E	1173030030
5 m	IE-C5DD4UG0050A20A20-E	1173030050
10 m	IE-C5DD4UG0100A20A20-E	1173030100
15 m	IE-C5DD4UG0150A20A20-E	1173030150
20 m	IE-C5DD4UG0200A20A20-E	1173030200

Dragline cable Cat.5 M12 IP67

plug / plug



plug / socket



Ordering data

Description	Type	Order No.
plug / plug 0,5 m	IE-C5DD4UG0005MCSMCS-E	1025950005
plug / plug 1,5 m	IE-C5DD4UG0015MCSMCS-E	1025950015
plug / plug 3 m	IE-C5DD4UG0030MCSMCS-E	1025950030
plug / plug 5 m	IE-C5DD4UG0050MCSMCS-E	1025950050
plug / plug 10 m	IE-C5DD4UG0100MCSMCS-E	1025950100
plug / socket 1,5 m	IE-C5DD4UG0015MSSMCS-E	1059330015
plug / socket 3 m	IE-C5DD4UG0030MSSMCS-E	1059330030
plug / socket 5 m	IE-C5DD4UG0050MSSMCS-E	1059330050
plug / socket 10 m	IE-C5DD4UG0100MSSMCS-E	1059330100

Dragline cable Cat.5 RJ45 IP67 V14



Ordering data

Description	Type	Order No.
1 m	IE-C5DD4UG0010A2EA2E-X	1119730010
2 m	IE-C5DD4UG0020A2EA2E-X	1119730020
3 m	IE-C5DD4UG0030A2EA2E-X	1119730030
5 m	IE-C5DD4UG0050A2EA2E-X	1119730050
10 m	IE-C5DD4UG0100A2EA2E-X	1119730100
15 m	IE-C5DD4UG0150A2EA2E-X	1119730150
20 m	IE-C5DD4UG0200A2EA2E-X	1119730200

Dragline cable Cat.5 M12/open



Ordering data

Description	Type	Order No.
1,5 m	IE-C5DD4UG0015MCSXXX-X	1025940015
3 m	IE-C5DD4UG0030MCSXXX-X	1025940030
5 m	IE-C5DD4UG0050MCSXXX-X	1025940050
10 m	IE-C5DD4UG0100MCSXXX-X	1025940100

System cable Cat.5 RJ45 IP67 V1



Ordering data

Description	Type	Order No.
1 m	IE-C5ES8UG0010B41B41-E	1066850000
2 m	IE-C5ES8UG0020B41B41-E	1066860000
5 m	IE-C5ES8UG0050B41B41-E	1066870000
10 m	IE-C5ES8UG0100B41B41-E	1066880000

Dragline cable RJ45 - M12



Ordering data

Description	Type	Order No.
1 m	IE-C5DD4UG0010MCSA20-E	1044470010
1,5 m	IE-C5DD4UG0015MCSA20-E	1044470015
3 m	IE-C5DD4UG0030MCSA20-E	1044470030
5 m	IE-C5DD4UG0050MCSA20-E	1044470050
10 m	IE-C5DD4UG0100MCSA20-E	1044470100

LWL-Patch cable IP20, Zipcord

SC duplex



Ordering data

Description	Type	Order No.
Core 62.5 µm, 1 m	IE-FM6Z2VO0001MSD0SD0X	8813330000
Core 62.5 µm, 2 m	IE-FM6Z2VO0002MSD0SD0X	8813340000
Core 62.5 µm, 3 m	IE-FM6Z2VO0003MSD0SD0X	8813350000
Core 62.5 µm, 5 m	IE-FM6Z2VO0005MSD0SD0X	8876360050
Core 62.5 µm, 10 m	IE-FM6Z2VO0010MSD0SD0X	8876360100
Core 50 µm, 1 m	IE-FM5Z2VO0001MSD0SD0X	8813300000
Core 50 µm, 2 m	IE-FM5Z2VO0002MSD0SD0X	8813310000
Core 50 µm, 3 m	IE-FM5Z2VO0003MSD0SD0X	8813320000
Core 50 µm, 5 m	IE-FM5Z2VO0005MSD0SD0X	8876350050
Core 50 µm, 10 m	IE-FM5Z2VO0010MSD0SD0X	8876350100

ST / ST



Ordering data

Description	Type	Order No.
Core 62.5 µm, 1 m	IE-FM6Z2VO0001MST0ST0X	8813270000
Core 62.5 µm, 2 m	IE-FM6Z2VO0002MST0ST0X	8813280000
Core 62.5 µm, 3 m	IE-FM6Z2VO0003MST0ST0X	8813290000
Core 62.5 µm, 5 m	IE-FM6Z2VO0005MST0ST0X	8876380050
Core 62.5 µm, 10 m	IE-FM6Z2VO0010MST0ST0X	8876380100
Core 50 µm, 1 m	IE-FM5Z2VO0001MST0ST0X	8813240000
Core 50 µm, 2 m	IE-FM5Z2VO0002MST0ST0X	8813250000
Core 50 µm, 3 m	IE-FM5Z2VO0003MST0ST0X	8813260000
Core 50 µm, 5 m	IE-FM5Z2VO0005MST0ST0X	8876370050
Core 50 µm, 10 m	IE-FM5Z2VO0010MST0ST0X	8876370100

LC duplex / LC duplex



Ordering data

Description	Type	Order No.
Core 62.5 µm, 2 m	IE-FM6Z2VO0002MLD0LD0X	1062450000
Core 62.5 µm, 100 m	IE-FM6Z2VO0100MLD0LD0X	8992990000
Core 50 µm, 1 m	IE-FM5Z2VO0001MLD0LD0X	1276880000
Core 50 µm, 2 m	IE-FM5Z2VO0002MLD0LD0X	1062570000
Core 50 µm, 5 m	IE-FM5Z2VO0005MLD0LD0X	1062550000
Core 50 µm, 10 m	IE-FM5Z2VO0010MLD0LD0X	1062580000

ST / SC duplex



Ordering data

Description	Type	Order No.
Core 62.5 µm 2 m	IE-FM6Z2VO0002MST0SD0X	8813400000
Core 50 µm, 2 m	IE-FM5Z2VO0002MST0SD0X	8813390000

SCRJ / SCRJ



Ordering data

Description	Type	Order No.
POF 980/1000 µm, 1 m	IE-FPOZ2EE0001MSJ0SJ0-X	1273430010
POF 980/1000 µm, 3 m	IE-FPOZ2EE0003MSJ0SJ0-X	1273430030
POF 980/1000 µm, 5 m	IE-FPOZ2EE0005MSJ0SJ0-X	1273430050
POF 980/1000 µm, 10 m	IE-FPOZ2EE0010MSJ0SJ0-X	1273430100



**LWL-System cable, Breakout**

**Dragline cable SC duplex**



**Ordering data**

Description	Type	Order No.
Core 62.5 µm, 1 m	IE-FM6D2UE0001MSD0SD0X	<b>8876440010</b>
Core 62.5 µm, 3 m	IE-FM6D2UE0003MSD0SD0X	<b>8876440030</b>
Core 62.5 µm, 5 m	IE-FM6D2UE0005MSD0SD0X	<b>8876440050</b>
Core 62.5 µm, 10 m	IE-FM6D2UE0010MSD0SD0X	<b>8876440100</b>
Core 50 µm, 1 m	IE-FM5D2UE0001MSD0SD0X	<b>8876430010</b>
Core 50 µm, 3 m	IE-FM5D2UE0003MSD0SD0X	<b>8876430030</b>
Core 50 µm, 5 m	IE-FM5D2UE0005MSD0SD0X	<b>8876430050</b>
Core 50 µm, 10 m	IE-FM5D2UE0010MSD0SD0X	<b>8876430100</b>

**Dragline cable LC duplex**



**Ordering data**

Description	Type	Order No.
Core 62.5 µm, 5 m	IE-FM6B2UE0005MLD0LD0X	<b>1220930000</b>
Core 62.5 µm, 10 m	IE-FM6B2UE0010MLD0LD0X	<b>1276680000</b>
Core 50 µm, 10 m	IE-FM5B2UE0010MLD0LD0X	<b>8979020000</b>
Core 50 µm, 100 m	IE-FM5B2UE0100MLD0LD0X	<b>8979030000</b>

**Dragline cable ST / ST**



**Ordering data**

Description	Type	Order No.
Core 62.5 µm, 1 m	IE-FM6D2UE0001MST0ST0X	<b>8876460010</b>
Core 62.5 µm, 3 m	IE-FM6D2UE0003MST0ST0X	<b>8876460030</b>
Core 62.5 µm, 5 m	IE-FM6D2UE0005MST0ST0X	<b>8876460050</b>
Core 62.5 µm, 10 m	IE-FM6D2UE0010MST0ST0X	<b>8876460100</b>
Core 50 µm, 1 m	IE-FM5D2UE0001MST0ST0X	<b>8876450010</b>
Core 50 µm, 3 m	IE-FM5D2UE0003MST0ST0X	<b>8876450030</b>
Core 50 µm, 5 m	IE-FM5D2UE0005MST0ST0X	<b>8876450050</b>
Core 50 µm, 10 m	IE-FM5D2UE0010MST0ST0X	<b>8876450100</b>

### CabinetLine Cat.6<sub>A</sub>/LSZH

Patch cable grey



### Ordering data

Cable length	Type	Order No.
0.5 m	IE-C6FP8LD0005M40M40-D	1165940005
1 m	IE-C6FP8LD0010M40M40-D	1165940010
1.5 m	IE-C6FP8LD0015M40M40-D	1165940015
2 m	IE-C6FP8LD0020M40M40-D	1165940020
3 m	IE-C6FP8LD0030M40M40-D	1165940030
5 m	IE-C6FP8LD0050M40M40-D	1165940050
7.5 m	IE-C6FP8LD0075M40M40-D	1165940075
10 m	IE-C6FP8LD0100M40M40-D	1165940100
15 m	IE-C6FP8LD0150M40M40-D	1165940150
20 m	IE-C6FP8LD0200M40M40-D	1165940200
25 m	IE-C6FP8LD0250M40M40-D	1165940250

Note

### CabinetLine Cat.6<sub>A</sub>/LSZH

Patch cable blue



### Ordering data

Cable length	Type	Order No.
0.5 m	IE-C6FP8LB0005M40M40-B	1165900005
1 m	IE-C6FP8LB0010M40M40-B	1165900010
1.5 m	IE-C6FP8LB0015M40M40-B	1165900015
2 m	IE-C6FP8LB0020M40M40-B	1165900020
3 m	IE-C6FP8LB0030M40M40-B	1165900030
5 m	IE-C6FP8LB0050M40M40-B	1165900050
10 m	IE-C6FP8LB0100M40M40-B	1165900100
15 m	IE-C6FP8LB0150M40M40-B	1165900150
20 m	IE-C6FP8LB0200M40M40-B	1165900200
25 m	IE-C6FP8LB0250M40M40-B	1165900250

Note

### CabinetLine Cat.6<sub>A</sub>/LSZH

Patch cable red



### Ordering data

Cable length	Type	Order No.
0.5 m	IE-C6FP8LR0005M40M40-R	1166030005
1 m	IE-C6FP8LR0010M40M40-R	1166030010
1.5 m	IE-C6FP8LR0015M40M40-R	1166030015
2 m	IE-C6FP8LR0020M40M40-R	1166030020
3 m	IE-C6FP8LR0030M40M40-R	1166030030
5 m	IE-C6FP8LR0050M40M40-R	1166030050
10 m	IE-C6FP8LR0100M40M40-R	1166030100
15 m	IE-C6FP8LR0150M40M40-R	1166030150
20 m	IE-C6FP8LR0200M40M40-R	1166030200
25 m	IE-C6FP8LR0250M40M40-R	1166030250

Note

### CabinetLine Cat.6<sub>A</sub>/LSZH

Patch cable black



### Ordering data

Cable length	Type	Order No.
0.5 m	IE-C6FP8LE0005M40M40-E	1251610005
1 m	IE-C6FP8LE0010M40M40-E	1251610010
1.5 m	IE-C6FP8LE0015M40M40-E	1251610015
2 m	IE-C6FP8LE0020M40M40-E	1251610020
3 m	IE-C6FP8LE0030M40M40-E	1251610030
5 m	IE-C6FP8LE0050M40M40-E	1251610050
10 m	IE-C6FP8LE0100M40M40-E	1251610100
15 m	IE-C6FP8LE0150M40M40-E	1251610150
20 m	IE-C6FP8LE0200M40M40-E	1251610200
25 m	IE-C6FP8LE0250M40M40-E	1251610250

Note

**CabinetLine Cat.6<sub>A</sub>/LSZH**

Patch cable yellow



**Ordering data**

Cable length	Type	Order No.
0.5 m	IE-C6FP8LY0005M40M40-Y	1251580005
1 m	IE-C6FP8LY0010M40M40-Y	1251580010
1.5 m	IE-C6FP8LY0015M40M40-Y	1251580015
2 m	IE-C6FP8LY0020M40M40-Y	1251580020
3 m	IE-C6FP8LY0030M40M40-Y	1251580030
5 m	IE-C6FP8LY0050M40M40-Y	1251580050
10 m	IE-C6FP8LY0100M40M40-Y	1251580100
15 m	IE-C6FP8LY0150M40M40-Y	1251580150
20 m	IE-C6FP8LY0200M40M40-Y	1251580200
25 m	IE-C6FP8LY0250M40M40-Y	1251580250

Note

**CabinetLine Cat.6<sub>A</sub>/LSZH**

Patch cable magenta



**Ordering data**

Cable length	Type	Order No.
0.2 m	IE-C6FP8LM0002M40M40-M	1201270002
0.35 m	IE-C6FP8LM0035CM40M40-M	1201380000
0.5 m	IE-C6FP8LM0005M40M40-M	1201270005
1 m	IE-C6FP8LM0010M40M40-M	1201270010
1.5 m	IE-C6FP8LM0015M40M40-M	1201270015
2 m	IE-C6FP8LM0020M40M40-M	1201270020
3 m	IE-C6FP8LM0030M40M40-M	1201270030
5 m	IE-C6FP8LM0050M40M40-M	1201270050
10 m	IE-C6FP8LM0100M40M40-M	1201270100
15 m	IE-C6FP8LM0150M40M40-M	1201270150
20 m	IE-C6FP8LM0200M40M40-M	1201270200

Note

**CabinetLine Cat.6<sub>A</sub>/LSZH**

Patch cable grey 270° angled



**Ordering data**

Cable length	Type	Order No.
0.5 m	IE-C6FP8LD0005M40W40-D	1233160005
1 m	IE-C6FP8LD0010M40W40-D	1233160010
1.2 m	IE-C6FP8LD0012M40W40-D	1233160012
1.5 m	IE-C6FP8LD0015M40W40-D	1233160015
2 m	IE-C6FP8LD0020M40W40-D	1233160020
3 m	IE-C6FP8LD0030M40W40-D	1233160030
5 m	IE-C6FP8LD0050M40W40-D	1233160050
10 m	IE-C6FP8LD0100M40W40-D	1233160100

Note

**CabinetLine Cat.6<sub>A</sub>/LSZH**

Patch cable grey 90° angled



**Ordering data**

Cable length	Type	Order No.
0.5 m	IE-C6FP8LD0005M40V40-D	1248280005
1 m	IE-C6FP8LD0010M40V40-D	1248280010
1.2 m	IE-C6FP8LD0012M40V40-D	1248280012
1.5 m	IE-C6FP8LD0015M40V40-D	1248280015
2 m	IE-C6FP8LD0020M40V40-D	1248280020
3 m	IE-C6FP8LD0030M40V40-D	1248280030
5 m	IE-C6FP8LD0050M40V40-D	1248280050
10 m	IE-C6FP8LD0100M40V40-D	1248280100

Note

### CabinetLine Cat.5/PVC

Patch cable green



### Ordering data

Cable length

0.5 m  
1 m  
1.5 m  
2 m  
3 m  
5 m  
10 m  
15 m  
20 m

Type

IE-C5ES8VG0005M40M40-G  
IE-C5ES8VG0010M40M40-G  
IE-C5ES8VG0015M40M40-G  
IE-C5ES8VG0020M40M40-G  
IE-C5ES8VG0030M40M40-G  
IE-C5ES8VG0050M40M40-G  
IE-C5ES8VG0100M40M40-G  
IE-C5ES8VG0150M40M40-G  
IE-C5ES8VG0200M40M40-G

Order No.

1166020005  
1166020010  
1166020015  
1166020020  
1166020030  
1166020050  
1166020100  
1166020150  
1166020200

Note

### CabinetLine Cat.5/PUR

Patch cable green



### Ordering data

Cable length

0.5 m  
1 m  
1.5 m  
2 m  
3 m  
5 m  
10 m  
15 m  
20 m

Type

IE-C5ES8UG0005M40M40-G  
IE-C5ES8UG0010M40M40-G  
IE-C5ES8UG0015M40M40-G  
IE-C5ES8UG0020M40M40-G  
IE-C5ES8UG0030M40M40-G  
IE-C5ES8UG0050M40M40-G  
IE-C5ES8UG0100M40M40-G  
IE-C5ES8UG0150M40M40-G  
IE-C5ES8UG0200M40M40-G

Order No.

1166000005  
1166000010  
1166000015  
1166000020  
1166000030  
1166000050  
1166000100  
1166000150  
1166000200

Note

Accessories, can be used with all cables:

Inlay tag, white: TM-I 18 neutral WS: order no. 1718431044

(also available in the colours yellow, blue, red and green)



# Addresses worldwide

- AE United Arab Emirates**  
Weidmüller Middle East FZE  
P.O. Box 8591  
SAIF-Zone  
Sharjah – U. A. E.  
Phone +971 6 5572723  
Fax +971 6 5572724  
wme.info@weidmueller.com
- AR Argentina**  
CPI SA  
Bauness 2660  
1431 Buenos Aires  
Phone +54 11 45238008  
Fax +54 11 45220546  
info@cpi.com.ar  
www.cpi.com.ar
- AT Austria**  
Weidmüller GmbH.  
Industriezentrum Nö Süd  
Straße 2, Objekt M2  
2355 Wiener Neudorf  
Phone +43 2236 6708-0  
Fax +43 2236 6708-199  
office.at@weidmueller.com
- AU Australia**  
Weidmüller Pty. Ltd.  
P.O. Box 6944  
Huntingwood Drive 43  
Huntingwood,  
NSW, 2148  
Phone +61 2 9671-9999  
Fax +61 2 9671-9911  
info@weidmuller.com.au  
www.weidmuller.com.au
- AZ Azerbaijan**  
West Industries Ltd.  
Caspian Plaza, 5-th Floor  
44 J. Jabbarly Str., Baku  
Phone +99412 499 15 15  
Fax +99412 499 14 93  
sales@west-i.com
- BA Bosnia and Herzegovina**  
BH ES ELEKTROSISTEM d.o.o.  
Bul. Vojvode S.  
Stepanovica kod br. 272  
78000 BiH - Banja Luka  
Phone +387 51 420-340  
Fax +387 51 420-341  
elsist@inecco.net  
www.elektrosistem.ba
- BE Belgium**  
Weidmüller Benelux B.V.  
Mechelsesteenweg 519 bus 6 en 7  
1930 Nossegem  
Phone +32 2 752 4070  
Fax +32 2 751 3606  
info@weidmueller.be  
www.weidmueller.be
- BG Bulgaria**  
Weid-Bul EOOD  
1756 Sofia  
13, bul. "Kliment Ohridski"  
Phone +359 2 9632560  
Fax +359 2 9631098  
sofia@weidbul.com  
www.weidbul.com
- BH Bahrain**  
Khayber Trading Company  
P.O. Box 1976 Manama,  
Phone +973 720747  
Fax +973 720331  
khayber@batelco.com.bh
- BR Brazil**  
Weidmüller Conexel do Brasil  
Conexões Elétricas Ltda.  
Rua Garcia Lorca, 176  
09695-900, Sao Paulo SP  
Phone +55 11 43669600  
Fax +55 11 43621677  
vendas@conexel.com.br  
www.conexel.com.br
- BY Belarus**  
TECHNIKON Ltd.  
Oktyabrskaya Str. 16/5  
Apt. 704, Minsk 220801  
Phone +375 17 2275830  
Fax +375 17 2275830  
technikon@belsonet.net
- CA Canada**  
W Interconnections CANADA Ltd.  
10 Spy Court, Markham,  
Ontario L3 R5 H6  
Phone +1 905 475-1507  
Fax +1 905 475-2798  
info1@weidmuller.ca  
www.weidmuller.ca
- CH Switzerland**  
Weidmüller Schweiz AG  
Rundbuckstraße 2  
8212 Neuhausen am Rheinfall  
Phone +41 52 6740707  
Fax +41 52 6740708  
info@weidmueller.ch  
www.weidmueller.ch
- CL Chile**  
Felipe Bahamondes S.A./ATS AGRO  
Maria Luisa Santander 0475  
Casilla 3425  
Santiago  
Phone +56 2 341-1271  
Fax +56 2 341-1275  
felipe@atsintech.com
- CN China**  
Weidmüller Interface International  
Trading (Shanghai) Co., Ltd.  
25F, BM Intercontinental Business  
Center,  
100 Yutong Road, Shanghai 200070  
P.R. China  
Phone +86 21 22195008  
Fax +86 21 22195009  
www.cnweidmuller.com
- CO Colombia**  
Automatización Avanzada S. A.  
Carrera 97 No.24c, 23 B4  
4 Bogotá D. C.  
Phone +57 1 5478510  
Fax +57 1 4223044  
comercial@  
automatizacionavanzada.com  
www.automatizacionavanzada.com
- CR Costa Rica**  
ELVATRON S.A.  
la Uruca 400 Norte  
Banco Costa Rica  
San José Costa Rica  
Phone +506 2 961060  
Fax +506 5 200609  
dirk.haase@elvatron.com  
www.elvatron.com
- CZ Czech Republic**  
Weidmüller s. r. o.  
Lomnického 5/1705  
14000 Praha 4  
Phone +420 2 44001400  
Fax +420 2 44001499  
office@weidmueller.cz  
www.weidmueller.cz
- DE Germany**  
Weidmüller GmbH & Co. KG  
P.O. Box 3054  
32720 Detmold  
Ohmstraße 9  
32758 Detmold  
Phone +49 5231 1428-0  
Fax +49 5231 1428-116  
weidmueller@weidmueller.de  
www.weidmueller.de
- DK Denmark**  
Wexoe A/S  
Lejrvej 31  
3500 Vaerloese  
Phone +45 45465800  
Fax +45 45465801  
wexoe@wexoe.dk  
www.wexoe.dk
- EC Ecuador**  
Elsystec S. A. Electricidad  
Sistemas y Tecnología  
Vasco de Contreras N35-25  
y Mañosa, Quito  
Phone +593 2 2456510  
Fax +593 2 2456755  
Elsystec@uio.satnet.net
- EE Estonia**  
Soots Interface OÜ  
Pärnu mnt 142  
11317 Tallinn  
Phone +372 5296177  
Fax +372 6096933  
info@sootsinterface.ee  
www.sootsinterface.ee
- EG Egypt**  
Standard Electric (OMEGA)  
87, Mohamed Farid Street  
Heliopolis, Cairo  
Phone +20 26422977  
Fax +20 26422955  
stdelec@rite.com
- ES Spain**  
Weidmüller S. A.  
Narcis Monturiol 11-13  
Pol. Ind. Sudoeste  
08960 Sant Just Desvern  
Barcelona  
Phone +34 93 4803386  
Fax +34 93 3718055  
weidmuller@weidmuller.es  
www.weidmuller.es
- FI Finland**  
JUHA-ELEKTRO OY  
P. O. Box 57, 641 Helsinki  
Kylvöpolku 6, 680 Helsinki  
Phone +358 10 6328 100  
Fax +358 10 8328 109  
info@juha-elektro.fi  
www.juha-elektro.fi
- FR France**  
Weidmüller E. U. R. L.  
12, Chaussée Jules César  
B.P. 263 Orny  
95523 Cergy Pontoise Cedex  
Phone +33 1 34245500  
Fax +33 1 34245501  
mail@weidmuller.fr
- GB Great Britain**  
Weidmüller Ltd  
Klippon House  
Centurion Court Office  
Meridian East, Meridian Business Park  
Leicester, LE19 1TP  
Phone +44 1162 823470  
Fax +44 1162 893582  
marketing@weidmuller.co.uk
- GR Greece**  
Electrorama S.A.  
1 An. Martail Str.  
41335 Larissa  
Phone +30 2410 552533188  
Fax +30 2410 283463189  
valvizos@electrorama.com.gr
- Greece**  
GA Contact Solutions  
11, Ippokratous Str.  
14452 Metamorfoisi Attika  
Phone +30 210 2823233  
Fax +30 210 2823233  
gasaless@gmail.com
- HK Hong Kong**  
United Equity Limited  
Suite B, 11/F International Industrial  
Centre  
2-8 Kwei Tei Street, Fotan, Shatin  
Phone +852 26876739  
Fax +852 26876735  
united\_equity@sinatown.com
- HR Croatia**  
Elektro Partner d.o.o.  
Slavonska Avenija 24/6  
10000 Zagreb  
Phone +385 1 6184793  
Fax +385 1 6184795  
elektropartner@zg.t-com.hr
- HU Hungary**  
Weidmüller Kft  
Gubacsi út 6  
1097 Budapest  
Phone +36 1 3827700  
Fax +36 1 3827701  
info@weidmueller.hu
- ID Indonesia**  
PT. Nego Electrindo  
Ruko Mega Grosir Cempaka Mas,  
Blok I, No 20 – 22  
Jl. Let.Jend. Suprato –  
Jakarta 10640  
Phone +62 21 42882255  
Fax +62 21 42882266  
sales@negoelectrindo.co.id
- IE Ireland**  
Please contact Weidmüller Ltd. in  
Great Britain
- IL Israel**  
A.U.Shay Ltd.  
P.O. Box 10049  
Embar Street 23/25  
Petch-Tikva 49222  
Phone +972 3 9233601  
Fax +972 3 9234601
- Israel**  
ATEKA Ltd.  
23 Hayetzira St.  
Kiryat Aryeh  
49130 Petch-Tikva, Israel  
Phone +972 3 9392344  
Fax +972 3 9243273  
marketing@ateka.co.il  
www.ateka.co.il
- IN India**  
Weidmüller Electronics India Pvt. Ltd  
Plot # 32, 3rd Floor, North Court  
Lane North Avenue, Opp Jogger's Park  
Kalyani Nagar, Maharashtra  
411006 Pune  
Phone +91 9049800960  
Nitish.Rajan@weidmueller.de
- IR Iran**  
Tamin Ehtiajat Fani Tehran (TAF Co.)  
72, Iranshahr Ave.(Unit # 5)  
15816 Tehran  
Phone +98 21 8831-7851  
Fax +98 21 8882-0268  
tafco@safineh.net
- IS Iceland**  
Samey Automation Center  
Lyngas 13, 210 Garoabaer,  
Phone +354 510 5200  
Fax +354 510 5201  
samey@samey.is
- IT Italy**  
Weidmüller S.R.L.  
Via Albert Einstein 4  
20092 Cinisello Balsamo  
Milano  
Phone +39 02 660681  
Fax +39 02 6124945  
weidmuller@weidmuller.it  
www.weidmuller.it
- JO Jordan**  
HORIZONS  
P.O.Box: 330607  
Amman Jordan 11133  
Phone +962 6 4882114  
Fax +962 6 4882115  
horizons@go.com.jo
- JP Japan**  
Nihon Weidmüller Co. Ltd.  
Sphere Tower Tennoz,  
2-2-8 Higashi-Shinagawa,  
Shinagawa-Ku, Tokyo 140-0002  
Phone +81 3 6711-5300  
Fax +81 3 6711-5333  
www.weidmuller.co.jp
- KR Korea**  
Weidmüller Korea Co., Ltd.  
6floor, Sukyoung building, 242-54  
Nonhyun-dong, Kangnam-Gu  
Seoul, Korea  
Zip: 135-830  
Phone +82 2 5160003  
Fax +82 2 5160090  
info@weidmuller.co.kr
- KW Kuwait**  
KANA CONTROLS General  
Trading & Cont. Co. W.L.L.  
Al Rai Industrial Area,  
Plot 28-30, St. 31  
P.O.Box: 25593  
Safat, 13016  
Phone +966-474 1373/4  
Fax +966-474 1537  
info@kanacontrols.com

Group companies **DE**

Agency abroad **DE**

Without own Agency **DE**

**LB Lebanon**  
Progress Engineering & Trading Enterprises  
Al Nahr Street  
Beirut  
Phone +961 1 444664  
Fax +961 1 561880  
progress@inco.com.lb

**LT Lithuania**  
ELEKTROS IRANGA  
Tinklu g.29a, 5319 Panevezys  
Phone +370 45582828  
Fax +370 45582727  
info@eliranga.lt

**LU Luxembourg**  
Please contact Weidmüller  
Benelux B.V. in the  
Netherlands

**LV Latvia**  
SIA "ABI4"  
56A Daugavgrivas str.  
1007 Riga  
Phone +371 67470999  
Fax +371 67465637  
abi\_4@tvnet.lv

**MD Moldova**  
BERHORD A&D srl  
44, str. Sarmizegetusa 37/3  
Off 414, b-dul Decebal, 3,  
Christinau, MD 2001  
Phone +373 22 507137  
Fax +373 22 507134  
atiuleanu@berhord.com

**ME Montenegro**  
Please contact  
ES-YU Elektrosistem in Serbia

**MK Macedonia**  
ELEKTRO – SMK doool  
UL. III Makedonska brigada b.b.  
1000 Skopje  
Phone +389 22 460 295  
Fax +389 22 460 298  
Elektro-smk@telekabel.net.mk

**MT Malta**  
E. S. S., Electrical Supplies  
& Services Ltd  
104 J. Sciberras Str.  
Hamrun HMR 08  
Phone +356 21 255 777  
Fax +356 21 255 999  
robert@ess.com.mt

**MU Mauritius**  
MUBELO Electrical Ltd  
Office 26, Gateway building,  
St. Jean Road, Quatre Bornes  
Phone +230 467 0989  
Fax +230 465 4051  
richard.mubelo@orange.mu

**MX Mexico**  
W Interconnections, S.A. DE C.V.  
Blvd. Hermanos Serdán No. 698  
Col. San Rafael Oriente  
Puebla, C.P. 72029  
Phone +52 222 22686227  
clientes@weidmuller.com.mx

**MY Malaysia**  
Connect Plus Technology Sdn Bhd  
No. 43, Jalan PJS 11/22,  
Bandar Sunway, 46150 Petaling Jaya  
Selangor Darul Ehsan  
Phone +60 3 5633 7363  
Fax +60 3-5633 6562  
paul@cpotech.com.my  
www.cpotech.com.my

**NL Netherlands**  
Weidmüller Benelux B.V.  
Franciscusweg 221  
1216 SE Hilversum  
Postbus 1505  
1200 BM Hilversum  
Phone +31 35 6261261  
Fax +31 35 6232044  
info@weidmuller.nl

**NO Norway**  
Siv. Ing. J. F. Knudtzen A/S  
Billingstadsletta 97  
P.O. Box 160  
1378 Nesbru  
Phone +47 66 983350  
Fax +47 66 980955  
firmapost@jfkudtzen.no  
www.jfkudtzen.no

**NZ New Zealand**  
Cuthbert S. Steward Limited  
27 Te Puni Street  
POB 38496  
Petone, Wellington  
Phone +64 4 5686156  
Fax +64 4 5686056  
info@weidmueller.de

**OM Oman**  
DAN INTERNATIONAL LLC.  
PO.BOX 2901  
111 Seeb  
Phone +968 503 677  
Fax +968 503 755  
yedu@danintl.com

**PE Peru**  
IMGEPRO DEL PERU S.A.C.  
Jr. Arequipa 3410, Lima 31, Peru  
Phone / Fax +51 1 569-7678  
dbernardo@imgepro.com.pe  
www.imgepro.pe

**PH Philippines**  
Enclosure Systems Specialists Inc  
Room 103 Narra Building  
2276 Don Chino Roces Avenue  
Makati City 1231  
Phone +63 2 813 8580  
Fax +63 2 813 8596  
sales\_encsys@pldtsl.net

**PK Pakistan**  
Kana Controls (Pak)  
Apartment No. 33 C III  
Chenab Block,  
Allama Iqbal Town  
Lahore, Pakistan  
Phone +92 42 5419948  
+92 42 7845160  
Fax +92 42 5422895  
nadeem@kanapak.com  
www.kanapak.com

**PL Poland**  
Weidmüller Sp. z o.o.  
Ul. Goledzinowska 10  
03-302 Warszawa  
Phone +48 22 5100940  
Fax +48 22 5100941  
biuro@weidmuller.com.pl  
www.weidmuller.pl

**PT Portugal**  
Weidmüller Sistemas de  
Interface S. A.  
Estrada Outeiro Polima, R. Augusto  
Dias da Silva, Lote B, Esc. 2  
2785-515 Abóboda -São Domingos  
de Rana  
Phone +351 21 4459191  
Fax +351 21 4455871  
www.weidmueller.pt

**QA Qatar**  
Doha Motors Trading Co.  
(Technical Division)  
Post Box No. 145  
Airport Road  
Doha - Qatar  
Phone +974 465 1441  
Fax +974 465 0925  
dmtctech@qatar.net.qa

**RO Romania**  
Rominterface Impex SRL  
Str. Gh. Dem Teodorescu 30 A  
30916 Bucuresti - sector 3  
Phone +40 21 3220230  
Fax +40 21 3228857  
office@rominterface.ro

**RS Serbia**  
ES-YU Elektrosistem  
Pariske komune 41  
11070 Novi Beograd, Serbia  
Phone +381 11 3018660  
Fax +381 11 2693608  
esyu@eunet.rs  
www.elektrosistem.co.rs

**RU Russia**  
Weidmüller Interface GmbH & Co. KG  
Representative Office  
Varshavskoye highway, 25A, bld. 6  
117105 Moscow  
Phone +7 4 95 771-6940  
Fax +7 4 95 771-6941  
info@weidmueller.ru  
www.weidmueller.ru

**SA Saudi Arabia**  
Al Abdulkarim Holding Co.  
P.O. Box. 4  
Dammam 31411  
Phone +9668337110  
Fax +9668338242  
salehsk@akh.com.sa  
www.akte.com.sa

Saudi Electric Supply Co.  
P.O. Box 3298  
Al Khobar 31952  
Phone +966 3 882 9546227  
Fax +966 3 882 9547  
Safdar.malik@sesco-ge.com

**SE Sweden**  
Weidmüller AB  
Axel Daniéssons väg 271  
P.O. box 31025  
200 49 Malmö  
Phone +46 (0) 7 71 43 00 44  
Fax +46 (0) 40 37 48 60  
info@weidmuller.se  
www.weidmuller.se

**SG Singapore**  
Weidmüller Pte. Ltd.  
70 Bendemeer Road  
#04-03 Luzerne  
Singapore 339940  
Phone +65 6841 5311  
Fax +65 6841 5377  
info@weidmuller.com.sg  
www.weidmuller.com.sg

**SI Slovenia**  
ELEKTROSPOJJI d.o.o.  
Stegne 25, 1000 Ljubljana  
Phone +386 15113810  
Fax +386 15111604  
info@elektrospojji.si  
www.elektrospojji.si

**SK Slovakia**  
ELEKTRIS s.r.o.  
Elektrárenská 1  
83104 Bratislava  
Phone +421 2 49200113  
Fax +421 2 49200119  
bratislava@elektris.sk

**TH Thailand**  
Pisanu Engineering Co., Ltd  
800/43-45 Soi Trakulsuk  
Asoke-dindaeng Road,  
Dindaeng, Bangkok 10400  
Phone +66 2 245 9113  
Fax +66 2 6429220  
jayasankar@pisanu.co.th  
www.pisanu.co.th

**TN Tunisia**  
Please contact  
Weidmüller E.U.R.L. in France

**TR Turkey**  
Weidmüller Elektronik Ticaret Ltd.  
Sirketi  
Kavacik Mah. Orhan Veli Kanik  
Caddesi 9/1  
34810 Beykoz – İstanbul  
Phone +90 216 5371070 (Pbx)  
Fax +90 216 5371077  
info@weidmuller.com.tr  
www.weidmuller.com.tr

**TW Taiwan**  
Fittatek Co., Ltd.  
12F No. 195 Fu-Kuo Road,  
Tso Ying Dist, Kaohsiung  
Phone +886 7 556 0858  
Fax +886 7 556 3279  
stanley@fittatek.com.tw  
www.fittatek.com.tw

**Taiwan**  
Eucan Enterprise Ltd.  
No. 145 He Ping 2nd Rd  
Kaohsiung  
Phone +886 7 715 6610  
Fax +886 7 715 8748  
mark@eucan.com.tw  
www.eucan.com.tw

**UA Ukraine**  
TEKO INTERFACE ooo  
ul. Lewanewskogo 6  
03058 Kiev  
Phone +38 044 401 09 90  
Fax +38 044 401 08 64  
weidmueller@tekointerface.com  
www.tekointerface.com.ua

**US United States**  
W-Interconnections Inc.  
821 Southlake Boulevard,  
Virginia - Richmond 23236  
Phone +1 804 7942877  
Fax +1 804 3792593  
info@weidmuller.com  
www.weidmuller.com

**UY Uruguay**  
REWO Uruguay S.A  
Av. Bolivia 2001 Esq Rocafuerte  
Carrasco Montevideo 11300  
Phone / Fax +598 260 48439  
clorda@reworuguay.com.uy

**UZ Uzbekistan**  
OOO "Elektro Potential"  
Gani Mavijanovna str., 2B  
100084 Tashkent  
Phone +998 98-3003821  
Fax +998 71-1249286  
mz1958@yandex.ru

**VE Venezuela**  
Somierinca C.A.  
Quinta Sagrado Corazon de Jesus -  
3ra Transversal - Los Dos Caminos,  
Caracas 1070 - A  
Phone +58 212 2352748  
Fax +58 212 2399341  
kiocmoeller@cantv.net  
www.kmsomerinca.com.ve

**VN Vietnam**  
AUMI Co., Ltd  
E1, La Thanh Hotel,  
218 Doi Can Street,  
Lieu Giai Ward, Ba Dinh District,  
Hanoi City  
Phone +84 4762 8601  
Fax +84 4266 1391  
aumi@aumi.com.vn

Linh Kim Hai Co., Ltd  
78 Hoa Cuc Street Ward 7,  
Phu Thuan District,  
Ho Chi Minh City  
Phone +84 8517 1717  
Fax +84 8517 1818  
lkh@linhkimhai.com.vn

**ZA South Africa**  
Phambili Interface (Pty) Ltd  
P.O. Box 193, 1609 Johannesburg  
5 Bundo Road, Sebenza  
1610 Johannesburg, Endersvale  
Phone +27 11 452 1930  
Fax +27 11 452 6455  
sales@weidmuller.co.za  
www.radinterface.co.za

**DE Other countries**  
Weidmüller Interface GmbH & Co. KG  
Postfach 3030  
32720 Detmold  
Klingenbergstraße 16  
32758 Detmold  
Phone +49 5231 14-0  
Fax +49 5231 14-2083  
info@weidmueller.de  
www.weidmueller.com

# www.weidmuller.com

Argentina	Indonesia	Saudi Arabia
Australia	Iran	Serbia
Austria	Ireland	Singapore
Azerbaijan	Israel	Slovakia
Bahrain	Italy	Slovenia
Belarus	Japan	South Africa
Belgium	Jordan	Spain
Bosnia and Herzegovina	Kazakhstan	Sweden
Brazil	Korea	Switzerland
Bulgaria	Kuwait	Taiwan
Canada	Latvia	Thailand
Chile	Lebanon	Tunisia
China	Lithuania	Turkey
Colombia	Luxembourg	Ukraine
Costa Rica	Macedonia	United Arab Emirates
Croatia	Malaysia	United States
Czech Republic	Malta	Uruguay
Denmark	Mexico	Uzbekistan
Ecuador	Moldova	Venezuela
Egypt	Netherlands	Vietnam
Estonia	New Zealand	
Finland	Norway	
France	Oman	
Germany	Pakistan	
Great Britain	Peru	
Greece	Philippines	
Hong Kong	Poland	
Hungary	Portugal	
Iceland	Qatar	
India	Romania	
	Russia	

**Weidmüller – Partner in Industrial Connectivity.**

**As experienced experts we support our customers and partners around the world with products, solutions and services in the industrial environment of power, signal and data.**

**We are at home in their industries and markets and know the technological challenges of tomorrow. We are therefore continuously developing innovative, sustainable and useful solutions for their individual needs.**

**Together we set standards in Industrial Connectivity.**

We cannot guarantee that there are no mistakes in the publications or software provided by us to the customer for the purpose of making orders. We try our best to quickly correct errors in our printed media.

All orders are based on our general terms of delivery, which can be reviewed on the websites of our group companies where you place your order. On demand we can also send the general terms of delivery to you.

Weidmüller Interface GmbH & Co. KG  
Postfach 3030  
32720 Detmold  
Klingenbergstraße 16  
32758 Detmold  
Phone +49 (0) 5231 14-0  
Fax +49 (0) 5231 14-2083  
E-Mail [info@weidmuller.com](mailto:info@weidmuller.com)  
Internet [www.weidmuller.com](http://www.weidmuller.com)

Order number:  
1316410000/10/2011/SMDM

