ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

ATISAE

EU TYPE-EXAMINATION CERTIFICATE

According to annex IV part A of Directive 2014/33/EU

Certificate number:	**ATI / LV / 001** **rev: 2**
Notified Body:	**TÜV SÜD ATISAE S.A.U.** Avda. de los Artesanos, 20 E 28760 Tres Cantos MADRID (ESPAÑA) Número de identificación: **0053**.
Product:	**Safety Component** **Overspeed governor (LV)** **Traction Overspeed Governor**
Type:	**ALJO 2129**
Manufacturer:	**APLICACIONES ELECTROMECÁNICAS GERVALL, S.A.** **C/ EUSEBI MILLAN 5-7 POL. IND. ROQUETES** **E08800 VILANOVA i LA GELTRÚ (BARCELONA)**
Certificate Holder:	**APLICACIONES ELECTROMECÁNICAS GERVALL, S.A.** **C/ EUSEBI MILLAN 5-7 POL. IND. ROQUETES** **E08800 VILANOVA i LA GELTRÚ (BARCELONA)**
Date of submission:	**19.12.2018**
Date of type examination:	**27.09.2019**
Test laboratory & report:	**Please refer to tech. annex section 2.16.**
Directive:	**Directive 2014/33/EU of 26 February 2014**
Standards of reference:	**EN 81-20:2014; EN 81-50:2014;**
Report number:	**810056445.001 (27.09.2019)**
Expiry date:	**Indefinite. (Please refer to tech. annex section 2.18)**
Statement:	The safety component allows the lift on which it is installed to satisfy the health and safety requirements of the Lifts' Directive when it is used within the scope, as well as under the installation conditions, that are set up in the technical annex to this certificate. This certificate consists of this cover, a technical annex with 3 pages and 1 enclosed document. It shall be reproduced with all its pages and documents to be considered valid.

ORGANISMO NOTIFICADO ★ TÜV SÜD ATISAE 0053 ★

C/ED2/000029

Bruno Cano Hernández
Director Técnico de Elevación

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TECHNICAL ANNEX TO THE EU TYPE-EXAMINATION CERTIFICATE ATI / LV / 001 Rev. 2

1. Scope:

1.1. Permissible tripping speed 0.30 ÷ 2.20 m/s

1.2. Permissible tripping speed ≤ 1.75 m/s

1.3. Pitch diameter of the governor pulley (∅6.0) 196.0 mm;
(∅6.5) 197.2 mm;

1.4. Rope:

Please refer to table 1.5

1.5. Minimum tensioning force (Tt/2) and respective tensile force (Ft) transmitted to the braking means:

$\varnothing_r$ (mm)	art	operation	(Tt/2) (N)	Ft (N)
6.0	(6x19)	downwards	323	600
		downwards or upwards	577	400
			493*	300
6.5			609	400
	(8x19)		541	350
			545 [1]	300

$\varnothing_r$: rated diameter of the rope; (Tt/2): minimum tensioning force; Ft : tensile force transmitted to the safety gear;

Remark. The minimum tensioning force (Tt/2) shown in the table above, is the force transmitted to the rope by the tensioning system with the governor tripped as measured in the tests, except (*) which is calculated. The tensile force is the minimum guaranteed to be transmitted with new rope and groove and a wrap angle of 180º. For downwards or upwards operation, the value of Ft shown in the table is applicable for both operations. The tensioning system shall be checked so the minimum tensioning force is reached according the manufacturer manuals.

1. Minimum tensioning force in the rope using tensioning system 12.064.0M. This tensioning system provides tension to the rope by compressed springs, deviating of the requirement of EN 81-20 [5.6.2.2.1.3.d)]. (please refer to remark 2.3)

2. Remarks.

All clauses mentioned with reference to EN 81-20, unless otherwise indicated.

2.1. **Intended use of the device**. The overspeed governor can be used as means of detection for overspeed downwards [5.6.2.2.1], as well as means of detection for overspeed upwards [5.6.6.10.a)]. Provisions for the device, as tripping means for a stopping element of an unintended car movement protection system [5.6.7], has not been assessed. To be used with such scope it must be provided with an appropriate tripping system.

2.2. **Sub-types:** There are constructive differences concerning the type of ratchet: downwards at left, and at right for downwards operation and an upwards-downwards ratchet. The scope for tensile force depends on the tensioning system in use. Each governor shall be identified concerning these differences.

2.3. **Tensioning system 12.064.0M**. As an option, the governor may be used with a tensioning means providing the tensile force by compression springs to an idler rope's diverter pulley, as described in ATI / CA018 certificate, which must be included within the documentation of the governor when this means is used. This tensioning system does not comply with clause [5.6.2.2.1.3.d)]

2.4. The tripping speed of the governor must be adjusted within the limits of speed required by [5.6.2.2.1.1] depending on the rated speed and the type of safety gear in use.

2.5. The governor's rope shall be chosen among those described by EN 12385-5 as per [5.6.2.2.1.3.a)].

2.6. The figures for the tensile force given in section 1.5 are measured with governor's sheaves on top, wrap angle 180º and tensioning pulley below. Other arrangements may give rise to lower tensile forces and are not covered in this certificate.

2.7. The Factor of Safety (FoS) shall be calculated according to [5.6.2.2.1.3.b)]. The mass of the rope influences in the factor of safety. For Tensioning system 12.064.0M, it must be considered the maximum tensioning force that the tensioning system is able to provide, (please refer to remark 2.3 and certificate ATI / CA018)

2.8. **Accessibility**. The governor may be located inside the hoistway or at non-accessible places from outside of the hoistway if the means required by [5.6.2.2.1.4.c)] are provided. The characteristics of such devices have not been assessed and they are not part of this certification. Regarding this, there is an option to adapt remote tripping means.

2.9. **Protections**. Protections against bodily injuries, the rope leaving its groove and introduction of objects between the rope and its pulleys, according to what is required by [5.5.7.1]**.**

2.10. The electric monitoring [5.6.2.2.1.6] is carried out by an electric safety switch. There must also be a safety contact in order to check the breakage or loosening of the rope. There are several types of switches with automatic, manual or remote reset available. It must be checked the compatibility of the assigned voltage and current for categories AC15/DC13 according to EN 60947-5-1 related to the rated voltage and current of the safety chain. The own features of electric safety devices are not assessed for this certification.

2.11. When set up for upwards or downwards operation, the governor may operate downwards in any direction of rotation.

2.12. It shall be placed an identifiable plate on the overspeed governor with the following items.

Manufacturer's name;
Type-examination mark and its references;
The actual tripping speed for which it has been adjusted;

The manufacturer shall also report the governor is prepared to only downwards operation or for upwards-downwards operation.

2.13. It must also be indicated the tensioning means provided according to the table in section 1.5.

2.14. Other optional features. The following features reported in the manufacturer's documentation are mentioned, although they have not been submitted for assessment and are not part of this certification.

Possibility to add an overspeed electric contact that initiates the stopping of the machine before reaching the tripping speed, independently of the own governor's safety contact;

Possibility to add a perforated wheel for pulse probes and / or an encoder;

Possibility of install final limit switches operated by the governor's rope;

The design of the governor may include a built-in testing groove, as possible means of compliance with [5.6.2.2.1.5]. That can also be obtained with a remote tripping device or operating the ratchet in the machine room;

Several types of fixing bases can be supplied, for which the supplier shall ensure an adequate strength;

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2.15. **Replacements and modifications**. This component was certified under Directive 95/16/CE with the following certificates:

ATI/LD-VA/M182A-1/11 (28.02.2011); ATI/LD-VA/M182/09 (10.09.2009); ATI/LD-VA/M168A-1/08 (05.11.2008); ATI/LD-VA/M168/07 (29.06.2007); ATI/LD-VA/M001A-1/03 (11.03.2003); ATI/LD-VA/M001/99 (14.05.1999);

This governor can be used to replace an old governor marked with these references. The scope must be checked in order to meet the requirements for the installed elevator.

2.16.

Test Laboratory.	**Test report**	
LABORATORIO DE ENSAYO DE COMPONENTES DE ASCENSORES (L.E.C.A.).	2018-004	(09.01.2019)
	2016-012	(03.06.2016)
E.T.S. Ingenieros Industriales. UPM	2015-005 M1	(09.09.2015)
C/José Gutiérrez Abascal, 2	2013-012	(12.11.2013)
28006 MADRID	2010-019	(28.10.2010)
	2008-016	(17.07.2008)

2.17. The following documents are enclosed to this certificate.

NUMBER	DATE	TITLE
2129.000	06.02.2018	LIMITADOR ALJO 2129 ∅ 200

This document is enclosed in order to provide identification and information about the basic design of the safety component.

2.18. This certificate has not an expiry date except in case of: design modifications, that the manufacturer must communicate to this Notified Body previously to the modifications be effective; changes in the applicable legislation or technical changes in the standards of reference for which the expiry date shall be the deadline provided by the regulation or the date when the standard of reference ceases to provide presumption of conformity**.**

2.19. Revision log.

REV	Date	Modification
0	11.09.2015	Initial issue
1	13.06.2016	Extension of the scope. The tripping speed range is enhanced as well as the maximum rated speed.
2	27.09.2019	Extension to the optional tensioning system with compression springs 12.064.0M. Withdrawal of 38º angle groove. Increase of pitch diameter.

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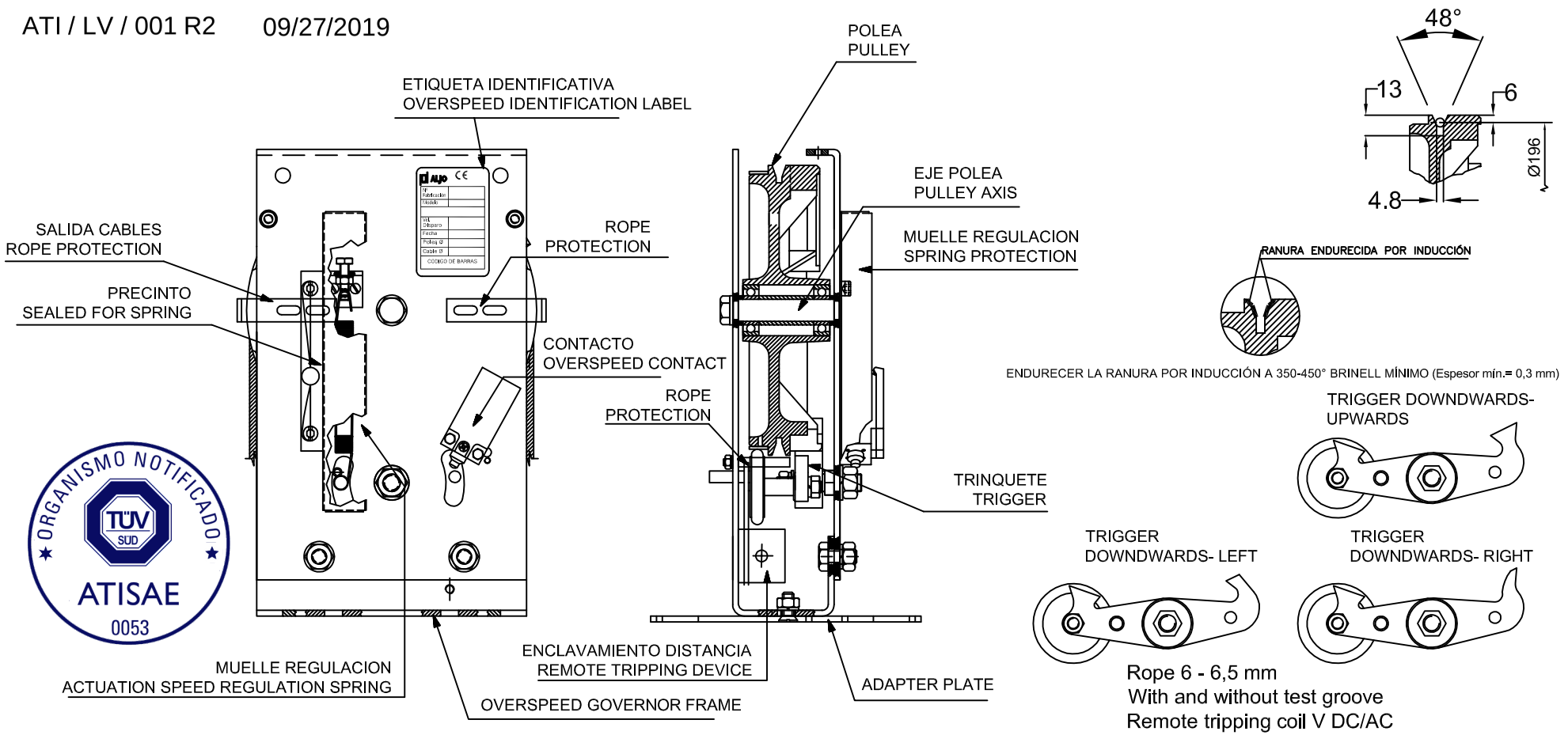
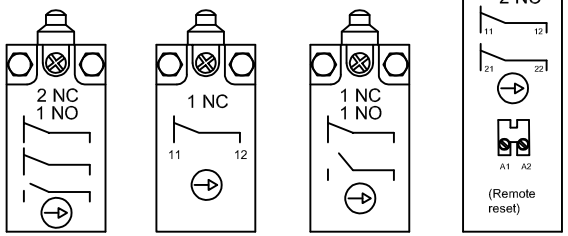
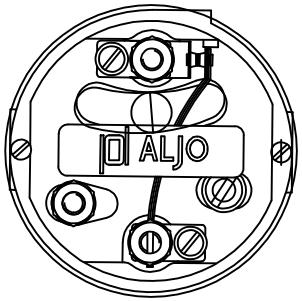


Rope 6 - 6,5 mm
With and without test groove
Remote tripping coil V DC/AC





Nº MOD	DESCRIPCION MODIFICACION	FECHA

PESO(kg)	MATERIAL	Medidas sin tolerancia DIN 7168
Bruto:		Zona de Tolerancia: 0,5 a 6 / 6 a 30 / 30 a 120 / 120 a 315 / 315 a 1000
Neto:		Media: ±0,1 / ±0,2 / ±0,3 / ±0,5 / ±0,8

COD. MAT.	ESCALA 1:4

DIBUJADO	REVISADO	APROBADO
Fecha 06/02/18	Fecha 06/02/18	Fecha 06/02/18
A.Eguia	06/02/18	A.Eguia

Aplicaciones Electromecánicas Gervall, S. A.

LIMITADOR ALJO 2129 Ø200	2129.000	REV