

TYPE EXAMINATION CERTIFICATE



Equipment or Protective System intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

[3] Type Examination Certificate Number: **DEMKO 20 ATEX 2414X Rev. 0**

[4] Product: **Limit Switches, FCT2 Series**

[5] Manufacturer: **GIOVENZANA International B.V.**

[6] Address: **WTC Strawinskyiaan 1105, 1077 XX Amsterdam, The Netherlands**

[7] This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

[8] UL International Demko A/S certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014.

The examination and test results are recorded in confidential report no. **DK/ULD/ExTR20.0003/00**.

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018

EN 60079-7: 2015 +A1:2018

EN 60079-1: 2014

except in respect of those requirements listed at item 18 of the Schedule.

[10] If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

[11] This Type examination certificate relates only to the design of the specified product, and not to specific items of product subsequently manufactured.

[12] The marking of the product shall include the following:

 **II 3 G Ex dc ec IIC T5 Gc**

Certification Manager
Jan-Erik Storgaard

Certification Body

This is to certify that the sample(s) of the Product described herein ("Certified Product") has been investigated and found in compliance with the Standard(s) indicated on this Certificate, in accordance with the ATEX Product Certification Program Requirements. This certificate and test results obtained apply only to the product sample(s) submitted by the Manufacturer. UL did not select the sample(s) or determine whether the sample(s) provided were representative of other manufactured product. UL has not established Follow-Up Service or other surveillance of the product. The Manufacturer is solely and fully responsible for conformity of all product to all applicable Standards, specifications, requirements or Directives. The test results may not be used, in whole or in part, in any other document without UL's prior written approval.

Date of issue: 2021-01-28

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[13]

[14]

Schedule TYPE EXAMINATION CERTIFICATE No. DEMKO 20 ATEX 2414X Rev. 0

LOL [15] Description of Product:

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 behaviour 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.

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

Temperature range:

The ambient temperature range is -20 °C to +60 °C.

Electrical data

Rated Thermal current (Ith) = 10A

Model	Rated operational current Ie (A)	Rated operational voltage Ue
Slow action FCT2..X11	6A	120V ac, 50/60 Hz
	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 Ie (A)	Rated operational voltage Ue
Snap action FCT2..Z11	3A	120V ac, 50/60 Hz
	4A	240V ac, 50/60 Hz
	3A	400V ac, 50/60Hz
	2.5A	24V dc
	0.55A	125V dc
	0.27A	240V dc



[13]

[14]

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Routine tests:

A test voltage of 2500 V ac r.m.s. shall be applied:

- between live parts of the switching element and the Limit switch enclosure likely to be touched in service, made conductive by a metal foil; and
 - between live parts belonging to electrically separated switching elements,
- for a minimum of 60 s. There shall be no unintentional disruptive discharge during the tests

[16]

Descriptive Documents

The scheduled drawings are listed in the report no. provided under item no. [8] on page 1 of this Type Examination Certificate.

[17]

Special Conditions of Use:

- 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 UL light or radiation.

[18]

Essential Health and Safety Requirements

The Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9.

Additional information



The trademark

will be used as the company identifier on the marking label.