

System solutions for every lift.  
Everywhere.

# LIFT CONTROL SYSTEMS



# 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.

# CONTENTS

Introduction	2
Contents	3
Lift Control Systems	6
Lift Control Module	10
Lift Control Components	12
Top of Car Unit	14
Uninterruptible Power Supplies	15
Frequency Inverters	16
Lift Shaft Cabling and Installation	18
Absolute Encoder System	19
Tableaus and Displays	23
Other Shaft Accessories	24
Special Application	26
Configuration	28
Lift Monitoring Systems	29
Replace and Upgrade System	31
Construction Lift Solution	32
Lift Component	33
Global Lift Technology Competence	34

## Online catalogue



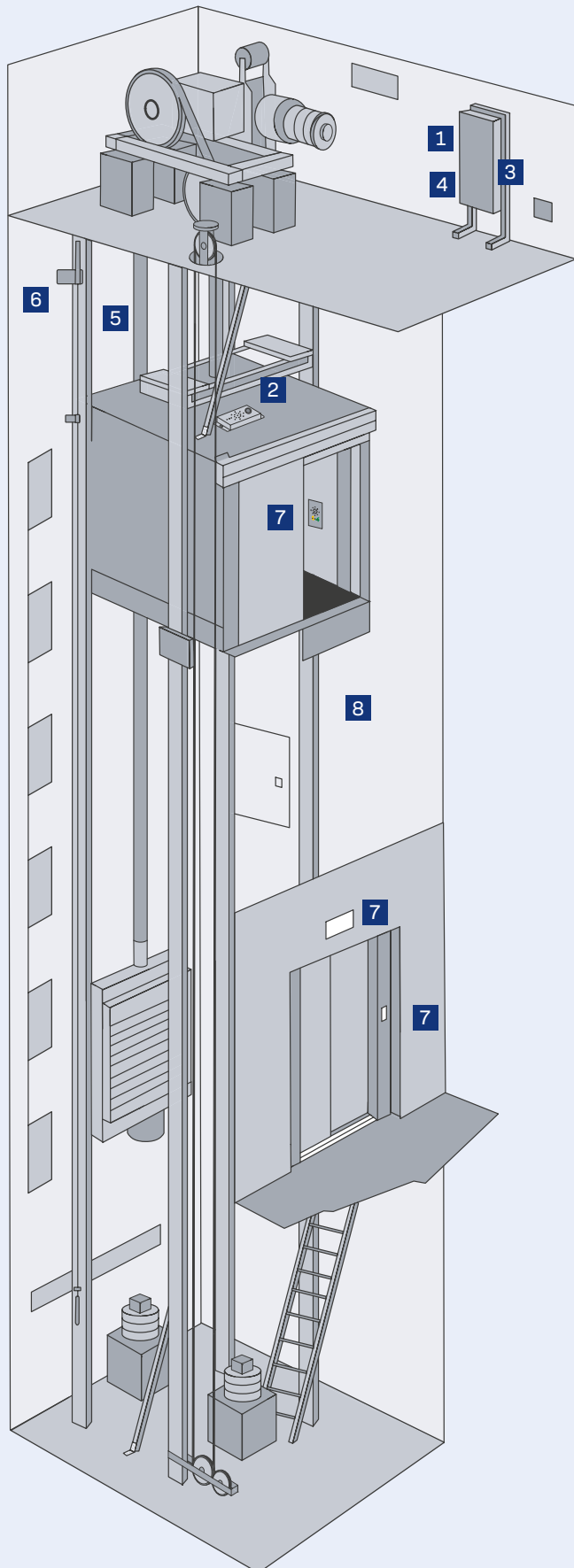
Already familiar with our new online catalogue? You can find the details and data for our products here:

[products.schmersal.com](https://products.schmersal.com)



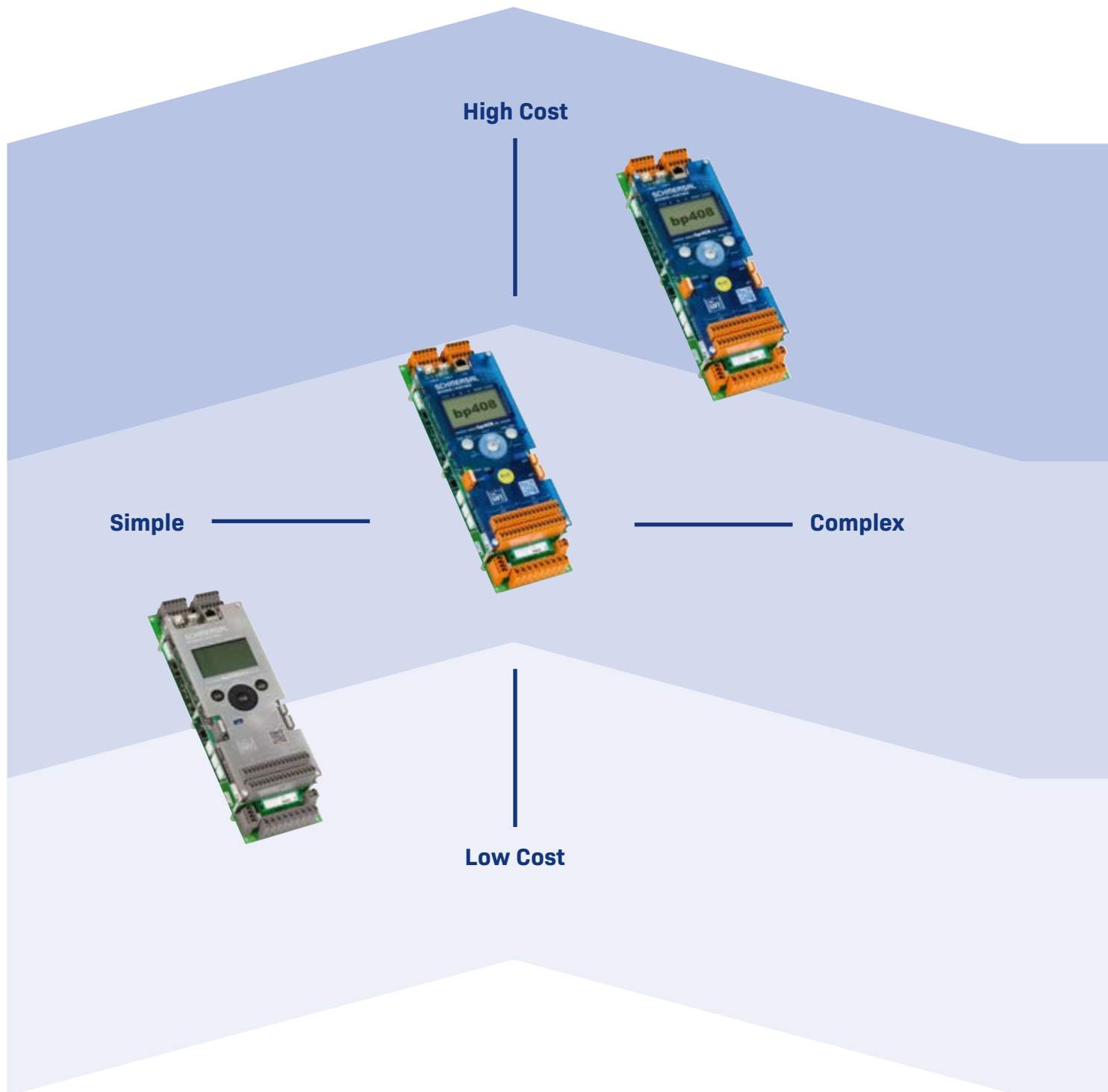


# LIFT CONTROL SYSTEMS



- 1 Lift Control System Components
- 2 Cabin Control Unit
- 3 Power Unit
- 4 Uninterruptible Power Supplies
- 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



#### **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

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	■



■ SMART

**Configurable Standard Mid-Range Lift Control System with bp408**

Traction / Hydraulic
Machine Room
Closed / opened Loop
Speed / Position Modus
EN 81-20/-50
EN 81 1/2
Asynchron / Synchron
Customized
Customized
Included
External (not included in package)
Customized
Automatic, Manual Door and without Car Door
Customized
1 ... 2, Simultaneous, Selective
42 V, 50 V , 60 V, 80 V, 200 V and 207 V
■
Up to 8 with parallel connection or up to 127 floors with CAN2
Up to 8 Lifts

bp408
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
CAN 1 (Cabin/Car) with CANopen Lift (CiA 417)
USB Host
USB
RS-485 (DCP)
Based on bp408
USB

■
■
-
■
-
-
-
-
-
■
-
-
-
-
■

■ ENHANCED

**Individual High-End Lift Control System with bp408 Controller**

Traction / Hydraulic
Customized (Machine Room, MRL)
Closed / Opened Loop
Speed / Position Modus
EN 81-20/-50
EN 81 1/2
Asynchron / Synchron
Customized
Customized
Included
External (not included in package)
Customized
Automatic, Manual Door and without Car Door
Customized
1 ... 3, Simultaneous, Selective, Selective (alternate locked)
Customized
■
Up to 127 floors
Up to 8 Lifts

bp408
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
CAN 1 (Cabin/Car) with CANopen Lift (CiA 417)
USB Host
USB
RS-485 (DCP)
Based on bp408
USB

■
■
■
■
■
■
■
■
■
■
■
■
■
■
■
■

# LIFT CONTROL MODULE

## 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

## INTEGRATED ADVANCED DIAGNOSTICS AND ASSISTANCE FUNCTIONS

```

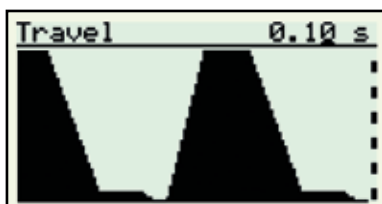
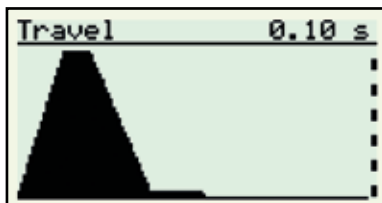
--- 00 † =#05
Service Menu
Diagnostics
Settings
Maintenance
Enter calls
Tripcnt/hours meter
    
```

```

--- 00 † =#05
Diagnostics
Malfunctions
Messages
Storage
Signals
Timer
    
```

```

--- 00 † =#05
Shaft-Signals:
Act. pos. 13000 mm
>↑ ↓ - - - - ↑ ↓ < 5
71-2-3-4-5-6-7-8
0.00
    
```



```

--- 00 † 0=#02
Level-Check:
Act. pos. 5000
At level 5000
Level diff. 0
Speed 0.00
    
```

```

--- 00 † 0=#02
APS1 Info 1:
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

**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.



■ CLK-03A

**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.



■ CLE-01A

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



■ CSI-01C

**CANopen Lift Serial Interface**  
For coupling two CANopen strands.



■ CAP-02A

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



■ CWI-01A

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

## ORDERING DETAILS

Serie	Description	Type designation	Material no.
C10	-	<b>C10-01A</b>	<b>103024112</b>
	with RS485 interface	<b>C10-01B (RS485)</b>	<b>103024113</b>
CLK	-	<b>CLK-03A</b>	<b>103024084</b>
	without socket connector	<b>CLK-03B w/o socket connector</b>	<b>103024085</b>
CLE	-	<b>CLE-01A</b>	<b>103024088</b>
CSI	-	<b>CSI-01C</b>	<b>103024106</b>
	conf. as bridge	<b>CSI-01C with CNF101</b>	<b>103024107</b>
	conf. as UART half-duplex, add. RS485 interface	<b>CSI-01C with CNF102</b>	<b>103024108</b>
	conf. as UART full duplex, add. RS232 interface	<b>CSI-01C with CNF103</b>	<b>103024109</b>
	conf. as LIN bus master, incl. one LIN interface	<b>CSI-01C with CNF104</b>	<b>103024110</b>
	conf. as ACE master, incl. two LIN interface	<b>CSI-01C with CNF105 (2x LIN)</b>	<b>103024111</b>
CAP	1x screw terminal	<b>CAP-02A with clamps</b>	<b>103024186</b>
	2 x IDC multipoint connector	<b>CAP-02B with IDC socket</b>	<b>103024187</b>
CWI	WLAN	<b>CWI-01A /WLAN</b>	<b>103024267</b>
	WLAN in housing	<b>CWI-01G /WLAN in housing</b>	<b>103024269</b>

# 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



# UNINTERRUPTIBLE POWER SUPPLIES UPS

## 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

## ENTRY – SMART – ENHANCED

### 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

Prepared for:  
Ziehl Abegg  
Fuji  
Danfoss

##### SMART

Customized

##### ENHANCED

Customized

## ORDERING DETAILS FREQUENCY INVERTERS ZIEHL ABEGG

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

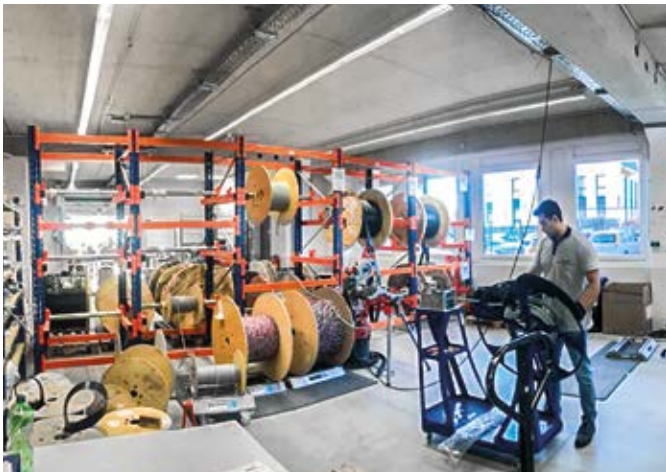
\*) Type of motor, if asynchronous or synchronous motor, to be defined at ordering!

# LIFT SHAFT CABLING AND INSTALLATION OVERVIEW

## 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 and 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



# 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

- Limax02
- Toothed Belt Absolute Encoder (AWG)

#### SMART

- Limax02
- Toothed Belt Absolute Encoder (AWG)

#### ENHANCED

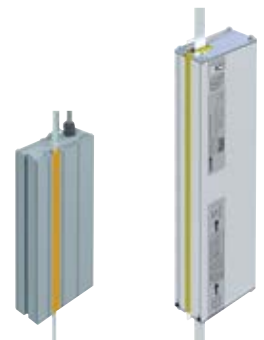
Customized:  
All systems:  
LIMAX02, LIMAX33CP,  
Cedes APS and  
iDiscovery ,  
Ants LES02,  
AWG

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



# ABSOLUTE ENCODER SYSTEM

## ORDERING DETAILS

### 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



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

# ABSOLUTE ENCODER SYSTEM

## ORDERING DETAILS

### LIMAX

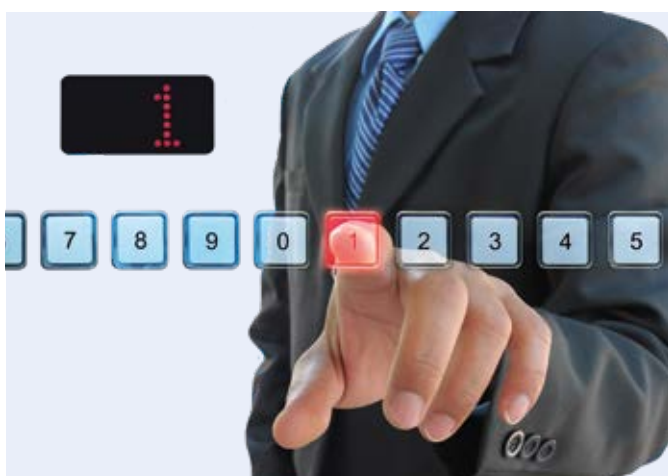
Serie	Description	Type Designation	Material No.
LIMAX	Position measuring for lifting heights up to 260m , Travel speed up to 10m/s , with Transfer module SUB-D9 for AWG (CAN); molded	LIMAX2 D9M-Vergossen	103021754
	Position measuring for lifting heights up to 260m , Travel speed up to 10m/s , with termination 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

# TABLEAUS AND DISPLAYS OVERVIEW

## 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.



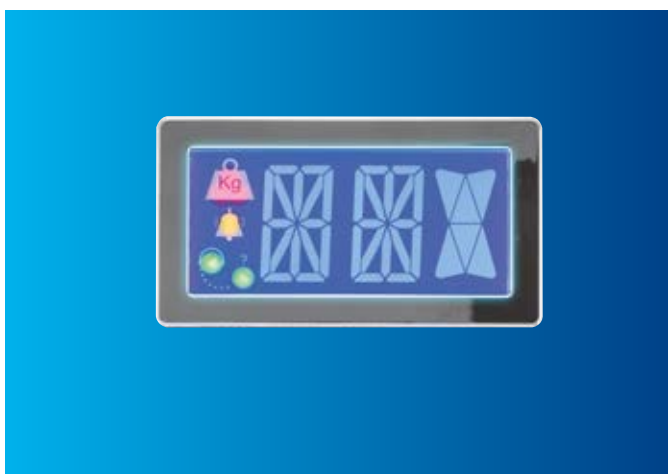
- Standard Button Design
- Touchless Button Design
- CANopen Integrated



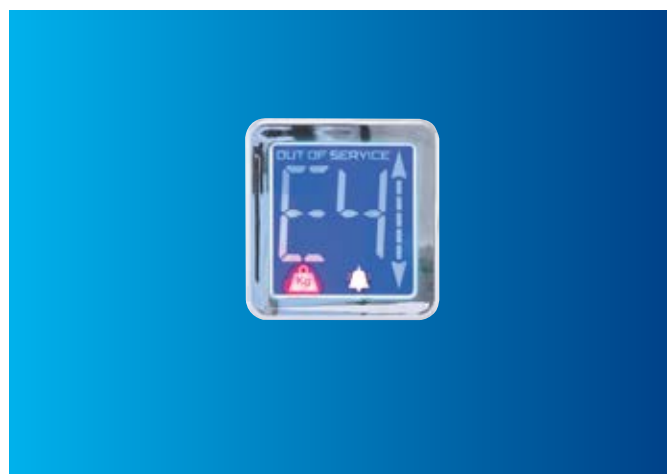
### Hygienic/Pandemic Options:

- Food Tableau
- Call by Mobile Phone

## CAN DISPLAYS



CAN Cabin LCD



CAN Floor LCD

# OTHER SHAFT ACCESSORIES

## OVERVIEW AND ORDERING DETAILS

### 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.



## 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 distributor 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

# SPECIAL APPLICATION

“SIMPLE IS JUST NOT ENOUGH!”







Hospital Lift



Enhanced Solution



Dumbwaiter

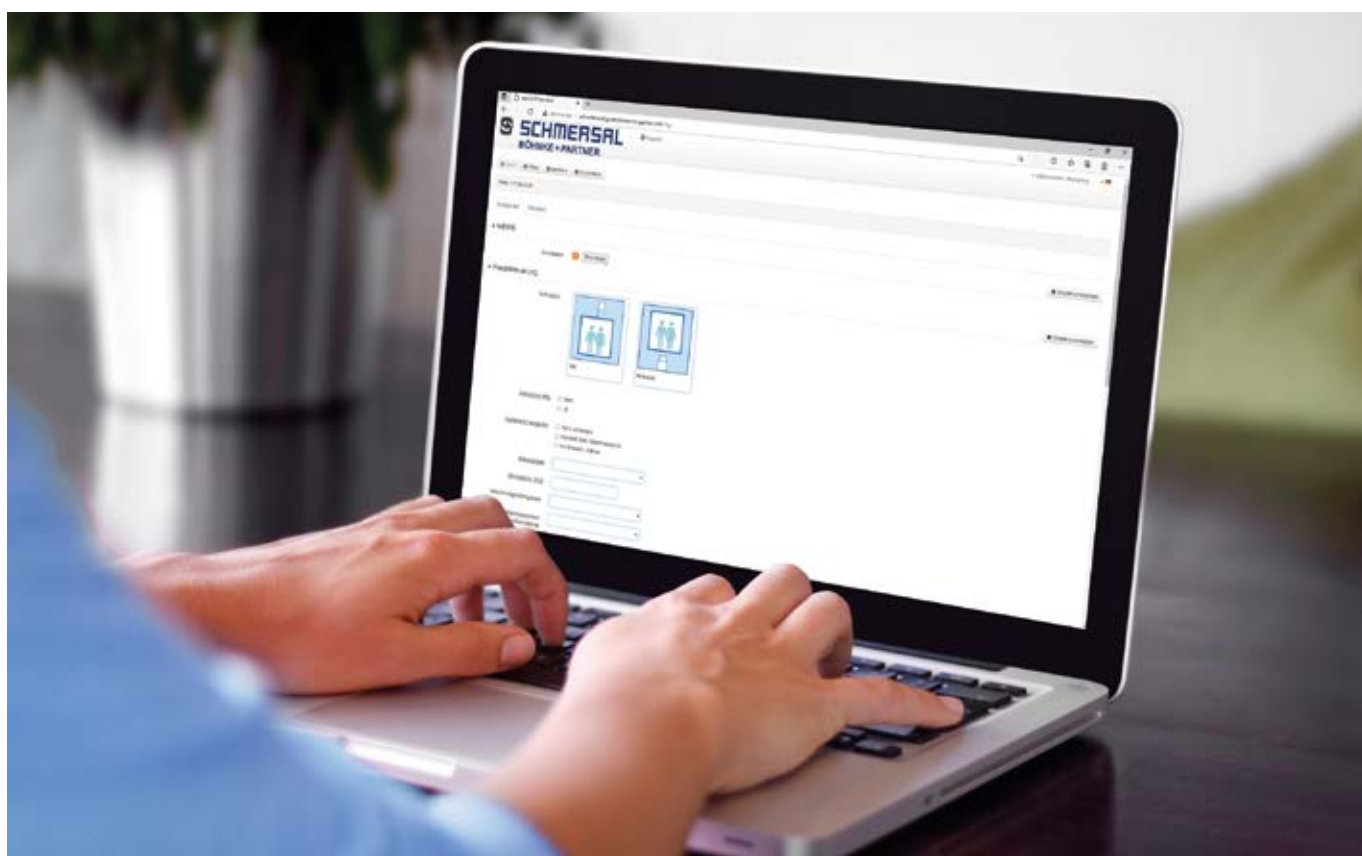


Components for Lift Inside Wind Turbines



Platform Lift

# CONFIGURATION CREATE YOUR LIFT CONTROL SYSTEM.

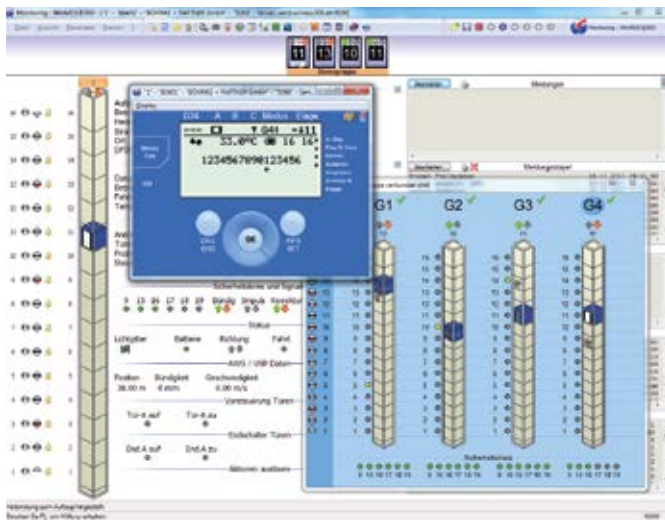


By using our Online configuration tool, you can easily create your lift control system. Step by step the necessary equipment is defined and ready to ask for the offer.

# LIFT MONITORING SYSTEMS

## WinMOS®300

### WinMOS®300

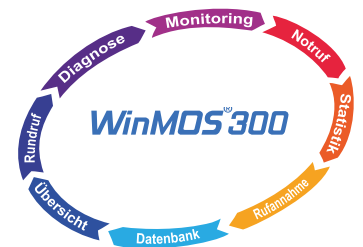


As part of our control concept, all controllers are prepared for remote data transfer with the WinMOS®300 program. For different areas of application, various software modules are available which can be configured and tuned precisely for your application. With WinMOS®300, any number of control systems 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



# LIFT MONITORING SYSTEMS

## Lift2CLOUD®

### 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.



# REPLACE AND UPGRADE SYSTEM THE MODULAR CONVERSION SOLUTION

## 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.

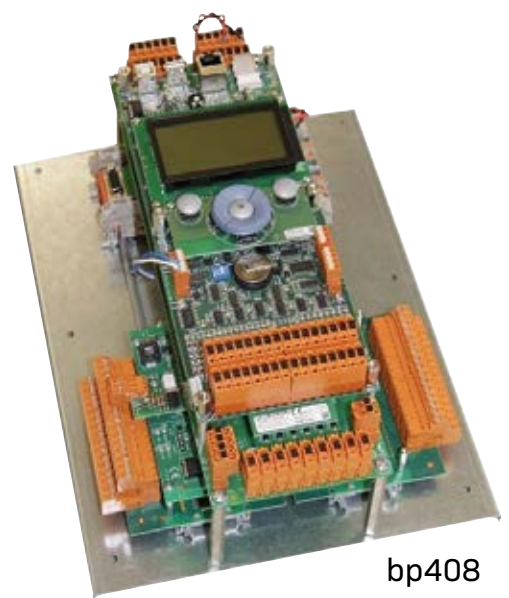
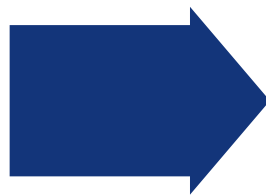
- No Long Downtimes
- Cost-Efficient Conversion Solution
- Modularly Expandable



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



# LIFT COMPONENT

Scan the **QR code** or visit [products.schmersal.com](https://products.schmersal.com) to access the online catalogue and find out more about the numerous lift components.



Find out more:





# GLOBAL LIFT TECHNOLOGY COMPETENCE



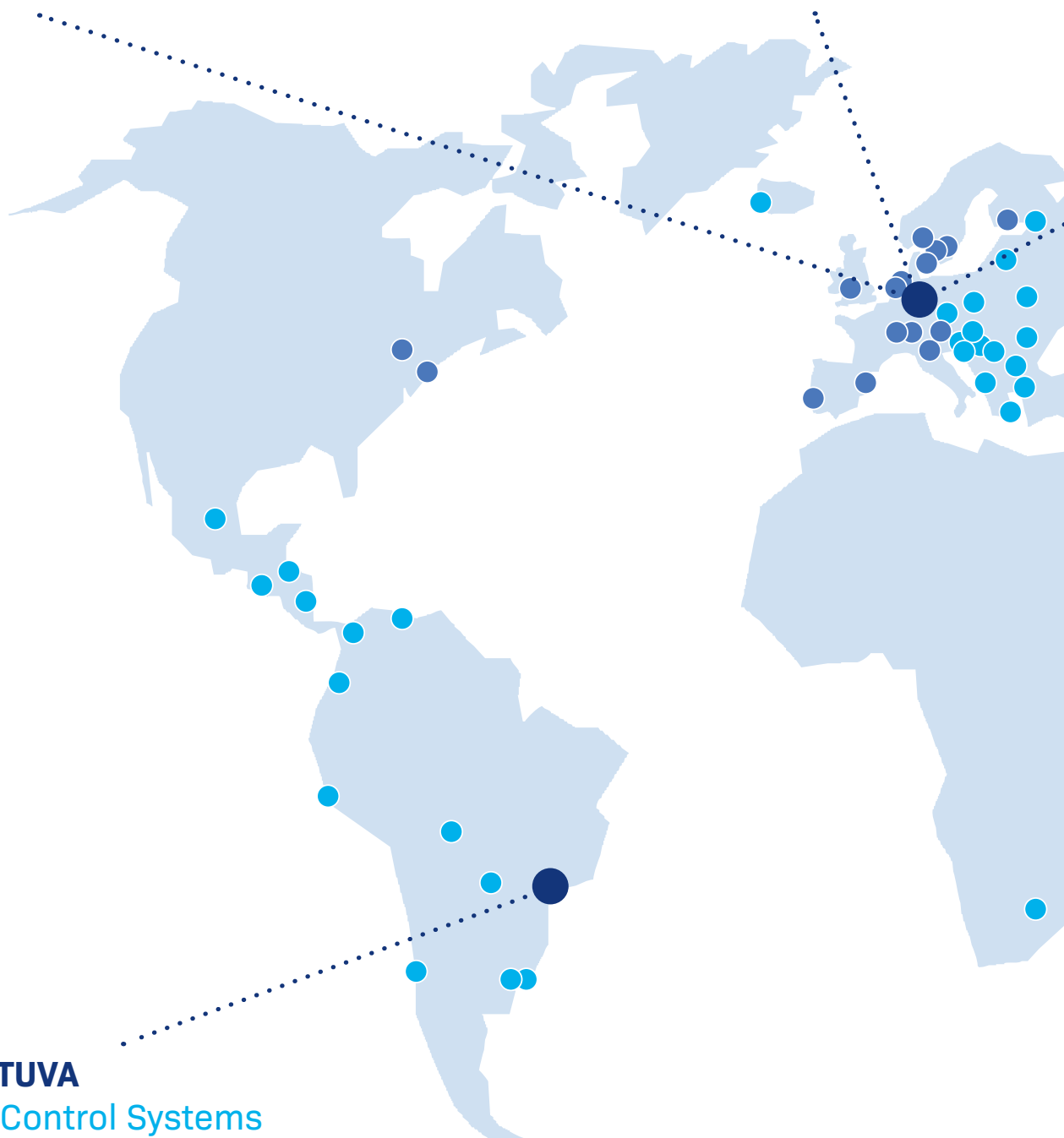
**WUPPERTAL**  
Components



**WETTENBERG**  
Electronics



**BOITUVA**  
Lift Control Systems  
and Components





**BERGISCH GLADBACH**  
Global Competence Centre  
Components



**SHANGHAI**  
Components



**RANJANGAON**  
Components



# SYSTEM 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



x.000 / L+W / 09.2021 / Teile-Nr. 103043659 / EN / Ausgabe 01