

**Industrial Ethernet  
IE-SW-PL16MT-16TX**

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**Product image**

Weidmüller's Premium Line consists of high-end switches with advanced management and security features. It is suitable for demanding network solutions. The equipment can be delivered with Fast Ethernet or Gigabit Ethernet ports. One variety is fitted with Fast Ethernet and Power-over-Ethernet ports. With their advanced ring redundancy technology (recovery time  $\leq 20$  ms), these devices raise the reliability and availability of your industrial networks. The optional SFP transceiver can be fitted offering a high degree of flexibility. Gigabit versions permit use in networks with a high volume of communications

- Managed Fast Ethernet versions in a high-quality metal housing (IP 30)
- Managed Power-over-Ethernet (PoE) switch with 6 Fast Ethernet ports, 4 of them PoE+ ports
- Versions with 10 or 18 ports and Gigabit uplink ports
- Full Gigabit switch with 9 ports
- Supports all standard TCP/IP-based protocols in industrial networks (for example Ethernet/IP, Modbus/TCP)
- Integrated redundancy mechanisms (recovery time  $\leq 20$  ms) increase the reliability in network ring structures
- Approvals: CE, FCC, cULus, Class I Div. 2 / ATEX, DNV / GL

**General ordering data**

|            |                                                                                         |
|------------|-----------------------------------------------------------------------------------------|
| Type       | IE-SW-PL16MT-16TX                                                                       |
| Order No.  | <a href="#">1286820000</a>                                                              |
| Version    | Network switch, managed, Fast Ethernet, Number of ports: 16x RJ45, IP30, -40 °C...75 °C |
| GTIN (EAN) | 4050118077810                                                                           |
| Qty.       | 1 pc(s).                                                                                |

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## Technical data

### Dimensions and weights

|            |          |                 |            |
|------------|----------|-----------------|------------|
| Width      | 94       | Width (inches)  | 3.701 inch |
| Height     | 135 mm   | Height (inches) | 5.315 inch |
| Depth      | 142.7 mm | Depth (inches)  | 5.618 inch |
| Net weight | 1,586 g  |                 |            |

### Environmental Product Compliance

|            |                |
|------------|----------------|
| REACH SVHC | Lead 7439-92-1 |
|------------|----------------|

### EMC conformity and approvals

|                     |                                                                                                                                                                                                                                                                                            |                 |                               |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-------------------------------|
| EMC standards       | EN 55032, EN 55024, CISPR 32, FCC Part 15 Subpart B Class A, IEC 61000-4-2 ESD: Contact: 6 kV; Air: 8 kV, IEC 61000-4-3 RS: 80 MHz to 1 GHz: 10 V/m, IEC 61000-4-4 EFT: Power: 1 kV; Signal: 0,5 kV, IEC 61000-4-5 Surge: Power: 2 kV; Signal: 1 kV, IEC 61000-4-6 CS: 10 V, IEC 61000-4-8 | Safety standard | UL508, UL 60950-1, EN 60950-1 |
| Explosive risk zone | UL/cUL, Class I, Division 2, Groups A, B, C and D, ATEX Zone 2 Ex nA nC IIC T4 Gc                                                                                                                                                                                                          | Shock           | according to IEC 60068-2-27   |
| Vibration           | according to IEC 60068-2-6                                                                                                                                                                                                                                                                 | Free fall       | According to IEC 60068-2-32   |

### Environmental conditions

|                             |                            |                             |       |
|-----------------------------|----------------------------|-----------------------------|-------|
| Humidity                    | 5 to 95 % (non-condensing) | Operating temperature, max. | 75 °C |
| Operating temperature, min. | -40 °C                     | Storage temperature, max.   | 85 °C |
| Storage temperature, min.   | -40 °C                     |                             |       |

### Guarantee

|               |         |
|---------------|---------|
| Time interval | 5 years |
|---------------|---------|

### Interfaces

|                 |                                                                                                                                                                                           |                        |                                                                               |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|-------------------------------------------------------------------------------|
| Alarm contact   | 2 relay outputs with a current capacity of 1 A at 24 V DC                                                                                                                                 | Console port interface | RS-232                                                                        |
| Digital inputs  | 2 inputs with the same ground, isolated <ul style="list-style-type: none"> <li>+13 To +30 V for logic "1"</li> <li>-30 To +3 V for logic "0"</li> <li>Max. input current: 8 mA</li> </ul> | LED indicator          | PWR1, PWR2, FAULT, MSTR/HEAD, CPLR/TAIL, 10/100M (TP-Port)                    |
| Number of ports | 16x RJ45                                                                                                                                                                                  | RJ45 ports             | 10/100BaseT(X), auto negotiation, Full-/half-duplex mode, Auto MDI/MDI-X port |

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### MTBF

|      |             |          |                          |
|------|-------------|----------|--------------------------|
| MTBF | 247,000 hrs | Database | Telcordia (Bellcore), GB |
|------|-------------|----------|--------------------------|

### Management features

|                                 |                                                                                                                                                                                    |                             |                                                                                                                                                                                                                                            |
|---------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Device configuration            | Webbrowser (HTTP/HTTPS), SNMP v1/v2c/v3, Telnet console, Local serial console port (RS-232 via RJ-45 port), Windows tool                                                           | Monitoring function         | SNMP v1/v2c/v3, Link Layer Discovery Protocol (LLDP), Port mirroring, Port statistics, Port monitoring, Syslog, RMON (Remote monitoring), Event based warning via E-Mail, Event based warning via relay, Event based warning via SNMP trap |
| Network redundancy              | Spanning Tree Protocol (STP), Rapid Spanning Tree Protocol (RSTP), Turbo-Ring (recovery time <20 ms), Turbo-Chain (recovery time <20 ms), Link Aggregation Control Protocol (LACP) | Network traffic filter      | Quality of Service (QoS), Tag based VLAN, Port based VLAN, IGMP v1/v2, GMRP, Traffic Rate Limiting                                                                                                                                         |
| IP-address management           | Static, BootP, RARP, DHCP-Client, DHCP-Server (port based), DHCP Option 82 (Relay Agent)                                                                                           | Security functions          | VLAN segmentation, Enable/disable ports, Access control (port based via IEEE 802.1X), Access control list (MAC-based), Loop protection, TACACS + and IEEE 802.1X User Authentication                                                       |
| Time synchronization management | SNTP client, NTP client, PTPv1                                                                                                                                                     | Industrial protocol support | PROFINET device acc. to conformance class B, EtherNet/IP, Modbus/TCP slave                                                                                                                                                                 |

### Power supply

|                             |                                   |         |
|-----------------------------|-----------------------------------|---------|
| Connection type             | 2 removable 6-pin terminal blocks |         |
| Current consumption         | Voltage                           | 24 V DC |
|                             | Current                           | 0.41 A  |
| Overload current protection | Existing                          |         |
| Reverse polarity protection | Yes                               |         |
| Voltage supply              | 12/24/48 V DC, 2 redundant inputs |         |
| Voltage supply range        | Voltage type                      | DC      |
|                             | Voltage, min.                     | 12 V    |
|                             | Voltage, max.                     | 45 V    |

### Switch characteristics

|                     |          |                                |     |
|---------------------|----------|--------------------------------|-----|
| Bandwidth backplane | 3.2 Gbps | IGMP-Groups                    | 256 |
| MAC table size      | 8 K      | Max. number of available VLANs | 64  |
| Packet buffer size  | 2 Mbit   | Priority queues                | 4   |
| VLAN-ID max         | 4,094    | VLAN-ID min                    | 1   |

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|                       |                                              |                   |      |
|-----------------------|----------------------------------------------|-------------------|------|
| Housing main material | metal                                        | Protection degree | IP30 |
| Type of mounting      | DIN rail, Panel (with optional mounting kit) |                   |      |

### Technology

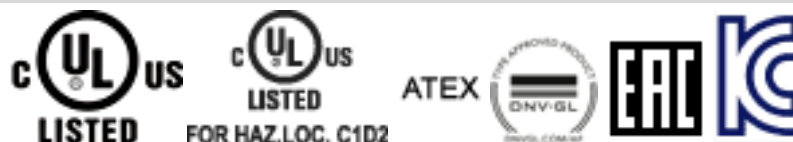
|                |                                                                                                        |              |                                                                                                                                                                                                                                                                                                      |
|----------------|--------------------------------------------------------------------------------------------------------|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Data switching | Store and Forward                                                                                      | Flow control | IEEE 802.3x flow control, Back pressure flow control                                                                                                                                                                                                                                                 |
| MIB            | MIB-II, Ethernet-Like MIB, P-BRIDGE MIB, Q-BRIDGE MIB, Bridge MIB, RSTP MIB, RMON MIB Group 1, 2, 3, 9 | Standard     | IEEE 802.3 for 10BaseT, IEEE 802.3u for 100BaseT(X), IEEE 802.3x for flow control, IEEE 802.1D-2004 for the 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 |

### Classifications

|             |             |            |             |
|-------------|-------------|------------|-------------|
| ETIM 6.0    | EC000734    | ETIM 7.0   | EC000734    |
| eClass 9.0  | 19-17-01-06 | eClass 9.1 | 19-17-01-06 |
| eClass 10.0 | 19-17-04-01 |            |             |

### Approvals

Approvals



ROHS Conform

### Downloads

|                                             |                                                                                                                                                                                                                                 |
|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Approval/Certificate/Document of Conformity | <a href="#">ODVA Certificate</a><br><a href="#">PNO Certificate</a><br><a href="#">DNV-GL certificate</a><br><a href="#">ATEX certificate</a><br><a href="#">KC certificate</a><br><a href="#">EU Declaration of Conformity</a> |
| Brochure/Catalogue                          | <a href="#">CAT 9 IETH 18/19 EN</a>                                                                                                                                                                                             |
| Engineering Data                            | <a href="#">STEP</a>                                                                                                                                                                                                            |
| Product Change Notification                 | <a href="#">Firmware Release Notes</a>                                                                                                                                                                                          |
| Software                                    | <a href="#">SNMP MIB file</a><br><a href="#">GSDML IE-SW-PL16M-series</a><br><a href="#">EDS IE-SW-PL16M-series</a><br><a href="#">Managed Switch Configuration Utility</a><br><a href="#">Firmware Version 3.4.18</a>          |
| User Documentation                          | <a href="#">Hardware Installation Guide</a><br><a href="#">Manual</a><br><a href="#">20191204 Security Advisory IE Managed Switches</a>                                                                                         |

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