

MRL 4

Universal Control System for Machine Room Less Lifts

Kollmorgen Steuerungstechnik GmbH has built various custom MRL control system concepts over the past few years. Building upon this knowledge base, the MRL 4 System was subsequently developed. In close accordance with EN81-1/2 A2, both electro-mechanical and software-based innovations were incorporated into this product. A specially designed operating unit within the control cabinet supports all the necessary functions for passenger release and associated commissioning tests. Software sequences monitor that the limits as defined by the norms are always maintained, and if necessary warning messages are generated.

Furthermore, Kollmorgen has developed a special MPK-based menu for putting the system into operation in accordance with EN 81-1/2 appendix D testing guidelines. The user is led through the individual points of the set-up process and informed about the results of each individual test. Extensive documentation which reflects the particular testing requirements of MRL-based lifts, completes our MRL 4 package. In this way the set-up process of the lift is considerably simplified and accelerated, which in turn has a positive impact on overall costs.



Control technique

- Fieldbus Controller type MPK 400

System consisting of:

- Pre-wired shaft installation
- Plug-in trailing cable
- Shaft light
- COPs

- Produced extensively by Kollmorgen
- Reduced installation times
- Digital shaft encoding with absolute or incremental encoder systems
- Simplified start-up due to an 'automatic learning travel' function (DSK, APS) with digital shaft encoding (EN 81-1/2 6.6.2)
- Operation panel for manually freeing trapped persons
- Automatic speed surveillance (EN 81-1prA2 6.6.2 c)
- Optional emergency power supply
- Remote monitoring with VisualLift
- Automatic self-test mode
- MPK IQ self optimizing control function
- MPK Green energy saving mode

Control cabinet

- Space-saving cabinet (400 mm x 2000 mm x 200 mm)
- Coated steel housing (RAL 7032) in IP54. Other finishes available upon request
- 2 different sockets (100 mm and 200 mm)
- Controller screw-height adjustment for floor unevenness
- Left or right controller door opening
- Fire protection according to DIN 4102 part 2
- Cylinder lock

Drive systems

- Synchronous /Asynchronous Gearless Drives
- Frequency inverter, e. g. Ziehl Abegg ZETADYN, Control Techniques Unidrive SP, Magnetek KM 600 and others
- Hand Terminal LHT-4 allows parameter setting for controller and inverter at the controller cabinet or in the car
- Standard DCP3/DCP4 serial connection

Installation and operation

- High-speed set-up due to detailed documentation and a dedicated MRL set-up mode
- Supported by the controller (according to EN 81-1/2 Supplement D)
- Detailed process for freeing trapped persons