



EU DoC – Integrated Fiber Switch (Ex) (IFS) Product

DOC: QC-145

REV: 1

REVIEWED BY:

Riyan Mohiyuddin

APPROVED BY:

Scott Baker

Dec 9, 2024

EU DECLARATION OF CONFORMITY

1. **Product Model/product:** Integrated Fiber Switch (IFS) Product (Ex)
SN: IFSX0001 through IFSX9999

2. **Manufacturer and authorized representative:**

Manufacturer: **Tornado Spectral Systems Inc.**
5155 Spectrum Way, Unit 6
Mississauga, ON
L4W 5A1, Canada.

European Authorized Representative: **Obelis S.A**
Boulevard General Wahis 53,
B-1030 Brussels, BELGIUM
Tel: 32 (0) 2 732 5954
Fax: 32 (0) 2 732 6003
Email: mail@obelis.net
Contact: **Mr. Gideon Elkayam**

3. **This Declaration of Conformity is issued under the sole responsibility of the manufacturer.**

4. **Object of the declaration:**

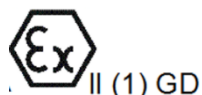
Raman Analyzer can be connected to an additional optional accessory called an Integrated Fiber Switch (IFS). The IFS connects to the Raman Analyzer via a USB cable. The IFS allows a single OPIS 35 optical output to be switched between various output connectors. Only a single output can be used at a time. The IFS only contains passive optical elements related to the switching the optical signal sent from the OPIS 35. It cannot increase the optical power in any way. The IFS contains IS barriers for additional connection in the hazardous area and marked with entity parameters. All of the components, OPIS 35, Raman Analyzer & IFS, are located in the non-hazardous area only.

Type Identification: IFS (Ex)

Code: [Ex ia IIC Ga]

[Ex ia IIIC Da]

ATEX Marking:



5. **A Raman analyzer accessory instrument which is in conformity with the provisions of the following Directives:**

Low Voltage Directive (LVD) 2014/35/EU

Electromagnetic Compatibility Directive (EMC) 2014/30/EU
 Restriction of Hazardous Substances (RoHS 3) Directive 2015/863/EU
 Potentially Explosive Atmospheres Directive 2014/34/EU

6. The following harmonized standards and technical specifications have been applied:

LVD: EN 61010-1:2010-10 /AMD1:2016

EMC: EN 61326-1:2013

EN 61000-6-2:2005

EN 61000-6-4:2007/A1:2011

ATEX: EN 60079-0: 2018

EN 60079-11:2012

EN 60079-28:2015

7. Notified body details:

Name: QPS Europe B.V.

Address: Berg en Dalseweg 122, 6522BW Nijmegen,
 The Netherlands, +31 (0)85 00 30 144

Identification number:



8. Additional information:

EU Type Examination Certificate: QPS 20ATEX1000X

EU Type Examination Report Number: ATX3332-1

Ambient: (+10°C ≤ Ta ≤ +35°C)

Rating: 120Vac / 240Vac 8W 50/60Hz

IFS IS barrier entity parameters:

MTL7787P+

Uo = 28Vdc, Io = 119mA, Co = 0.083μF, Lo = 2.51mH

The manufacturer shall ensure that the above specified product is in conformity with the samples detailed in this report.

The last two digits of the year in which the CE marking was affixed: **23**



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Signed for and behalf of Tornado Spectral Systems Inc.

Place	Signature	Date
Mississauga, Ontario	<i>Riyan Mohiyuddin</i>	09-Dec-2024

Name and Position:

Riyan Mohiyuddin, Quality Manager

5155 Spectrum Way, Unit 6,
Mississauga, ON, L4W 5A1
Canada.

