



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: IECEx ITS 13.0021X issue No.: 0 Certificate history:

Status: **Current**

Date of Issue: 2014-01-23 Page 1 of 3

Applicant: **Linak AS**
Smedevaenget 8
DK-6430
Norborg
Denmark

Electrical Apparatus: **LA36 Linear Actuator**
Optional accessory:

Type of Protection: **Dust protection by enclosure 'Ex t'**

Marking: Ex tb IIIC T135°C Db
Tamb -25°C to **°C

Upper ambient dependent on duty cycle.

Duty Cycle	Recorded Rise	Shaft Gasket Upper COT	Ambient Range
5%	5.17°C	90°C	-25°C to +64°C
10%	8.51°C	90°C	-25°C to +81°C
15%	10.69°C	90°C	-25°C to +59°C
20%	15.06°C	90°C	-25°C to +54°C

Approved for issue on behalf of the IECEx
Certification Body:


D G Bosson

Position:

Certification Officer

Signature:
(for printed version)

Date:


23 January 2014

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

Intertek Testing & Certification Limited
ITS House, Cleeve Road,
Leatherhead,
Surrey, KT22 7SB
United Kingdom





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Manufacturer: **Linak AS**
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Additional Manufacturing location
(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2011 Explosive atmospheres - Part 0: General requirements
Edition: 6.0

IEC 60079-31 : 2008 Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure 't'
Edition: 1

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:
[GB/ITS/ExTR13.0025/00](#)

Quality Assessment Report:
[SE/SP/QAR14.0001/00](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The LA36 Linear actuator creates motion in a straight line, as contrasted with circular motion of a conventional electric motor. It is used within many different applications such as industrial automation, agriculture, construction, off high way equipment (cranes/bulldozers/diggers) and in many other places where linear motion is required. The actuator consists of a motor, a gear and a spindle that causes the actuator to either extend or retract. The motor housing consists of a two part aluminium assembly with a cork gasket and an aluminium outer tube. The plug sockets on the equipment are protected from impact via an Aluminium ADC12 guard which is retained by a special fastener. The plug socket arrangement consists of two sockets. Metallic Plug adapters of thread M16x1.5 fit into the sockets and are used in conjunction with certified cable glands and unused plug adapters are blocked using a certified blanking element and o-rings to retain ingress protection IP66. Ingress protection also relies upon two actuator gaskets and two o-rings located within the shaft. The equipment is earthed externally through actuators fixation points; the piston rod eye and the back fixture. The actuators are rated for 12V, 24V or 36V, with push pull specifications between 500N and 10000N.

CONDITIONS OF CERTIFICATION: YES as shown below:

"Conditions of Use" for Ex Equipment or "Schedule of Limitations" for Ex Components, if any:

1. Equipment must be cleaned with a damp cloth.
2. Only cable glands and cable blanking elements certified to Ex tb IIIC Db or higher to be used.
3. Plug O-rings are to be replaced every 6 months.
4. Actuator rated at 10,000N max load to be ran at only 5% duty cycle.
5. The connection between the actuator and the rest of the machine/device must be conductive, and furthermore the application must be grounded in order to remove any Electro Static Discharge. This counts for both of the actuator's fixation points (Back Fixture and Piston Rod Eye)
6. Temperature at cable entry may reach 80°C, suitably rated cable and cable glands must be used.



Schedule of Drawings for Certificate: IECEx ITS 13.0021X Issue: 0

Manufacturer:

Linak AS
Smedevaenget 8
DK-6430
Norborg
Denmark

Title:	Drawing No.:	Rev. Level:	Date:
ATEX LABEL	ATEX_2 - A	13	2013-12-12
BOM	ATEX_A - B	1	2013-12-17
Plug Arrangement	ATEX_SAMLING_A - B	2	2013-12-17
LA36 Explode	0369015 - A	9	2013-12-17
LID	A-0361222-A - A	1	2013-03-22
House	A-0361036-A - A	2	2013-03-22
Cylinder Head	A-0361095-A - A	2	2013-03-22
Outer Tube	A-0361200-A - A	3	2013-03-22
Piston Rod Eye Ø12.2	A-0361109-A	Rev A Iteration 2	2013-03-22
Rear Mounting Ø12.2	A-0361119-A - A	2	2013-03-22
Power plug adapter IECEx	0361603 - A	3	2013-11-26
Signal plug adapter IECEx	0361604 - A	6	2013-11-26
Cable lock for alu plug	0361605 - A	4	2013-11-21
ISO 4762 M5x65	0002500 - A	1	2013-11-26
Ejot-altracs-wn5152-50x10	0002266 - A	1	2013-08-13
Ejot-altracs-wn5152-50x10	0002267 - A	1	2013-08-13
Ejot-altracs-wn5152-40x8	0002268 - A	1	2013-08-13
Straight cable 20AWGx6C ATEX	0367098 - A	9	2013-11-26
Straight cable 14AWGx2C ATEX	0367099 - A	10	2013-11-26
GASKET	A - 0361210 - A	Change no.: 041221	031006
Gasket	0361099 - -	5	2013-08-09
O-ring 21.00 x 2.00 70 Shore	0007033 - A	4	2013-08-08
O-ring 24.00 x 2.00 70 Shore	0007059 -	3	2013-08-12
O-ring Actuator	0273023	Rev A Iteration 0	20-Aug-09
O-Ring HB	0273024 - A	3	2012-11-30

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