

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: 5

Ex – Type Examination Certificate

Certificate Number: **S-XPL/10.0897 X**
Equipment: **Valve Position Monitors**
Model / Type: **Series EN44 and EG44**
Applicant: **Neles South Africa (Pty) Ltd**
PO Box 264114
Three Rivers
1935

Manufacturer: **StoneL Corporation**

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/10.0897 X

And as described in the Explolabs file number **XPL/11512/10.0897** 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.

IEC/SANS 60079-0: 2006

"Electrical apparatus for explosive gas atmospheres, Part 0: General requirements"

IEC/SANS 60079-11: 2007

"Electrical apparatus for explosive gas atmospheres, Part 11: Equipment protection by Intrinsic safety 'i'"

IEC/SANS 60079-26: 2007

Explosive atmospheres – Part 26: Equipment with equipment protection level (EPL) Ga

Locations	Zone 0	Gas: Surface
Frequency		Continuous as could occur under normal operation
Environment	Group IIC	Propane to Hydrogen plus Acetylene
Limiting Temp.	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:

- SANS 10086 and IEC/SANS 61241-14 requirements as applicable;
 - Any conditions mentioned in the above report;
 - Any relevant requirements and codes of practice enforced in terms of the Mine Health and Safety Act or Occupational Health and Safety Act; and
 - Any restrictions and conditions enforced by the Chief Inspector of Mines or the Principal Inspector or the Chief Inspector: Occupational Health and Safety.
- A revision certificate replaces all previous version of the certificate.
- * - Only covers equipment Imported between the "Issued" and "Expire" dates.
- 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

1. GENERAL

The marking of the Valve Position Monitors shall include the following:
Ex ia IIC T5 Ta= -40°C to 80°C, IP67

The EN44 and EG44 are valve position monitors which consist of one printed circuit board mounted in a polycarbonate enclosure with two NAMUR proximity sensors. The circuitry of the Model EN44 and EG44 monitors are identical. The differences between the two models are described below.

The external connection of the EN44 models consist of screw terminals with wiring brought into the enclosure via cable glands or conduit entries. The external connections of the EG44 models consist of plug connectors.

The electronic components are encapsulated under Conathane EN-14 black Urethane potting compound manufactured by Cytec Industries. The EG44 models are completely potted and the EN44 models are fully potted up to the terminals for wire connections. LED's are potted within the polycarbonate enclosure, which has a clear polycarbonate window cemented into the side to allow the LED's to be visible under the potting.

SAFETY PARAMETERS**EN44abcd-e. Valve Position Monitor**

Energy Limitation Parameters:

Ui = 22V; Ii = 120mA; Pi = 2W; Ci = 98nF; Li = 1.56mH.

- a = Enclosure: D or A
- b = Junction: 02, 05 or 11
- c = Visual Indication: X, G, R, F, 1, 2, N, D, L, S, T or 0
- d = Branding: A, M or N
- e = Options: X

Note: X = 'Special Unit Digits' not to affect the integrity of the housing, the electrical safety, the electrical components, or the title plate.

EG44a23bc-d. Valve Position Monitor.

Energy Limitation Parameters:

Ui = 22V; Ii = 120mA; Pi = 2W; Ci = 98nF; Li = 1.56mH.

- a = Enclosure: D or A
- b = Visual Indication: X, G, R, F, 1, 2, N, D, L, S, T or 0
- c = Branding: A, M or N
- d = Options: X

Note: X = 'Special Unit Digits' not to affect the integrity of the housing, the electrical safety, the electrical components, or the title plate.

Based on the following documentation: FM08ATEX0015X

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 OF USE (X)

Parts of the enclosure are non-conducting and may generate an ignition-capable level of electrostatic charge under certain extreme conditions. The user should ensure that the equipment is not installed in a location where it may be subjected to external conditions which might cause a build up of electrostatic charge on non-conducting surfaces. Additionally, cleaning of the equipment should be done only with a damp cloth.

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 Corporation
Equipment : Valve Position Monitors
Model/Type : Series EN44 and EG44
Serial No. : ---
Ex Rating : Ex ia IIC T5 Ta= -40°C to 80°C, IP67
IA Certificate No : S-XPL/10.0897 X

Responsible Testing Officer:



P van Staden

Technical Specialist

EXPLOLABS EXPLOSION PREVENTION SERVICES

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