System solutions for every lift.
Everywhere.

LIFT CONTROL SYSTEMS

SCHMERSAL
BÖHNKE+PARTNER

INTRODUCTION

Philip Schmersal, Executive Director of the Schmersal Group, and
Dr. Andreas Hunscher, Managing Director of Böhnke + Partner GmbH Steuerungssysteme

Solutions for Lifts and Escalators – Safe and reliable.

Lifts are among the safest means of transport. Control systems and switchgear from the Schmersal Group play no small part in this. For almost 50 years we have been producing switchgear developed completely from scratch for the special requirements of lift technology.

Like lift customer, the Schmersal Group has also taken the route to internationalization. We produce switchgear at the main factory in Wuppertal, in Boituva / Brazil (since 1974), Shanghai / China (since 1999) and Ranjangaon / India (since 2013). With the acquisition of Böhnke + Partner GmbH Steuerungssysteme to the Schmersal Group in 2013, the business area of lift technology was extended to the important area of control technology. All production sites are certified in accordance with DIN EN ISO 9001, thus all our products are manufactured to a high standard.

Experts are available for consulting, choosing control systems, components and also service in more than 50 countries. As an efficient supplier and partner, we collaborate both with global players in the lift industry and with specialised regional companies.

The programme is constantly being expanded in close collaboration with lift manufacturers. Today, for almost any conceivable application in which a complete lift control system or even just one switchgear is required we offer a reliable and high quality solution with practicality in mind – from the shaft pit to the machine room.

This brochure gives you an initial overview of our product range and its versatile application possibilities in the area of lifts and escalators.

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CONTENTS

Online catalogue
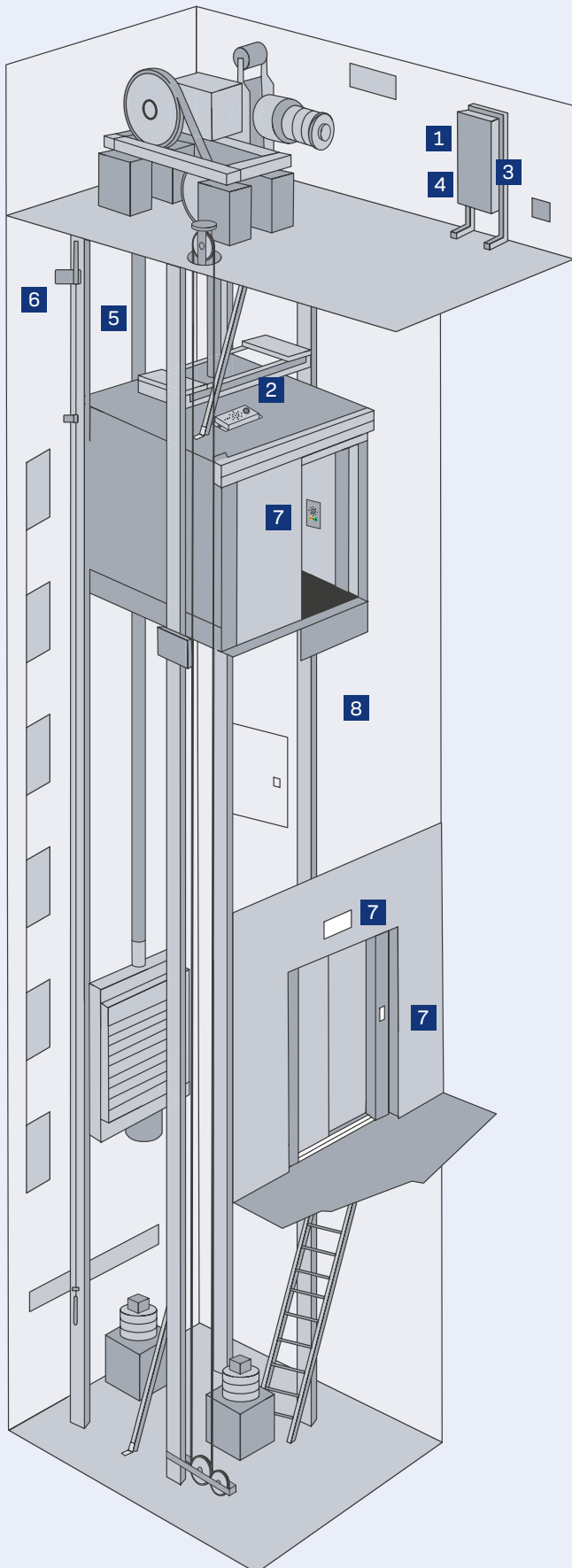
Already familiar with our new online catalogue? You can find the details and data for our products here:

products.schmersal.com

www.boehnkepartner.de

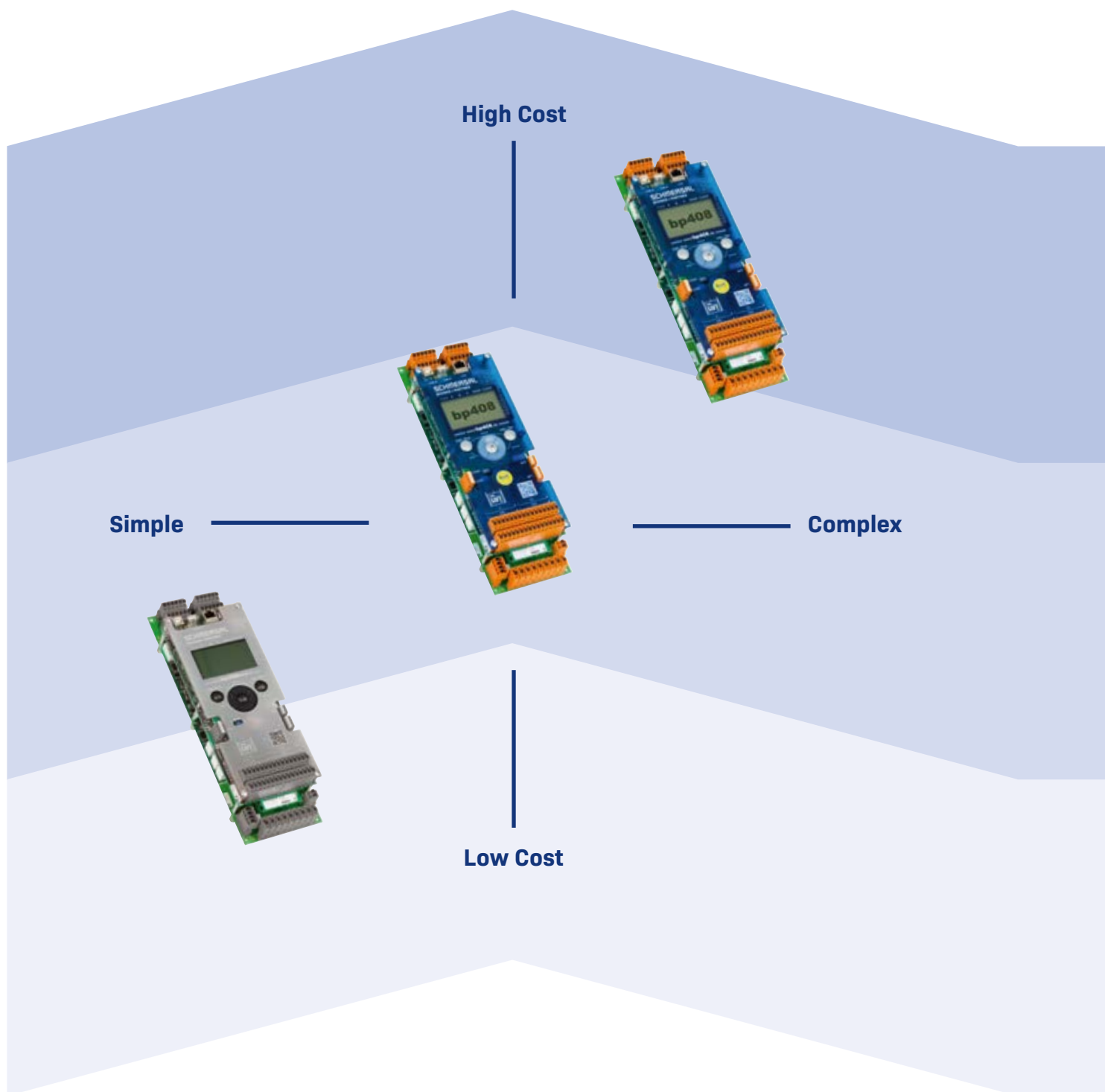# LIFT CONTROL SYSTEMS

1 Lift Control System Components

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5 Lift Shaft Cabling and Installation

6 Shaft Absolut Encoder System Lift

7 Lift Indication Panel (LIP)

7 Lift Operating Panel (LOP)

7 Car Operating Panel (COP)

8 Further Shaft Accessory

LIFT CONTROL SYSTEMS

High Cost

Simple

Complex

Low Cost

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ENHANCED

Individual High-End Lift Control System
with bp408 Controller
- Traction/Hydraulic Lift with Machine Room or MRL
- EN 81-20/50 and EN 81-1/2 (Modernisation)
- Simplex or up to a Group of 8 Lifts
- Up to 127 Floors
- Full Range of Interfaces and Unlimited Functionality

SMART

Configurable Standard Mid-Range Lift Control System
with bp408 Controller
- Traction/Hydraulic Lifts with Machine Room
- EN 81-20/50 and EN 81-1/2 (Modernisation)
- Simplex or up to a Group of 8 Lifts
- Up to 127 Floors
- CANopen Lift for Cabin (CAN1) and Shaft/Group (CAN2)
- Extended Functionality

ENTRY LEVEL

Configurable Basic Lift Control System with bp208-ECO
- Simplex Traction/Hydraulic Lift with Machine Room
- EN 81-20/50 and EN 81-1/2 (Modernisation)
- Up to 12 Floors
- CANopen Lift for Cabin
- Basic Functionality

	■ ENTRY LEVEL
Key Features	**Configurable Basic Lift Control System with bp208-ECO**

Lift Application Details

Type of Lift	Traction / Hydraulic
Installation Environment	Machine Room
Modus	Closed / Opened Loop Speed / Position Modus
Standard	EN 81-20/-50 EN 81 1/2
Type of Motor	Asynchron / Synchron
Main Power	400 V, 63 A, 30 kW
Neutral line	Without
Car Terminal Box	Included
Frequency Inverter	External (not included in package)
Frequency Inverter Type	Prepared for: Ziehl Abegg and Fuji
Door Type	Automatic, Manual Door and without Car Door
Supported Door Power	Designed for 230V Door A and B
Car Doors	1 … 2, Simultaneous
Brake Range Doors Magnet	42 V, 50 V, 60 V, 80 V, 200 V and 207 V
Set/Reset Speed Governor	■
Floors	Up to 12 Parallel Inputs (no CAN available on shaft)
Lift Groups	No, only Simplex

Controller Details

Controller Type	bp208-ECO
Operation Modes	Full Collective Controller Push Button – without call storage Push Button – with call storage Simple one button collective direction dependend/independend
User interface	Illuminated, graphic LC-Display 7 push buttons
Interfaces	CAN 1 (Cabin) with CANopen Lift (CiA 417) USB Host USB RS-485 (DCP)
Software	Based on bp408
Update/ backup possibility	USB

Functionalities

Remote Access (WinMos)	–
Thermistor	■
Emergency Power Supply	–
Fire Alarm Evacuation	■
Fire Alarm Dynamic	–
Fire Fighting Service	–
Priority Calls	–
Guest Call Operation	–
Penthouse Control	■
Chemical Operation	–
Lift Attendant Service	–
Ramp control system (docking service)	–
SMZ	■

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◼ SMART	◼ ENHANCED
Configurable Standard Mid-Range Lift Control System with bp408	**Individual High-End Lift Control System with bp408 Controller**

SMART	ENHANCED
Traction / Hydraulic	Traction / Hydraulic
Machine Room	Customized (Machine Room, MRL)
Closed / opened Loop Speed / Position Modus	Closed / Opened Loop Speed / Position Modus
EN 81-20/-50 EN 81 1/2	EN 81-20/-50 EN 81 1/2
Asynchron / Synchron	Asynchron / Synchron
Customized	Customized
Customized	Customized
Included	Included
External (not included in package)	External (not included in package)
Customized	Customized
Automatic, Manual Door and without Car Door	Automatic, Manual Door and without Car Door
Customized	Customized
1 … 2, Simultaneous, Selective	1 … 3, Simultaneous, Selective, Selective (alternate locked)
42 V, 50 V , 60 V, 80 V, 200 V and 207 V	Customized
◼	◼
Up to 8 with parallel connection or up to 127 floors with CAN2	Up to 127 floors
Up to 8 Lifts	Up to 8 Lifts
bp408	bp408
Full Collective Controller Push Button – without call storage Push Button – with call storage Simple one button collective direction dependend/independend	Full Collective Controller Push Button – without call storage Push Button – with call storage Simple one button collective direction dependend/independend
Illuminated, graphic LC-Display 7 push buttons	Illuminated, graphic LC-Display 7 push buttons
CAN 1 (Cabin/Car) with CANopen Lift (CiA 417) USB Host USB RS-485 (DCP)	CAN 1 (Cabin/Car) with CANopen Lift (CiA 417) USB Host USB RS-485 (DCP)
Based on bp408	Based on bp408
USB	USB
◼	◼
◼	◼
–	◼
◼	◼
–	◼
–	◼
–	◼
–	◼
◼	◼
–	◼
–	◼
–	◼
◼	◼

LIFT CONTROL MODULE

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SCHMERSAL BÖHNKE + PARTNER LIFT CONTROL SYSTEMS

You can purchase our product with the peace of mind that we will always provide your organisation with industry leading technology and that your investment is safe in our hands.

COMPACT

Applicable for all kind of Installation Location
(Door Frame, Machine Room, Machine Room Less (MRL).

SAFETY ON BOARD

Safety Circuit Integrated
No further modules needed for:
- UCM
- Pre-Opening Doors
- Re-Levelling
- Fast Start

Over **1500**
Features included

Over **30** Years of
Lift Control System Knowledge.

HIGHEST QUALITY

SERVICE AT ITS BESTS.

- All time Spare-part Commitment
- Repair
- Replace and Upgrade Solutions
- Online/On-Side Support
- Initial Commissioning
- User Training

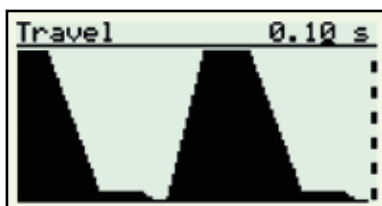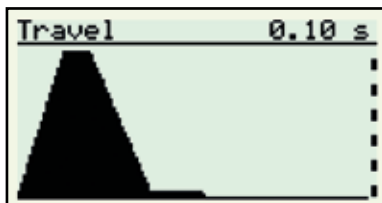SCHMERSAL

INTEGRATED ADVANCED DIAGNOSTICS AND ASSISTANCE FUNCTIONS

```
--- ▥      ⟊    =⟡05
Service Menu
▌Diagnostics            ▪
 Settings               ▪
 Maintenance            ▪
 Enter calls            ▪
↓Tripcnt/hours meter    ▪
```

```
--- ▥      ⟊    =⟡05
Diagnostics             ▪
 Malfunctions           ▪
▌Messages               ▪
 Storage                ▪
 Signals                ▪
↓Timer                  ▪
```

```
--- ▥      ⟊    =⟡05
Shaft-Signals:          ▪
                        ▪
Act. pos.    13000 mm▪
>↑ ↓ - - - - ↑ ↓<    5▪
71-2-3-4-5-6-7-8        ▪
                   0.00▪
```

```
Travel          0.10 s
                        ▪
                        ▪
                        ▪
                        ▪
                        ▪
```

```
Travel          0.10 s
                        ▪
                        ▪
                        ▪
                        ▪
                        ▪
```

```
--- ▥      ⟊    θ=⟡02
Level-Check:            ▪
                        ▪
Act. pos.       5000▪
At level        5000▪
Level diff.        0▪
Speed           0.00▪
```

```
--- ▥      ⟊    θ=⟡02
APS1 Info 1:            ▪
                  Ok▪
Act. pos.       5000▪
Min. pos.          0▪
Max. pos.      29500▪
Send cycle      0 ms▪
```

- Permanent Online Status and Diagnosis Function on the Controller

- High stopping accuracy

- Easy Language Change (Multilingual – 12 Language available)

- Commissioning Support Functions:
  e.g. Proposed Stopping Distance after Teaching Travel

- Minimal Wiring and Maximum Travel Comfort through CANopen Lift

- Diagnosis of Travel Curve on Controller Display

- Comfortable User-Guided Control of Advanced Settings:
  e.g. Door Timer, Door Opening

- Supporting Test Functions for Expert On-Site Approval:
    - UCM Test
    - Brake Test
    - Limit Stop Switches Test
    - Buffer Test
    - Safety Gear Test
    - Run-Time Test

- Advanced Diagnostics:
    - Logbook
    - Statistics
    - CAN Node List
    - Parameter Printout Including All Connected Nodes

- Virtual Console Allows Central Diagnosis of Installed Component Parameters

LIFT CONTROL COMPONENTS
OVERVIEW

MAIN CANOPEN COMPONENTS

Our lift controls follow a reliable modular bp-control concept. Various add-on modules can be used to meet even the most demanding customer requirements.

■ CIO-01A	■ CLK-03A	■ CLE-01A

CANopen Lift Input-Output Module The CAN-I/O module makes 32 calls available via the CANopen bus. Status LEDs facilitate initial rapid diagnosis of the CAN bus.

CANopen Lift Power Board For transmission of the lift car signals via the CANopen bus to the processor Status LEDs facilitate initial rapid diagnosis of the CAN bus SUB-D 9-pin interface for CANopen absolute value sender can be extended to 32 calls with CLE-01A.

CANopen Lift Power Board Extension For extending CLK to 32 calls.

■ CSI-01C	■ CAP-02A	■ CWI-01A

CANopen Lift Serial Interface For coupling two CANopen strands.

CANopen Lift Exterior Panel Board Serves to actuate exterior panel via CANopen bus.

CANopen Lift Wireless Interface (WLAN) For access via WLAN to CANopen bus WLAN-capable end device required (smartphone, tablet, ...) IOther variant available in housing (CWI-01G)

ORDERING DETAILS

Serie	Description	Type designation	Material no.
CIO	–	CIO-01A	103024112
	with RS485 interface	CIO-01B (RS485)	103024113
CLK	–	CLK-03A	103024084
	without socket connector	CLK-03B w/o socket connector	103024085
CLE	–	CLE-01A	103024088
CSI	–	CSI-01C	103024106
	conf. as bridge	CSI-01C with CNF101	103024107
	conf. as UART half-duplex, add. RS485 interface	CSI-01C with CNF102	103024108
	conf. as UART full duplex, add. RS232 interface	CSI-01C with CNF103	103024109
	conf. as LIN bus master, incl. one LIN interface	CSI-01C with CNF104	103024110
	conf. as ACE master, incl. two LIN interface	CSI-01C with CNF105 (2x LIN)	103024111
CAP	1x screw terminal	CAP-02A with clamps	103024186
	2 x IDC multipoint connector	CAP-02B with IDC socket	103024187
CWI	WLAN	CWI-01A /WLAN	103024267
	WLAN in housing	CWI-01G /WLAN in housing	103024269

TOP OF CAR UNIT

TOP OF CAR CONTROL UNIT

Equipped with the CANopen components like the CLK-03A the Top of Car control unit is used to combine the car signals and to transmit those via traveling cable to the Lift control unit.

Furthermore, it contains the terminals for all electrical car components.

Our standard Top of Car Control Unit combines the following:

- 36 Core Travelling Cable
- In- and Outputs for two Doors (Door Contacts, End Limit Switches, Power Supply, Door Operator, Door Status, Light Curtain)
- Shaft Light Switch, Power Socket
- Power Supply 230 VAC and 24 VDC
- Inputs for Positioning Sensor, Load Measurements, Emergency Communication and Alarm Push Buttons
- CAN Ring Line
- Outputs Cabin Light and Cabin Fan

Other features are possible in the Enhanced Level

UPS – UNINTERRUPTIBLE POWER SUPPLIES

Travelling to the next station without an emergency stop in the event of a power failure, having enough power for all the emergency and communication systems and being maintenance-friendly are the key requirements for an Uninterruptible Power Supplies (UPS).

Combined with the right UPS for your application our Lift Control System is ready to take over the necessary control in the event of a power failure.

ORDERING DETAILS

Serie	Description	Type Designation	Material No.
UPS	Power 1500 VA	**USV 1500VA ME-Offi.-1500 Stdrd**	**103017730**
	Power 2000 VA	**USV 2000VA Net-Dialog SUB-D**	**103017727**

FREQUENCY INVERTERS

For optimal control of the speed of your lift machines, you choose the most suitable frequency inverter.

Depending on your application the frequency inverter can be integrated in the lift control cabinet, installed in a separate power unit cabinet or directly mounted into the shaft head. Our lift control system supports all kind of frequency inverters.

Our **ENTRY LEVEL** and **SMART** Package is prepared for the use of some standard frequency inverters. In the **ENHANCED** Package you can choose whatever frequency inverter is needed.

Specification

ENTRY LEVEL	SMART	ENHANCED
Prepared for:	Customized	Customized
Ziehl Abegg		
Fuji		
Danfoss		

ORDERING DETAILS FREQUENCY INVERTERS ZIEHL ABEGG

| Description	Type Designation	Material No.
Nominal current 11 A, integrated line reactor and line filter *	Umrichterpaket 4C..011	103021989
Nominal current 13 A, integrated line reactor and line filter *	Umrichterpaket 4C..013	103021990
Nominal current 17 A, integrated line reactor and line filter *	Umrichterpaket 4C..017	103021991
Nominal current 23 A, integrated line reactor and line filter *	Umrichterpaket 4C..023	103021992
Nominal current 32 A, integrated line reactor and line filter *	Umrichterpaket 4C..032	103021993
Nominal current 40 A, integrated line reactor and line filter *	Umrichterpaket 4C..040	103021994
Nominal current 50 A, integrated line reactor and line filter *	Umrichterpaket 4C..050	103021995
Nominal current 74 A, integrated line reactor and line filter *	Umrichterpaket 4C..074	103021996
Nominal current 62 A, integrated line reactor and line filter *	Umrichterpaket 4C..062	103024534
External control terminal for frequency inverter type ZETADYN	Umrichter Zetapad für Z+A 4C	103021964
Brake resistor 4Cx11 incl. cable	Bremswiderstand 4Cx011 inkl. Kabel	103021965
Brake resistor 4Cx13 or 4Cx17	Bremswiderstand für 4Cx013+017	103021966
Brake resistor 4Cx23 or 4Cx32	Bremswiderstand für 4Cx023+032	103021967
Brake resistor 4Cx40 up to 4Cx74	Bremswiderstand für 4Cx040-074	103021972
Plastic cover 4C01-032	Kunststoffabdeckung 4C01-032	103038015
Brake resistor cable for 4Cx13up to 4Cx23 – 3m	Bremswiderstand-Leitung C13-C23 3 m	103021968
Brake resistor cable for 4Cx13up to 4Cx23 – 5m	Bremswiderstand-Leitung C13-C23 5 m	103021969
Brake resistor cable for 4Cx32up to 4Cx74 – 3m	Bremswiderstand-Leitung C32-074 3 m	103021970
Brake resistor cable for 4Cx32up to 4Cx74– 5m	Bremswiderstand-Leitung C32-074 5 m	103021971

*) Type of motor, if asynchronous or synchronous motor, to be defined at ordering!

LIFT SHAFT CABLING AND INSTALLATION

Everything is ready to provide the cabling for the shaft. Whether without a machine room or with a machine room above or below, the installation material is individually adapted to your application.

Easy plug and play solutions are provided to connect all necessary lift equipment in the shaft head, the shaft itself and the shaft pit.
The online configurator ensures fast an easy selection of required cabling including the individual cable lengths.
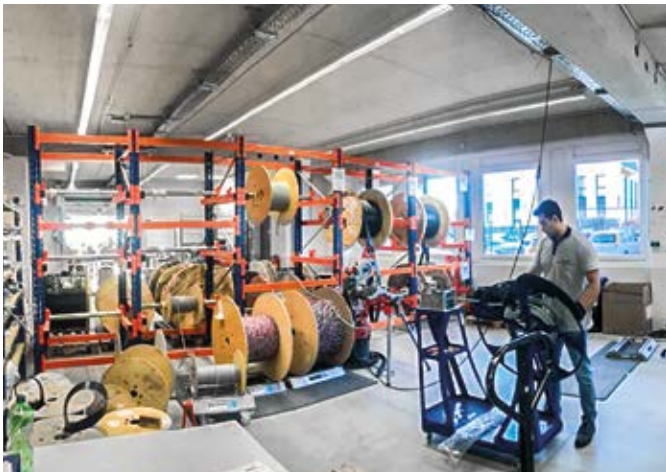
Shaft Lighting and additional shaft installation material are also part of our scope. In doing so, we either meet your individual specifications or, after consultation, can propose the best possible solution for the asked application

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ABSOLUTE ENCODER SYSTEM
OVERVIEW

ABSOLUTE ENCODER SYSTEM

Ensuring a safe and dependable ride every time is your and our goal. Different types of Lift Absolute Encoder Systems allow precise vertical lift and speed measurement control.

In combination our Lift Control System and the Lift Absolute Encoder Systems perform multiple tasks to ensure the safe and effective operation of the lift:
- Lift Frequency Inverter and Motor Communication
- Lift Speed Control
- Lift Door Control
- Vertical Positioning

Various systems are known in the lift market. The **ENTRY LEVEL** Package and the **SMART** Package are prepared for two standard systems. In the **ENHANCED** Package all kind of Absolute Encoder Systems can be provided.

Specification

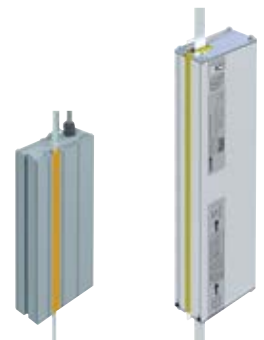| ENTRY LEVEL	SMART	ENHANCED
■ Limax02	■ Limax02	Customized:
■ Toothed Belt Absolute Encoder (AWG)	■ Toothed Belt Absolute Encoder (AWG)	All systems: LIMAX02, LIMAX33CP, Cedes APS and iDiscovery , Ants LES02, AWG

Our Lift Control Systems are ready for the application of Safe and Absolute Positioning Systems. Also with the **ENHANCED** PACKAGE we can provide such safe absolute encoder systems known in the market.

Satisfying functional safety requirements those systems can be used for safety-relevant switching and control functions (up to SIL3) that depend on the position and the speed of the car.

Most common Safety-Relevant Functions Included:
- Deceleration Control at the Shaft Ends
- End Limit and Inspection End Limit Switch Function
- Door-Bridging and Preparatory Actions when Entering/Leaving the Floor Level Position
- Protection against Unintended Car Movement (UCM) with Open Doors
- Triggering of Safety Gear at Overspeed

AWG

Serie	Description	Type Designation	Material No.
AWG – complete AWG including mechanical shaft material		AWG – CANopen CIA-417	103021754
	485 interface, AWG fixed on cabin, Toothed belt width = 10mm	AWG complete 485 / cabin / 10 mm	103023350
	485 interface, AWG fixed on cabin, Toothed belt width = 10mm, IP65	AWG complete 485 / cabin/ 10 mm / IP65	103023364
	485 interface, AWG fixed on cabin, Toothed belt width = 5mm	AWG complete 485 / cabin / 5 mm	103023354
	485 interface, AWG fixed in shaft, Toothed belt width = 10mm	AWG complete 485 / shaft / 10 mm	103023349
	485 interface, AWG fixed in shaft, Toothed belt width = 10mm, IP65	AWG complete 485 / shaft / 10 mm / IP65	103023363
	485 interface, AWG fixed in shaft, Toothed belt width = 5mm	AWG complete 485 / shaft / 5 mm	103023353
	CAN interface, AWG fixed on cabin, Toothed belt width = 10mm	AWG complete CAN / cabin / 10 mm	103023348
	CAN interface, AWG fixed on cabin, Toothed belt width = 10mm, IP65	AWG complete CAN / cabin / 10 mm / IP65	103023368
	CAN interface, AWG fixed on cabin, Toothed belt width = 5mm	AWG complete CAN / cabin / 5 mm	103023352
	CAN interface, AWG fixed in shaft, Toothed belt width = 10mm	AWG complete CAN / shaft / 10 mm	103023347
	CAN interface, AWG fixed in shaft, Toothed belt width = 10mm, IP65	AWG complete CAN / shaft / 10 mm / IP65	103023367
	CAN interface, AWG fixed in shaft, Toothed belt width = 5mm	AWG complete CAN / shaft / 5 mm	103023351
Spare-AWG - spare part AWG without mechanical shaft material	Spare AWG 485 , fixed on cabin, toothed belt width = 10mm	Spare-AWG 485 / cabin / 10 mm	103023356
	Spare AWG 485 , fixed on cabin, toothed belt width = 10mm, IP65	Spare -AWG 485 / cabin / 10 mm / IP65	103023366
	Spare AWG 485 , fixed on cabin, toothed belt width = 5mm	Spare -AWG 485 / cabin / 5 mm	103023358
	Spare AWG 485 , fixed in shaft, toothed belt width = 10mm	Spare -AWG 485 / shaft / 10 mm	103023355
	Spare AWG 485 , fixed in shaft, toothed belt width = 10mm, IP65	Spare -AWG 485 / shaft / 10 mm / IP65	103023365
	Spare AWG 485 , fixed in shaft, toothed belt width = 5mm	Spare -AWG 485 / shaft / 5 mm	103023357
	Spare AWG CAN , fixed on cabin, toothed belt width = 10mm	Spare -AWG CAN / cabin / 10 mm	103023360
	Spare AWG CAN , fixed on cabin, toothed belt width = 10mm, IP65	Spare -AWG CAN / cabin / 10 mm / IP65	103023370
	Spare AWG CAN , fixed on cabin, toothed belt width = 5mm	Spare -AWG CAN / cabin / 5 mm	103023361
	Spare AWG CAN, fixed in shaft, toothed belt width = 10mm	Spare -AWG CAN / shaft / 10 mm	103023359
	Spare AWG CAN, fixed in shaft, toothed belt width = 10mm, IP65	Spare -AWG CAN / shaft / 10 mm / IP65	103023369
	Spare AWG CAN, fixed in shaft, toothed belt width = 5mm	Spare -AWG CAN / shaft / 5 mm	103023362
	Spare AWG CAN, fixed in shaft, toothed belt width = 5mm, IP65	Spare -AWG CAN / shaft / 5 mm / IP65	103023371
Toothed belt	Toothed belt 5 mm – Length 20m	Toothed belt 5 mm – 20 m	103021633
	Toothed belt 5 mm – Length 25m	Toothed belt 5 mm – 25 m	103021635
	Toothed belt 5 mm – Length 30m	Toothed belt 5 mm – 30 m	103021637
	Toothed belt 5 mm – Length 35m	Toothed belt 5 mm – 35 m	103021639
	Toothed belt 5 mm – Length 60m	Toothed belt 5 mm – 60 m	103021647
	Toothed belt 5 mm – Length 80m	Toothed belt 5 mm – 80 m	103021651
	Toothed belt 5 mm – Length 100m	Toothed belt 5 mm – 100 m	103021653
	Toothed belt 10 mm – Length 20m	Toothed belt 10 mm – 20 m	103021659

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Serie	Description	Type Designation	Material No.
Toothed belt	Toothed belt 10 mm – Length 30m	**Zahnflachriemen 10 mm – 30 m**	**103021663**
	Toothed belt 10 mm – Length 35m	**Zahnflachriemen 10 mm – 35 m**	**103021665**
	Toothed belt 10 mm – Length 40m	**Zahnflachriemen 10 mm – 40 m**	**103021667**
	Toothed belt 10 mm – Length 50m	**Zahnflachriemen 10 mm – 50 m**	**103021671**
	Toothed belt 10 mm – Length 100m	**Zahnflachriemen 10 mm – 100 m**	**103021679**
	Toothed belt 10 mm – Length 120m	**Zahnflachriemen 10 mm – 120 m**	**103021681**
	Toothed belt 10 mm – Length 150m	**Zahnflachriemen 10 mm – 150 m**	**103021683**
Mechanical shaft material	Mechanical shaft material Type 12, AWG in shaft , Toothed belt width = 5mm	**Mechaniksatz Typ 12 AWG/S05**	**103021771**
	Mechanical shaft material Type 12A, AWG on cabin , Toothed belt width = 5mm	**Mechaniksatz Typ 12A AWG/K05**	**103021772**
	Mechanical shaft material Type 14A	**Mechaniksatz Typ 14A**	**103021770**
	Mechanical shaft material Type 10A including AWG CAN , Toothed belt width = 10mm	**Mechaniksatz Typ 10 (10mm) + AWG CANopen**	**103021840**
	Mechanical shaft material Type 12 including AWG CAN	**Mechaniksatz Typ 12 inkl. CAN-AWG**	**103021841**
	Mechanical shaft material Type 14A including AWG CAN , Toothed belt width = 5mm	**Mechaniksatz Typ 14A (5mm) CAN-AWG**	**103021842**
Talcum	Talcum powder with brush for toothed belt	**Talkum mit Pinsel für Zahnriemen**	**103021790**
Cable	AWG standard cable 9-pole 10 m	**Standardkabel 9-pol. M/F AWG 10 m**	**103019321**
	AWG standard cable 9-pole 20 m	**Standardkabel 9-pol. M/F AWG 20 m**	**103019322**
	AWG standard cable 9-pole 30 m	**Standardkabel 9-pol. M/F AWG 30 m**	**103019331**
	AWG standard cable 9-pole 5 m	**Standardkabel 9-pol. M/F AWG 5 m**	**103019320**
	AWG cable 20 m – IP65	**20 m Kabel für AWG IP65**	**103021761**
	AWG cable 10 m – IP65	**10 m Kabel für AWG IP65**	**103021751**
	AWG cable 5 m – IP65	**5 m Kabel für AWG IP65**	**103021750**
	AWG cable 10 m	**Anschlusskabel 10 m für AWG**	**103020517**
Transfer module	Transfer module SUB-D9 for AWG	**Übergabemodul SUB-D9 für AWG**	**103018377**

LIMAX

Serie	Description	Type Designation	Material No.
LIMAX	Position measuring for lifting heights up to 260m , Travel speed up to 10m/s , with Transfer module SUB-D9 for AWG (CAN); molded	LIMAX2 D9M-Vergossen	103021754
	Position measuring for lifting heights up to 260m , Travel speed up to 10m/s , with termination for CAN open Lift protocol DC417	LIMAX2 mit Terminierung CAN DS417	103023350
	Position measuring for lifting heights up to 260m , Travel speed up to 10m/s , without termination	LIMAX2 ohne Terminierung	103023364
Magnetic Tape	Magnetic Tape, length = 100m, in a box	Magnetband 100 m, im Karton	103023349
	Magnetic Tape, length = 110m, in a box	Magnetband 110 m, im Karton	103023363
	Magnetic Tape, length = 11m, in a box	Magnetband 11m, im Karton	103023353
	Magnetic Tape, length = 14m, in a box	Magnetband 14m, im Karton	103023348
	Magnetic Tape, length = 17m, in a box	Magnetband 17m, im Karton	103023368
	Magnetic Tape, length = 20m, in a box	Magnetband 20 m, im Karton	103023352
	Magnetic Tape, length = 23m, in a box	Magnetband 23 m, im Karton	103023347
	Magnetic Tape, length = 26m, in a box	Magnetband 26 m, im Karton	103023367
	Magnetic Tape, length = 29m, in a box	Magnetband 29 m, im Karton	103023351
	Magnetic Tape, length = 32m, in a box	Magnetband 32 m, im Karton	103023356
	Magnetic Tape, length = 35m, in a box	Magnetband 35 m, im Karton	103023366
	Magnetic Tape, length = 38m, in a box	Magnetband 38 m, im Karton	103023358
	Magnetic Tape, length = 41m, in a box	Magnetband 41 m, im Karton	103023355
	Magnetic Tape, length = 44m, in a box	Magnetband 44 m, im Karton	103023365
	Magnetic Tape, length = 47m, in a box	Magnetband 47 m, im Karton	103023357
	Magnetic Tape, length = 50m, in a box	Magnetband 50 m, im Karton	103023360
	Magnetic Tape, length = 53m, in a box	Magnetband 53 m, im Karton	103023370
	Magnetic Tape, length = 56m, in a box	Magnetband 56 m, im Karton	103023361
	Magnetic Tape, length = 59m, in a box	Magnetband 59 m, im Karton	103023359
	Magnetic Tape, length = 65m, in a box	Magnetband 65 m, im Karton	103023369
	Magnetic Tape, length = 70m, in a box	Magnetband 70 m, im Karton	103023362
	Magnetic Tape, length = 74m, in a box	Magnetband 74 m, im Karton	103023371
	Magnetic Tape, length = 80m, in a box	Magnetband 80 m, im Karton	103021633
	Magnetic Tape, length = 8m, in a box	Magnetband 8 m, im Karton	103021635
	Magnetic Tape, length = 90m, in a box	Magnetband 90 m, im Karton	103021637
Montage	Mounting kit LIMAX shaft pit / shaft head	Montagekit Limax MKF Grube-Kopf	103021647
	Magnetic tape mounting kit LIMAX RMS	Bandmontagekit Limax RMS	103021651
	Magnetic tape mounting kit LIMAX RMS90	Bandmontagekit Limax RMS90	103021653
	Mounting kit LIMAX S-RMS	Limax Befestigungsset S-RMS	103021659
	LIMAX Sensor mounting angle	Limax Sensor-Montagewinkel	103021663

SCHMERSAL

TABLEAUS AND DISPLAYS – COP – LOP – LIP

Sufficiently simple and user-friendliness remain the focus for all visible user interfaces of the lift application.

Our knowledge and experience support you best to find the optimal solution together with external partners.
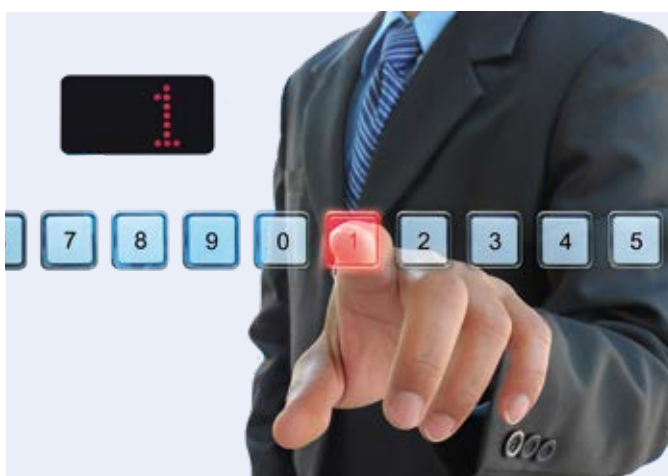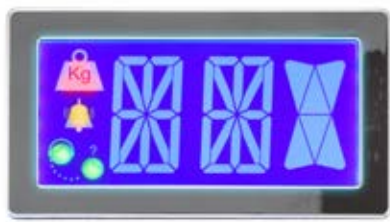

- Standard Button Design
- Touchless Button Design
- CANopen Integrated

Hygienic/Pandemic Options:
- Food Tableau
- Call by Mobile Phone

CAN DISPLAYS

CAN Cabin LCD

CAN Floor LCD

SCHMERSAL

ACCESSORIES

For the completion of the Full Service Package additional shaft accessories can be provided.

- Inspection Handheld Control
- Top of Car Inspection Handheld
- Pit Handheld
- Installation Handheld

- Lift Emergency Call Systems
- Pit Ladder
- Cabin Apron
- Traction Pulley Cover

and much more.

SCHMERSAL

LIFT EMERGENCY PHONES AND ACCESSORIES

In order to expand our position as a system provider and to complete our own product portfolio, we entered into cooperation with 2N as a specialist with lift emergency call systems. We are official distributer of their Lift emergency call system portfolio.

Type Designation	Material No.
2N L1 CABIN UNIT – COP – WIRED	103013032
2N L1 CABIN UNIT – COMPACT – SM	103013033
2N L1 MACHINE ROOM STATION SET	103013035
2N L1 VOICE ALARM STATION SET	103013036
2N L1 – USB PROGRAMMING TOOL	103013039
2N L1 CABIN UNIT-FM	103016962
2N L1 CABIN UNIT-TOC	103016964
2N L8 CENTRAL UNIT	103013040
2N L8 GSM CARD	103013043
2N L8 UMTS CARD	103013044
2N L8 IP CARD	103013045
2N L8 CABIN UNIT – COP – WIRED	103013051
2N L8 CABIN UNIT – COMPACT – SM	103013052
2N L8 CABIN UNIT – FM – W/O BUTTON	103013053
2N L8 MACHINE ROOM UNIT	103013056
2N L8 SHAFT UNIT	103013057
2N L8 VOICE ALARM STATION SET	103013058
2N L8 SPLITTER	103013060
2N L8 HEAD SET – MACHINE ROOM UNIT	103013065
2N L8 LAN MODULE	103016981
2N IP CABIN UNIT-COP-WIRED	103016973
2N IP CABIN UNIT-FM	103016974
2N IP CABIN UNIT-FM-W/O BUTTON	103016975
2N IP CABIN UNIT-TOC	103016976
2N IP CABIN UNIT-TOC-W/O SWITCH	103016977
2N EasyGate IP 4G VoLTE/VOIP	103041423
2N GSM GATEWAY-SMS	103016982
2N UMTS GATEWAY-SMS	103016983

Car Lift

Freight Lift

Trainstation Lift

Special Door Frame Solution

SCHMERSAL

Hospital Lift

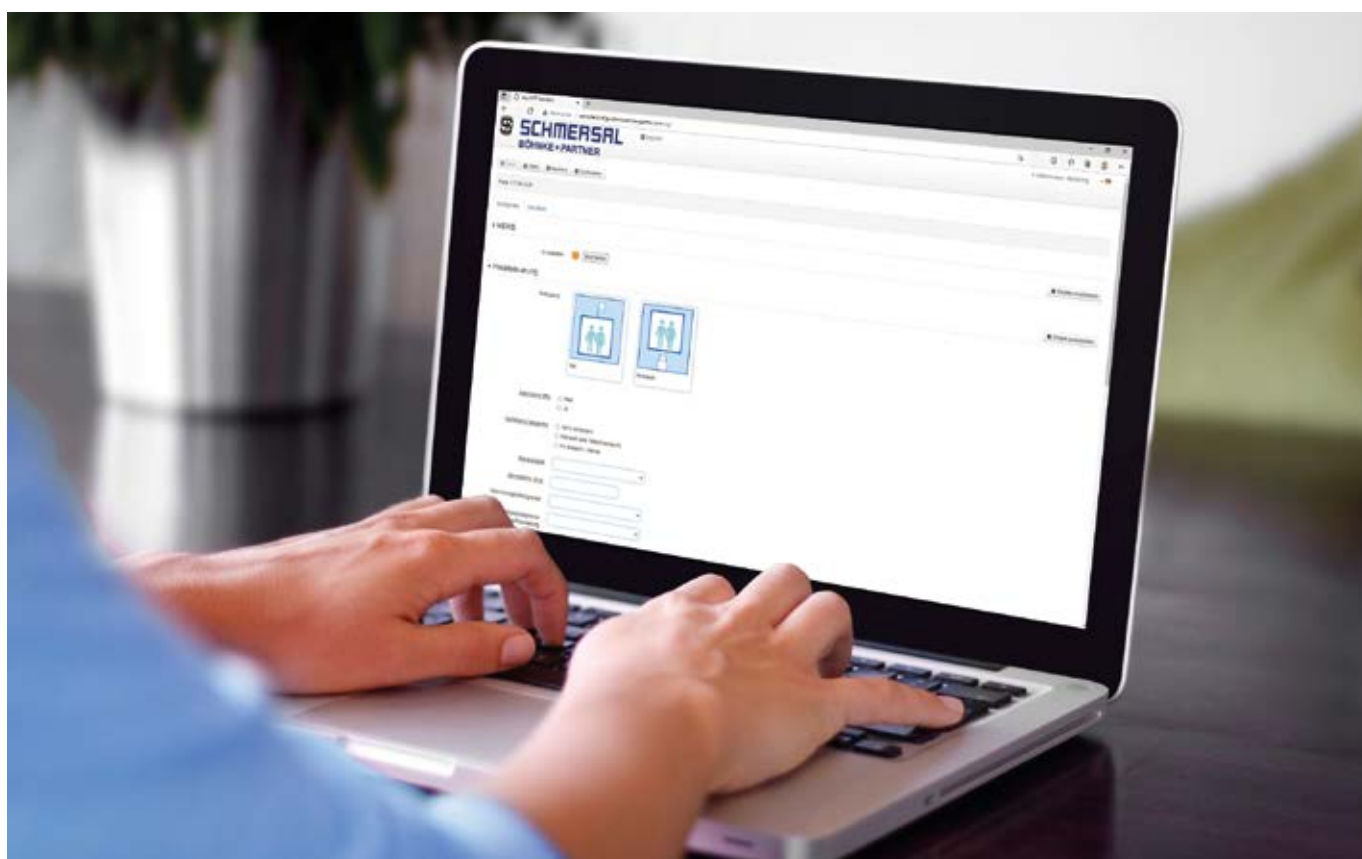Dumbwaiter

Enhanced Solution

Components for Lift Inside Wind Turbines

Platform Lift

CONFIGURATION
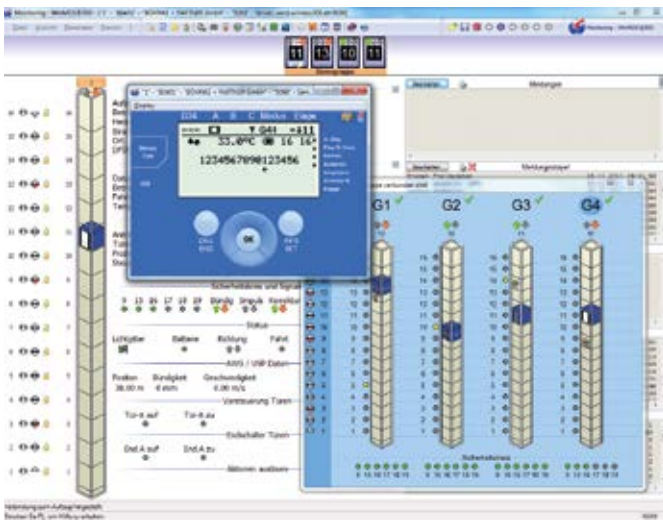## CREATE YOUR LIFT CONTROL SYSTEM.

SCHMERSAL

By using our Online configuration tool, you can easily create your lift control system.
Step by step the necessary equipment is defined and ready to ask for the offer.

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WinMOS®300

As part of our control concept, all controllers are prepared for remote data transfer with the WinMOS®300 program. For different areas of application, various software modules are available which can be configured and tuned precisely for your application. With WinMOS®300, any number of control systems from different manufacturers can be monitored. In this way, you can check the number of lift operations, view current messages and e.g. parametrise holding times in the control system.

A service visit is made before errors in performance turn in malfunctions. Instead of time-orientated maintenance, demand-orientated maintenance is carried out based on the number of lift travels, operating hours or when a scheduled appointment is reached. This increases the availability of the lift system and reduces costs.

Available modules:
- Monitoring
- Diagnostics
- Statistics
- Overview with Layout Maps
- Broadcast Calls
- Fault Registration
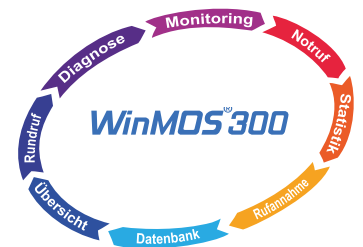
Lift2CLOUD®

Location-independent access to all lift systems

Lift2CLOUD® is our new cloud solution for the bp308 and bp408 controller.

With it you got access to your elevators at every time, over web browser or any internet capable (mobile) device. Due to the smart list of devices, you got direct and clearly arranged access to all your elevators.

At the dashboard you can see any necessary data in detail: the moving direction, the current level of the elevator, the door state, the levelling of the car, the state of the safety circuit, the trip counter, the hour meter, the temperature of the cabinet and the position of the elevator in a map.

Furthermore, it's possible, to see the evaluated data as bar chart, line chart or pie chart. There you can specify a time limit to the evaluated values.

THE MODULAR CONVERSION SOLUTION

With the Replace and Upgrade Systems, you have the possibility to offer your customer a control modernisation in a quick and easy way.

The Replace and Upgrade Systems are prepared by us in such a way that you only have to dismantle the old processor and afterwards mount the replacement controller.
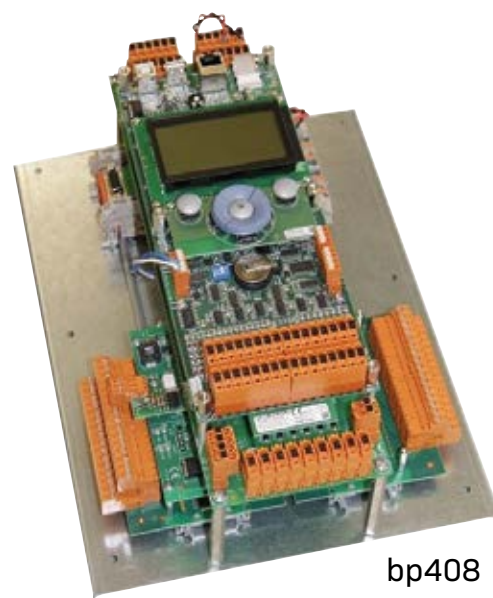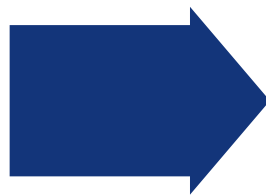
- No Long Downtimes
- Cost-Efficient Conversion Solution
- Modularly Expandable

bp300

bp302

bp408

CONSTRUCTION LIFT SOLUTION

- Control with Safety Integrity 3 (SIL3)
- Safety Logic with Key Transfer System in the Access Level (Ground Level)
- Monitoring of the Car with a Solenoid Interlock (e.g. AZM161)
- Safety Redundancy using Position Switches (Upper and Lower Limit Switches)
- Frequency Converter
- Factory Parameter Setting

SCHMERSAL

LIFT COMPONENT

S SCHMERSAL

Scan the **QR code** or visit **products.schmersal.com** to access the online catalogue and find out more about the numerous lift components.
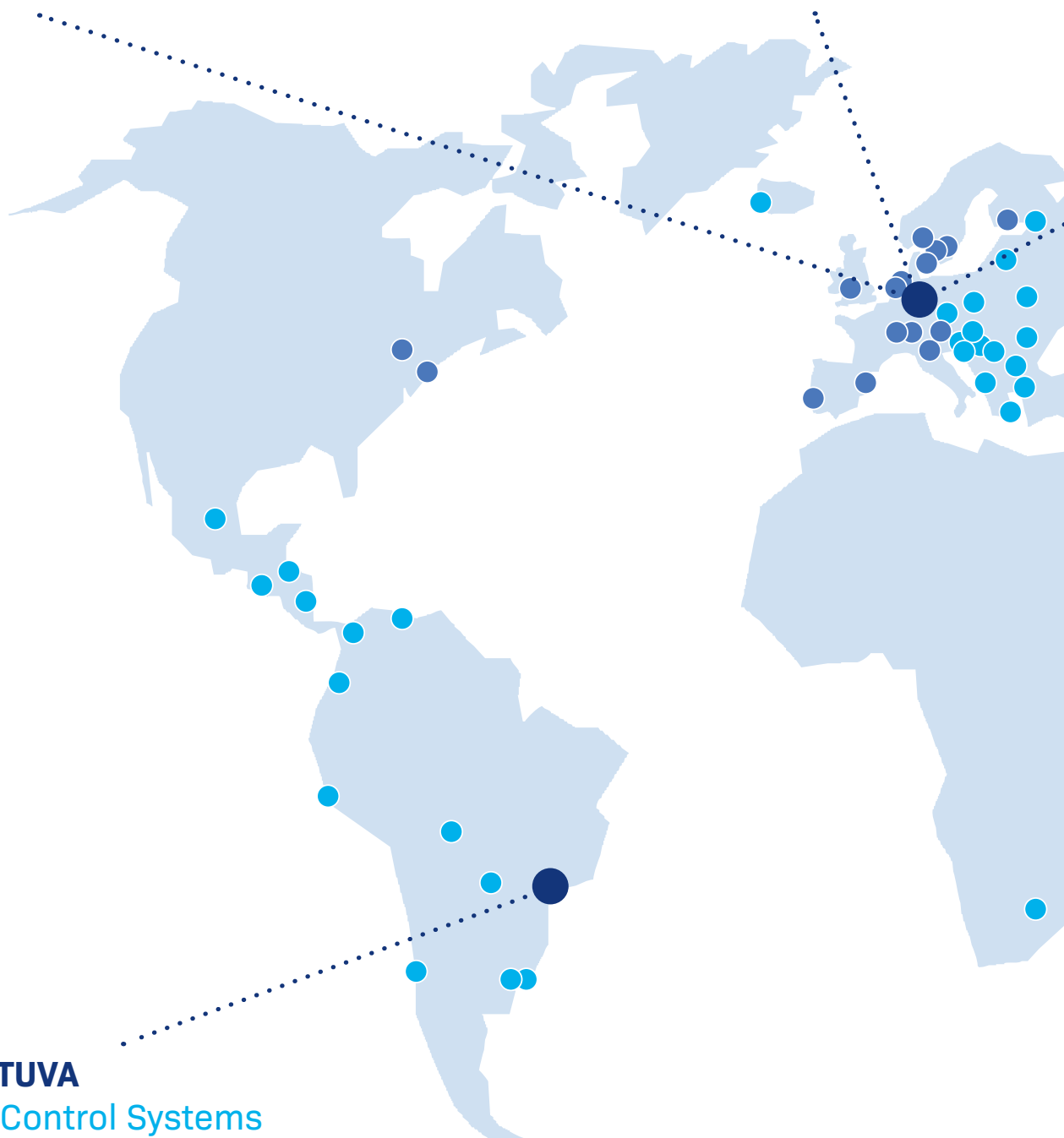
Find out more:

GLOBAL LIFT TECHNOLOGY COMPETENCE

WUPPERTAL
Components

WETTENBERG
Electronics

BOITUVA
Lift Control Systems
and Components

SCHMERSAL

BERGISCH GLADBACH
Global Competence Centre
Components

SHANGHAI
Components

RANJANGAON
Components

SAFE SOLUTIONS FOR EVERY LIFT.
EVERYWHERE.

Our customers lift systems are at the focus of our attention. Regardless if it's a new system or a modernisation – with our years of experience we identify an individual or standardised solution according to your requirements. Our common goal is to guarantee the safe movement of the lift system for the users.

Schmersal Böhnke + Partner is a member of the Schmersal Group. With its products, the ownermanaged Schmersal Group has dedicated itself to the safety of people and machines for many decades. The company was founded in 1945, and is represented by seven manufacturing sites on three continents and with its own companies and sales partners in more than 60 nations. In the demanding field of machine safety, the Schmersal Group is one of the international market and competence leaders. Based on a comprehensive product portfolio, the company's approximately 2000 employees develop and plan complete safety-related system solutions.

For over 50 years we have supplied high-quality components for the lift industry. With the acquisition of Böhnke + Partner to the Schmersal Group, we took over the system concept to our lift area. Since then, the product portfolio – with control systems and components – includes all necessary elements for equipping a lift system from electrical point of view.

We supply lift manufacturers with our products all over the world. The Schmersal Group has four production plants in Germany and one each in Brazil, China and India. We offer the flexibility of a medium-sized company, combined with the international presence of a company group.

CONTROL MODULES

COMPONENTS FOR LIFT CONSTRUCTION

CONTROL SYSTEM ASSEMBLY

SCHMERSAL
BÖHNKE+PARTNER

www.boehnkepartner.de