# **RS 200**

Basic control for dock levellers. Control of a swing lip.

The RS 200 basic control for dock levellers is intended exclusively for controlling dock levellers with a swing lip and valve. Although its range of functions is limited, the RS 200 in the standard version features a start interlock, phase failure detection and an interlocking option through an external door or gate control. Two delivery versions are available:

RS 200 L with integrated overload protection RS 200 D with integrated direction checking

#### **Functions**

- · For controlling a dock leveller with swing lip
- · Operation of 1-valve units
- · Overload protection through current monitoring (RS 200 L)
- · Direction checking through voltage monitoring (RS 200 D)
- · Phase failure detection
- · Start-up interlocking after power failure
- · Release / interlocking through door or gate control

#### Operation

- · "Lift" button on the circuit board
- 1 red LED for status messages

#### **Configuration and connections**

- Optionally, version L with overload protection
- · or version D with direction checking
- · Integrated main switch
- Integrated fuses for the hydraulic unit (max 6.3 A)
- $\cdot$  Transformer switchable from 230V / 3~ to 400V / 3~
- · Short-circuit proof control voltage
- · Connection for an external "lift" button
- · Connection for the dock leveller interlock
- · Low housing base
- · Integrated cover hinges
- · Adjustable, pre-assembled wall brackets
- · Cable duct for connection cables



### **RS 200**

Operating voltage	٧	230 / 400 / 3~
Mains frequency	Hz	50 / 60
Control voltage	٧	24
Max. load	kW (A)	2.2 (6.3)
Max. power consumption per valve	mA	600
Protection class		IP 65
Temperature range	°C	-10 / +55
Dimensions, W x H x D (external)	mm	215 x 275 x 190
Unit weight (external)	kg	2,5



# RS 200+

Basic control for dock levellers with integrated door control. Control of a swing lip.

The RS 210 control is a combination of an RS 200 basic control for dock levellers and the CS 310 comfort control for door and gate systems. This combination offers the option of linking and centrally controlling the dock leveller and the door or gate. This allows the complex functions of the CS 310 to be implemented in addition to the straightforward range of functions of the RS 200 for dock levellers. Two delivery versions are available:

RS 200 L + CS 310 RS 200 D + CS 310 with integrated overload protection with integrated direction checking

#### **Functions**

- · For controlling a dock leveller with swing lip
- · Operation of 1-valve units
- · Overload protection through current monitoring (RS 200 L)
- · Direction checking through voltage monitoring (RS 200 D)
- · Phase failure detection
- · Start-up interlocking after power failure
- · Release / interlocking through door or gate control
- 4 programmable relay outputs with 44 functions
- · 2 programmable inputs with 27 functions
- · Direction of rotation change via circuit board button / display
- · Adjustable power limitation for both directions (with AWG only)
- · Rotational direction monitoring and detection (with AWG only)
- · Integrated door operation counter
- Integrated error memory (readout of all error messages including frequency and cycle of last occurrence) (only with LCD monitor)

#### **End position setting**

- $\cdot$  Via mechanical limit switches or absolute encoder
- · Setting via circuit board button or plug-in LCD monitor

## Operation

- 1 direction button / 3-button input unit for door or gate control
- · Plug-in LCD monitor with clear text display
- · 3-button navigation / status and diagnostic messages

#### **Configuration and connections**

- · Integrated main switch
- Integrated fuses for the hydraulic unit (max 6.3 A)
- Transformer switchable from 230V / 3~ to 400V / 3~
- · Short-circuit proof control voltage
- Supply for external devices (24V-DC / 500 mA and 230V-AC / 1A)
- · Illuminated buttons (find in the dark)
- · Connection for elements of the safety circuit
- Connection for safety edge system (opto,  $8.2k\Omega$ , air pressure safety edge or leading photoelectric barrier) in CLOSE direction
- Connection for two photoelectric barriers (2-wire, relay, NPN, PNP) with / without test
- · Connection for two light grid systems with / without test
- Plug-in connection for radio transmission module, 2-channel.
  For wireless signal transmission of closing edge safety device and/or safety circuit

#### **Optional**

- · LCD monitor with clear text display
- · Individual cover membranes



RS 200+

Max. power consumption per valve	V	230 / 400 / 3~
Mains frequency	Hz	50 / 60
Control voltage	٧	24
Max. load RS 200	kW (A)	2.2 (6.3)
CS 310	kW (A)	2.2 (8.0)
Max. power consumption per valve	mA	600
Protection class		IP 65
Temperature range	°C	-10 / +45
Dimensions, W x H x D	mm	245 x 455 x 190
Unit weight	kg	4,3

# RS 300

# Comfort control for dock levellers

The RS 300 comfort control for dock levellers is designed for activating dock levellers with a swing lip or telescopic lip. The range of functions is optimally adjusted to meet the requirements for this application and to offer the user a large number of connection options to solve even complex control tasks easily. Programming is achieved through the proven clear text display, and two delivery versions are available:

**RS 300 K** 

For controlling a dock leveller with a swing lip and 1 or 2 valves.

RS 300 V

For controlling a dock leveller with a telescoping lip and 2 or 3 valves.

#### **Functions**

- RS 300 K: For controlling a dock leveller with swing lip Operation of 1 or 2-valve units
- RS 300 V: For controlling a dock leveller with telescoping lip Operation of 2 or 3-valve units
- · Start-up interlocking after power failure
- · Phase failure detection
- · Direction checking through voltage monitoring
- 1 programmable input with 4 functions
- · Activation of door or gate sealing (shelter function)
- · Release / interlocking through door or gate control
- · Release / interlocking of automatic door or gate system
- · Auto-return function
- · Cycle counter

#### **Operation**

- · 1 direction button (RS 300 K)
- · 3 direction buttons (RS 300 V)
- · Auto-return button
- · Plug-in LCD monitor with clear text display
- · Status and diagnostic messages

### **Configuration and connections**

- Integrated main switch
- · Integrated fuses for the hydraulic unit (max 6.3 A)
- · Short-circuit proof control voltage
- Supply for external devices (24V-DC / 2500 mA)
- · Connection of indoor and outdoor traffic lights
- · Connection of wheel chock and start sensor
- · Connection of dock light or signal horn
- · Connection for emergency stop
- · Connection for the dock leveller interlock
- · Connection to interlock the door or gate system
- All connections are pluggable
- $\boldsymbol{\cdot}$  Low housing base
- · Integrated cover hinges
- · Adjustable, pre-assembled wall brackets
- · Cable duct for connection cables

#### **Optional**

- · Integrated 3x keypad for an external door or gate system
- Button for forced lowering (RS300 V)
- · 4 or 2 direction buttons (RS300 V)



RS 300 K



RS 300 V



#### **RS 300**

Operating voltage	٧	230 / 400 / 3~
Mains frequency	Hz	50 / 60
Control voltage	V	24
Max. load	kW (A)	2.2 (6.3)
Max. power consumption per valve	mA	600
Protection class		IP 65
Temperature range	°C	-10 / +55
Dimensions, W x H x D (external)	mm	215 x 275 x 190
Unit weight (external)	kg	2,5



# RS 300+

# Comfort control for dock levellers with integrated door control

The RS 300+ control is a combination of the RS 300 comfort control for dock levellers and the CS 310 comfort control for door or gate systems. This combination offers the option of linking and centrally controlling the dock leveller and the door or gate. This provides a complex range of functions for the dock leveller and the door or gate that is optimally adjusted to the requirements in these areas of use. Programming is achieved through the proven clear text display, and two delivery versions are available:

RS 300 K + CS 310

For controlling a dock leveller with a swing lip and 1 or 2 valves.

RS 300 V + CS 310

For controlling a dock leveller with a telescoping lip and 2 or 3 valves.

#### **Functions**

- Version K: For controlling a dock leveller with hinged lip Operation of 1 or 2-valve units
- Version V: For controlling a dock leveller with telescoping lip Operation of 2 or 3-valve units
- · Start-up interlocking after power failure
- · Direction checking / phase failure detection
- 1 programmable input with 4 functions (dock)
- · Activation of door or gate sealing (shelter function)
- · Release / interlocking through door or gate control
- · Release / interlocking of automatic door or gate system
- Integrated cycle counter / door operation counter
- · Auto-return function
- 4 programmable relay outputs with 44 functions
- · 2 programmable inputs with 27 functions (door or gate)
- Direction of rotation change via circuit board button / display
- · Adjustable power limitation for both directions (with AWG only)
- · Rotational direction monitoring and detection (with AWG only)
- Integrated error memory (readout of all error messages including frequency and cycle of last occurrence) (only with LCD monitor)

#### **End position setting**

- · Via mechanical limit switches or absolute encoder
- · Setting via circuit board button or plug-in LCD monitor

## Operation

- 1 direction button (version K) / 3 direction buttons (version V)
- · 3-button input unit for door or gate control
- · Auto-return button
- · Plug-in LCD monitor with clear text display
- · 3-button navigation / status and diagnostic messages

#### **Configuration and connections**

- · Integrated main switch
- · Integrated fuses for the hydraulic unit (max 6.3 A)
- Transformer switchable from 230V / 3~ to 400V / 3~
- · Short-circuit proof control voltage
- · Supply for external devices (24V-DC / 3000 mA and 230V-AC / 1A)
- · Connection of indoor and outdoor traffic lights
- · Connection of wheel chock and start sensor
- · Connection of dock light or signal horn
- · Connection for the dock leveller interlock
- · Connection to interlock the door or gate system
- · Connection for elements of the safety circuit
- Connection for safety edge system (opto,  $8.2k\Omega$ , air pressure safety edge or leading photoelectric barrier) in CLOSE direction

#### **Optional**

- · Button for forced lowering
- · 4 or 2 direction buttons (RS 300 V)
- · Control unit in steel cabinet





RS 300+

RS 300 operating voltage	V	400/3~
CS 310	V	230 / 400 / 3~
Mains frequency	Hz	50 / 60
Control voltage	V	24
Max. load RS 300	kW (A)	2.2 (6.3)
CS 310	kW (A)	2.2 (8.0)
Max. power consumption per valve	mA	800
Protection class		IP 65
Temperature range	°C	-10 / +45
Dimensions, W x H x D	mm	260 x 550 x 245
Unit weight	kg	4,3