

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**
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Issue: 1

Ex – Type Examination Certificate

Certificate Number: **S-XPL/19.0447**
Equipment: **Solid State Proximity Sensor**
Model / Type: **HK40**
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/19.0447

And as described in the Explolabs file number **XPL/20424/19.0447** 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	Explosive atmospheres Part 0: Equipment — General requirements
IEC 60079-0: 2011 Ed 6	
SANS 60079-11: 2012 Ed 4	Explosive atmospheres Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-11: 2011 Ed 6	
SANS 60079-26: 2007 Ed 2	Explosive atmospheres – Part 26: Equipment with equipment protection level (EPL) Ga
IEC 60079-26: 2006 Ed 2	
SANS 60529: 2001 Ed 1.01	"Degrees of protection provided by enclosures (IP Code)"
IEC 60529: 2001 Ed 2.1	

Risk of ignition provided:

Protection afforded	Equipment Protection Level (EPL) Group	Performance of protection	Conditions of operation	T class or Max Surface Temp (°C)
Very high	Ga Group II	Two independent means of protection or safe even when two faults occur independently of each other	Equipment remains functioning in zones 0, 1 and 2	T5 (100 °C)

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

DOCUMENT No: XPL0213 RELEASE DATE: 29/05/2018 REV : 7

This report supersedes all previous documents bearing the reference no XPL/20424/19.0447.

1. GENERAL

The marking of the Solid State Proximity Sensor shall include the following:

Ex ia IIC T5 Ga Ta= -40 °C to 80 °C

IP67

Description of Equipment or Protective System:

The HK40 Solid State Proximity Sensor provides a solid state switch and LED indication in response to the proximity of a metal target. The Namur proximity sensor is powered by voltages from 5-25 Vdc. For intrinsically safe installations, energy is limited to the sensor by intrinsic safety barriers. The stainless steel, polycarbonate-tipped enclosure fits within an envelope measuring 3.5 x 1 x 1.2 inches (89 x 25 x 31 mm). Access to the field wiring is by way of discrete wires which extend through a single 1/2 inch NPT conduit opening or by a 3 pin connector (in stainless steel). The sensors are encapsulated in urethane potting. The specified operating temperature range for equipment is -40 °C to 80 °C. The enclosure is rated as IP67.

HK407aSb-c. Solid State Proximity Sensor.

Energy Limitation Parameters:

Ui = 22V, li = 120mA, Pi = 2.0W, Ci = 98nF, Li = 1.56mH

a= Conduit: 7 or 8

b= Indicator: R, G, E or B

c= Options: 1-5 alpha or numeric digits for special and marketing identification

Based on the following documentation: FM 10 ATEX 0035 up to Supplement 4

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)

None.

4. SCHEDULE OF LIMITATIONS (denoted by "U" after certificate number)

None.

5. CONDITIONS OF CERTIFICATION

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

6. 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 : Solid State Proximity Sensor

Model/Type : HK40

Serial No. : ---

Ex Rating : Ex ia IIC T5 Ga Ta= -40 °C to 80 °C IP67

IA Certificate No : S-XPL/19.0447

Responsible Testing Officer:


P van Staden

Technical Specialist

EXPLOLABS EXPLOSION PREVENTION SERVICES

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