IE-WL-VL-AP-BR-CL-US

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

www.weidmueller.com



Features of the BasicLine (IE-WL-BL series)

- IEEE 802.11a/b/g/n compliant access point / client
- MIMO technology for data rates up to 300 Mbit/s
- Fast roaming for interruption-free connection switching between access points
- DFS support in the 5 GHz band

Features of the ValueLine (IE-WL-VL series)

- IEEE 802.11a/b/g/n compliant access point / client / bridge
- MIMO technology for data rates up to 300 Mbit/s
- Fast roaming for interruption-free connection switching between access points
- DFS support in the 5 GHz band
- Power supply via PoE to IEEE 802.3af possible
- Integrated DI/DOs for monitoring and alarms

General ordering data

Version	Wireless Access Point/Bridge/Client, IEEE 802.11 a/b/g/n, US-Model, IP30, -25 °C...60 °C
Order No.	2536700000
Type	IE-WL-VL-AP-BR-CL-US
GTIN (EAN)	4050118548716
Qty.	1 pc(s).

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Technical data

Dimensions and weights

Depth	105 mm	Depth (inches)	4.134 inch
Height	135 mm	Height (inches)	5.315 inch
Width	52.7 mm	Width (inches)	2.075 inch
Net weight	880 g		

Temperatures

Storage temperature	-40 °C...85 °C	Operating temperature	-25 °C...60 °C
Humidity	5 to 95 % (non-condensing)		

EMC conformity and approvals

EMC standards	EN 61000-6-2, EN 61000-6-4, CISPR 22, FCC Part 15B Class B, IEC 61000-4-2 ESD: Contact: 8 kV; Air: 15 kV, IEC 61000-4-3 RS: 80 MHz to 1 Ghz: 10 V/m, IEC 61000-4-4 EFT: Power: 2 kV; Signal: 1 kV, IEC 61000-4-4 EFT: Power: 2 kV; Signal: 2 kV, IEC 61000-4-6 CS: 10 V, IEC 61000-4-8	Explosive risk zone	UL/cUL, Class I, Division 2, Groups A, B, C and D, ATEX Zone 2 Ex nA IIC T4 Gc
Safety standard	SELV according to EN 62368-1, UL 60950-1	Shock	according to IEC 60068-2-27
Vibration	according to IEC 60068-2-6	Wireless	EN 301 489-1/17, EN 300 328, EN 301893, TELEC, FCC ID SLE-WAPN008

Environmental conditions

Humidity	5 to 95 % (non-condensing)	Operating temperature, max.	60 °C
Operating temperature, min.	-25 °C	Storage temperature, max.	85 °C
Storage temperature, min.	-40 °C		

Guarantee

Time interval	5 years

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Interfaces

Alarm contact	1 relay output with a current capacity of 1 A at 24 V DC	Connector for external antennas	2x RP-SMA female, 500 V insulation
Console port interface	RS-232 (RJ45 connector)	Digital inputs	2 inputs with the same ground, isolated • +13 To +30 V for logic "1" • -30 To +3 V for logic "0" • Max. input current: 8 mA
Function reset button	Restoration of factory settings	LED indicator	PWR1, PWR2, PoE, FAULT, STATE, SIGNAL, WLAN, LAN
RJ45 ports	10/100/1000BaseT(X), auto negotiation, Full-/half-duplex mode, Auto MDI/MDI-X port	Standard antenna	2 dBi omni-directional dual band antenna, RP-SMA (male plug)

MTBF

MTBF	According to Standard	Telcordia SR-332
	Operating time (hours), min.	570,854 h

Power supply

Connection type	1 removable 10-pole terminal block, 500 V insulation	
Current consumption	0.6 A at 12 V DC, 0.15 A at 48 V DC	
Power consumption	7.2 W	
Reverse polarity protection	Available	
Voltage supply	24 V DC, 2 redundant inputs, or 48 V DC Power-over-Ethernet (IEEE 802.3af)	
Voltage supply range	Voltage type	DC
	Voltage, min.	12 V
	Voltage, max.	48 V

Technical data

Housing main material	metal	Protection degree	IP30
Type of mounting	DIN rail		

Technology

Standard	IEEE 802.11 a/b/g/n for Wireless LAN, IEEE 802.11i for Wireless Security, IEEE 802.3 for 10BaseT, IEEE 802.3u for 100BaseT(X), IEEE 802.3ab for 1000BaseT(X), IEEE 802.3af for Power-over-Ethernet, IEEE 802.1D for the Spanning Tree protocol, IEEE 802.1w for Rapid STP, IEEE 802.1Q for VLAN tagging	Supported protocols	Proxy ARP, DNS, HTTP, HTTPS, IP, ICMP, SNTP, TCP, UDP, Radius, SNMP, DHCP, VLAN, STP/RSTP, LLDP

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WLAN interface

Data security	SSID broadcast enable/disable, Firewall for MAC/IP/protocol/port-based filtering, 64-bit and 128-bit WEP encryption, WPA/WPA2 Personal and Enterprise (IEEE 802.1X/RADIUS, TKIP and AES)	
Operating channels (mid-band)	US: 2.412 to 2.462 GHz (11 channels); 5.180 to 5.240 GHz (4 channels); 5.260 to 5.320 GHz (4 channels); 5.500 to 5.700 GHz (8 channels, apart from 5.600 to 5.640 GHz); 5.745 to 5.825 GHz (5 channels)	
Spreading code process and modulation (typical)	DSSS with DBPSK, DQPSK, CCK, OFDM with BPSK, QPSK, 16QAM, 64QAM, 802.11b: CCK at 11/5.5 MBit/s, DQPSK at 2 MBit/s, DBPSK at 1 MBit/s, 802.11a / g: 64QAM at 54/48 MBit/s, 16QAM at 36/24 MBit/s, QPSK at 18/12 MBit/s, BPSK at 9/6 MBit/s, 802.11n: 64QAM at 300 MBit/s to BPSK at 6.5 MBit/s	
Transmission rate	802.11b: 1, 2, 5,5, 11 MBit/s, 802.11a/g: 6, 9, 12, 18, 24, 36, 48, 54 MBit/s, 802.11n: 6.5 to 300 MBit/s	
Transmission rate WLAN	Standard	IEEE 802.11b
	max.	11 Mbps
	min.	1 Mbps
	Standard	IEEE 802.11a/g
	max.	54 Mbps
	min.	6 Mbps
	Standard	IEEE 802.11n
	max.	300 Mbps
	min.	6.5 Mbps
Transmit power	802.11b: type 26±1.5 dBm at 1 MBit/s, type 26±1.5 dBm at 2 MBit/s, type 26±1.5 dBm at 5,5 MBit/s, type 25±1.5 dBm at 11 MBit/s, 802.11g: type 23±1.5 dBm to 6 to 24 MBit/s, type 23±1.5 dBm at 36 MBit/s, type 19±1.5 dBm at 48 MBit/s, type 18±1.5 dBm at 54 MBit/s, 802.11a: type 23±1.5 dBm at 6 bis 24 MBit/s, type 21±1.5 dBm at 36 MBit/s, type 20±1.5 dBm at 48 MBit/s, type 18±1.5 dBm at 54 MBit/s, 802.11n (2.4 GHz): type 23±1.5 dBm at MCS0/8 20 MHz, type 18±1.5 dBm at MCS7/15 20 MHz, type 23±1.5 dBm at MCS0/8 40 MHz, type 17±1.5 dBm at MCS7/15 40 MHz, 802.11n (5 GHz): type 23±1.5 dBm at MCS0/8 20 MHz, type 18±1.5 dBm at MCS7/15 20 MHz, type 23±1.5 dBm at MCS0/8 40 MHz, type 17±1.5 dBm at MCS7/15 40 MHz	
Wireless LAN receive sensitivity	802.11b: -93 dBm at 1 MBit/s, -93 dBm at 2 MBit/s, -93 dBm at 5.5 MBit/s, -88 dBm at 11 MBit/s, 802.11g: -88 dBm at 6 MBit/s, -86 dBm at 9 MBit/s, -85 dBm at 12 MBit/s, -85 dBm at 18 MBit/s, -85 dBm at 24 MBit/s, -82 dBm at 36 MBit/s, -78 dBm at 48 MBit/s, -74 dBm at 54 MBit/s, 802.11a: -90 dBm at 6 MBit/s, -88 dBm at 9 MBit/s, -88 dBm at 12 MBit/s, -85 dBm at 18 MBit/s, -81 dBm at 24 MBit/s, -78 dBm at 36 MBit/s, -74 dBm at 48 MBit/s, -72 dBm at 54 MBit/s, 802.11n (2.4 GHz): -70 dBm at MCS7 20 MHz, -69 dBm at MCS15 20 MHz, -67 dBm at MCS7 40 MHz, -67 dBm at MCS15 40 MHz, 802.11n (5 GHz): -69 dBm at MCS7 20 MHz, -71 dBm at MCS15 20 MHz, -63 dBm at MCS7 40 MHz, -68 dBm at MCS15 40 MHz	

Classifications

ETIM 6.0	EC000816	ETIM 7.0	EC000816
ETIM 8.0	EC000816	ETIM 9.0	EC000816
ECLASS 9.0	19-17-02-01	ECLASS 9.1	19-17-02-06
ECLASS 10.0	19-17-05-01	ECLASS 11.0	19-17-05-01
ECLASS 12.0	19-17-05-01	ECLASS 13.0	19-17-05-01

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
SCIP	9229992a-00b9-4096-8962-200a7f33e289

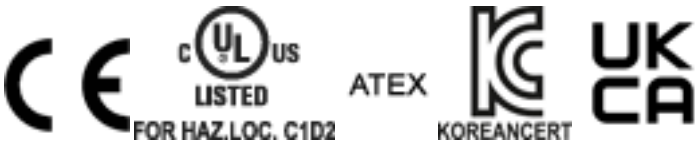
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Approvals

Approvals	
ROHS	Conform
UL File Number Search	UL Website
Certificate no. (cULusEX)	E344136

Downloads

Approval/Certificate/Document of Conformity	ATEX certificate KC certificate EU Declaration of Conformity UK Declaration of Conformity
Engineering Data	CAD data – STEP
Product Change Notification	Firmware Release Notes Product Change Notification IE-WL-VL-series
Software	Software – WLAN Administration Tool Firmware – Firmware Device description – SNMP private MIB
User Documentation	Hardware Installation Guide Manual 20210702 Security Advisory – Multiple vulnerabilities in Industrial WLAN devices (Update A)
Catalogues	Catalogues in PDF-format

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Accessories

Mounting kit for 19" rack assembly



- For assembling DIN rail-based devices on 19" racks

General ordering data

Type	RM-KIT	Version
Order No.	1241440000	Kit for 19"-rack mounting
GTIN (EAN)	4050118029154	
Qty.	1 pc(s).	

Antennas and antenna accessories (coax cables and mounts)



Antennas and antenna accessories (coax cables and mounts)

- State-of-the-art antennas
- Industry proven
- Robust design (up to IP67 protection)
- For outdoor and indoor use
- Latest technology support
- Up to Wi-Fi 6 and Wi-Fi 6E (2.4 GHz, 5 GHz, 6 GHz)
- Up to 5G (NR) support (700 MHz - 3.8 GHz)
- Also support for other technologies (e.g. Bluetooth, GNSS, etc.)
- Appropriate coax cables at different lengths
- Suitable pole and wall mounts

General ordering data

Type	IE-ANT-WL-DB-SISO-LO-NF	Version
Order No.	2788110000	Omni-directional antenna, Wi-Fi antenna, Up to Wi-Fi 6 & 6E
GTIN (EAN)	4064675066378	(IEEE802.11ax), Vertical, N female, IP67, Impedance: 50 Ω
Qty.	1 pc(s).	
Type	IE-ANT-CELL/WL-MB-MIMO- ...	Version
Order No.	2788090000	Omni-directional antenna, Cellular antenna, Wi-Fi antenna, Up to 5G
GTIN (EAN)	4064675066354	(NR), Up to Wi-Fi 6 & 6E (IEEE802.11ax), Linear, Vertical, 2x SMA
Qty.	1 pc(s).	male, 2x RP-SMA male, IP67, Impedance: 50 Ω
Type	IE-ANT-WL-DB-MIMO-DO-RP ...	Version
Order No.	2788070000	Omni-directional antenna, Wi-Fi antenna, Up to Wi-Fi 6 & 6E
GTIN (EAN)	4064675066330	(IEEE802.11ax), Linear, Vertical, 2x RP-SMA male, IP67, Impedance:
Qty.	1 pc(s).	50 Ω
Type	IE-ANT-O-ABG-360-7-NF	Version
Order No.	1367130000	WLAN antenna, Omni-directional antenna, Dual Band (2.4 GHz / 5
GTIN (EAN)	4050118186321	GHz), Gain of up to 8 dBi at 5 GHz / up to 6 dBi at 2.4 GHz, Vertical,
Qty.	1 pc(s).	1x N-type female, bottom, IP68, Impedance: 50 Ω

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Accessories

Type	IE-ANT-O-BG-360-6-NF	Version
Order No.	1367090000	WLAN antenna, Omni-directional antenna, 2.4 GHz band, Gain of 6
GTIN (EAN)	4050118186352	dBi, Vertical, 1x N-type female, bottom, IP67, Impedance: 50 Ω
Qty.	1 pc(s).	

Type	IE-ANT-O-AH-360-5-NF	Version
Order No.	1367120000	WLAN antenna, Omni-directional antenna, 5 GHz band, Gain of 5 dBi,
GTIN (EAN)	4050118186345	Vertical, 1x N-type female, bottom, IP64, Impedance: 50 Ω
Qty.	1 pc(s).	

Type	IE-ANT-P-ABG-75-9-NF	Version
Order No.	1367140000	WLAN antenna, Directional antenna, Dual Band (2.4 GHz / 5 GHz),
GTIN (EAN)	4050118186338	Gain 9 dBi, Vertical, 1x N-type female, bottom, IP67, Impedance: 50 Ω
Qty.	1 pc(s).	

Type	IE-ANT-WL-DB-MIMO-PD-RP ...	Version
Order No.	2788080000	Semi-directional antenna, Wi-Fi antenna, Up to Wi-Fi 6 & 6E
GTIN (EAN)	4064675066347	(IEEE802.11ax), +/- 45° linear, 4x RP-SMA male, IP67, Impedance: 50
Qty.	1 pc(s).	Ω

Configuration backup and restore module (for use with switches of Value- and PremiumLine such as Basic- and ValueLine WLAN devices)



Module for saving and loading a device configuration

- Reduced system downtime by simple reconfiguration if equipment is swapped over
- Automatic loading of the saved configuration possible after device restart
- Compact and robust design
- Useable with all Weidmüller managed switches and industrial WLAN devices

General ordering data

Type	EBR-MODULE RS232	Version
Order No.	1241430000	Configuration module, IP40, 0 °C...60 °C
GTIN (EAN)	4050118029086	
Qty.	1 pc(s).	

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Accessories

Ethernet



- Suitable for Cat. 5 (up to 100 MHz) and Cat. 6 (up to 250 MHz Class E)
- Suitable for PoE+ (according to IEEE 802.3at, IEEE 802.3bt Type 3 and 4)
- Protection of all wire pairs
- Connection via RJ45 sockets
- Metal housing

General ordering data

Type	VDATA CAT6	Version
Order No.	1348590000	Terminal rail fixing, Surge protection, Cat.6, PoE, 802.3 bt at Type 1,
GTIN (EAN)	4050118153002	802.3 bt at Type 2, 802.3 bt at Type 3, 802.3 bt at Type 4
Qty.	1 pc(s).	