

[1]

TYPE EXAMINATION CERTIFICATE



[2]

Equipment or Protective System intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

[3] Type Examination Certificate Number: **UL 24 ATEX 3149X Rev. 2**

[4] Product: **Industrial Ethernet Switch, Model Series IE-SW-BLB**

[5] Manufacturer: **Weidmüller Interface GmbH & Co. KG**

[6] Address: **Klingenbergstrasse 26, 32758 Detmold Germany**

[7] This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

[8] UL International Demko A/S certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014.

The examination and test results are recorded in confidential report no. **US/UL/ExTR24.0002/02.**

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

**EN IEC 60079-0:2018
EN IEC 60079-15:2019**

EN 60079-7:2015

EN IEC 60079-7:2015/A1:2018

Where additional criteria beyond those given here have been used, they are listed at item 18 in the Schedule.

[10] If the sign "X" is placed after the certificate number, it indicates that the product is subject to the "Specific Conditions of Use" listed under item 17 of this certificate.

[11] This Type examination certificate relates only to the design of the specified product, and not to specific items of product subsequently manufactured.

[12] The marking of the product shall include the following (marking is provided in the Schedule as a part of item 15, if applicable):



II 3 G Ex ec IIC T4 Gc



II 3 G Ex ec nC IIC T4 Gc

Certification Manager
Thomas Wilson

This is to certify that the sample(s) of the Product described herein ("Certified Product") has been investigated and found in compliance with the Standard(s) indicated on this Certificate, in accordance with the ATEX Product Certification Program Requirements. This certificate and test results obtained apply only to the product sample(s) submitted by the Manufacturer. 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 or other surveillance of the product. The Manufacturer is solely and fully responsible for conformity of all product to all applicable Standards, specifications, requirements or Directives. The test results may not be used, in whole or in part, in any other document without UL's prior written approval.

Date of issue: 2024-03-06

Re-issued: 2025-04-28

Certification Body

UL International Demko A/S, Borupvang 5A, 2750 Ballerup, Denmark
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[13]

[14]

Schedule

TYPE EXAMINATION CERTIFICATE No.

UL 24 ATEX 3149X Rev. 2

[15]

Description of Product:

Industrial Ethernet Switch Model IE-SW-BLB Series have LAN ports and SFP slots with different amount and combination. These devices are evaluated as open-type devices, microcomputer based and communicate via interfaces through wire. They are intended for installation into a tool-accessible only ultimate enclosure and can be installed by DIN-Rail vertical mounting.

Models covered:

IE-SW-BLB-10-8GT-2GESFP;
 IE-SW-BLB-05-5GT and IE-SW-BLB-05-5GT-C;
 IE-SW-BLB-05-5TX and IE-SW-BLB-05-4TX-1FESFP;
 IE-SW-BLB-05-4GT-1GESFP
 IE-SW-BLB-08-6TX-2FESFP, IE-SW-BLB-08-7TX-1FESFP and IE-SW-BLB-08-8TX;
 IE-SW-BLB-08-8GT, IE-SW-BLB-08-8GT-C
 IE-SW-BLB-16-16TX, IE-SW-BLB-18-16TX-2GESFP and IE-SW-BLB-24-24TX.
 IE-SW-BLB-16-16GT, IE-SW-BLB-16-16GT-C and IE-SW-BLB-16-14GT-2GESFP

Nomenclature:

IE-SW-BLB	-	05	-	4TX	-	1FESFP	-	C
I		II		III		IV		V

I- Basic type designation:

IE-SW-BLB: Type designation

II- Total IO port number:

May be 05, 08, 10, 16, 18 or 24.

III- LAN port number and type:

GT: 10/100/1000Base-T(X) LAN port.

TX: 10/100Base-T(X) LAN port.

IV- SFP connector number and type:

Blank: No SFP connector provided.

GESFP: 100/1000Base-X SFP Connector (For Models IE-SW-BLB-18-16TX-2GESFP, IE-SW-BLB-10-8GT-2GESFP, IE-SW-BLB-16-14GT-2GESFP, IE-SW-BLB-05-4GT-1GESFP only)

FESFP: 100Base-X SFP Connector (For Models IE-SW-BLB-05-4TX-1FESFP, IE-SW-BLB-08-6TX-2FESFP and IE-SW-BLB-08-7TX-1FESFP only)

V- Conformal coating (For IE-SW-BLB-05-5GT, IE-SW-BLB-08-8GT, IE-SW-BLB-16-16GT Series only):

C: Conformal Coating provided.

Blank: No conformal coating provided.

Model Difference:

Models IE-SW-BLB-05-5GT and IE-SW-BLB-05-5GT-C are identical except conformal coating is provided on the PWB of Model IE-SW-BLB-05-5GT-C.

Models IE-SW-BLB-05-5TX and IE-SW-BLB-05-4TX-1FESFP are identical except for the amount of LAN ports and SFP slot does not provide on Model IE-SW-BLB-05-5TX, and the enclosure openings for output ports.

Models IE-SW-BLB-08-6TX-2FESFP, IE-SW-BLB-08-7TX-1FESFP and IE-SW-BLB-08-8TX are identical except for the amount of LAN ports and SFP slots, and the enclosure openings for output ports.

Model IE-SW-BLB-16-16TX and IE-SW-BLB-24-24TX utilized identical Main Board, but no I/O Board provided on Model IE-SW-BLB-16-16TX, also with smaller enclosure size.

Model IE-SW-BLB-18-16TX-2GESFP and IE-SW-BLB-24-24TX are identical except for the amount of LAN ports and SFP slots, and the enclosure openings for output ports.

The optical radiation output of the product 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 Exceptions 1) and 3) to the scope of EN 60079-28:2015.

Models IE-SW-BLB-08-8GT and IE-SW-BLB-08-8GT-C are identical except conformal coating is provided on the PWB of Model IE-SW-BLB-08-8GT-C.

Models IE-SW-BLB-16-16GT and IE-SW-BLB-16-16GT-C are identical except conformal coating is provided on the PWB of Model IE-SW-BLB-16-16GT-C.

Models IE-SW-BLB-16-16GT and IE-SW-BLB-16-14GT-2GESFP utilized identical Main Board except for the amount of LAN ports. Additional SFP Board provided on Model IE-SW-BLB-16-14GT-2GESFP, which has bigger enclosure size due to SFP ports.

[13]

[14]

Schedule TYPE EXAMINATION CERTIFICATE No. UL 24 ATEX 3149X Rev. 2

Temperature range:

The relation between ambient temperature and the assigned temperature class is as follows:

Ambient temperature range
-40°C to +75°C

Temperature class
T4

Electrical data

Model	Input Rating	Relay Output	Marking
IE-SW-BLB-10-8GT-2GESFP	Dual 12-48 Vdc or 24 Vac, Max. 7.06 W	N/A	Ⓔ II 3 G Ex ec IIC T4 Gc
IE-SW-BLB-05-5GT	Dual 12-48 Vdc or 24 Vac, Max. 2.5 W		
IE-SW-BLB-05-5GT-C			
IE-SW-BLB-05-5TX	Dual 12-48 Vdc or 24 Vac, Max. 1.1 W		
IE-SW-BLB-05-4TX-1FESFP	Dual 12-48 Vdc or 24 Vac, Max. 1.8 W		
IE-SW-BLB-08-6TX-2FESFP	Dual 12-48 Vdc or 24 Vac, Max. 3.1 W		
IE-SW-BLB-08-7TX-1FESFP	Dual 12-48 Vdc or 24 Vac, Max. 2.4 W		
IE-SW-BLB-08-8TX	Dual 12-48 Vdc or 24 Vac, Max. 1.8 W		
IE-SW-BLB-08-8GT	Dual 12-48 Vdc, 24 Vac, Max. 4 W		
IE-SW-BLB-08-8GT-C			
IE-SW-BLB-05-4GT-1GESFP	Dual 12-48 Vdc or 24 Vac, Max. 3 W	24VDC, 1A, Resistive	Ⓔ II 3 G Ex ec nC IIC T4 Gc
IE-SW-BLB-16-16TX	Dual 12-48 Vdc or 24 Vac, Max. 4.5 W		
IE-SW-BLB-18-16TX-2GESFP	Dual 12-48 Vdc or 24 Vac, Max. 8.4 W		
IE-SW-BLB-24-24TX	Dual 12-48 Vdc or 24 Vac, Max. 6 W		
IE-SW-BLB-16-16GT	Dual 12-48 Vdc, 24 Vac, Max. 13W		
IE-SW-BLB-16-16GT-C,			
IE-SW-BLB-16-14GT-2GESFP	Dual 12-48 Vdc, 24 Vac, Max. 11.5W		

Routine tests:

N/A

[16]

Descriptive Documents:

The scheduled drawings are listed in the report no. provided under item no. [8] on page 1 of this Type Examination Certificate.

[17]

Specific Conditions of Use:


- The equipment shall only be used in an area of at least pollution degree 2, as defined in EN 60664-1.
- The equipment shall be mounted on Din-rail in vertical position and installed in an enclosure that provides a minimum ingress protection of IP54 in accordance with EN IEC 60079-0 and only accessible by use of a tool, see installation instructions before use.
- 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.
- The equipment shall keep minimum installation clearances as following to prevent from overheating:
 - Top and bottom: 51 mm (2.0 inch)
 - Side: 51 mm (2.0 inch)
 - Front: 64 mm (2.5 inch).
- The input terminal block shall be used with conductors of 12 – 24 AWG wire size (ISO Metric size 4 - 0.2 mm²).

[18]

Essential Health and Safety Requirements:

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

Additional information

The trademark **Weidmüller**  will be used as the company identifier on the marking label.