

# Double-handle controller D85



The double-handle controller D85 is a robust switching device for hoisting applications. The modular design enables the switching device to be used universally. The double-handle controller is resistant to oil, maritime conditions e.g. offshore /vessels, UV radiation typically from the sun.



1

## Technical data

Mechanical life D85	8 million operating cycles
Operation temperature	-40°C til +60°C
Degree of protection	IP54 front

	D85	S5	Q / Q	Example	-	Z	+	R	-	B	-	E...	-	X
<b>Basic unit</b>	D85													
<b>Control-handle extended</b>														
Standard 160mm														
S5 -20mm														
S8 +20mm														
<i>*Only available in combination with handle!</i>														
<b>Grip- control-handle left</b>														
Knob														
M Mechanical zero interlock														
T Dead man														
H Signal button														
D Push button														
Q T-grip														
QD T-grip with push button side														
B10... Palm grip B10... (see page 144)														
<b>Grip- control-handle right</b>														
see grip-control-handle left														
<b>Axis 1: direction 1-2 left</b>														
Z Spring return														
R Friction brake														
<b>Axis 2: direction 3-4 left</b>														
Z Spring return														
R Friction brake														
<b>Cover housing</b>														
B Cover housing														
<b>Interface (description see following pages)</b>														
E1xx Voltage output														
E2xx Current output														
E3xx CAN-interface														
E4xx CANOpen Safety														
E5xx Profibus DP interface														
E6xx Profinet														
E7xx Profinet safe														
<b>Special model</b>														
X Special/ customer-specific														



tel. 94 620 10 36 ffax. 94 620 18 32  
info@kimatic.es · www.kimatic.es

Technical details may vary based on configuration or application! Technical data subject to change without notice!

# Double-handle controller D85

## Digital output

Supply voltage	9-32V DC
Current carrying capacity	Direction signal 150mA Zero position signal 500mA
Mounting depth A	85mm
Wiring	Cable 500mm long with plug connector (male) CPC 17 - 14-pole

2 Direction signals + 1 zero position signal (galvanically isolated) per axis	2 axis	E001 2
---	--------	--------

## Voltage output (not stabilized)

Supply voltage	4,75-5,25V DC
Current carrying capacity	Direction signal 8mA
Mounting depth A	85mm
Wiring	Cable 500mm long with plug connector (male) CPC 17 - 14-pole

Characteristic: = contra rotating, = concurrently rotating

0,5...2,5...4,5V redundant + 2 direction signals per axis	2 axis	E104 2	<input type="checkbox"/>
---	--------	--------	--------------------------

## Voltage output

Supply voltage	9-32V DC (*11,5-32)
Current carrying capacity	Direction signal 150mA Zero position signal 500mA
Mounting depth A	85mm
Wiring	Cable 500mm long with plug connector (male) CDC 17 - 14-pole

Characteristic: = contra rotating, = concurrently rotating

0,5...2,5...4,5V redundant + 2 direction signals + 1 zero position signal (galvanically isolated) per axis	2 axis	E112 2	<input type="checkbox"/>
--	--------	--------	--------------------------

0...5...10V redundant + 2 direction signals + 1 zero position signal (galvanically isolated) per axis, supply voltage 11,5 - 32V DC	2 axis	E132 2	<input type="checkbox"/>
---	--------	--------	--------------------------

10...0...10V + 2 direction signals + 1 zero position signal (galvanically isolated) per axis, supply voltage 11,5 - 32V DC, sensor redundant with error monitoring and error signal	2 axis	E136 2	<input type="checkbox"/>
---	--------	--------	--------------------------

*Voltage output with other value on request!*

## Current output

Supply voltage	9-32V DC
Current carrying capacity	Direction signal 150mA Zero position signal 500mA
Mounting depth A	85mm
Wiring	Cable 500mm long with plug connector (male) CPC 17 - 14-pole

0...10...20mA + 2 direction signals + 1 zero position signal (galvanically isolated) per axis, sensor redundant with error monitoring and error signal	2 axis	E206 2
--	--------	--------

# Double-handle controller D85

20...0...20mA + 2 direction signals + 1 zero position signal (galvanically isolated) per axis, sensor redundant with error monitoring and error signal	2 axis	E208 2
4...12...20mA + 2 direction signals + 1 zero position signal (galvanically isolated) per axis, sensor redundant with error monitoring and error signal	2 axis	E214 2
20...4...20mA + 2 direction signals + 1 zero position signal (galvanically isolated) per axis, sensor redundant with error monitoring and error signal	2 axis	E216 2

*Current output with other value on request!*

CAN		
Supply voltage	9-36V DC	
Idle current consumption	120mA	
Current carrying capacity	Direction signal 250mA Zero position signal 400mA External digital output for LEDs 16mA Digital switching output (potential-free) 100mA	
Mounting depth A	E3091: 85mm E3091X: 105mm E3101X - E3103X: 105mm E3104X - E3105X: 125mm	
Protocol	CANOpen CiA DS 301 or SAE J 1939	
Baud rate	125kBit/s til 1Mbit/s	
Output value	255...0...255	
Wiring	CAN (IN) cable 500mm with plug connector M12 (male) CAN (OUT) cable 500mm with plug connector M12 (female) External in-/outputs cable 500mm with plug connector (female) CPC 23-37 External in-/outputs cable 500mm with plug connector (male) CPC 23-37 (additionally from 32 in-/outputs)	
<b>CAN Expansion stage 1</b>	- 7 analog joystick axis - 16 digital joystick functions - 1 Input for capacitive sensor	E309 1 <input type="checkbox"/>
with additional external in-/outputs	- 8 external LED-outputs (dimmable), 1 switching output (potential-free, 100mA), 8 external digital inputs	2 <input type="checkbox"/>
	- 16 external LED-outputs (dimmable), 1 switching output (potential-free, 100mA), 16* external digital inputs	3 <input type="checkbox"/>
<i>external LED-outputs can be used in the grip for LEDs</i>		
<i>*with the use of capacitive sensor, the external digital inputs reduce by one input!</i>		



tel. 94 620 10 36 fax. 94 620 18 32  
info@kimatic.es · www.kimatic.es

## CAN Expansion stage 2

- 10 analog joystick axis
- 16 digital joystick functions

with additional external in-/outputs

- 8 external LED-outputs (dimnable), 1 switching output (potential-free, 100mA), 8 external digital inputs
- 16 external LED-outputs (dimnable), 1 switching output (potential-free, 100mA), 16\* external digital inputs
- 24 external LED-outputs (dimnable), 1 switching output (potential-free, 100mA), 24 external digital inputs
- 32 external LED-outputs (dimnable), 1 switching output (potential-free, 100mA), 32\* external digital inputs

*external LED-outputs can be used in the grip for LEDs*

E310 1

2

3

4

5

*\*with the use of capacitive sensor, the external digital inputs reduce by one input!*

Main-axis with additional digital-/analog outputs separately wired (not via CAN)

- 2 direction signals + 1 zero position contact (potential-free) per main-axis
- 0,5...2,5...4,5V redundant contra rotating + 2 direction signals + 1 zero position signal (potential-free) per main axis
- 4...12...20mA redundant contra rotating + 2 direction signals + 1 zero position signal (potential-free) per main axis

## CANOpen Safety

Supply voltage	9-36V DC
Idle current consumption	120mA
Current carrying capacity	Direction signal 250mA Zero position signal 400mA External digital output for LEDs 16mA Digital switching output (potential-free) 100mA
Mounting depth A	E4091: 85mm E4091X: 105mm E4101X - E4103X: 105mm E4104X - E4105X: 125mm
Protocol	CAN Safety CIA 304
Baud rate	125kBit/s til 1MBit/s
Output value	255...0...255
Wiring	CAN (IN) cable 500mm with plug connector M12 (male) CAN (OUT) cable 500mm with plug connector M12 (female) External in-/outputs cable 500mm with plug connector (female) CPC 23-37 External in-/outputs cable 500mm with plug connector (male) CPC 23-37, (additionally from 32 in-/outputs)

## CANOpen Safety Expansion stage 1

- 7 analog joystick axis
- 16 digital joystick functions
- 1 Input for capacitive sensor

with additional external in-/outputs

- 8 external LED-outputs (dimnable), 1 switching output (potential-free, 100mA), 8 external digital inputs
- 16 external LED-outputs (dimnable), 1 switching output (potential-free, 100mA), 16\* external digital inputs

*\*with the use of capacitive sensor, the external digital inputs reduce by one input!*

E409 1

2

3

## CANOpen Safety Expansion stage 2

- 10 analog joystick axis
- 16 digital joystick functions

with additional external in-/outputs

- 8 external LED-outputs (dimmable), 1 switching output (potential-free, 100mA), 8 external digital inputs 2
- 16 external LED-outputs (dimmable), 1 switching output (potential-free, 100mA), 16\* external digital inputs 3
- 24 external LED-outputs (dimmable), 1 switching output (potential-free, 100mA), 24 external digital inputs 4
- 32 external LED-outputs (dimmable), 1 switching output (potential-free, 100mA), 32\* external digital inputs 5

external LED-outputs can be used in the grip for LEDs

*\*with the use of capacitive sensor, the external digital inputs reduce by one input!*

Main-axis with additional digital-/analog outputs separately wired (not via CAN)

- 2 direction signals + 1 zero position contact (potential-free) per main-axis 3
- 0,5...2,5...4,5V redundant contra rotating + 2 direction signals + 1 zero position signal (potential-free) per main axis 4
- 4...12...20mA redundant contra rotating + 2 direction signals + 1 zero position signal (potential-free) per main axis 5

## Profibus DP

Supply voltage	18-30V DC
Baudrate	til 12MBit/s
Output value	0...128...255
Mounting depth A	105mm
Wiring	Profibus, cable 100mm with plug D-Sub 9
	Power supply (contact wiring) cable 500mm with plug connector CPC 13-9 (male)
	External in-/outputs, cable 500mm with plug connector CPC 23-37 (female)

## Profibus DP

- 4 analog joystick axis
- 16 digital joystick function
- Input for capacitive sensor

*\*external LED-outputs can be used in the grip for LED`s!*

with additional external in-/outputs

- 8 external LED-output, 8 external digital input 2
- 16 externe LED-output, 16 external digital input 3

With additional contact equipment separately wired (not via profibus)

- 2 direction contacts + 1 zero position contact (not potential-free) per main-axis 1
- 1 zero position contact (potential-free) per main-axis 2



tel. 94 620 10 36 ffax. 94 620 18 32  
info@kimatic.es · www.kimatic.es

# Double-handle controller D85

1

## Profinet

Supply voltage	18-30V DC
Baud rate	til 12MBit/s
Output value	0...512...1023
Mounting depth A	105mm
Wiring	Profinet (1), cable 300mm with M12 plug connector (female) Profinet (2), cable 300mm with M12 plug connector (female) Power supply (contact wiring) cable 500mm with plug connector CPC 17-14 (male) External in-/outputs, cable 500mm with plug connector CPC 23-37 (female)

## Profinet

- 4 analog joystick axis
- 16 digital joystick functions
- Input for capacitive sensor

with with additional external in-/outputs

- 8 external LED-outputs, 8 external digital inputs
- 16 external LED-outputs, 16 external digital inputs

*\*external LED-outputs can be used in the grip for LEDs*

E601 1

2

3

Main-axis with additional signals separately wired (not via profinet)

- 2 direction signals + zero position signal (potential-free) per main-axis

## Profinet Safe

Supply voltage	18-30V DC
Baud rate	til 12MBit/s
Output value	0...512...1023
Mounting depth A	105mm
Wiring	Profinet (IN), cable 300mm with M12 plug connector (female) Profinet (OUT), cable 300mm with M12 plug connector (female) Power supply (contact wiring) cable 500mm with plug connector CPC 17-14 (male) External in-/outputs, cable 500mm with plug connector CPC 23-37 (female)

- 4 analog joystick axis
- 16 digital joystick functions
- Input for capacitive sensor

*external LED-outputs can be used in the grip for LEDs*

with with additional external in-/outputs

- 8 external LED-outputs, 8 external digital inputs
- 16 external LED-outputs, 16 external digital inputs

E701 1

2

3

Main-axis with additional signals separately wired (not via profinet safe)

- 2 direction signals + zero position signal (potential-free) per main-axis



tel. 94 620 10 36 fax. 94 620 18 32  
info@kimatic.es · www.kimatic.es

## Other outputs

Voltage output für PVG32 0,25...0,5...0,75Us, power supply 12V DC			
Wiring Cable 500mm long with plug CPC 17-14 (male)			
	1 axis	E902 1	<input type="checkbox"/>
	2 axis	2	<input type="checkbox"/>
With additional direction contacts per main-axis			<input checked="" type="checkbox"/>
Voltage output für PVG32 0,25...0,5...0,75Us, supply voltage 12V DC			
Wiring Cable 500mm long with plug CPC 17-14 (male)			
	1 axis	E906 1	<input type="checkbox"/>
	2 axis	2	<input type="checkbox"/>
With additional direction contacts per main-axis			<input checked="" type="checkbox"/>
8 Bit Gray-Code with direction signals per main-axis, supply voltage 9-36V DC			
Wiring 1 cable 500mm with plug CPC 23-37 (female) axis 1-2			
1 cable 500mm with plug CPC 23-37 (male) axis 3-4			
	1 axis	E903 1	<input type="checkbox"/>
	2 axis	2	<input type="checkbox"/>
8 Bit Binär-Code with direction signals per main-axis, supply voltage 9-36V DC			
Wiring 1 cable 500mm with plug CPC 23-37 (female) axis 1-2			
	1 axis	E904 1	<input type="checkbox"/>
	2 axis	2	<input type="checkbox"/>

## Attachments

Mating connector AMP CPC 17 14-pole (male insert)	5300000209
Mating connector AMP CPC 17 14-pole (male insert) with 2m cable	5300000210
Mating connector AMP CPC 17 14-pole (female contact)	5300000211
Mating connector AMP CPC 17 14-pole (female contact) with 2m cable	5300000213
Mating connector AMP CPC 23 37-pole (male insert)	5300000214
Mating connector AMP CPC 23 37-pole (male insert) with 2m cable	5300000215
Mating connector AMP CPC 23 37-pole (female contact)	5300000216
Mating connector AMP CPC 23 37-pole (female contact) with 2m cable	5300000217
Mating connector (CAN) M12 (male insert) with 2m cable	20201140
Mating connector (CAN) M12 (female contact) with 2m cable	20202298
Mating connector (Profibus) straight	22201440
Mating connector (Profibus) 90° angled	22201741
Mating connector (Profinet) M12 (male contact) with 2m cable	5300000222



tel. 94 620 10 36 fâx. 94 620 18 32  
info@kimatic.es · www.kimatic.es

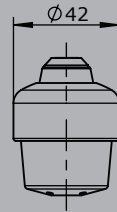
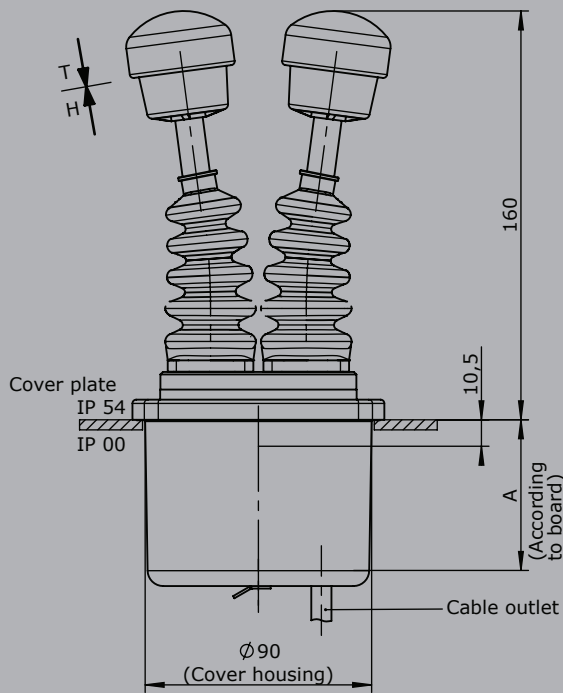
# Double-handle controller D85

1

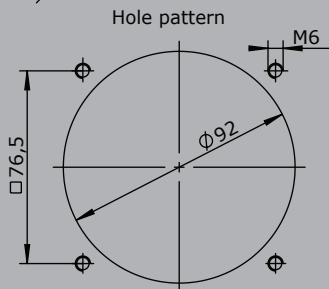
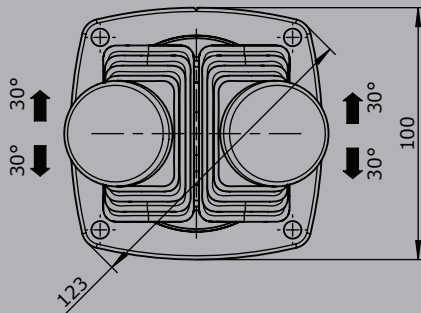
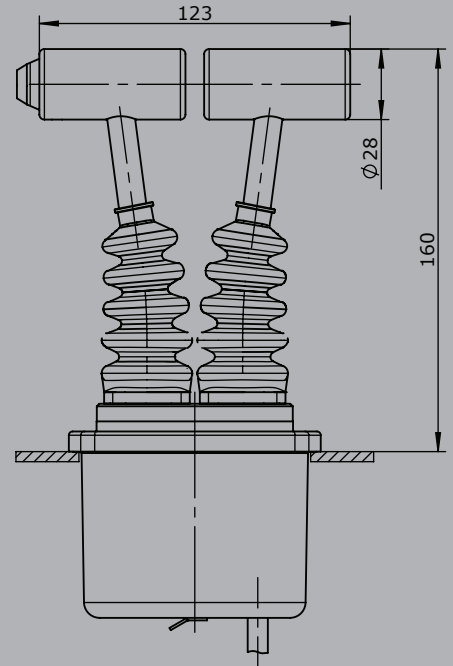
T = Dead man's button  
H = Signal button

Knob solid  
D = Push button

T - grip  
D = Push button



To build in:  
Direction 1-2  
Direction 3-4



tel. 94 620 10 36 fax. 94 620 18 32  
info@kimatic.es · www.kimatic.es