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GOVERNMENT APPROVED TEST LABORATORY

IN TERMS OF ARP 0108: "REGULATORY REQUIREMENTS FOR EXPLOSION PROTECTED APPARATUS"

IA CERTIFICATE

Date Issued:

01 Jan 2020

*Expiry date:

01 Jan 2023

Page 1 of 4

Issue: 1

Ex – Type Examination Certificate

Certificate Number: **S-XPL/17.1489 X**
Equipment: **Limit Switch**
Model / Type: **Axiom Series AX**
Applicant: **Neles South Africa (Pty) Ltd**
PO Box 264114
Three Rivers
1935

Manufacturer: **StoneL**

Serial No: All serial numbers imported between issued- and expire date and all serial numbers covered by a valid report or acceptable product certification mark.

Supplied by
Neles South Africa (Pty) Ltd
Identified by Inspection Authority number
S-XPL/17.1489 X

And as described in the Explolabs file number **XPL/19063/17.1489** is hereby certified "Explosion Protected (Refer to clause 1, for Ex Rating)", having been examined and inspected in accordance with the relevant requirements of South African Standards.

SANS 60079-0: 2012 Ed 5

IEC 60079-0: 2011 Ed 6

Explosive atmospheres Part 0: Equipment — General requirements

SANS 60079-1: 2015 Ed 5

IEC 60079-1: 2014 Ed 7

Explosive atmospheres Part 1: Equipment protection by flameproof enclosures "d"

SANS 60529: 2001 Ed 1.01

IEC 60529: 2001 Ed 2.1

"Degrees of protection provided by enclosures (IP Code)"

Risk of ignition provided:

Protection afforded	Equipment Protection Level (EPL)	Performance of protection	Conditions of operation	T class or Max Surface Temp (°C)
	Group			
High	Gb Group II	Suitable for normal operation and frequently occurring disturbances or equipment where faults are normally taken into account	Equipment remains functioning in zones 1 and 2	T4 (135°C) T5 (100°C) T6 (85°C)

DOCUMENT No: XPL0213

RELEASE DATE: 29/05/2018

REV: 7

This report supersedes all previous documents bearing the reference no XPL/19063/17.1489.

1. GENERAL

The marking of the Limit Switch shall include the following:

Ex db IIC T4/T5/T6 Gb IP66/IP67

Description of Equipment or Protective System:

The Axiom Series AX Limit Switch is a valve communication and control device for quarter-turn pneumatic valves. Internally mounted pilot valves control a main flow spool valve to operate the pneumatic valve to which this product is intended to be attached. The control modules and up to two pilot valves are housed inside a single flameproof compartment. All pneumatic lines are provided with flame arrestors and the enclosure is vented through additional flame arrestors.

The electrical ratings vary by function module, but are clearly specified on the product nameplate. The specific markings can be found on drawing 105306.

The specific models described by this Certificate are as follows:

AXabcSefgh-xxx. Axiom Limit Switch.

Surface, Zone 1, gas Ex db IIC T5 Ta=-18°C to +50°C IP66 / IP67

Surface, Zone 1, gas Ex db IIC T6 Ta=-18°C to +35°C IP66 / IP67

- a = Function 33S, 44S, 92S, 93S, 94S, 96S, or 97S.
- b = Solenoid 11, 1B, 1D, 1E, 1H, 2B, 2D, 2E, or 2H.
- c = Override X, N, M, L, E, Y, or G.
- e = Enclosure V or T.
- f = Conduit Entries 02 or 05.
- g = Visual Indicator R, G, X, 1, or 2.
- h = Branding A or M.
- xxx = Options "Special Unit Digits" that do not affect the integrity of the housing, the electrical safety, or the title plate.

AXabcSefgh-xxx. Axiom Limit Switch.

Surface, Zone 1, gas Ex db IIC T5 Ta=-10°C to +60°C IP66 / IP67

Surface, Zone 1, gas Ex db IIC T6 Ta=-10°C to +45°C IP66 / IP67

- a = Function 33S, 44S, 92S, 93S, 94S, 96S, or 97S.
- b = Solenoid 1A or 2A.
- c = Override X, N, M, L, E, Y, or G.
- e = Enclosure V or T.
- f = Conduit Entries 02 or 05.
- g = Visual Indicator R, G, X, 1, or 2.
- h = Branding A or M.
- xxx = Options "Special Unit Digits" that do not affect the integrity of the housing, the electrical safety, or the title plate.

AXabcTefgh-xxx. Axiom Limit Switch.

Surface, Zone 1, gas Ex db IIC T5 Ta=-40°C to +80°C IP66 / IP67

Surface, Zone 1, gas Ex db IIC T6 Ta=-40°C to +65°C IP66 / IP67

- a = Function 33S, 44S, 93S, or 94S.
- b = Solenoid 11, 1B, 1D, 1E, 1H, 2B, 2D, 2E, or 2H.
- c = Override X, N, M, L, E, Y, or G.
- e = Enclosure V or T.
- f = Conduit Entries 02 or 05.
- g = Visual Indicator R, G, X, 1, or 2.
- h = Branding A or M.
- xxx = Options "Special Unit Digits" that do not affect the integrity of the housing, the electrical safety, or the title plate.

AXabcTefgh-xxx. Axiom Limit Switch.

Surface, Zone 1, gas Ex db IIC T4 Ta=-40°C to +80°C IP66 / IP67

Surface, Zone 1, gas Ex db IIC T5 Ta=-40°C to +60°C IP66 / IP67

Surface, Zone 1, gas Ex db IIC T6 Ta=-40°C to +40°C IP66 / IP67

a = Function 92S, 96S, or 97S.

b = Solenoid 11, 1B, 1D, 1E, 1H, 2B, 2D, 2E, or 2H.

c = Override X, N, M, L, E, Y, or G.

e = Enclosure V or T.

f = Conduit Entries 02 or 05.

g = Visual Indicator R, G, X, 1, or 2.

h = Branding A or M.

xxx = Options "Special Unit Digits" that do not affect the integrity of the housing, the electrical safety, or the title plate.

Based on the following documentation: FM12ATEX0096X up to Supplement 2

2. INSTALLATION INSTRUCTIONS

It is the manufacturer's responsibility to supply installation instructions with each unit offered for sale as required by IEC/SANS 60079-0 Clause 30.

3. SPECIAL CONDITIONS FOR SAFE USE *(denoted by X after certificate number)*

To minimize the risk of electrostatic sparking, the equipment shall be cleaned only with a damp cloth.

Consult the manufacturer if dimensional information on the flameproof joints is necessary.

Application in atmospheres containing Carbon Disulphide (CS₂) is not permitted.

4. CONDITIONS OF CERTIFICATION

All production units must be covered by a QAN (Quality Assurance Notification), Product Mark Scheme or batch evaluation.

5. MARKING

The following (or similar) information have to be clearly and permanently marked on all units:

Supplier : Neles South Africa (Pty) Ltd
 Manufacturer : StoneL
 Equipment : Limit Switch
 Model/Type : Axiom Series AX
 Serial No. : ---
 Ex Rating : Ex db IIC T4/T5/T6 Gb IP66/IP67
 IA Certificate No : S-XPL/17.1489 X

This certification indicates compliance with R10.1 of the Mines Health and Safety Act and/or EMR 9(2) of the Occupational Health and Safety Act, provided that the apparatus is used as relevant in accordance with:

- i) SANS 10086 and IEC/SANS 61241-14 requirements as applicable;
- ii) Any conditions mentioned in the above report;
- iii) Any relevant requirements and codes of practice enforced in terms of the Mine Health and Safety Act or Occupational Health and Safety Act; and
- iv) Any restrictions and conditions enforced by the Chief Inspector of Mines or the Principal Inspector or the Chief Inspector: Occupational Health and Safety.
- v) A revision certificate replaces all previous version of the certificate.
- vi) * - Only covers equipment Imported between the "Issued" and "Expire" dates.
- vii) If and when your QAN (Quality Assurance Notification) Certificate for your equipment manufacturer expires during the valid period of the IA Certification (issued for your equipment) and a new certificate is not submitted the existing IA Certification will then be cancelled. It is thus the client's responsibility to always submit the updated and valid QAN certificate(s) to Explolabs (Pty) Ltd

Responsible Testing Officer:

P van Staden**Technical Specialist****EXPLOLABS EXPLOSION PREVENTION SERVICES**

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