# Managed EX approved Device Server Switch

## L105-S1-EX

- ⠿ Global approval for hazardous area use
  - IECEx, International EX standard
  - Atex 94/9/EC, EU directive
  - Class 1 Div 2, approval for US and Canada
- ⠿ Compact Industrial Ethernet switch design
  - Flexible SFP transceiver design
  - Advanced WeOS Layer 2 functionality
  - Low power consumption
- ⠿ Robust for long service life
  - 677,000 hours MTBF to MIL-HDBK-217K
  - −40 to +70°C (−40 to +158°F) with no moving parts
  - Industrial EMC, shock and vibration testing
- ⠿ Unique future proof industrial networking solutions
  - 20 ms network ring recovery time
  - Fast reconnect for multicast protocols
  - Easy to use

| EN 50121-4 | EN 55022 | EN 61000-6-1 | EN 61000-6-2 | EN 61000-6-4 | IEC 60079-0 | IEC 60079-15 |
|---|---|---|---|---|---|---|
| Railway Trackside | ITE Emission | Residential Immunity | Industrial Immunity | Industrial Emission | Explosive atmospheres | Explosive atmospheres |

Lynx 105 EX is a layer 2 managed industrial Ethernet switch, powered by the Westermo WeOS network operating. Independently tested for IECEX and ATEX by Baseefa, as well as Class 1 Division II by FM approval, Lynx is the perfect solution for hazardous area applications in any part of the world.

Lynx is the most compact and has the lowest power requirements in this class of switch. Lynx has 4 10/100 Mbit/s ports and 1 RS-232 port.
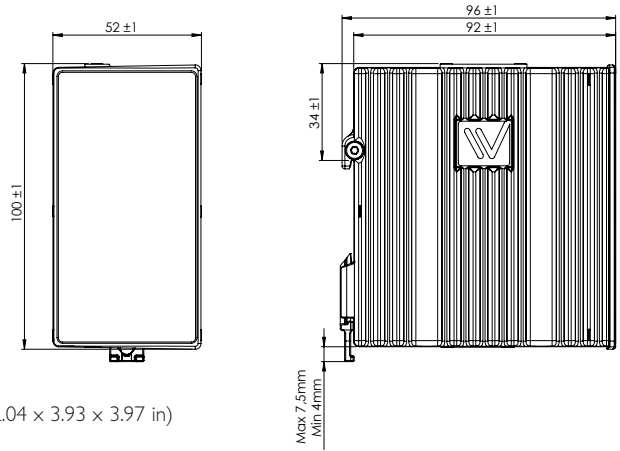
Only industrial grade components are used which gives Lynx an MTBF of 677,000 hours and ensures a long service life. A wide operating temperature range −40 to +70°C (−40 to +158°F) can be achieved with no moving parts or cooling holes in the case. Lynx has been tested both by Westermo and external test houses to meet many EMC, isolation, vibration and shock standards, all to the highest levels suitable for heavy industrial environments and rail trackside application.

WeOS has been developed by Westermo to allow us to offer cross platform and future proof solutions. WeOS can deliver 20 ms ring recovery performance even for networks with video or EtherNet/IP traffic. For EX approved transceivers and more WeOS functionality please see the transceiver and WeOS datasheets.

## Ordering Information

| Art.no | Description |
|---|---|
| 3643-5210 | L105-S1-EX, Managed EX approved Device Server Switch |
| 1211-2027 | CLI Cable (Console) (Accessories) |
| 1211-2210 | RJ-45 to DB9 cable (Accessories) |

# Specifications L105-S1-EX

## Dimensional drawing

| Dimension W x H x D | 52 x 100 x 101 mm (2.04 x 3.93 x 3.97 in) |
|---|---|
| Weight | 0.7 kg |
| Degree of protection | IP 40 |

| Power | |
|---|---|
| Operating voltage | 19 to 60 VDC |
| Rated current | 140 mA (290 mA) @ 24 VDC (with 500 mA USB load)<br>70 mA (140 mA) @ 48 VDC (with 500 mA USB load) |

| Interfaces | |
|---|---|
| Ethernet TX | 4 x RJ-45, 10 Mbit/s, 100 Mbit/s |
| 1 Serial ports | 1 x RJ-45, RS-232, 50 bit/s − 115.2 kbit/s |
| Digital I/O | 1 x 4-position detachable screw terminal |
| USB | 1 x USB 2.0 host interface |
| Console | 1 x 2.5 mm jack, use only Westermo cable 1211-2027 |

| Temperature | |
|---|---|
| Operating | −40 to +70°C (−40 to +158°F) |
| Storage & Transport | −50 to +85°C (−58 to +185°F) |

| Agency approvals and standards compliance | |
|---|---|
| EMC | EN 61000-6-1, Immunity residential environments |
| | EN 61000-6-2, Immunity industrial environments |
| | EN 61000-6-4, Emission industrial environments |
| | EN 55022 +A1, Emission IT equipment |
| | EN 55024, Immunity IT equipment |
| | FCC part 15 Class A |
| | EN 50121-4, Railway signalling and telecommunications apparatus |
| | IEC 62236-4, Railway signalling and telecommunications apparatus |
| Safety | UL/IEC/EN 60950-1, IT equipment |
| Marine | DNV Standard for Certification no. 2.4 |
| IECEx | Explosive atmosphere<br>IEC 60079-0, General requirements<br>IEC 60079-15, Equipment protected by type of protection "n" |
| ATEX | Explosive atmosphere<br>IEC 60079-0, General requirements<br>IEC 60079-15, Equipment protected by type of protection "n" |
| Class1 Div 2 | FM Approval |