




IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

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

Certificate No.:	IECEX BVS 15.0101X	issue No.:0	Certificate history:
Status:	Current		
Date of Issue:	2015-11-04	Page 1 of 4	
Applicant:	ABB AB Control Technologies Tvärleden 2 B357 721 59 Västerås Sweden		
Electrical Apparatus: Optional accessory:	Linking Device type LD 810HSE EX		
Type of Protection:	Equipment protection by intrinsic safety "i", Equipment protection by type of protection "n"		
Marking:	Ex nA IIC T4 Gc or Ex nA [ic] IIC T4 Gc		
Approved for issue on behalf of the IECEx Certification Body:	H.-Ch. Simanski		
Position:	Head of Certification Body		
Signature: (for printed version)			
Date:	9. 11. 2015		

1. This certificate and schedule may only be reproduced in full.
2. 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 the Official IECEx Website.

Certificate issued by:

DEKRA EXAM GmbH
Dinnendahlstrasse 9
44809 Bochum
Germany

 **DEKRA**
DEKRA EXAM GmbH



IECEx Certificate of Conformity

Certificate No.: IECEx BVS 15.0101X

Date of Issue: 2015-11-04

Issue No.: 0

Page 2 of 4

Manufacturer: **ABB AB Control Technologies**
Tvärleden 2
B357
721 59 Västerås
Sweden

Additional Manufacturing location
(s):

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 electrical apparatus 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 : 2011 Edition: 6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-11 : 2011 Edition: 6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-15 : 2010 Edition: 4	Explosive atmospheres - Part 15: Equipment protection by type of protection "n"

*This Certificate **does not** indicate compliance with electrical 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 Report:

DE/BVS/ExTR15.0089/00

Quality Assessment Report:

DE/TUN/QAR11.0012/03



IECEx Certificate of Conformity

Certificate No.: IECEx BVS 15.0101X

Date of Issue: 2015-11-04

Issue No.: 0

Page 3 of 4

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

Subject and Type

Linking Device type LD 810HSE EX

Description

The linking device acts as a gateway between Ethernet-based host systems with Foundation Fieldbus HSE and the Foundation Fieldbus H1 bus system. It is suited for network configuration, device parametrization and the recording of production data. The data circuits are galvanically isolated from each other. The Fieldbus circuits may operate as intrinsically safe circuits (level of protection Ex ic) or as non-intrinsically safe circuits; details see manual.

CONDITIONS OF CERTIFICATION: YES as shown below:

The equipment is defined as "instruments and apparatus of low energy" according to clause 13 of IEC 60079-15; thus the requirement stated in sub-clause c) (limiting the transient characteristic to 40% of the rated voltage) has to be adhered to when erecting the equipment.

The equipment has to be installed in a protective enclosure which meets the requirements for resistance to impact and IP54 defined in IEC 60079-0.

For definition of ambient temperature range (dependent on mounting of the device) see manufacturer's instructions.

Before the first use of the device one marking field (Ex nA IIC T4 Gc or Ex nA [ic] IIC T4 Gc) has to be selected and marked; once the device has operated at non-intrinsically safe fieldbus circuits it may not operate at intrinsically safe fieldbus circuits without reconsideration by the manufacturer.

The ambient temperature range depends on the number and mounting of the devices; see manufacturer's instructions.



IECEx Certificate of Conformity

Certificate No.: IECEx BVS 15.0101X

Date of Issue: 2015-11-04

Issue No.: 0

Page 4 of 4

EQUIPMENT(continued):

Parameters

Power supply circuit (terminals 1 - 3 or Rail Power Supply L+ and GND)

Nominal voltage	DC	18...32 V
Power consumption		< 5.6 W
Max. voltage	U_m DC	40 V

Redundancy Link circuit (terminals 4,5,6)

Nominal voltage	DC	up to 32 V
Max. voltage	U_m DC	40 V

Ethernet Ports (connectors ETH1, ETH2)

Nominal voltage	DC	up to 32 V
Max. voltage	U_m DC	40 V

Fieldbus circuits (terminals 7,8,9 and 10,11,12 and 13,14,15 and 16,17,18)
(if operated as non-intrinsically safe circuits)

Nominal voltage	DC	24/32 V
-----------------	----	---------

(if operated as intrinsically safe circuits, each channel)

Voltage	U_i DC	32 V
Current	I_i	570 mA

Max. sum of voltages of power supply and fieldbus circuits	60 V
--	------

Ambient temperature range, dependent on kind of mounting,
-40 °C ≤ T_a ≤ see Manufacturer's instructions

Horizontal installation position

Minimum distance	Maximum number of fieldbus channels used per device	Maximum voltage of fieldbus circuits	Maximum permissible ambient temperature T_a
0 mm	4	32 VDC	55 °C
0 mm	2	24 VDC	60 °C
17.5 mm	4	32 VDC	65 °C
17.5 mm	2	24 VDC	70 °C

Vertical installation position

Minimum distance between devices	Maximum number of fieldbus channels used per device	Maximum voltage of fieldbus circuits	Maximum permissible ambient temperature T_a
0 mm	4	32 VDC	40 °C
0 mm	2	24 VDC	50 °C
17.5 mm	4	32 VDC	55 °C
17.5 mm	2	24 VDC	60 °C