



# 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](http://www.iecex.com)

|                     |                                                                                                        |             |                                      |
|---------------------|--------------------------------------------------------------------------------------------------------|-------------|--------------------------------------|
| Certificate No.:    | <b>IECEx TPS 19.0006X</b>                                                                              | Page 1 of 4 | <u>Certificate history:</u>          |
| Status:             | <b>Current</b>                                                                                         | Issue No: 3 | <a href="#">Issue 2 (2021-03-26)</a> |
| Date of Issue:      | 2023-04-04                                                                                             |             | <a href="#">Issue 1 (2020-04-20)</a> |
| Applicant:          | <b>Weidmüller Interface GmbH &amp; Co. KG</b><br>Klingenbergstr. 26<br>Detmold 32758<br><b>Germany</b> |             | <a href="#">Issue 0 (2019-03-04)</a> |
| Equipment:          | <b>Switching Power Supply, model: PRO TOP1 480W 24V 20A EX, PRO TOP1 480W 48V 10A EX</b>               |             |                                      |
| Optional accessory: | COM communication module: PRO COM CAN OPEN EX                                                          |             |                                      |
| Type of Protection: | <b>Increased safety "e", Type of protection "n"</b>                                                    |             |                                      |
| Marking:            | Ex ec nC IIC T4 Gc                                                                                     |             |                                      |

Approved for issue on behalf of the IECEx  
Certification Body:

**Frank Zhu, MSc.**

Position:

**Technical Certifier**

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.
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**TÜV SÜD Product Service GmbH**  
Ridlerstr. 65  
D-80339 Munich  
**Germany**



Product Service



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Manufacturer: **Weidmüller Interface GmbH & Co. KG**  
Klingenbergstr. 26  
Detmold 32758  
**Germany**

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 60079-15:2017](#) Explosive atmospheres - Part 15: Equipment protection by type of protection "n"  
Edition:5.0

[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:

[DE/TPS/ExTR18.0016/00](#)  
[DE/TPS/ExTR18.0016/03](#)

[DE/TPS/ExTR18.0016/01](#)

[DE/TPS/ExTR18.0016/02](#)

Quality Assessment Reports:

[NL/DEK/QAR12.0052/06](#)

[NL/DEK/QAR12.0052/07](#)

[NL/DEK/QAR12.0052/08](#)



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## EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The Switching Power Supply is EPL Gc equipment intended for use in Explosive Atmospheres classified as Zone 2.

The equipment is protected by Ex "ec" and the relay inside is protected by Ex "nC" sealed device. It's a well performance AC-DC module with one-phase input and single output. It has functions such as output over-current protection, output overvoltage protection, output short circuit protection, and parallel connection and so on, with well combined regulation and high efficiency. The requirements are valid for "Single Device" and the "Single device together with COM communication module (PRO COM CAN OPEN EX)".

Transient protection function is intergated in the equipment.

There are two models:

PRO TOP1 480W 24V 20A EX, PRO TOP1 480W 48V 10A EX

## Rating:

Input voltage is 100 to 240V a.c., 120-340V d.c.

Operational voltage are 24, 48V d.c.

Rated ambient temperature range: -40°C to +60°C, -40°C to +70°C (derating applicable)

## Model difference:

PRO TOP1 480W 24V 20A EX: input 6A max., output: 20A, when ambient temperature between +60°C and +70°C, power derating off 2.5%/K is required.

PRO TOP1 480W 48V 10A EX: input 6A max., output: 10A, when ambient temperature between +60°C and +70°C, power derating off 2.5%/K is required.

## Routine test:

100% routing test has to be done by manufacturer.

Dielectric strength test:

1. 1500V a.c./1min or 2100V d.c./1min between input terminal and enclosure.
2. 500V a.c./1min or 700V d.c./1min between output terminal and enclosure.
3. For DC input test, 2550 V d.c./1min between input and output terminal of insulated windings shall also be operated.

Note: Alternatively, a test can be carried out at 1,2 times the test voltage, but maintained for at least 100 ms.

No breakdown shall occur.

## Warning mark:

None.

## SPECIFIC CONDITIONS OF USE: YES as shown below:

1. The equipment shall only be used in an area of at least pollution degree 2, as defined in IEC 60664-1.
2. The equipment shall be installed in an enclosure that provides a minimum ingress protection of IP 54 in accordance with IEC 60079-0.
3. The equipment shall be installed according to IEC 60079-14.
4. The ambient temperature ( $T_{amb}$ ), as specified above, has to be seen as the temperature of the surrounding atmosphere where the equipment is installed at (=Operating temperature).
5. Power derating off 2.5%/K is required when ambient temperature between +60°C and +70°C.
6. Consult manufacturer's operating instructions for derating information when input voltage decreases from 100-85V a.c. or 120-80V d.c. or when output with 130% max. load.
7. Consult manufacturer's operating instructions for adjustable output. Adjustment of the potentiometer is allowed only when explosive atmosphere is not present.



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**DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)**

Adding DC input for all models and routine test.

Revise "Specific Conditions of Use.

Supplement service temperature tests based on changes.