Unmanaged Switches, WaveLine 3-8 Ports, Standard Temperature

WaveLine Unmanaged Ethernet Switches

WaveLine unmanaged Ethernet Switches provide a comprehensive entry-level industrial switch platform tailored for applications requiring simple plug and play connectivity. Port densities range from 3-8 port, with a wide selection of fibre connectivity options including SC, ST, LC and SCRJ in both Multimode and Singlemode as well as Plastic Optical Fibre (POF). WaveLine unmanaged switches are available with either 1 or 2 fibre ports, for point-to-point or fibre backbone applications and with standard or extended temperature range, providing unparalleled flexibility in an entry level industrial switch platform.

Wave-Line, 3-8 ports
Standard Temperature Range

- 3 to 8 ports in compact plastic housing
- Single Fibre port with SC, ST or LC connectors
- 0 °C … 60 °C operating temperature
- 10-35Vdc /12-24Vac operation
- Redundant Power supply connections
- 10/100mb Full/Half Duplex, Autonegotiation
- MDI/MDI-X Autocrossing
- cULus, CE, EN 55024, EN 55022, C-Tick

Type	Description	Order No.
IE-SW3-WAVE	3 x RJ45	8897710000
IE-SW3/1SC-WAVE	3 x RJ45; 1 x SC Multimode (2km)	8896920000
IE-SW3/1SCS20-WAVE	3 x RJ45; 1 x SC Singlemode (20km)	8953090000
IE-SW3/1ST-WAVE	3 x RJ45; 1 x ST Multimode (2km)	8896930000
IE-SW3/1LC-WAVE	3 x RJ45; 1 x LC Multimode (2km)	8944350000
IE-SW5-WAVE	5 x RJ45	8896940000
IE-SW6/1SC-WAVE	6 x RJ45; 1 x SC Multimode (2km)	8896950000
IE-SW6/1SCS20-WAVE	6 x RJ45; 1 x SC Singlemode (20km)	8953100000
IE-SW6/1ST-WAVE	6 x RJ45; 1 x ST Multimode (2km)	8896960000
IE-SW6/1LC-WAVE	6 x RJ45; 1 x LC Multimode (2km)	8944360000
IE-SW8-WAVE	5 x RJ45	8896970000
Accessories: IE-DPC	RJ45 Dust Protection Plug	8813490000

Unmanaged Switches, WaveLine 3-8 Ports, Extended Temperature

Wave-Line, 3-8 ports
Extended Temperature Range

- 3 to 8 ports in compact plastic housing
- Single & Dual Fibre Versions with SC, ST or LC
- -20 °C … 60 °C operating temperature
- Plastic Optical Fibre (POF) support
- 10-35Vdc /12-24Vac operation
- Redundant Power supply connections
- 10/100mb Full/Half Duplex, Autonegotiation
- MDI/MDI-X Autocrossing
- cULus, CE, EN 55024, EN 55022, C-Tick

Type	Description	Order No.
IE-SW3-ETR-WAVE	3 x RJ45	8961210000
IE-SW3/1SCS20-ETR-WAVE	3 x RJ45; 1 x SC Singlemode (20km)	8962280000
IE-SW5-ETR-WAVE	5 x RJ45	8961220000
IE-SW6/1SCS20-ETR-WAVE	6 x RJ45; 1 x SC Singlemode (20km)	8962290000
IE-SW6/2SC-ETR-WAVE	6 x RJ45; 2 x SC Multimode (2km)	8953770000
IE-SW6/2ST-ETR-WAVE	6 x RJ45; 2 x ST Multimode (2km)	8953790000
IE-SW6/2LC-ETR-WAVE	6 x RJ45; 2 x LC Multimode (2km)	8953780000
IE-SW6/2SCRJ-ETR-WAVE	6 x RJ45; 2 x LC Multimode (2km)	8953800000
IE-SW6/2SCS20-ETR-WAVE	6 x RJ45; 2 x SC Singlemode (20km)	1085050000
Accessories: IE-DPC	RJ45 Dust Protection Plug	8813490000

EcoLine Unmanaged Switches

EcoLine Unmanaged Switches

EcoLine unmanaged switches combine plug and play versatility with ultra-compact metal housings, to provide excellent industrial capabilities in a small form factor.Available in 5 and 8 port versions with support for either 1 or 2 Multimode or Singlemode fibre ports,EcoLine switches provide the ideal platform for applications requiring a rugged, compact solution in an industrial environment.

Ecoline Unmanaged Switches

- 5 to 8 ports in compact metal housings
- Single or Dual fibre ports with SC or ST Connectors
- 0 °C ... 60 °C operating temperature
- 10-36Vdc / 8-24Vac operation
- Redundant Power Supply on 8 Port models
- 10/100Mb Full/Half Duplex, Autonegotiation
- MDI/MDI-X Autocrossing
- VL508, CE, EN55024/55022, C-Tick

Type	Description	Order No.
IE-SW5-ECO	5 x RJ45	**8808230000**
IE-SW5-ECO-FLAT	5 x RJ45	**8833790000**
IE-SW4/1SC-ECO	4 x RJ45; 1 x SC Multimode (2km)	**8953080000**
IE-SW4/1ST-ECO	4 x RJ45; 1 x ST Multimode (2km)	**8953060000**
IE-SW6/2SC-ECO	6 x RJ45; 2 x SC Multimode (2km)	**8953070000**
IE-SW6/2ST-ECO	6 x RJ45; 2 x ST Multimode (2km)	**8953050000**
IE-SW8-ECO	8 x RJ45	**8829430000**
Accessories: IE-DPC	RJ45 Dust Protection Plug	**8813490000**

AdvancedLine Unmanaged Switches

AdvancedLine Unmanaged Switches

AdvancedLine unmanaged switches offer extensive industrial capabilities in a single, compact platform, with high port density. Designed specifically for harsh industrial applications, AdvancedLine switches boast an impressive range of standard features including rugged metal housings, -40 °C to +75 °C temperature specification and redundant power supply capabilities. With port densities ranging from 8 to 24 ports in a housing width of only 45mm, AdvancedLine switches provide 2 SC or ST connections for Multimode or Singlemode fibre.AdvancedLine unmanaged switches are the obvious choice for the most industrially rigorous applications.

AdvancedLine, 8-24 ports

- 8 to 24 ports in 45mm wide slimline housing
- Dual Fibre Port connectivity with SC & ST connectors
- -40 °C … +75 °C operating temperature
- 10-36 Vdc / 8-24 Vac operation
- Redundant power supply connections
- Fault relay
- 10/100Mb, Full/Half Duplex Autonegotiation
- MDI/MDI-X Autocrossing
- cULus, CE, EN 55024, EN 55022, GL, C-tick

Type	Description	Order No.
IE-SW6/2ST - ADVANCED	6 x RJ45; 2 x ST Multimode (2km)	**8942460000**
IE-SW6/2SC - ADVANCED	6 x RJ45; 2 x SC Multimode (2km)	**8942450000**
IE-SW6/2SCS - ADVANCED	6 x RJ45; 2 x ST Singlemode (20km)	**8942470000**
IE-SW8 - ADVANCED	8 x RJ45	**8942440000**
IE-SW14/2SC - ADVANCED	14 x RJ45; 2 x SC Multimode (2km)	**8808280000**
IE-SW14/2ST - ADVANCED	14 x RJ45; 2 x ST Multimode (2km)	**8808290000**
IE-SW14/2SCS - ADVANCED	14 x RJ45; 2 x SC Singlemode (20km)	**8851880000**
IE-SW22/2ST - ADVANCED	22 x RJ45; 2 x ST Multimode (2km)	**8808320000**
IE-SW16 - ADVANCED	16 x RJ45	**8808270000**
IE-SW22/2SC - ADVANCED	22 x RJ45; 2 x SC Multimode (2km)	**8808310000**
IE-SW22/2SCS - ADVANCED	22 x RJ45; 2 x SC Singlemode (20km)	**8851890000**
IE-SW24- ADVANCED	24 x RJ45	**8808300000**

Note: Singlemode Transmission up to 120km on request

AdvancedLine Unmanaged Gigabit Switches

AdvancedLine Unmanaged Gigabit Switches

The AdvancedLine Gigabit switch platform combines the industrial capabilities of the standard AdvancedLine unmanaged fast Ethernet switches, with the enhanced performance of 2 Gigabit Ethernet ports for applications requiring maximum data throughput. For increased flexibility, the 2 Gigabit ports are available as fixed RJ45 or with SFP pluggable transceiver ports.The pluggable SFP port option allows for a variety of fibre Gigabit or fast ethernet transceivers, enabling a single platform to be used for both Multimode and singlemode applications of various distances.

AdvancedLine Gigabit Range

- Gigabyte capable switches
- Available with Two Gigabit SFP Pluggable Transceiver ports for added flexibility and easy upgrades
- -40 °C ... +75 °C Operating temperature
- Compact housing
- Autonegotiation
- MDI/MDI-X Autocrossing (RJ45)
- Redundant power supply
- cULus, CE, EN 55024, EN 55022, GL, Class1Div2
- Fault relay

Switch	Description	Order No.
IE-SW8-2GBIT-ADVANCED	8 x 10/100BaseTx RJ45; 2 x 1000BaseTx Fixed RJ45	**8961230000**
IE-SW8-2GBIT-SFP-ADVANCED	8 x 10/100BaseTx RJ45; 2 x SFP Transceiver Sockets	**8975450000**

SFP Pluggable Transceiver

- A full range of plug in SFP transceivers

Transceiver	Description	Range	Order No.
IE-SFP-FE-1310-MM	100BaseFX MM SFP Fast Ethernet Transceiver Duplex LC	2km	**1068240000**
IE-SFP-FE-1310-SM20	100BaseFX SM SFP Fast Ethernet Transceiver Duplex LC	20km	**1068250000**
IE-SFP-FE-1310-SM40	100BaseFX SM SFP Fast Ethernet Transceiver Duplex LC	40km	**1068270000**
IE-SFP-1G-850-MM	1000BaseFX MM SFP Gigabit Transceiver Duplex LC	550m	**1068280000**
IE-SFP-1G-1310-SM0	1000BaseFX SM SFP Gigabit Transceiver Duplex LC	10km	**1068290000**
IE-SFP-1G-1310-SM40	1000BaseFX SM SFP Gigabit Transceiver Duplex LC	40km	**1068310000**
IE-SFP-1G-RJ45-100	1000BaseTX Copper SFP Gigabit Transceiver RJ45	100m	**1069320000**

PL Series - Power-over-Ethernet (PoE) Switches

PL Series PoE Unmanaged Ethernet Switches

The new PL (PowerLine) unmanaged PoE (Power-over-Ethernet) switch range from Weidmuller provides a flexible solution for applications requiring PoE power in an industrial environment. Complying with the 802.3af PoE standard, each PL series switch behaves as PSE (Power Sourcing Equipment), automatically detecting if a PD (Powered Device) is connected to any of its 4 PoE ports and supplying power over the Ethernet cable. A comprehensive range of models are available covering most application requirements, including applications requiring Multimode or Singlemode Fibre interfaces.

PL Series Switches

- Simple plug & play functionality
- Ultra-compact, rugged metal housing
- -40 °C … +75 °C Temperature Rating
- 802.3af compliant PSE (Power Sensing Equipment)
- 10/100 Mb Full/Half Duplex, Autonegotiation
- MDI/MDI-x Autocrossing
- 4-Port or 6-Port Models
- Dual SC Fibre ports in Single or Multimode
- 48Vdc Supply
- Panel or DIN Rail Mounting (with PL-DIN)
- C-Tick Approval

Type	Description	Order No.
PL - 4P	4 x PoE	**7940034441**
PL - 4P - 2RJ	4 x PoE; 2 x RJ45 (Non PoE)	**7940034442**
PL - 4P - 2MSC	4 x PoE; 2 x SC Multimode (2km)	**7940034443**
PL - 4P - 2SSC	4 x PoE; 2 x SC Singlemode (20km)	**7940034444**
Accessories PL - DIN	DIN Rail Mounting Bracket	**7940034468**

WaveLine Managed Switches (Without I/O)

WaveLine Managed Switches without I/O

Managed switches provide complete flexibility over how a network is configured, providing enhanced functionality for network optimisation, security and remote monitoring. Weidmuller WaveLine Managed Switches offer a comprehensive suite of user configurable management functions, providing all the tools necessary to optimise, secure and monitor your network, in a flexible, cost effective industrial package.

WaveLine, Managed Switches

- 10/100BaseTX Full / Half Duplex Autonegotiation
- Temperature range -40 °C … 70 °C
- MDI / MDI-X Autocrossing
- Trunking for high-speed backbone
- MAC-based trunking with link failover
- IEEE 802.3x/802.3/802.4 Standard
- Redundant power supply
- Quality of service (QoS) 802.1p
- Configuration via web interface or terminal session
- VLAN support 802.1q
- Programmable fault relay
- SNMP management
- RapidRingTM Fast ring redundancy
- Port mirroring
- IGMP snooping with query functions
- Spanning tree IEEE 802.1s
- Rapid spanning tree IEEE 802.1w
- Flow control IEEE 802.3x
- DHCP and VLAN IEEE 802.1q
- RMON (statistics, history, alarms, events)
- LLDP (Link Layer Discovery Protocol)
- Operational Earthing

Type	Description	Order No.
IE-SW6/2LC-1300-M-WAVE	6 x RJ45; 1 x USB; 2 x LC Multimode (2km)	**8943820000**
IE-SW6/2SC-1300-M-WAVE	6 x RJ45; 1 x USB; 2 x SC Multimode (2km)	**8943790000**
IE-SW6/2SCS-1300-M-WAVE	6 x RJ45; 1 x USB; 2 x SC Singlemode (20km)	**1067880000**
IE-SW6/2ST-1300-M-WAVE	6 x RJ45; 1 x USB; 2 x ST Multimode (2km)	**8943800000**
IE-SW6/2SCRJ-650-M-WAVE	6 x RJ45; 1 x USB; 2 x SCRJ Multimode (2km)	**8943810000**
IE-SW8-M-WAVE	8 x RJ45; 1 x USB	**8943780000**

WaveLine Managed Switches (With I/O)

WaveLine Managed Switches with I/O

Weidmuller also offer the WaveLine managed switches complete with fully integrated Digital I/O capabilities. Supporting all the regular management features of the standard product, the WaveLine managed switches with I/O provide an additional 2 x digital input and 2 x digital output channels for applications requiring simple status monitoring and alarm acknowledgement. The I/O can be controlled using standard SNMP communications and simple SNMP traps can be configured to monitor the status of the devices in field.

WaveLine Managed Switches:
IE-SW6/2SCRJ2DIO-M-WAVE

- Autonegotiation
- Redundant Power Supply
- Programmable error relay for PLC support
- SNMP Management
- Rapid Ring Redundancy
- RSTP 802.3w
- IGMP snooping with query functions
- Port Mirroring
- Port Filtering
- Port set up functionality
- LLDP (Link Layer Discovery Protocol)
- VLAN
- QoS
- TOS
- Diffserv
- MAC Based Trunking
- Auto-cross over / Auto Polarity
- Auto Polarity
- Filtering and Forwarding Table
- Functional earth
- Configuration via console (USB) or integrated web server
- 2 x DI 24 Vdc
- 2 x DO 30 mA

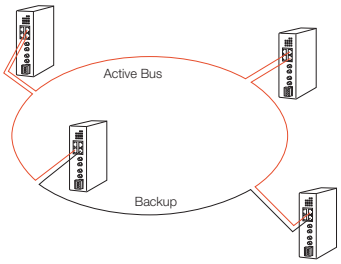
Type	Description	Order No.
IE-SW6/2SC2DIO-M-WAVE	6 x RJ45, 1 x USB, 2 x SC Multimode (2km)	**8972580000**
IE-SW6/2SCS2DIO-M-WAVE	6 x RJ45, 1 x USB, 2 x SC Singlemode (20km)	**1067870000**
IE-SW6/2ST2DIO-M-WAVE	6 x RJ45, 1 x USB, 2 x ST Multimode (2km)	**8972600000**
IE-SW6/2SCRJ2DIO-M-WAVE	6 x RJ45, 1 x USB, 2 x SCRJ Multimode (2km)	**8972590000**
IE-SW8-2DIO-M-WAVE	8 x RJ45, 1 x USB	**8972570000**
Accessories:		
RJ45 dust protection plug	IE-DPC	**8813490000**
Markers	WS 15/5 MC Neutral	**1609880000**

Managed Switches - AdvancedLine

AdvancedLine Managed Switches

AdvancedLine managed switches provide the ultimate in durability and reliability for the most demanding of industrial applications. With an exceptionally high port density of up to 24 ports (2 of which may be SC or ST fibre in singlemode or mulitmode) housed in a compact 45mm wide rugged metal enclosure, AdvancedLine managed switches are capable of handling temperature ranges from -40 °C … +75 °C. With full management capabilities and a sophisticated suite of user configurable functions, AdvancedLine managed switches provide all the tools necessary to optimise, secure and monitor your network using simple browser based configuration. AdvancedLine managed switches are the ideal choice where a no compromise, flexible, fully managed industrially hardened platform is required.

Managed Switch, 8-24 ports



- 8 to 24 ports in robust aluminium housing
- 10BaseT, 100BaseTX
- RJ45 ports / segment length 100 m
- Temperature range -40 °C … +75 °C
- Half-duplex (back-pressure) / full-duplex (pause)
- Autonegotiation and flow control
- Autocrossing
- Broadcast limitation
- Configuration via web interface or terminal
- Trunking for high-speed backbone
- MAC-based trunking with link failover
- IEEE 802.3x; IEEE 802.3; IEEE 802.3u, CE, UL508
- Redundant power supply (10 … 36 V DC, 8 ... 24 V AC)

Type	Description	Order No.
IE-SW6/2SC-M	6 x RJ45; 1 x RS-232; 2 x SC Multimode (2km)	**8845840000**
IE-SW6/2SCS-M	6 x RJ45; 1 x RS-232; 2 x SC Singlemode (20km)	**8851850000**
IE-SW6/2ST-M	6 x RJ45; 1 x RS-232; 2 x ST Multimode (2km)	**8845850000**
IE-SW8-M	8 x RJ45; 1 x RS-232	**8845740000**
IE-SW14/2SC-M	14 x RJ45; 1 x RS-232; 2 x SC Multimode (2km)	**8845780000**
IE-SW14/2SCS-M	14 x RJ45; 1 x RS-232; 2 x SC Singlemode (20km)	**8851860000**
IE-SW14/2ST-M	14 x RJ45; 1 x RS-232; 2 x ST Multimode (2km)	**8845790000**
IE-SW16-M	16 x RJ45; 1 x RS-232	**8845800000**
IE-SW22/2SC-M	22 x RJ45; 1 x RS-232; 2 x SC Multimode (2km)	**8845810000**
IE-SW22/2SCS-M	22 x RJ45; 1 x RS-232; 2 x SC Singlemode (20km)	**8851870000**
IE-SW22/2ST-M	22 x RJ45; 1 x RS-232; 2 x ST Multimode (2km)	**8845820000**
IE-SW24-M	24 x RJ45; 1 x RS-232	**8845830000**

IP67 Switches - Managed and Unmanaged

IP67 Unmanaged and Managed Switches

Weidmuller's IP67 switches provide a rugged, reliable network connectivity solution capable of withstanding the rigours of the harshest industrial environments.By integrating the electronics into robust IP67, V0 flammability housings with M12 network connectors, Weidmuller's IP67 range of Ethernet switches can resist the ingress of water, dust and other contaminants. The M12 connectors also provide the highest level of resistance to shock and vibration making these switches ideal for direct mounting on machinery or for applications in the transport industry.

IP67 Unmanaged Switch

- 8 ports in plastic housing
- Temperature range -40 °C … +75 °C
- Autonegotiation
- Autocrossing (RJ45)
- Fault relay output
- Redundant power supply
- cULus, CE, EN 55024, EN 55022, UL508

Type	Description	Order No.
IE-SW8-IP67	8 x M12	8877190000

IP67 Managed Switch

- Port trunking & port mirroring
- VLAN E 802.1q
- “Filtering and Forwarding Table” with fixed entries
- Selective multicast control, QoS and DHCP
- Configurable relay functions
- Inspecting of “Address Table”
- SNMP V.1 capability
- RSTP and RapidRing™
- IGMP snooping with query functions
- Autocrossing, Autonegotiation, Autopolarity
- Broadcast limitation
- Flow control IEEE 802.3x
- RMON (statistics, history, alarms, events)

Type	Description	Order No.
IE-SW8-M-IP67	8 x M12	8877200000

Accessories

Type	Description	Power (AUX) In	Power (AUX) Out	Relay	Console	Ethernet	Cable Size and Entry			
							PG7 (4-6mm)		PG9 (6-8mm)	
							Straight	Angled	Straight	Angled
	M12 Female, 5 Pin, A code, Plug	•					9457250000	9457260000	1807250000	1807330000
	M12 Male, 5 Pin, A code, Plug		•	•			9456940000	9456950000	1807350000	1807370000
	M12 Male, 5 pin, B code, Plug				•		Use RS232 program cable (see below)			
	M12 Male, 4 Pin, D code, Plug					•	-	-	1892120000	-
Type	**Description**						**1.5m**	**3.0m**	**5.0m**	**10.0m**
IE System Cable	Cat.5, PUR, M12 Male to M12 male, D-coded					•	1025950015	1025950030	1025950050	1025950100
IE System Cable	Cat.5, PUR, M12 Male to RJ45 (IP20)					•	1044470015	1044470030	1044470050	1044470100
IE System Cable	Cat.5, PUR, M12 Male to Open End Cable					•	1025940015	1025940030	1025940050	1025940100
IE System Cable	PUR/PVC, M12 Female to Open End Cable	•					9457910150	9457910300	9457910500	9457911000
IE System Cable	PUR/PVC, M12 Male to Open End Cable		•	•			9457610150	9457610300	9457610500	9457611000
RS232 Program Cable	RS232-M12 Cable for managed switch				•		8874290000			
Type	**Description**								**Qty**	**Order As**
ESG8/13.5/43.3 SAI AU	Transparent markers					•			5	1912130000
SAI-SK-M12-UNI	M12 Protective Cap (For Male Connector)		•	•	•	•			20	2330260000
SAI-SK-M12 BU	M12 Protective Cap (For Female Connector)	•							1	8425960000

Note: Other cable variations and materials are available on request.

Media Converters - Wave Series

Media Converters - Wave Series

Weidmuller's WaveLine Media converters provide a robust industrial solution for applications which require a highly reliable data exchange between copper and glass fibre media. The WaveLine Media Converter range supports both Multimode and Singlemode fibre with the option of SC or ST fibre connectors. Singlemode transmission distances up to 120km are available.

WaveLine Media Converters

- Compact Plastic Housing
- Temperature range 0 °C … 60 °C
- Multimode (MM) to 2km; or Singlemode (SM) to 60km
- Transparency link
- Switchable from half-duplex to full-duplex
- Singlemode to 120km available (on request)
- Approvals: C-Tick, cULus, CE, EN55024, EN5022, GOST R, GL

Type	Description	Order No.
IE-MC-SC-WAVE	1 x RJ45 MDI; 1 x RJ45 MDI-X; 1 x SC Multimode (2km)	8916300000
IE-MC-SC-SM-WAVE	1 x RJ45 MDI; 1 x RJ45 MDI-X; 1 x SC Singlemode (20km)	8916290000
IE-MC-SC-SM60-WAVE	1 x RJ45 MDI; 1 x RJ45 MDI-X; 1 x SC Singlemode (60km)	8963430000
IE-MC-ST-WAVE	1 x RJ45 MDI; 1 x RJ45 MDI-X; 1 x ST Multimode (2km)	8916310000
IE-MC-ST-SM-WAVE	1 x RJ45 MDI; 1 x RJ45 MDI-X; 1 x ST Singlemode (20km)	8958520000

Note: Long-haul Singlemode Transceivers up to 120km available on request

Media Converters - IE-Line

Media Converters - IE-Line

Weidmuller's IE-Line Media converters provide the smallest form-factor available. Their ultra-compact footprint and height off the DIN rail make them ideal for applications where space is at a premium.

IE-Line Media Converters

- Ultra Compact Plastic Housing 85Lx40Wx79H
- Temperature range 0 °C … 60 °C
- Multimode (MM) to 2km; or Singlemode (SM) to 60km
- Transparency link
- Switchable from half-duplex to full-duplex
- Singlemode available up to 120km available
- Approvals: C-Tick, cULus, CE, EN55024, EN5022, GOST R, GL

Type	Description	Order No.
IE-MC-SC	1 x RJ45 MDI; 1 x RJ45 MDI-X; 1 x SC Multimode (2km)	8808220000
IE-MC-SC-SM	1 x RJ45 MDI; 1 x RJ45 MDI-X; 1 x SC Singlemode (20km)	8848840000
IE-MC-ST	1 x RJ45 MDI; 1 x RJ45 MDI-X; 1 x ST Multimode (2km)	8808190000

Note: Long-haul Singlemode Transceivers up to 120km available on request

Industrial Wireless Solutions - Wireless Data Modem - 802.11b 2.4GHz

Wireless Ethernet Modem - 2.4GHz

Weidmuller's range of Wireless Ethernet Modems provide a flexible solution for applications where hardwired installations are difficult or impracticable. Weidmuller's WL-EM-240 allows Ethernet or Serial communications over the license-free 2.4GHz ISM band and can operate as an Access Point, Bridge, Repeater, Client and Router. With 300mW transmitter power, the WL-EM-240 is ideal for difficult industrial environments. Sporting sophisticated features such as support for mesh and redundant topologies, built in Modbus RTU/Modbus TCP server and full 128 bit encryption capabilities, the WL-EM-240 is an ideal choice where performance and reliability are paramount.

WL-EM-240

- 2.4GHz DSSS 802.11b WIFI
- -40°C ... +60°C Operating Temperature
- 10 - 30Vdc Power Supply
- DIN Rail or Panel Mount
- 10/100 Base Tx RJ45, IEEE 802.3 compliant
- 300mW output power
- TCP/IP, UDP, ARP, PPP, MTTP, FTP, TFTP, TELNET
- Point to Point; Point to Multi-point; & Repeater Functionality
- Access point/Client; Bridge/Router Configuration
- 13 Selectable Channels
- 1Mb, 2Mb, 5.5Mb, 11Mb (fixed or auto)rate selection
- 128 bit AES (WPA2) Encryption
- WEP Security
- Browser Based Configuration
- RS232 Interface 1.2 to 115.2 Kbps
- RS485 Interface 1.2 to 115.2 Kbps
- Serial Server (Comserver) mode
- Modbus/ Modbus TCP Conversion
- Configurable DI/O Channel

Type	Description	Order No.
WL-EM-240	1 x RJ45; 1 x RS232, 1 x RS485, 2 x SMA (Antenna), 1 x DI/O	**7940033932**

Note:Please see page 17 for Antennas; Antenna Cables and Wireless Accessories

Industrial Wireless Solutions - Wireless Data Modem - 900MHz

Wireless Ethernet Modem - 900MHz

Boasting many of the features found on the WL-EM-240, Weidmuller's WL-EM-900 provides a full 1W of power at 900MHz, providing transmission distances of up to 30km line of sight. Capable of data rates up to 200Kbps, the WL-EM-900 is ideal for lower bandwidth requirements such as those commonly found in SCADA or Telemetry applications where transmission distance is the primary consideration.

WL-EM-900

- 900MHz FHSS Radio
- -40°C ... +60°C Operating Temperature
- 10 - 30Vdc Power Supply
- DIN Rail or Panel Mount
- 10/100 Base Tx RJ45, IEEE 802.3 compliant
- 0.1-1W (20-30 dBm) /Output Power, Configurable
- TCP/IP, UDP, APP, PPP, ICMP, MTTP, FTP, TFTP, TELNET
- Point to Point; Point to Multi-point; & Repeater Functionality
- Access point; Client; Bridge & Router Configuration
- 19.2, 57.6, 11.5, 230kb/s fixed or auto ratese-lection
- Range to 100km LOS with high gain antennas
- 128 bit AES Encryption
- Browser Based Configuration
- RS232 Interface 1.2 to 115.2 Kbps
- RS485 Interface 1.2 to 115.2 Kbps
- Serial Server (Comserver) mode
- Modbus/ Modbus TCP Conversion
- Configurable DI/O Channel

Type	Description	Order No.
WL-EM-900	1xRJ45; 1xRS232, 1xRS485, 1xSMA (Antenna), 1xDI/O	**7940033934**
WL-EM-900-NZ	1xRJ45; 1xRS232, 1xRS485, 1xSMA (Antenna), 1xDI/O	**7940033340**

Industrial Wireless Solutions - Wireless Expansion I/O Modules

Wireless Expansion I/O Modules

The WL-IO Series expansion modules take advantage of the powerful Modbus capabilities of Weidmuller's 2.4GHz and 900 MHz Ethernet modems, enabling extensive wireless I/O networks to be built-up quickly and efficiently. A range of modules are available with up to 16 I/O channels , encompassing both analogue and digital inputs and outputs.In addition, the WL-IO-xx modules can be used independently of the Wireless Modems, as a standalone Modbus remote I/O solution for hardwired RS485 applications.

- Expansion I/O for WL-EM Wireless Ethernet Modems
- Up to 16 Selectable I/O Per Module
- Up to 31 Units can be connected to modem RS485 Port
- Selectable Communications via Modbus RTU or ASCII Protocol
- Three I/O Versions available
- Easy to use windows configuration software
- Serial Port configurable up to 115.2kbp/s
- -40°C to +60°C Operating Temperature
- DIN Rail Mounting
- Digital inputs & outputscan be configured as discrete or pulse
- Analogue inputs can be 4 Floating or 8 Commoned
- Peer to Peer mode mapping of DI to DO & AI to AO
- Modules can be used stand-alone as conventional Modbus slaves to any Modbus master.

WL-Series Expansion Modules

Type	WL-IO-DIO	WL-IO-DAI	WL-IO-DAO
Order No.	**7940033937**	**7940033940**	**7940033941**
Digital Inputs	Up to 16	Up to 8 voltage-free contacts	Up to 8
Digital Ututs	Up to 16	Up to 8 FET	Up to 8
Analog Inputs	0	4 "floating" / 8 commoned 0-20mA / 0-10V	0
Analog Ututs	0	0	8 Sink / Source 0-20mA / 0-10V
Pulse Inputs	4 1Khz	0	0
Pulse Ututs	8 15Khz	8 15Khz	8 15Khz

Industrial Wireless Solutions - Wireless I/O Modules

Wireless I/O Modules

Wireless I/O connects to analogue, discrete and pulse transducer signals. These signals are transmitted by licence-free 900MHz radio and re-created as output signals, providing a simple, cost effective alternative to hardwired point-to-point I/O. In addition, Weidmuller's Wireless I/O units have the ability to form sophisticated point to multi-point, or multi-point to multi-point I/O networks providing a flexible and cost effective solution for difficult to wire applications.

WL-TX-900

- 900MHz FHSS Operation
- Typical line-of-sight range 3-30km
- Licence Free Operation
- Full data encryption over radio link
- DIN Rail Mount Housing
- -40°C to +60°C Operating Temperature

Type	WL-TX-900	WL-RX-900
Digital Inputs	2 x Pulse or Status	-
Digital Outputs	1 x Local Set point 1 x Status	3 x N/O Relay Contact
Analog Inputs	1 x 0-20 (4-20mA) 1 x Thermocouple	1 x 0-20 (4-20mA)
Virtual Analogue Inputs	Battery Voltage Internal Temperature	-

Note: Digital inputs can be either Pulse or Contact input.

Type	Description	Order No.
WL-TX-900	Transmiter Module (Australia Only)	**7940033933**
WL-RX-900	Receiver Module (Australia Only)	**7940033936**
WL-TXRX-900	Matched Pair (Australia Only)	**7940033935**
WL-TX-900-NZ	Transmiter Module (New Zealand Only)	**7940034332**
WL-RX-900-NZ	Receiver Module (New Zealand Only)	**7940034333**
WL-TXRX-900-NZ	Matched Pair (New Zealand Only)	**7940034331**

Note: Please see page 17 for Antennas, Antenna Cables and Wireless Accessories.

Industrial Wireless Solutions - WLAN Wireless Bridge

WLAN Wireless Bridge

The WLAN bridge ensures trouble-free operations within your production facility. A simple configuration interface using a web browser allows your to build a wireless network according to IEEE-Standard 802.11b/g. Our WLAN bridges can be assembled into simple access points in connection with our mini-routers. This allows you to maintain your system remotely using the WLAN connection on your laptop.

WLAN-Bridge

- Compact Plastic Housing
- Support for WLAN 802.11b/g
- Autonegotiation and Autocrossing (RJ45)
- Disturbance-free operation at production facilities
- Temperature range 0 °C … 60 °C

Type	Description	Order No.
IE-WLAN-BRIDGE-WAVE	1 x RJ45; 1 x RS-232; 1 x Antenna	**8927140000**

Note:Please see page 17 for Antennas; Antenna Cables and Wireless Accessories

Industrial Wireless Solutions - GPRS - I/O

Weidmuller IE GPRS I/O alarm modules send immediate alarm messages via SMS, FAX, e-mail or voice announcement in the event of limit violations at their input ports. At the heart of every IE GPRS I/O is a microprocessor with a GPRS/GSM transmission module. The IE GPRS I/O is of interest to anyone who needs access to plant data from mobile devices or the Internet.

GPRS Module

- Automated alarm and telecontrol system
- Always online
- Cheap M2M tariffs
- 8 digital and 4 analogue input ports, 4 digital output ports
- Immediate alarm messages via SMS, FAX, e-mail or voice announcement in the event of limit violations at input ports
- Very flexible configuration, 8-level slave list
- Integration of current port states in the message text
- Built-in cost control
- Data logger (LAN and Internet) available
- SMTP; POP3; FTP; DNS; IP TCP; UDP sockets
- An alarm trigger via RS232 is also possible

Type	Description	Order No.
IE-GPRS-I/O - QUAD	Dual Band GSM/ GPRS Modem and Antenna	**8963930000**

Wireless Accessories

900MHz Antennas	Description	Gain	Order No.
WL-WH-900-SMA	Demo whip (90mm long) with SMA-Male connector (for internal use only)	-2dBi	**7940033944**
WL-DG900-1	Whip (150mm long) with 1m RG174 lead, SMA male connector, stud mount and R/A bracket	-2dBi	**7940033945**
WL-DG900-5	Whip (150mm long) with 5m RG174 lead, SMA male connector, stud mount and R/A bracket	-2dBi	**7940033946**
WL-CFD890EL	Dipole (400mm long) with 5m RG58 lead, SMA male connector and mounting bracket	2.15dBi	**7940033947**
WL-SG900EL	Collinear (800m long)with 'N' Type Female connector and mounting bracket	5dBi	**7940033948**
WL-SG900-6	Collinear (1370mm long) with 'N' Type Female connector	8dBi	**7940033949**
WL-YU6-900	6 element Yagi with 'N' type Female connector	10dBi	**7940033950**
WL-YU16-900	16 element Yagi with 'N' Type Female connector	15dBi	**7940033951**
2.4GHz Antennas	**Description**	**Gain**	**Order No.**
WL-WH2400-SMA	Demo Whip with SMA Male Connector	0dBi	**7940033952**
WL-MD2400-EL	Dipole (230mm long) with 5m RG58 Cellfoil lead, SMA connector and stud mounting bracket	3dBi	**7940033953**
WL-SG2400-EL	Collinear (510mm long) with 'N' Type Female connector and mounting bracket	5.1dBi	**7940033954**
WL-Z2400-EL	Collinear (850mm long) with Black Radome and N-type Female connector	10dBi	**7940033955**
WL-Y2400-18EL	18 Element Yagi with Black Radome and 'N' Type Female connector	18dBi	**7940033956**
Surge Diverter	**Description**	**Gain**	**Order No.**
WL-CSD-SMA-2500	SMA surge diverter - SMA Male to SMA Female	<0.2dB	**7940035161**
WI-CSD-N-2500	Bulkhead fitting surge diverter N-Type Male to N-Type Female	<0.15dB	**8947830000**
Cables	**Description**	**Loss**	**Order No.**
WL-ETH-C5A	Ethernet Cable - direct-RJ45 to RJ45 2 Metre	N/A	**7940033957**
WL-SER-RJ45	RS-232 Cable DB9 Female to RJ45 for programming WL-TX-900 & WL-RX-900	N/A	**7940033958**
WL-SER-DB9	RS232 Serial cable DB9 male to DB9 female	N/A	**7940033959**
WL-CC3-SMA	Coax Cable Kit, 3m long, Cellfoil, 'N' Type Male to SMA Male	2dB@2.4Ghz, 1dB@900Mhz	**7940033962**
WL-CC10-SMA	Coax Cable Kit, 10m long, Cellfoil,'N' Type Male to SMA Male	6dB@2.4Ghz, 3dB@900Mhz	**7940033960**
WL-CC20-SMA	Coax Cable Kit, 20m long, Cellfoil,'N' Type Male to SMA Male	12dB@2.4Ghz, 6dB@900Mhz	**7940033961**
Antenna Brackets	**Description**		**Order No.**
WL-BR-COL-KIT	Mounting Bracket Kit for Collinear Antenna		**7940033942**
WL-BR-YAG-KIT	Mounting Bracket Kit for Yagi Antenna		**7940033943**
Power Supplies	**Description**		**Order No.**
CP SNT 48W 24V 2A	Connect Power 24V 2A DIN rail mount power supply		**8739140000**
	PRO-M 24V 3A DIN rail mount power supply		**8951330000**

Routers - WaveLine Series

Industrial Routers

Weidmuller's comprehensive range of Industrial Routers provide the functionality required for both the segregation of and the secure remote access to Ethernet networks. With solutions available for either standard LAN/WAN applications or remote access via integrated ISDN, GSM, UMTS and PSTN capabilities.
Supporting the latest innovative features in Router technology, such as callback / dial-on-demand; time server synchronization; integrated firewall, VPN and dynamic routing; Weidmuller Routers provide exceptional flexibility and configurability for all industrial routing applications.

WaveLine Router

- Near wire speed performance
- Integrated PSTN; GSM & UMTS modem options
- Full security - SSH, VPN, Masquerading, Port Filter, SPI Firewall
- Dial on demand / Callback
- OSPF (Open Shortest Path First) Dynamic Routing
- Integrated I/O (2 x DI)
- Web browser configuration
- DynDNS
- SNMP Management

Type	Description	Order No.
IE-AR-100T-WAVE	2 x RJ45; 2 x DI/DO; 1 x USB; 1 x RS232	**8943830000**
IE-AR-100T-UMTS-WAVE	2 x RJ45; 2 x DI/DO; 1 x USB; 1 x RS232 with integrated GSM/UMTS (3G) Modem	**8943860000**
IE-AR-100T-AN-WAVE	2 x RJ45; 2 x DI/DO; 1 x USB; 1 x RS232 with integrated PSTN Modem	**8943850000**

Routers - Mini Router Series

Mini Routers

As a rule, routers are deployed in two ways: they can separate Ethernet networks for reasons of data security or to facilitate simpler configurations; or they open up access to the Internet.
Mini routers with OSPF functionality (Open Shortest Path First) know their way around the connected network topology. If the main connection to the internet fails, the router in question utilises OSPF functionality to automatically establish an alternative route within the network.

Mini Router - OSPF

- Simple parameterising and teleservicing via web browser
- RS232 connection for control panel or external modem (analogue, ISDN, GSM)
- PPPoE (DSL)
- SSH access for command line
- VPN (IPsec, VTUN) & Dial-on-Demand
- DNS/DynDNS
- Masquerading, routing without masquerading
- Virtual Mapping
- Destination NAT, Trusted Nets, Port Filter
- Configuration transfer from router to router
- Redundant power supply
- Callback

Type	Description	Order No.
IE-ARM-U-OSPF	1 x RJ45; 2 x RS232	**8949940000**
IE-ARM-E-OSPF	2 x RJ45; 2 x RS232	**8949930000**

Routers - Remote access

Remote Access Routers provide connectivity to a remote Ethernet network via a PSTN or ISDN connection. Weidmuller's remote router solutions include integrated ISDN or PSTN modems and a range of sophisticated security and routing functionality.

IE-Line Router

- Parameter setting and remote maintenance via web browser
- RS-232 connection for console or external modem (analogue, ISDN, GSM)
- PPPoE (DSL)
- SSH access to command line
- VPN (IPsec, VTUN)
- Dial-on-demand
- Routing with or without masquerading
- Virtual mapping
- Destination NAT
- Trusted nets & Port filter
- Configuration transfer from router to router
- Redundant power supply
- DNS/DynDNS
- Call back

Type	Description	Order No.
IE-AR-10T-ISDN	2 x RJ45; 2 x RS 232 with integrated ISDN Modem ETHERNET / ISDN	**8845750000**
IE-AR-10T	2 x RJ45; 2 x RS 232 with integrated PSTN Modem ETHERNET / PSTN	**8845860000**

Decentralised Industrial Ethernet Remote I/O

Decentralised Industrial Ethernet Remote I/O

Weidmuller's range of Industrial Ethernet remote I/O products provide a flexible Ethernet based connectivity solution which can be implemented across a range of widely accepted Industrial Ethernet protocols. Three Ethernet protocols are currently supported, Ethernet IP; Modbus TCP and PROFINET enabling a high level of integration flexibility, regardless of control system architecture. Incorporating the same industrially ruggedised housing and M12 connectors as the IP67 Ethernet switches, the I/O remotes are capable of direct machine mounting or incorporation into environmentally challenging applications.

M8

M12

Ethernet IP	SAI-AU M8 EIP 16DI	**1906930000**	SAI-AU M12 EIP 16DI	**1906900000**
	SAI-AU M8 EIP 16DI/8DO	**1906940000**	SAI-AU M12 EIP 16DI/8DO	**1906910000**
			SAI-AU M12 EIP AI/AO/DI	**1906920000**
Modbus TCP	SAI-AU M8 IE 16DI	**1906880000**	SAI-AU M12 EI 16DI	**1906850000**
	SAI-AU M8 IE 16DI/8DO	**1906890000**	SAI-AU M12 EI 16DI/8DO	**1906860000**
			SAI-AU M12 EI AI/AO/DI	**1906870000**
PROFINET	SAI-AU M8 PN 16DIM	**1019310000**	SAI-AU M12 PN 16DIM	**1019270000**
	SAI-AU M8 PN 16DI/8DOM	**1019320000**	SAI-AU M12 PN 16DI/8DOM	**1019280000**
			SAI-AU M12 PN 4/2AIO4DIOM	**1019290000**

Decentralised Industrial Ethernet Remote I/O Accessories

Type	Description	Power (AUX)		BUS		I/O		Cable Size		
		IN	OUT	IN	OUT	M8	M12	3-5mm	PG7 (4-6mm)	PG9 (6-8mm)
Plug Only	M12 Female, 5 Pin, A code, Straight plug	•		•				-	**9457250000**	**1807250000**
	M12 Female, 5 Pin, A code, Angled plug	•		•				-	**9457260000**	**1807330000**
	M12 Male, 5 Pin, A code, Straight plug		•		•		•	-	**9456940000**	**1807350000**
	M12 Male, 5 Pin, A code, Angled plug		•		•		•	-	**9456950000**	**1807370000**
	M8 Male, 3 Pin, Straight plug					•		**1803860000**	-	-

Type	End A	Cable Type	End B	Length			
				1.5m	3m	5m	10m
	M8 Male, 3 Pin, Straight	PUR/PVC	Unterminated	**1824590150**	**1824590300**	**1824590500**	**1824591000**
	M12 Female, 5 Pin, A code, Straight	PUR/PVC	Unterminated	**9457910150**	**9457910300**	**9457910500**	**9457911000**
	M12 Female, 5 Pin, A code, Angled	PUR/PVC	Unterminated	**9457690150**	**9457690300**	**9457690500**	**9457691000**
	M12 Male, 5 Pin, A code, Straight	PUR/PVC	Unterminated	**9457610150**	**9457610300**	**9457610500**	**9457611000**
	M12 Male, 5 Pin, A code, Angled	PUR/PVC	Unterminated	**9457670150**	**9457670300**	**9457670500**	**9457671000**

Type	Description							Qty	Order As
Transparent markers	ESG8/13.5/43.3 SAI AU					•	•	5	**1912130000**
SAI-SK-M12-UNI	M12 Protective Cap (For Male Connector)		•		•		•	20	**2330260000**
SAI-SK-M12 BU	M12 Protective Cap (Suits Female)	•		•				1	**8425960000**
SAI-SK-M8	M8 Protective Cap (Suits Male)					•		50	**1802760000**

Note: Other cable variations and materials available on request.

SAI-Bluetooth

A Bluetooth master can perform wireless communication with up to six slave stations. All stations function as field devices with IP67 protection. The connection from the sensor or actuator uses an M12 connector.
The Bluetooth Gateway (Master) functions as a slave in a Profibus-DP network or a DeviceNet™ network. Together with the slaves, it is configured via GSD or EDS files.

SAI Active Range

Weidmuller have an extensive range of active and passive Sensor Actuator Interface components available to suit a variety of industrial fieldbus protocols. This range includes solutions for:

- **Profibus-DP**
- **DeviceNet™**
- **CANopen**
- **Modbus TCP**
- **Ethernet IP**
- **PROFINET®**
- **AS-Interface**

For full details of the entire range of SAI products, please refer to Catalogue 8 - Sensor Actuator Interface components.

Gateway

Slave

SAI Bluetooth	**Profibus**	SAI-AU M12 GW PB/BT 12DI	**1006980000**	SAI-AU M12 EIP 16DI	**1006940000**
	DeviceNet	SAI-AU M12 GW DN/BT 12DI	**1060020000**	SAI-AU M12 EIP 16DI/8DO	**1006930000**
				SAI-AU M12 EIP BT4AI2AO2DIO	**1006920000**