

IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION **IEC Certification System for Explosive Atmospheres**

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:

IECEX BAS 13.0135X

Page 1 of 4

Certificate history:

Status:

Current

Issue No: 3

Issue 2 (2015-02-18) Issue 1 (2014-03-25)

Date of Issue:

Issue 0 (2014-01-10)

2019-10-29

Applicant:

Westermo Teleindustri AB SE-640 40 Stora Sundby

Sweden

Equipment:

Lynx Industrial Ethernet Switches & Lynx DSS Industrial Ethernet Device Servers

Optional accessory:

Type of Protection:

Type of Protection 'n'

Marking:

Ex nA IIC T3 Gc (-40°C ≤ Ta ≤ +70°C)

Approved for issue on behalf of the IECEx Certification Body:

Position: Signature:

(for printed version)

Date:

R S SInclair

Technical Manager

1. This certificate and schedule may only be reproduced in full.

This certificate is not transferable and remains the property of the issuing body.

3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.



Certificate issued by:

SGS Baseefa Limited Rockhead Business Park Staden Lane **Buxton, Derbyshire, SK17 9RZ United Kingdom**





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Page 2 of 4

Date of issue:

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Manufacturer:

Westermo Teleindustri AB SE-640 40 Stora Sundby

Sweden

Additional manufacturing locations:

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS:

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2017

Explosive atmospheres - Part 0: Equipment - General requirements

Edition:7.0

IEC 60079-15:2010 Explosive atmospheres - Part 15: Equipment protection by type of protection "n"

Edition:4

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Reports:

GB/BAS/ExTR13.0195/00 GB/BAS/ExTR15.0040/00 GB/BAS/ExTR13.0303/00 GB/BAS/ExTR19.0219/00 GB/BAS/ExTR14.0071/00

Quality Assessment Report:

GB/BAS/QAR13.0020/04



IECEx Certificate of Conformity

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IECEX BAS 13.0135X

Page 3 of 4

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EOUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The Lynx and Lynx DSS Industrial Ethernet Switches are designed for use in harsh environments providing a communication interface using fibre optic, multi and single mode trans-receivers in a network.

The Lynx DSS also integrates a Device Server and includes two additional serial ports to allow interconnection with legacy equipment.

Both Lynx & Lynx DSS comprise a DIN rail mounted enclosure containing a power supply and a switch board. Both are supplied via dual power supply terminals which support redundancy power connection to the equipment. Both also have a digital I/O interface to allow the equipment's status to be reported to external equipment and external events to be monitored and a console port to allow connection to a Command Line Interface (CLI) for service and upgrading of the equipment.

The Switch board fitted in the Lynx provides up to eight 10/100Base Ethernet TX and up to two 100/1000 Mbit/s Ethernet SFP ports on the front of the enclosure.

The Switch Board fitted in the Lynx DSS provides up to four 10/100Base Ethernet TX, up to two 100/1000 Mbit/s Ethernet Small Form-factor Pluggable (SFP) transceivers and two serial ports (one RS-232 and one configurable RS-232/422/485) for network connections with a USB port provided for upgrade and configuration of the equipment.

Where fitted, the Lynx & Lynx DSS SFP ports can be only fitted with one of a number of Westermo Optical Transceiver modules. These modules comply with the Class I limits of IEC 60825-1 and therefore the equipment is outside the scope of IEC 60079-28: 2015 for Equipment Protection Level Gc.

See the Certificate Annex for details of the Model range, input parameters and list of the Westermo Optical Transceivers that can be fitted in the SFP ports.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- 1. The equipment must be installed in an area of not more than pollution degree 2 in accordance with IEC 60664-1, and in an enclosure that provides a minimum degree of protection of at least IP54 and complies with the relevant requirements of IEC 60079-0 and IEC
- 2. External connections to the equipment and, where applicable, the SFP modules must not be inserted or removed unless either the area in which the equipment is installed is known to be non-hazardous, or the circuits connected have been de-energised.
- 3. The network cables once installed must be properly fixed by the use of cable ties or similar to reduce the risk of accidently withdrawing the plugs.



IECEx Certificate of Conformity

Certificate No.:

IECEX BAS 13.0135X

Page 4 of 4

Date of issue:

2019-10-29

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Variation 3.1

To permit the removal of the L110-F2G-EX, L106-F2G-EX, L105-S1-EX, L106-S2-EX & L108-F2G-S2-EX variants of the equipment with Software Option '1' from the Schedule. The model information listed on the Certificate Annex (now Issue 1) was revised to remove these models.

Variation 3.2

To permit minor label changes not affecting the original assessment.

Variation 3.3

To confirm the current designs of the Lynx Industrial Ethernet Switches & Lynx DSS Industrial Ethernet Device Server Switches have been reviewed against the requirements of IEC 60079-0: 2017 Ed. 7 and EN 60079-28: 2015 Ed.2 in respect of the differences from IEC 60079-0: 2011 Ed. 6 and IEC 60079-28: 2006 Ed.1.

Since some of the variants of the equipment contain Westermo Optical Transceiver modules which comply with the Class 1 limits of IEC 60825-1, the equipment is now no longer in the Scope of IEC 60079-28: 2015 for Equipment Protection Level (EPL) Gc, therefore the equipment marking has been revised to remove the associated 'op is' marking previously required in accordance with IEC 60079-28: 2006.

The marking section on page 1, and the standards listed on page 2 of the certificate have been updated. The marking information listed in the model range has also been updated on the Certificate Annex.

EXTR: GB/BAS/EXTR19.0219/00 File Reference: 19/0298

Annex:

IECEx BAS 13.0135X Annex Iss 1.pdf

SGS Baseefa Limited

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ANNEX to IECEx BAS 13.0135X

Issue No. 1

Date: 2019/10/24

Lynx Industrial Ethernet Switches & Lynx DSS Industrial Ethernet Device Server Switches

Model Range

The Lynx & Lynx DSS are available with different port configurations and software variations denoted by characters in the model number.

The Lynx & Lynx DSS models covered by this certificate are defined in the table below with their certification codes:

Lynx Industrial Ethernet Switch Models			
L206-F2G-EX-y	Lynx Ethernet Switch with 4 x 10/100Base Ethernet TX and 2 x 100/1000 Mbit/s Ethernet SFP	Ex nA IIC T3 Gc (-40°C ≤ Ta ≤ +70°C)	
L210-F2G-EX-y	Lynx Ethernet Switch with 8 x 10/100Base Ethernet TX and 2 x 100/1000 Mbit/s Ethernet SFP	Ex nA IIC T3 Gc (-40°C ≤ T _a ≤ +70°C)	
Lynx DSS Industrial Ethernet Device Server Switch Models			
L205-S1-EX-y	Lynx DSS with 4 x 10/100Base Ethernet TX and 1 x serial port fitted	Ex nA IIC T3 Gc (-40°C ≤ T _a ≤ +70°C)	
L206-S2-EX-y	Lynx DSS with 4 x 10/100Base Ethernet TX and 2 x serial ports fitted	Ex nA IIC T3 Gc (-40°C ≤ T _a ≤ +70°C)	
L208-F2G-S2-EX-y	Lynx DSS with 4 x 10/100Base Ethernet TX, 2 x 100/1000 Mbit/s Ethernet SFP and 2 x serial ports fitted	Ex nA IIC T3 Gc (-40°C ≤ T _a ≤ +70°C)	
In above Model No's y = optional and may indicate customer specific model			

Input Parameters:

Power Connector: +DC1, +DC2 & -COM

Working Voltage Range = 24V to 48V d.c.

I/O Connector: 'Status +' & 'Status -' and 'Digital in +' and 'Digital in -'

Maximum I/P Voltage = 60V d.c.

Westermo Small Form-factor Pluggable (SFP) Transceiver Options

On models of the Lynx & Lynx DSS fitted with Small Form-factor Pluggable (SFP) ports, only the following Westermo Optical Transceiver Modules listed in the following table can be fitted: -

SFP Transceivers, 100 Mbit		
1100-0131	MLC2, Multimode, LC-Connector, 2km, 1310nm	
1100-0132	SLC20, Single mode, LC-Connector, 20km, 1310nm	
1100-0133	SLC40, Single mode, LC-Connector, 40km, 1310nm	
1100-0134	SLC80, Single mode, LC-Connector, 80km, 1550nm	
1100-0140	SLC120, Single mode, LC-Connector, 120km, 1550nm	

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BiDi Transceivers, 100 Mbit		
1100-0145	SLC15-BiDi-A, Single mode, BiDi, 20km, 1310nm TX, 1550nm RX	
1100-0146	SLC15-BiDi-B, Single mode, BiDi, 20km, 1550nm TX, 1310nm RX	
1100-0152	MLC2-BiDi-A, Multimode, BiDi, 2km, 1310nm TX, 1550nm RX	
1100-0153	MLC2-BiDi-B, Multimode, BiDi, 2km, 1550nm TX, 1310nm RX	
SFP Transceivers, 1 Gbit		
1100-0144	GMLC550-SX, Multimode, LC-Connector, 550m, 850nm, SX	
1100-0147	GMLC2-SX+, Multimode, LC-Connector, 2km, 1310nm, SX+	
1100-0141	GSLC10-LX, Single mode, LC-Connector, 10km, 1310nm, LX	
1100-0142	GSLC50-XD, Single mode, LC-Connector, 50km, 1550nm, XD	
1100-0143	GSLC80-ZX, Single mode, LC-Connector, 80km, 1550nm, ZX	
1100-0171	GSLC110-EZX, Single mode, LC-Connector, 110km, 1550nm, EZX	
BiDi Transceiver, 1 Gbit		
1100-0156	GSLC20-BiDi-A, Single mode, BiDi, 20km, 1310nm TX, 1490nm RX	
1100-0157	GSLC20-BiDi-B, Single mode, BiDi, 20km, 1490nm TX, 1310nm RX	
Copper Transceiver, 1Gbit		
1100-0148	GC100, Copper, RJ45, 100m, 1000BaseT	