

Zertifikat - Certificate

Nr.: TÜV-A-AT-1/08/011 CEES

Type examination
according EN81-1/2: 08.1998

Name of the approved body	TÜV AUSTRIA SERVICES GMBH Krugerstraße 16 A-1015 Wien ID-NR.: 0408
Type-examination No	TÜV-A-AT-1/08/011 CEES

- 1. Category, type and make or trade name:** Electric device as a part of a PCB for a lift controller πk, collecting information from a lifts safety chain for control purposes.
- 2. Name and address of manufacturer:** CITO
Szolc-Rogozińskiego 8/12
02-777 Warsaw
POLAND
- 3. Name and address of certificate holder:** CITO
Szolc-Rogozińskiego 8/12
02-777 Warsaw
POLAND
- 4. Date of submission for examination:** 02.03.2009
- 5. Certificate issued on the basis of the following requirement(s):** EN 81-1/2:1998
CEN/TS 81-29:10.2004 N° 510
CEN/TS 81-29:10.2004 N° 548
Lift Directive 95/16/EC
- 6. Test laboratory:** TÜV AUSTRIA SERVICES GMBH
Krugerstraße 16
A-1015 Wien
- 7. Date and number of laboratory report** Date: 30.03.2009, N°: 2008-AT-EP/0050

Die Prüfergebnisse beziehen sich nur auf den Prüfgegenstand,
die Prüfergebnisse dürfen auszugsweise nicht
ohne Genehmigung der TÜV AUSTRIA SERVICES GMBH veröffentlicht werden.

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Nr.: TÜV-A-AT-1/08/011 CEES

8. Date of examination: 20.03.2009

9. Documents, annexed to this certificate: Sketch: Diag_ac
Diag_dc
PCB_overlay

10. Additional information and preconditions for use:

- 10.1 Information, given by the designer and manufacturer of the device (mentioned sketches, diagrams and drawings are not completely enclosed).

Electric device as a part of the PCB for a lift controller πk – general information:

The electric device is part of a PCB of a lift controller πk contains electronic and electro technical elements. The device is designed to cooperate with various voltages of the safety circuit. This may be 48 VDC, 48VAC, 110VAC, 115VAC or 230VAC. The voltage, with which a single device can cooperate with is marked by the manufacturer at the bottom of the tested section on the PCB.

The electric device, which is part of the PCB of the lift controller πk (not part of examination), manufactured by the company CITO, allows to take information from max 4 points of the safety circuit of the lift controller. For this purpose the inputs N° I17, I18, I19, I20 are used. πk also enables the possibility of direct control of main contactors with the four built-in auxiliary relays N° Q17, Q18, Q19, Q20, which break contacts lead to the terminal stripe as N° Q17A, Q17B, Q18A, Q18B, Q19A, Q19B, Q20A, Q20B.

All other parts of the board (e.g. additional inputs in standard 24VDC with related relay outputs intended for controls, not directly connected with safety circuit – e.g. service of orders, calls, lighting, ventilation in the car, etc.) are not part of the certification.

After connection of the electric device as a part of the PCB for a lift controller πk to the safety circuit (according to drawings DIAG_dc, DIAG_ac) closing of particular safety switches cause flow of small current (few mA) through the emitter of the transoptor and steer it. This information passes the optoelectronic link of the transoptor and low-pass filter to the controller microprocessor. Closing of all safety circuit connectors enable switching on main contactor coils through the relay outputs Q17 to Q20.

- 10.2 The environmental requirements must accord to EN81-1/2: 08.1998 with exception of the accepted range of temperature 0°C-65°C and range of relative humidity 15%-85%.
- 10.3 The examined device must be installed in a cabinet with an international protecting code IP2X or higher.
- 10.4 The maximum nominal value of the upstream fuse in the safety circuit is 4A.
- 10.5 The common conductors of the external contactors (e.g. for control of car movement, hydraulic valves, brake release, ...) are connected to the clamp indicated "N2" on the PCB πk only.

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- 10.6 This type examination covers just
- the circuits inside "TÜV-A-AT-1/08/011CEES" designated area on the PCB as shown on annexed drawing N° PCB-overlay and indicated in white directly on the PCB πk
 - and the required qualification of the relays N° Q17, Q18, Q19, Q20.
- 10.7 All requirements, classifications and functions to the external main contactors, which are controlled via the relays Q17-Q20, must be provided in accordance with EN81-1/2:1998. Furthermore, the coils power supply must be provided according to enclosed drawing DIAG-ac, DIAG_dc, ensuring that they are powered at the end of the safety circuit only in case that all safety contacts are closed.
- 10.8 Spread of this type examination certificate is only permitted with documents mentioned in point 9.
- 10.9 Monitoring circuits with connections to different points of the electric safety chain for gathering information are not safety circuits in the sense of the Lift Directive 95/16/EC, Annex IV. Therefore a Type Examination Certificate instead of an EC-Type Examination Certificate is issued.

30.03.2009
Datum Ausstellung
Date of issue

Ing. A. Marschall
Leiter der Zertifizierungsstelle
Head of certification

29.03.2014
Gültig bis
Valid until