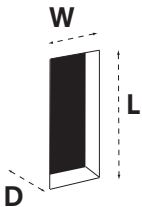
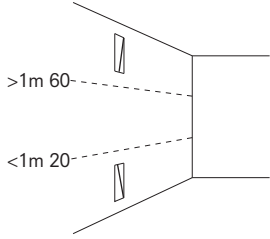

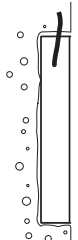
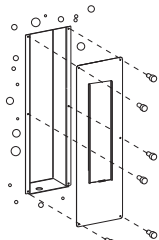
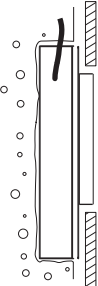
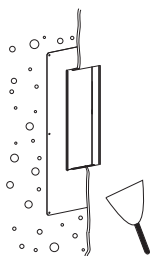
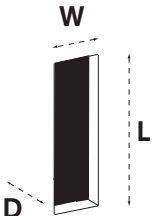
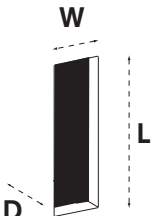
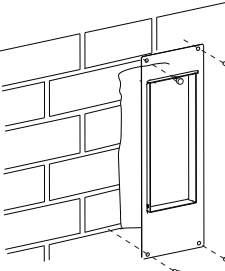
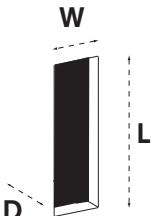
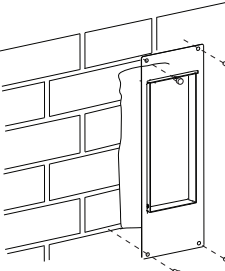
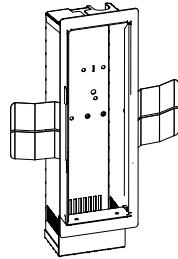
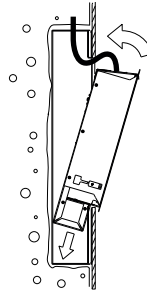


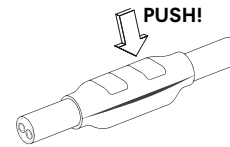
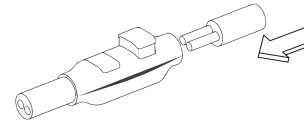
technics	Mini Side / Mini Side LED / Mini Side LED outdoor		Name	Reference	L x W x D (*) with installation box
1 cut out concrete wall		 <p>mini side LED outdoor = only floorwasher!</p>	Mini Side	kr99265x / kr97265x	420 x 135 x 75
			Mini Side LED	kr99285x /kr97285x	420 x 135 x 75
			Mini Side LED outdoor	kr97205x	420 x 135 x 75
			<div style="border: 1px solid black; padding: 5px;"> Please make sure that mains voltage is disconnected before proceeding! ⚡ (*) installation box required! </div>		
2 installation concretebox	 <p>fold the installation box</p>	 <p>place the installation box in the cut-out</p>	 <p>mount plaster kit on concrete box</p>	 <p>install with upright border to the front</p>	 <p>plaster and paint the wall</p>
			Name	Reference	L x W x D
Mini Side	kr99265x / kr97265x		215 x 70 x 80		
Mini Side LED	kr99285x /kr97285x		215 x 70 x 80		
Mini Side LED outdoor	kr97205x	215 x 70 x 80			
3 cut out plasterboard wall			Name	Reference	L x W x D with plasterkit
			Mini Side	kr99265x / kr97265x	390 x 120 x 75
Mini Side LED	kr99285x /kr97285x	390 x 120 x 75			
Mini Side LED outdoor	kr97205x	390 x 120 x 75			
4 cut out + installation brick wall			Name	Reference	L x W x D with plasterkit
Mini Side	kr99265x / kr97265x	390 x 120 x 75			
Mini Side LED	kr99285x /kr97285x	390 x 120 x 75			
Mini Side LED outdoor	kr97205x	390 x 120 x 75			
			plaster and paint the wall		



connect appliance to correct voltage



- Mini side LED outdoor wiring instructions
connect brown wire of driver to V+ of supply voltage, connect blue wire of driver to V- of supply voltage using the attached IP67 connector. Pay attention to polarity!



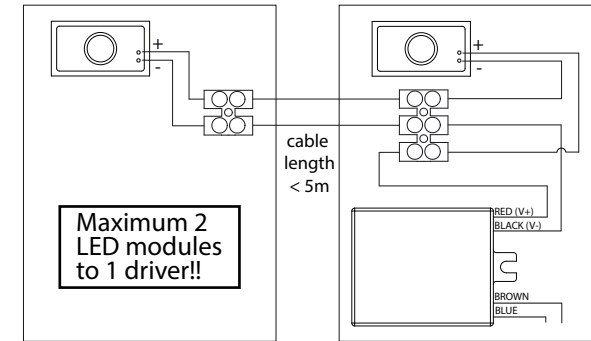
If present, strip the outer jacket over the appropriate length. Push the wire into the IP67 connector exactly half way. Push down the button. Visually check the termination

Name	Reference	Voltage
Mini Side	kr99265x / kr97265x	12V /230V
Mini Side LED	kr99285x / kr97285x	700mA/230V
Mini Side LED outdoor	kr97205x	230V

- Mini side LED (gear exclusive) wiring instructions

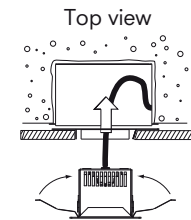
Mini side LED (gear exclusive)

Mini side LED (gear inclusive)

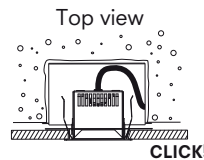


Connect the mini side LED (gear exclusive) to the mini side LED (gear inclusive) following the above scheme. Pay attention to polarity!

5 connection

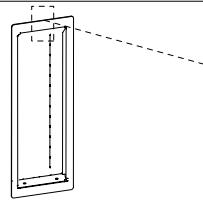


fold the springs inward

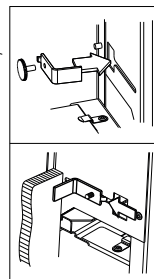


insert the appliance

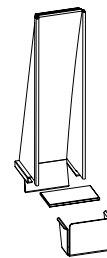
6 installation



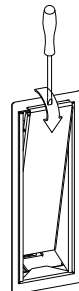
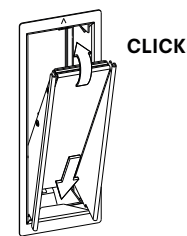
insert bracket from the inside. slide the bracket to the wall and fix with the screw.



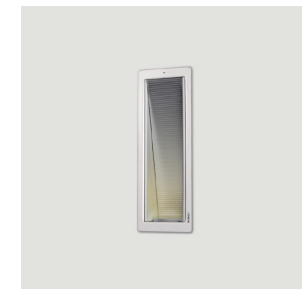
insert the glass and lampholder bracket into slit



insert the reflector, underside first. use plastic gloves



different reflectors are possible. to remove the reflector use a screwdriver



picture

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Sheet 2/2

electrical connection of current driven LEDs

calculating total power of LED-driver system

ALWAYS CHECK PRODUCT MANUAL!!

$$P_{tot} = n \times P_{led}$$

$$P_{driver} \geq P_{tot}$$

$$I_{led} = I_{driver}$$

n = number of LEDs
 P_{driver} = power of driver (Watt)
 P_{led} = power of LED (Watt)
 P_{total} = total power of all LEDs (Watt)

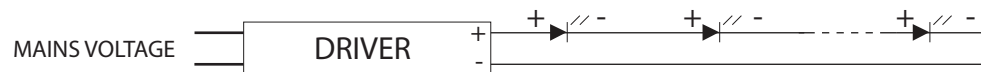
I_{led} = LED current (mA)
 I_{driver} = Driver current (mA)

1 theory

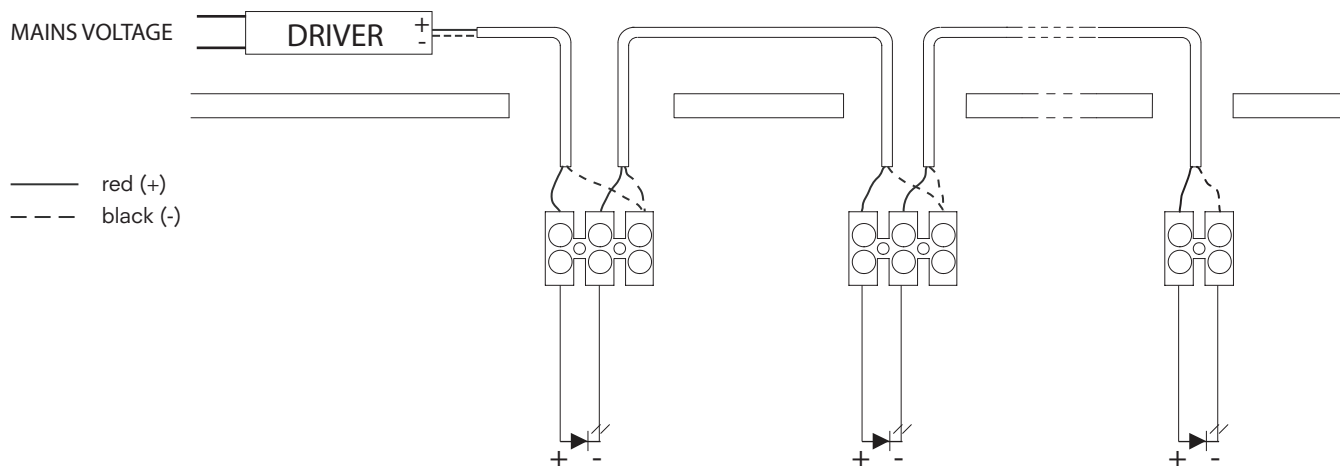
in case of connecting 1 LED



in case of connecting multiple LEDs



example of connecting multiple LEDs

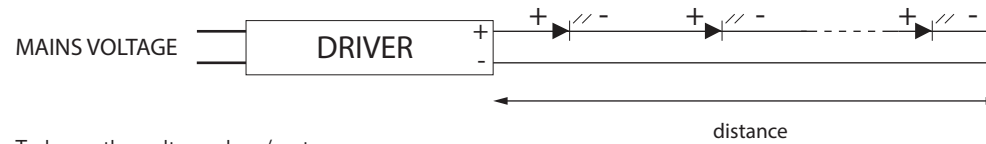


IMPORTANT NOTE (in both cases)

- mind the polarity of the LED! (*)
 + = red
 - = black
- make sure the driver hasn't been powered for at least 1min. prior to connecting the LED string
- check your driver: if the driver is switchable, make sure you set the right current (same current as LED).
 the use of a too high current will damage the LEDs

(*) in case the wires of LED are not red and black, check the product manual for more information!

2 connection



To know the voltage drop/meter:

- determine led current, wire thickness and length of wiring
- length of wiring is the total length of all the wires going from/to the driver
- note: recommended distance (according to most suppliers) from driver to last LED is 5m lengths above 5m may induce RFI

		Ledcurrent		
		350mA	500mA	700mA
Wire thickness	0,5mm ²	0,012V	0,0175V	0,025V
	0,75mm ²	0,0081V	0,012V	0,016V
	1mm ²	0,0061V	0,0088V	0,012V
	1,5mm ²	0,004V	0,0058V	0,0081V
	2,5mm ²	0,0025V	0,0035V	0,005V

(*) length of wire = distance x2