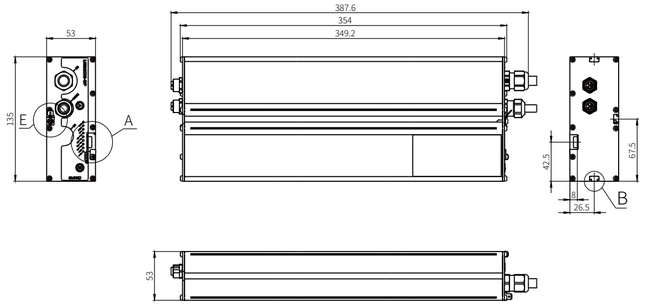
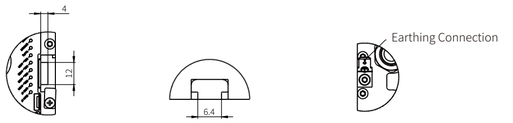
Naming Rule



Product Dimensions





A(1:1) B(2:1) E(1:1)

Conformance Testing Report



特种设备型式试验证书
（电梯）

证书编号：TSK F360014201706I6

申请单位名称：施尔格(无锡)电子科技有限公司
申请单位注册地址：江苏省无锡市新区菱湖大道 228 号大安智慧城 2-605
制造单位名称：ELGO Beteiligungs AG
制造地址：Postfach 51, Filmerweg 20,LI-9496 Balzers
设备品种：电梯安全保护装置
设备名称：轿顶柔性移动保护装置（检测子系统）
产品名称：一体化电梯井道信息安全保护装置
产品型号：LMAX33 CP-05
型式试验设备编号：T14-F360-17-I06

经型式试验，确认该样品符合 TSG T7007—2016《电梯型式试验规则》的规定。

本证书适用的产品型号：LMAX33 CP-05。

本证书适用的产品参数范围和配置见附件。

发证日期：2017 年 12 月 18 日
下次换证日期：2022 年 12 月 18 日

NETEC 湖北电梯质量监督检验中心

注1：申请单位变更注册地址产品符合安全技术规范及相关标准的确认，以及与型式试验样品同一致性。
注2：本证书只适用于下次换证日期内制造出厂的电梯安全保护装置安全部件产品。



特种设备型式试验证书
（电梯）

证书编号：TSK F360014201707103

申请单位名称：施尔格(无锡)电子科技有限公司
申请单位注册地址：江苏省无锡市新区菱湖大道 228 号大安智慧城 2-605
制造单位名称：ELGO Beteiligungs AG
制造地址：Postfach51,Filmerweg20,FL-9496 Balzers
设备品种：电梯安全保护装置
设备名称：可编程电子安全相关系统
产品名称：一体化电梯井道信息安全保护装置
产品型号：LMAX33 CP-05
型式试验设备编号：T14-F360-17-I03

经型式试验，确认该样品符合 TSG T7007—2016《电梯型式试验规则》及 EN 81-20:2014 的规定。

本证书适用的产品型号：LMAX33 CP-05 。

本证书适用的产品参数范围和配置见附件。

发证日期：2017 年 12 月 12 日
下次换证日期：2022 年 12 月 12 日

NETEC 湖北电梯质量监督检验中心

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注2：本证书只适用于下次换证日期内制造出厂的电梯安全保护装置安全部件产品。

Suzhou MONARCH Control Technology Co., Ltd.

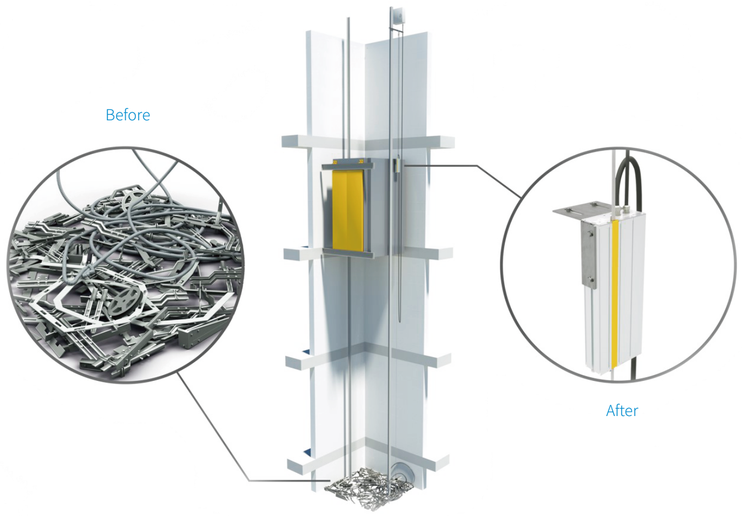
Official website: www.szmctc.com
Official WeChat account: Inovance-automation

Tel.: +86-755-2979 9595
Customer service: 4000-300124

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Product Features



- Imported components
- Tidy Shaft
- Shorter installation time (half a day for a high-rise elevator)
- Safer and more reliable system, greater riding comfort

- Powered by the SIL3 rated travel reduction technology
- Dual redundancy check on speed and position on the encoder side and on the magnetic grating ruler side
- Absolute position measuring to ensure that the elevator system will never land at any undesired floor



Absolute position measurement and elevator safety functions for double safety assurance

Safety Functions Beyond National Standards

Function Description	SIL Required by National Standards	This Product
Door open in advance	SIL2	SIL3
Re-leveling	SIL2	SIL3
Unintended car movement protection (UCMP)	SIL2	SIL3
Overspeed protection, activated when the speed is greater than 115% of the rated speed	SIL3	SIL3
Travel reduction	SIL3	SIL3

More Integrated Functions

Function Description	Implementation Description
Protection against landing at undesired floor	This function is implemented in combination with the control system.
Omitting switch components	This function omits signal switches such as the leveling plate, leveling switch, slow-down switch and limit switch in the original shaft system.
Absolute position and speed detection	This function detects car position and speed information in real time.
Door lock short circuit detection	This function is implemented in combination with the control system.

Technical Specification

Item	Description
Measuring principle	Absolute
Measuring length	⩽ 260 m
Measuring speed	⩽ 10 m/s
Applicable magnetic scale	AB20-80-10-1-R-D-15-BK80
Resolution	1000 μm = 1.00 mm
Repetition precision	± 1 mm
System accuracy in 20°C	± (1000 μm + 100 μm × L [m]) L = Measuring length; unit: m
Connector	Open wiring
Housing material	Aluminum
Weight	1200 g (excluding the cable that weighs 60 g/m)
Operating voltage	+ 24 VDC -20% / +10%
Voltage ripple	< 100 mVpp
Current consumption	⩽ 0.2 A @24 V
Door zone output	+ 24 VDC -20%, max.200 mA
Reverse voltage protection	Yes
Communication protocol	CANopen (DS406)
Storage temperature	- 25°C to + 85°C
Operating temperature	- 20°C to + 65°C
Maximum humidity	95% non-condensing
Degree of protection	IP54 (EN 60529)
Service life	20 years
Relay activation time	< 55 ms

Product Connectors

Plug	Connector Type	Signal	Meaning	Color	Description
SCA cable	Power connector	24 V	Positive	Brown	External 24 V power supply
		GND	Negative	White	
	Backup power connector	12V+	Positive	Red	Backup 12 V power supply
		0V	Negative	Blue	
	CAN communication connector	CAN-H	Wire H for CAN1 communication	Yellow	CAN1 communication with the controller
		CAN-L	Wire L for CAN1 communication	Green	
		CAN-GND	Ground wire for CAN1 communication	Black	
	Shielded cable connector	SHLD	Shielded cable	N/A	
PIO cable	Safety relay output connector	SR-I	SR input	White	Safety relay, used to disconnect the safety circuit
		SR-O	SR output	Brown	
		DR1-I	DR1 input	Blue	Safety relay, used to short the front door lock circuit
		DR1-O	DR1 output	Red	
		DR2-I	DR2 inputv	Pink	Safety relay, used to short the back door lock circuit
		DR2-O	DR2 output	Grey	
		ABR-I	ABR input	Green	Safety relay, used to control the wire holder and auxiliary brake
		ABR-O	ABR output	Yellow	
FS cable	Power output connector	12V-O	Positive	Brown	Floor sensor power input
		0V-0	Negative	White	
	Floor sensor input connector of door 1	FS1-I1	Input signal 1 of door 1	Green	Leveling input of the floor sensor of door 1
		FS1-I2	Input signal 2 of door 1	Yellow	
	Floor sensor input connector of door 2	FS2-I1	Input signal 1 of door 2	Pink	Leveling input of the floor sensor of door 2
		FS2-I2	Input signal 2 of door 2	Grey	

Product Models and Description

Model	Relay Connector				Floor Sensor Connector	Description
	Description	Description	Description	Description		
MCTC-PES-L1F	√	√	X	X	√	Single door; auto-tuning
MCTC-PES-L1	√	√	X	X	X	Single door; manual tuning
MCTC-PES-L2F	√	√	X	√	√	Single door; auto-tuning; supports wire holders and auxiliary brakes (usually for asynchronous motors)
MCTC-PES-L2	√	√	X	√	X	Single door; manual tuning; supports wire holders and auxiliary brakes (usually for asynchronous motors)
MCTC-PES-L3F	√	√	√	X	√	Double doors; auto-tuning
MCTC-PES-L3	√	√	√	X	X	Double doors; manual tuning
MCTC-PES-L4F	√	√	√	√	√	Double doors; auto-tuning; supports wire holders and auxiliary brakes (usually for asynchronous motors)
MCTC-PES-L4	√	√	√	√	X	Double doors; manual tuning; supports wire holders and auxiliary brakes (usually for asynchronous motors)