

UL Type Examination Certificate

ATEX Directive 2014/34/EU

Certificate

DEMKO 16 ATEX 1780X
Rev. 3

Issue date
2016-10-28

Re-issued
2025-12-03

This is to acknowledge that

Pepperl+Fuchs SE

Lilienthalstrasse 200, 68307 Mannheim, Germany

has had

Gateway

LB81*.1.EL*

evaluated and meets the requirements of the standards

EN IEC 60079-0:2018

EN 60079-7:2015

EN IEC 60079-7:2015/A1:2018

Test Report No. **US/UL/ExTR16.0168/03**



Certification Manager
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This is to certify that the sample(s) of the product described herein ("Certified Product") has been investigated and found in compliance with the above mentioned harmonized Standard(s) per Article 12 of Directive 2014/34/EU of the European Parliament and of the Council relating to equipment and protective systems for use in potentially explosive atmospheres indicated on this Certificate, in accordance with the UL Type Examination Certificate Scheme Requirements.

The responsibilities of manufacturers, their authorized representatives are provided in Articles 6 and 7 of the Directive 2014/34/EU. This remains the responsibility of the manufacturer and authorized representative and is not covered as part of this certificate.

This certificate and test results obtained apply only to the product sample(s) submitted by the Applicant. UL International Demko A/S (UL) did not select the sample(s) or determine whether the sample(s) provided were representative of other manufactured product. UL has not established follow-up service for inspection or other surveillance of the product. The Certificate Holder is solely and fully responsible for conformity of all products to all applicable Standards, specifications, requirements or Directives/Regulations. The test results may not be used, in whole or in part, in any other document without UL's prior written approval.

UL TYPE EXAMINATION CERTIFICATE

TECHNICAL DETAILS/SCHEDULE

Description of product

The gateway forms the interface between the I/O modules on the backplane and the process control system. It supports all single width and dual width I/O modules. Thereby signals from NAMUR sensors, mechanical contacts, temperature or 4..20 mA analogue sensors are transferred to a higher-level bus system and signals from a higher level bus system are transferred to solenoids, relays, sounders or alarm LED'S. The gateway can be easily configured via DTM and supports HART.

Performance testing

The optical radiation output of the product LED's with respect to explosion protection, according to Annex II clause 1.3.1 of the Directive 2014/34/EU is covered in this certificate based on Exception 1.) to the scope of EN 60079-28:2015.

Nomenclature

The Model number designates the following:

I	II	III	IV	V
LB81	20	.1	.EL	*

I. Model Series:

LB81

II. Protocol:

20 – EIP
21 – Modbus TCP
22 – Profinet
25 – OPC UA
30 – Profibus
35 – Modbus RTU
40 – Multiprotocol GW

III. Revision:

A.1 – 1st revision
A.2 – 2nd revision

IV. Connection Method:

.EL – RJ45

V. Functional Information:

* - Where * can be any alphanumeric character indicating approval type

Ex marking

 II 3 G Ex ec IIC T4 Gc

Temperature range

The ambient temperature range is -40 °C to +60 °C.

Trademark

N/A

Ratings

Backplane Supply (via LB9006C): 12Vdc (+4%/-2%), 3.9 Watts

Routine tests

Dielectric strength test acc. EN IEC 60079-7:2015+A1:2018, clause 7.1 shall be performed by the manufacturer. A test voltage of 500 V d.c. x 140 % x 1,2 = 840 V d.c. shall be applied between supply and communication circuits for at least 100 ms without breakdown.

Descriptive documents

The scheduled drawings are listed in the report no. provided under item "Test Report No." on page 1 of this UL Type Examination Certificate.

Specific Conditions of Use

- The equipment shall only be used in an area of not more than pollution degree 2, as defined in EN 60664-1.
- The equipment shall be installed in an enclosure that provides a degree of protection not less than IP54 in accordance with EN IEC 60079-0 and is only accessible with the use of a tool.
- Transient protection shall be provided that is set at a level not exceeding 140 % of the peak rated voltage value at the supply terminals to the equipment.

Additional Information

Essential Health and Safety Requirements

The Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9.