

### INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: IECEx ULD 20.0003X Page 1 of 3 Certificate history:

Status: Current Issue No: 0

Date of Issue: 2021-01-28

Applicant: GIOVENZANA International B.V.

WTC Strawinskylaan, 1105, 1077 X

Amsterdam **Netherlands** 

Equipment: Limit Switch, FCT-EX Series

Optional accessory:

Type of Protection: Flameproof "dc", Increased Safety "ec", Dust Ignition Protection by Enclosure "tb"

Marking: Ex dc ec IIB T5 Gc

Ex tb IIIC T95°C Db

-20°C to +60°C

Approved for issue on behalf of the IECEx Certification Body:

Position:

Signature:

(for printed version)

Date:

Katy A. Holdredge

Senior Staff Engineer

2021-01-28

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.

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 International DEMKO A/S Borupvang 5A DK-2750 Ballerup Denmark





Certificate No.: IECEx ULD 20.0003X Page 2 of 3

Date of issue: 2021-01-28 Issue No: 0

Manufacturer: GIOVENZANA International B.V.

WTC Strawinskylaan, 1105, 1077 X

Amsterdam **Netherlands** 

Additional 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 60079-1:2014-06 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"

Edition:7.0

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"

Edition:2

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 Report:

DK/ULD/ExTR20.0003/00

Quality Assessment Report:

IT/IMQ/QAR15.0002/04



Certificate No.: IECEx ULD 20.0003X Page 3 of 3

Date of issue: 2021-01-28 Issue No: 0

#### **EQUIPMENT:**

Equipment and systems covered by this Certificate are as follows:

The FCT-EX Limit Switch Series are thermoplastic pre-wired limit switches with 2 m indissociable cable. The cable could be with lateral or vertical entry (L or V). The limit switch is designed to be equipped with two different types of inner microswitch, as follows:

- CONTACT ELEMENTS DIRECT ACTING (Or Slow Break - X11 type):

the contact element of a device for manual or automatic control circuits where speed of movement of the contact depends on the speed of motion of the actuator

- CONTACT ELEMENTS ACTING INDIPENDENTLY (Or Snap Action - Z11 type):

the contact element of a device for manual or automatic control circuits where the speed of motion of the contact is virtually independent of the speed of motion of the actuator. Commonly called "quick trigger" the electrical behavior of these elements means that the contact is fast in order even in the slow movements of the actuator. These contact elements have position doesn't coincide with the release of drive (differential stroke).

Both microswitches are equipped with NO contact and NC contact, the cable is composed by n. 4 wires:

- Blue/brown for NO contact
- Black/black for NC contact.

The series is designed with 10 different types of actuators.

Please see Annex for additional information.

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

- · Care shall be taken to prevent accumulation of electrostatic charges. See installation instructions.
- FCT-EX series of Limit switch was submitted to tests corresponding to the low risk of mechanical danger and shall be installed such as it is sufficiently protected from mechanical danger.
- FCT2\*09\*\*D-EX shall be installed such as the rubber bellow is protected from mechanical damage.
- Ambient temperature and Surface temperature see instructions.
- FCT-EX series of Limit switch shall be protected against UV light or optical radiation.

#### Annex:

Annex to IECEx ULD 20.0003X Issue 0.pdf



Certificate No.: IECEx ULD 20.0003X Issue No.: 0

Page 1 of 2

#### TYPE DESIGNATION

#### Product Nomenclature:

FCT	2	L	02	X11	D	EX
I	II	III	IV	V	VI	VII

I - Model:

FCT limit switches

II - Cable length:

2 - 2m

III - Cable direction:

L - Parallel

V - Vertical

IV - Head and actuators:

01 - Steel end plunger

02 - Roller plunger

03 – 90° Roller plunger

04 – Metal revolving lever ø 17.5 nylon roller

05 - Adjustable length straight metal revolving lever ø 17.5 nylon roller

06 - Steel end plunger with threaded flange

07 - Roller plunger with threaded flange

08 – 90° Roller plunger with threaded flange

09 - Steel end plunger with rubber protection

10 - Rod lever type

V - Contact Types:

X11 – 1NC/1NO Slow Action

Z11 – 1NC/1NO Snap Action

VI - Housing – Distance between fixing holes:

D - Plastic, 20 mm

VII - Applications:

EX - Hazardous Locations



Certificate No.: IECEx ULD 20.0003X Issue No.: 0

Page 2 of 2

#### PARAMETERS RELATING TO THE SAFETY

Rated Thermal current (Ith) = 10A

Model	Rated operational current le (A)	Rated operational voltage Ue
Slow action	6A	120V ac, 50/60 Hz
FCT2X11	3A	240V ac, 50/60 Hz
	2A	400V ac, 50/60Hz
	2.5A	24V dc
	0.55A	125V dc
	0.27A	240V dc

Model	Rated operational current le (A)	Rated operational voltage Ue
Snap action	3A	120V ac, 50/60 Hz
FCT2Z11	4A	240V ac, 50/60 Hz
	3A	400V ac, 50/60Hz
	2.5A	24V dc
	0.55A	125V dc
	0.27A	240V dc

#### **MARKING**

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



