



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 UL 21.0120X** Page 1 of 4 [Certificate history:](#)
Issue 0 (2022-01-28)

Status: **Current** Issue No: 1

Date of Issue: 2023-02-03

Applicant: **PHOENIX CONTACT GmbH & Co. KG**
Flachsmarktstrasse 8
D-32825 Blomberg
Germany

Equipment: **Open Type, Industrial Network equipment (Unmanaged narrow Ethernet Switches), Models FL SWITCH 1005NT, FL SWITCH 1004NT-SFX, FL SWITCH 1008NT, FL SWITCH 1005NT-2SFX, FL SWITCH 1105NT, FL SWITCH 1108NT, FL SWITCH 1012NT-2SFP, FL SWITCH 1116N, FL SWITCH 1104NT-SFP, FL SWITCH 1105NT-2SFP, may be followed by suffix -C or C for PCB conformal coating.**

Optional accessory:

Type of Protection: **Increased Safety "ec"**

Marking: **Ex ec IIC T4 Gc**
-10°C to 60°C for Model FL SWITCH 1116N
-40°C to 75°C for other models

Approved for issue on behalf of the IECEx
Certification Body:

Katy A. Holdredge

Position:

Senior Staff Engineer

Signature:
(for printed version)

Date:
(for printed version)

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 www.iecex.com or use of this QR Code.



Certificate issued by:

UL LLC
333 Pfingsten Road
Northbrook IL 60062-2096
United States of America





IECEx Certificate of Conformity

Certificate No.: **IECEx UL 21.0120X**

Page 2 of 4

Date of issue: 2023-02-03

Issue No: 1

Manufacturer: **PHOENIX CONTACT GmbH & Co. KG**
Flachmarktstrasse 8
32825 Blomberg
Germany

Manufacturing locations: **PHOENIX CONTACT GmbH & Co. KG**
Flachmarktstrasse 8
32825 Blomberg
Germany

Etherwan Systems Inc.
33F, No.93, Sec. 1, Xintai 5th Rd.
Xizhi Dist., New Taipei City 221
Taiwan

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 60079-7:2017 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:5.1

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:

US/UL/ExTR21.0119/00

US/UL/ExTR21.0119/01

Quality Assessment Reports:

DE/TUR/QAR16.0015/05

NL/DEK/QAR11.0009/08



IECEX Certificate of Conformity

Certificate No.: **IECEX UL 21.0120X**

Page 3 of 4

Date of issue: 2023-02-03

Issue No: 1

EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The devices are open-type, DIN rail mounted Industrial Ethernet Switch with multiple data transmission ports and fiber optic interfaces. The Devices are intended for installation in an ultimate enclosure where the internal compartment is only accessible by use of a tool.

Please see Annex for additional information.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- The equipment shall only be used in an area of at least pollution degree 2, as defined in IEC 60664-1.
- The equipment shall be installed in a tool-accessible enclosure that provides a minimum ingress protection of IP 54 in accordance with IEC 60079-0.
- Transient protection shall be provided that is set at a level not exceeding 140% of the peak rated voltage value at the supply terminal to the devices.



IECEX Certificate of Conformity

Certificate No.: **IECEX UL 21.0120X**

Page 4 of 4

Date of issue: 2023-02-03

Issue No: 1

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Issue 1: Add additional suffixes "-C" or "C" to model designation for correction. Add manufacturing location.

Annex:

[Annex to IECEx UL 21.0120X Issue 1.pdf](#)



IECEX Certificate of Conformity

Certificate No.: IECEx UL 21.0120X

Issue No.: 1

Page 1 of 2

PARAMETERS RELATING TO THE SAFETY

Electrical ratings:

Model	Input Rating
FL SWITCH 1005NT	24 Vdc/Vac, 50/60 Hz, Max. 115 mA
FL SWITCH 1004NT-SFX	24 Vdc/Vac, 50/60 Hz, Max. 215 mA
FL SWITCH 1008NT	24 Vdc/Vac, 50/60 Hz, Max. 170 mA
FL SWITCH 1005NT-2SFX	24 Vdc/Vac, 50/60 Hz, Max. 310 mA
FL SWITCH 1105NT	24 Vdc/Vac, 50/60 Hz, Max. 335 mA.
FL SWITCH 1108NT	24 Vdc/Vac, 50/60 Hz, Max. 435 mA
FL SWITCH 1012NT-2SFP	24 Vdc, Max. 480 mA.
FL SWITCH 1116N	24 Vdc, Max. 925 mA
FL SWITCH 1104NT-SFP	24 Vdc/Vac, 50/60 Hz, Max. 425 mA
FL SWITCH 1105NT-2SFP	24 Vdc/Vac, 50/60 Hz, Max. 560 mA.

Temperature range:

Model	Ambient Temperature Range	Temperature Code
FL SWITCH 1005NT	-40°C to 75°C	T4
FL SWITCH 1004NT-SFX		
FL SWITCH 1008NT		
FL SWITCH 1005NT-2SFX		
FL SWITCH 1105NT		
FL SWITCH 1108NT		
FL SWITCH 1012NT-2SFP		
FL SWITCH 1116N	-10°C to 60°C	
FL SWITCH 1104NT-SFP	-40°C to 75°C	
FL SWITCH 1105NT-2SFP		

MODEL DIFFERENCES:

Model FL SWITCH 1005NT is similar to FL SWITCH 1105NT except for model designation, main chip and heatsink.

Model FL SWITCH 1005NT-2SFX is similar to FL SWITCH 1105NT-2SFP except for model designation, main chip and heatsink.

Model FL SWITCH 1008NT is similar to FL SWITCH 1108NT except for model designation, main chip and heatsink.



IECEx Certificate of Conformity

Certificate No.:

IECEx UL 21.0120X

Issue No.: 1

Page 2 of 2

Model:	RJ45 Ports	Fiber Ports
FL SWITCH 1005NT	5	0
FL SWITCH 1004NT-SFX	4	1
FL SWITCH 1008NT	8	0
FL SWITCH 1005NT-2SFX	5	2
FL SWITCH 1105NT	5	0
FL SWITCH 1108NT	8	0
FL SWITCH 1012NT-2SFP	12	2
FL SWITCH 1116N	16	0
FL SWITCH 1104NT-SFP	4	1
FL SWITCH 1105NT-2SFP	5	2

MARKING

Marking has to be readable and indelible; it has to include the following indications:

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PHOENIX CONTACT
PHOENIX CONTACT GmbH & Co. KG
Flachmarkstrasse 8, 32825 Blomberg, Germany
FL SWITCH 1105NT
Ord.-No.: 1085163
HW: 01
Sno.: 3032169783
For Industrial Use Only
INDUSTRIAL CONTROL EQUIPMENT
INDUSTRIAL CONTROL EQUIPMENT FOR HAZARDOUS LOCATIONS
E238705 E196811
24V DC/AC 50/60Hz, 335 mA maximum
Ambient Temperature: -40°C ≤ Tamb ≤ 75°C
Minimum Supply Wire Temperature: 90°C
Temperature Code: T4
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, Group IIC
Factory ID: LR9141
II 3 G Ex ec IIC T4 Gc
UL 21 ATEX 2638X
IECEx UL 21.0120X
WARNING – DO NOT SEPARATE WHEN ENERGIZED
WARNING – SEPARATE ONLY IN A NON-HAZARDOUS AREA
EAC 50 CE
www.phoenixcontact.com

1	2	3	4	5	6
Or. No.	Description	Voltage / Current	Ambient Temperature	Hot Symbol	Factory ID
1085170	FL SWITCH 1005NT	24V DC/AC 50/60Hz, 115 mA maximum	-40°C ≤ Tamb ≤ 75°C	Y	N/A YT3100 LR9141 AX4550
1085169	FL SWITCH 1004NT-SFX	24V DC/AC 50/60Hz, 215 mA maximum	-40°C ≤ Tamb ≤ 75°C	Y	
1085162	FL SWITCH 1008NT	24V DC/AC 50/60Hz, 170 mA maximum	-40°C ≤ Tamb ≤ 75°C	Y	
1085164	FL SWITCH 1005NT-2SFX	24V DC/AC 50/60Hz, 310 mA maximum	-40°C ≤ Tamb ≤ 75°C	Y	
1085163	FL SWITCH 1105NT	24V DC/AC 50/60Hz, 335 mA maximum	-40°C ≤ Tamb ≤ 75°C	Y	
1085162	FL SWITCH 1108NT	24V DC/AC 50/60Hz, 435 mA maximum	-40°C ≤ Tamb ≤ 75°C	Y	
1249598	FL SWITCH 1012NT-2SFP	24V DC, 480 mA maximum	-40°C ≤ Tamb ≤ 75°C	Y	
1085219	FL SWITCH 1116N	24V DC, 925 mA maximum	-10°C ≤ Tamb ≤ 60°C	N	
1343023	FL SWITCH 1104NT-SFP	24V DC/AC 50/60Hz, 425 mA maximum	-40°C ≤ Tamb ≤ 75°C	Y	
1343025	FL SWITCH 1105NT-2SFP	24V DC/AC 50/60Hz, 560 mA maximum	-40°C ≤ Tamb ≤ 75°C	Y	