



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 TUR 17.0028X**

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Certificate history:

Status: **Current**

Issue No: 2

[Issue 1 \(2018-03-07\)](#)

[Issue 0 \(2017-06-01\)](#)

Date of Issue: 2024-03-20

Applicant: **COTSWORKS, Inc.**
749 Miner Rd
Highland Heights OH 44143
United States of America

Equipment: **Fiber Optic Transceiver Type RJ-*G-SX; Type SFP-F*-SX and Type RJ-*M-FX-***

Optional accessory:

Type of Protection: **op is**

Marking: **[Ex op is IIC T4 Ga]**

Approved for issue on behalf of the IECEx
Certification Body:

Christian Mehrhoff

Position:

Assigned certifier

Signature:
(for printed version)



Date:
(for printed version)

2024-03-20

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:

TÜV Rheinland Industrie Service GmbH
Am Grauen Stein
51105 Cologne
Germany





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Manufacturer: **COTSWORKS, Inc.**
749 Miner Rd
Highland Heights OH 44143
United States of America

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 60079-28:2015](#) Explosive atmospheres - Part 28: Protection of equipment and transmission systems using optical radiation
Edition:2

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 Report:

[DE/TUR/ExTR17.0028/02](#)

Quality Assessment Report:

[NO/PRE/QAR17.0019/03](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The Fiber Optic Transceivers Type RJ-*G-SX; Type SFP-F*-SX and Type RJ-*M-FX-* are intended to build inside another electronic equipment to provide a conversion from electronic data signals to optical data signals.

They have to be placed outside explosive atmosphere or have to be protected by an appropriate type of protection.

$U_N = 3,14$ to $3,47$ V

$P_{opt} < 35$ mW

λ 830 to 860 nm for Type SFP-F*-SX

λ 840 to 860 nm for Type RJ-*G-SX

λ 1270 to 1380 nm for Type RJ-*M-FX-*

Ambient temperature:

$-40^{\circ}\text{C} \leq T_{amb} \leq 85^{\circ}\text{C}$

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. Connecting of the transceiver to a non-certified transceiver may cause the destruction of the receiver. The damaging of a receiver of the certified transceiver does not influence the optical output power level of the laser diode.

The optical connection of the laser diode to a non-certified receiver in the safe area does not influence this certification.

The transceiver shall be supplied by a driving circuit powered from

- an SELV or PELV system or,
- via a safety isolating transformer complying with the requirements of IEC 61558-2-6 or technically equivalent standard, or
- directly connected to apparatus complying with IEC 60950, IEC 61010-1, or a technically equivalent standard, or
- fed directly from cells or batteries.

2. The temperature range is -40°C to $+85^{\circ}\text{C}$.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Standard update to IEC 60079-0 Ed. 7.

Minor changes to the hardware (not Ex relevant).