

**GOST R CERTIFICATION SYSTEM**  
FEDERAL AGENCY OF TECHNICAL REGULATION AND METROLOGY  
**CERTIFICATE OF CONFORMITY**

POCC IN.ГБ06.В01096

**Valid from** 12.12.2011 till 12.12.2014

**No. 0271948**

**CERTIFICATION CENTRE** POCC RU.0001.11ГБ06  
CENTRE OF CERTIFICATION OF EX-PROOF MEASURING AND CONTROL INSTRUMENTS  
AND AUTOMATION DEVICES “VNIIFTRI” OS VSI “VNIIFTRI”  
Russia, 141570, Moscow reg., Solnechnogorsk district, Mendeleevo,  
FGUP “VNIIFTRI”, tel./fax +7 (495) 744-8183

**PRODUCTS** Ex-proof limit switches series DNLF  
Serial production  
see Ex-Annex

34 2100

**COMPLIES WITH REQUIREMENTS OF NORMATIVE DOCUMENTS**  
GOST R 51330.0-99, GOST R 51330.1-99

8536 90 000 0

**MANUFACTURER**

Rotex Manufacturers and Engineers Private Limited (India)  
Manpada Road, Bhopar Village, Dombivli (East) – 421 204, Maharashtra, India

**CERTIFICATE IS ISSUED TO**

Rotex Manufacturers and Engineers Private Limited (India)  
Manpada Road, Bhopar Village, Dombivli (East) – 421 204, Maharashtra, India  
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**ON THE BASIS OF**

1. Test report No. 111175 dd 08.12.2011.  
By IL VSI “VNIIFTRI” (POCC RU.0001.21ИП09)
2. Audit report dd 25.10.2011.

**ADDITIONAL INFORMATION**

**Chief executive**


G.E Epikhina

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**Expert**

N.Y. Miroshnikova

Certificate is valid at the whole territory of The Russian Federation

FGUP “VNIIFTRI” Certificate centre of ex-proof measuring and control instruments, automation devices SC VSI “VNIIFTRI” SC Accreditation license No. POCC RU.0001.11ГБ06 dd 27.04.10 г. TL accreditation license No. POCC RU.0001.21ИП09 dd 27.04.10 г. 141570, Moscow reg., Mendeleevo, tel./fax +7 (495) 744-8183		
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## Ex – ANNEX

To certificate of conformity      **No. POCC IN.ГБ06.B01096**  
Validity period                      **from 12.12.2011 till 12.12.2014**

### 1 Ex-proof limit switches series DNLF

TN VED code of Russia 8536 90 000 0  
OK 005 (OKP) code              34 2100

### 2 Ex-marking

**1ExdIICT4**

### 3 Manufacturer

**Rotex Manufacturers and Engineers Private Limited (India)**  
Manpada Road, Bhopar Village, Dombivli (East) – 421 204, Maharashtra, India

### 4 Conditions of use

- 4.1 Ex-proof limit switches series DNLF should be used according to assigned Ex-marking, requirements of GOST R 51330.13, “Rules of electrical units design” (PUE sect. 7.3) in force, “Rules of Customers electrical units technical operation” (PTEEP sect. 3.4), other normative documents, regulating use of electrical equipment at potentially explosive areas, and Manufacturer operation manual.
- 4.2 Possible areas of Ex-proof limit switches series DNLF use, categories and groups of explosive gas mixtures and vapors with air – according to requirements of GOST R 51330.9, GOST R 51330.11 and “Rules of electrical units design” (PUE sect. 7.3).
- 4.3 DNLF Switches should operate with certified cable glands and plugs, which provide necessary Ex-proof type and level of enclosure protection.
- 4.4 DNLF Switches certified for use at potentially hazardous areas, hazardous due to combustible dust ignition at maximal parameters, indicated at Maker’s technical documentation.
- 4.5 DNLF switches design construction changes related o Ex-proof means, should be agreed with licensed testing laboratory.

## 5 Product form, design and specification

Certificate of conformity covers Ex-proof limit switches series DNLF types DNLF1A/B2, DNLF2A/B2, DNLF3A/B2, DNLF4A/B2, DNLF5A/B2, DNLF6A/B2. Switches types differ by type and quantity of positions sensors in DNLF switches.

Specification of DNLF switches – according to Maker technical documentation.

## 6 Purpose and filed of application

DNLF switches are intended for indication of rotary devices end position by light signal.

DNLF switches are classified as Ex-proof electrical equipment of II group according to GOST R 51330.0 and are intended for use at potentially hazardous areas according to assigned Ex-marking.

## 7 Main technical data

7.1 Explosive mixtures according to GOST R 51330.11 .....	IIA, IIB, IIC Groups T1...T5/T6
7.2 Ex-proof protection type.....	flameproof enclosure
7.3 Ex-marking .....	1ExdIICT4
7.4 Rate of enclosure protection according to GOST 14254 .....	IP66
7.5 Electrical parameters	
- voltage AC, V .....	not exceeding 250
- current, A.....	not exceeding 15
- frequency AC, Hz.....	50/60
- power, W .....	not exceeding 10
7.6 Operation conditions	
- Ambient temperature, °C .....	from -40 up to +80
7.7 Overall dimensional, weight .....	according to Maker technical documentation

## 8 Description of construction and means of Ex-proof provision

8.1 DNLF Switches are rotary switches. Switches have rectangular body, made of aluminum alloy or stainless steel. Body consists of two parts connected by bolts. Upper body part has an light indicator sheltered by polycarbonate cap. At body rear side there are four cable glands and two threaded openings. At switch body have installed position sensors consisting of microswitches, proximity sensors or magnetically operated sealed switches. The shaft goes thought the switch body and connect to external devices (actuators and other rotary devices).

8.2 Ex-proof protection of DNLF switches is provided by the following means.

8.2.1 Switches electrical parts are placed into flameproof enclosure which withstand burst pressure and exclude its transfer into atmosphere.

Enclosure blast proofing and explosion resistance complies with requirements of IIC group electrical equipment as per GOST 51330.1.

Enclosure Ex-proof connections parameters comply with requirements of GOST R 51330.1 for electrical equipment sub-group IIC.

8.2.2 Construction and materials of DNLF switches body and enclosure parts are made with regards to general requirements of GOST R 51330.0 or electrical equipment, located at potentially hazardous areas. Switches enclosure conforms to high rate of mechanical strength for II group equipment as per GOST R 51330.0. Construction materials provide frictional instrisical safety as per GOST R 51330.0.

8.2.3 Maximum switches surface heating temperature at assigned operation conditions does not exceed 135 °C, which conforms to temperature class T4 as per GOST R 51330.0.

8.3 At switches body there is label indicating applicable Ex-marking.

## 9 Testing information

Results of construction check and switches test compliance with Ex-proof parameters and requirements of GOST R 51330.0, GOST R 51330.1 are indicated at Test report of IL VSI “VNIIFTRI” No. 11.1175 dd 23.11.2011.

Switches operation documentation contains the necessary guidelines related to installation and safe operation.

## 10 Ex-making

With regards to results of technical and operation documentation expertise, Manufacturer Ex-marking, constructions checks and tests re explosion-proofness and according to requirements of GOST R 51330.0, GOST R 51330.1 Ex-proof limit switches series DNLF were given the Ex-marking

**1ExdIICT4**

## 11 List of documents containing Ex-proof parameters information

11.1 Operation manual	Without number
11.2 Technical description	VLS:11:10
11.3 EC type-examination certificate	Baseefa 09ATEX0126
11.4 IECEX Certificate of Conformity	IECEX BAS 09.0054
11.5 Sect of drawings	12-60-83-311
	12-60-83-314
	12-60-83-221AT
	12-60-83-222AT
	12-60-83-239AT
	12-60-83-238AT
	12-60-83-02A IS
	12-60-83-02A CF8M IS
	12-60-83-67AT
11.6 Test report of IL VSI “VNIIFTRI”	11.1175

Chief executive of “VNIIFTRI”

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