Issue Date: 07 September 2020
Expiry Date: 07 September 2023

IA Certificate Number: **MASC S/20-8355X**
Our ref: **20-8355**

IA – CERTIFICATE

(IN TERMS OF REGULATION 21.17.2 OF THE MINERALS ACT (INCORPORATION THE MINE HEALTH AND SAFETY ACT) AND REGULATION 9 (1) OF THE ELECTRICAL MACHINERY REGULATIONS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT)

Gas Detector Type NSX-yL II; NSx-yL II LCD; NSx-yl II LCD RE

This document is based on and must be read in conjunction with certificate **FTZÚ 15 ATEX 0041X.**

Further to your request, we have evaluated the supplied documentation.

The following is applicable:

Description	**Detail**
Requested By :	DEGA CZ s.r.o. Malešická 2850/22c, 130 00 Praha 3, Czech Republick
Equipment :	Gas Detector Type NSX-yL II; NSx-yL II LCD; NSx-yl II LCD RE
Manufacturer :	DEGA CZ s.r.o. Malešická 2850/22c, 130 00 Praha 3, Czech Republick
Model(s) / Type(s) :	NSX-yL II; NSx-yL II LCD; NSx-yl II LCD RE
Rating :	Ex d nA IIC T4 Gc Ex d nA IIC T5 Gc Ex nA IIC T5 Gc Ex nA Nc IIC T5 Gc Ex d nA nC IIC T4 Gc Ex d nA NC IIC T5 Gc
Certification body :	FTZÚ
Type Certificate No :	FTZÚ 15 ATEX 0041X
Variations/Issue/Amendment :	1
Quality Assurance report (QAR) / Notification (QAN) :	“It is a requirement under ATEX that all equipment for category 1 and 2 areas must have 3rd party quality assurance from a notified body. This is accepted to cover the equipment’s quality requirements.”

/. Standards…

Standards:	- EN 60079-0	(2012)	"General requirements"
	- EN 60079-1	(2007)	"Equipment protection by flameproof enclosures 'd'"
	- EN 60079-15	(2010)	"Equipment protection by non-sparking "n"

COMPLIANCE:

The equipment as described below is hereby certified "Explosion Protected" and is suitable for use in hazardous locations as stated below and as tested, assessed and inspected in accordance with the relevant requirements of SANS / IEC Standards:

The evaluation was conducted according to the requirements of:

- **SANS (IEC) 60079-0 : 2012 "Explosive atmospheres – Part 0: Equipment — General requirements"**
- **SANS (IEC) 60079-1 : 2007 "Explosive atmospheres – Part 1: Equipment protection by flameproof enclosures 'd'"**
- **SANS (IEC) 60079-15 : 2010 "Explosive atmospheres – Part 15: Equipment protection by non-sparking "n"**

Location	Zone 2	Gas Surface
Hazard Frequency	---	Could occur under abnormal operating conditions in hazardous area
Environment	Group IIC	Propane to Hydrogen/Acetylene
Surface Temperature	T4 T5	135ºC 100°C

Service/Ambient Temperature:

Detector type NSx-IL II:	Ex d nA llC T4 Ge, ambient temperature from -20°C to +40°C.
Detector type NSx-CL II:	Ex d nA llC TS Ge, ambient temperature from -20°C to +60°C.
Detector type NSx-EL II:	Ex nA llC TS Ge, ambient temperature from -20°C to +60°C.
Detector type NSx-IL II LCD:	Ex d nA nC llC T4 Ge, ambient temperature from 0°C to +40°C.
Detector type NSx-CL II LCD:	Ex d nA nC llC TS Ge, ambient temperature from 0°C to +40°C.
Detector type NSx-EL II LCD:	Ex nA nC llC TS Ge, ambient temperature from 0°C to +40°C.
Detector type NSx-IL II LCD RE:	Ex d nA nC llC T4 Ge, ambient temperature from 0°C to +40°C.
Detector type NSx-CL II LCD RE:	Ex d nA nC llC TS Ge, ambient temperature from 0°C to +40°C.
Detector type NSx-EL II LCD RE:	Ex nA nC llC TS Ge, ambient temperature from 0°C to +40°C.

/. The use…

The use of apparatus in hazardous locations is subject to the following provisions as applicable, which shall be adhered to:

i. SANS 10086 requirements;
ii. Any conditions mentioned in the above document;
iii. Codes of Practice enforced in terms of Regulations 21.17.2 of Minerals Act, by Chief Inspector of Mines;
iv. Any restrictions and conditions enforced by Chief Inspectors of Mines, Principal Inspector (Group I equipment) of Chief Inspector of Factories (Group II equipment);
v. Any relevant requirements of the MHS Act or the OHS Act.

DESCRIPTION OF EQUIPMENT (According to UL Certificate):

Construction and technical parameters of detector type NSx-yL II remain unchanged.

The gas detectors type NSx-yL II; NSx-yL II LCD and NSx-yL II LCD RE consists of cover and enclosure bottom made by plastic material. Cover of detector type NSx-yL II LCD and NSx-yL II LCD RE is equipped with plastic sight glass. Inside of the enclosure are installed electronic circuits. Equipment is protected by type of protection "nA" as low power apparatus. Relays of detector type NSx-yL II LCD * are protected by type of protection nC. Inside of the enclosure is an installed sensor head. Sensor head of detector type NSx-CL II* and NSx-IL II* is protected by type of protection "d". Sensor head of detector type NSx-EL II * is protected by type of protection "nA". Sensor head of detector type NSx-IL II * is separately certify as component, certificate SIRA 04 ATEX 1357U.

Enclosure is equipped with two M20x1.5 threaded holes for installation of appropriate certified Ex equipment cable glands.

The measuring function according to annex II paragraph 1.5.5 of the directive 2014/34/EU is not matter of this certificate.

Technical specification:

Nominal voltage: 8VDC + 30VDC
Relay: 30V/3A
Outputs: Current loop: 4-20mA and RS48S

MARKING:

The UL marking remains applicable. In addition, the following MASC Certificate number (IA number) must be applied to the equipment.

IA No: MASC S/20-8355X

CONDITIONS OF MANUFACTURE:

- None

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SPECIAL CONDITIONS OF USE (X):

- The equipment must be installed with the sensing part facing downwards.
- The detectors type NSx-yL II LCD and NSx-yL LCD RE were submitted to resistance to impact tests corresponding to low risk of mechanical danger.

CONDITIONS OF CERTIFICATION:

1. This IA Certificate covers all units sold from the date of this document to 07 September 2023.
2. As per ARP 0108 a maximum three yearly review is required on this IA Certificate.
3. The apparatus must be additionally marked with the MASC marking details above.
4. This approval only covers the equipment as certified above and does not include any scheduled additions or variations / amendments / new issues to the certificate(s), made after the above date.
5. The equipment does not need to be re-tested when used on the conditions and with such restrictions as prescribed by UL and in this approval.
6. The UL certification must remain valid.
7. The extent of the requirements in the ARP 0108 (or regulations) and SANS 10108 on the certification of the equipment must remain unchanged.
8. The Ex quality assurance notification/report for the equipment must remain valid.

CONCLUSION:

From the above and the selective examination of the documentation, nothing contrary to the requirements of the applicable standards was found, provided that the equipment / component is used as described in the above document / certificate and according to the MASC conditions below. A MASC IA certificate is issued based on the work done by FTZÚ.

The routine tests for production units according to the UL Certificate must be complied with (if applicable).

Yours faithfully

D.P Visser
TECHNICAL SPECIALIST

Charl Welthagen
TECHNICAL OFFICER

Mining And Surface Certification

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