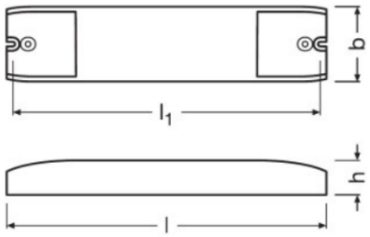
Light is OSRAM

OTi DALI DIM 1-4CH D

Constant Voltage LED dimmer

Housing material: plastic, white

* image for information purpose only



L	181 mm	Total length
L2	175.5 mm	Holes interaxis
B	42 mm	Width
H	20 mm	Height

Benefits

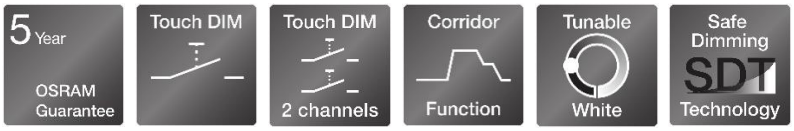
Specifically designed flex LED tapes and signage modules
Class II design for a wide range of application
High power handling on 4 channels
1 to 4 channel output with DALI-2 certification
DT6 and DT8 operations through DIP switch selection

Applications

Hospitality – decorative lighting, night light, dynamic lighting
Restaurants – decorative lighting
Shops – decorative lighting, shelf lighting
Residential – cove lighting, cabinet lighting

Approvals

Valid only if printed on product.
When not printed on product label, they are under evaluation.



Product Features

- 12-48 V SELV output constant voltage range
- Output power up to 240 W
- Total power handling allowed on CH1
- Overload/Over temperature/Short circuit protection, automatic, reversible
- 50.000h at t_c max = 60°C

*10% cumulated failure

- Screw terminals and integrated cable clamps
- Suitable for Class I & II luminaires (EMI immunity for class I).
- Wide t_a range -25 … +50°C
- DT6 or DT8 selection through DIP switch
- Touch DIM compatibility
- 5 years guarantee*

Electrical specification

	Item	Value	Unit	Remarks
INPUT	Nominal supply voltage	12 – 48	V_{DC}	
	Supply voltage range	11 – 50	V_{DC}	
	Supply input current	11	A	12 – 24 V, max
		6	A	48 V, max
	Power loss in no-load condition	≤0.5	W	Secondary switching is not allowed
	Standby power	≤0.5	W	
	Protection class	II		
	Suitable for fixtures with prot. Class	I & II		EMI immunity for class I.

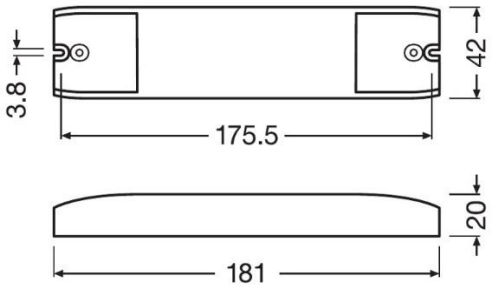
OUTPUT								
	Output load range (per channel)	Channel	DT6 (max)			DT8 (max)		
			12 V	24 V	48 V	12 V	24 V	48 V
		CH1	120 W	240 W	240 W	60 W	120 W	120 W
		CH2	60 W	120 W	120 W	60 W	120 W	120 W
		CH3	60 W	120 W	120 W	60 W	120 W	120 W
		CH4	60 W	120 W	120 W	60 W	120 W	120 W
		All	120 W	240 W	240 W	120 W	240 W	240 W
	Output current (per channel)	Channel	Current (max)					
			DT6			DT8		
		CH1	10 A			5 A		
		CH2	5 A			5 A		
		CH3	5 A			5 A		
		CH4	5 A			5 A		
		All	10 A			10 A		
	DT6 / DT8 options	Type	DT6			DT8		
		DIP1	ON	DT6 function		OFF	DT8 function	
		DIP2 / DIP3	ON / ON	CH1		N.A.	CH1 = CH3 = WW, CH2 = CH4 = CW	
			OFF / ON	CH1, CH2				
			ON / OFF	CH1, CH2, CH3				
			OFF / OFF	CH1, CH2, CH3, CH4				
		DIP4	ON	Touch DIM		ON	Touch DIM	
			OFF	Corridor		OFF	Corridor	
	Min load per channel	20	W	Min load that doesn't trigger open circuit detection				
	Capacitive load	1	µF/A					

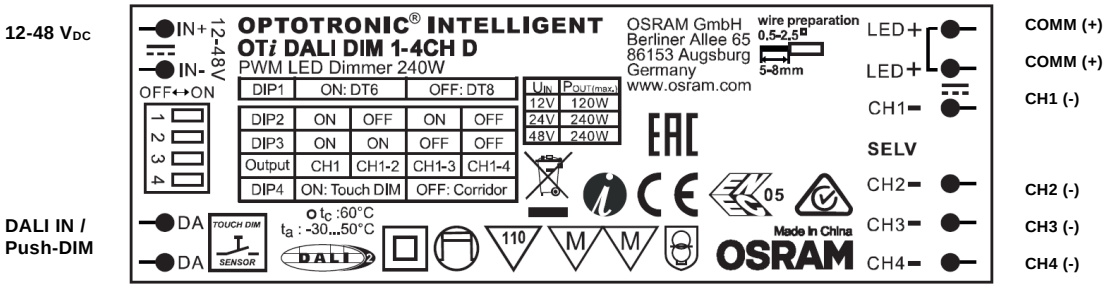
DIMMING					
	Dimming interface	DALI-2			
	Dimming range	1 … 100	%	DALI dimming steps (0 … 254), logarithmic curve	
	Dimming method	PWM			
	PWM frequency	3	kHz		
	Fade time / Fade rate			Fade Time	Fade rate
		DALI default		0.2 s	44.7 steps/s
		Touch Dim		Fade on: 0.5 s / Fade off: 0.5 s	N.A.
		Corridor		Fade on: 0.5 s / Fade off: 0.5 s	N.A.
	Power on behaviour in Touch DIM mode	Last level		Default mode	
	Sensor function	Yes, in combination with OSRAM Touch DIM sensor and normal PIR corridor sensors; sensor should be powered by other mains			
	TW control with push buttons	Allowed, refer to below connection diagram and user instructions			
	Interface overvoltage	Rated voltage: 220-240 V_{ac}, 50/60 Hz DALI interface is protected: 198-264 Vac, surge ≤ 1000 V			
	Galvanic insulation	DA/Input, DA/Output: reinforced insulation			

ENVIRONMENTAL	Ambient temperature range	-25…+50	°C	
	Max. temperature at t_c test point	60	°C	At t_c point of the product label, t_a not exceeded
	Mac case temperature in fault condition	110	°C	
	Storage temperature range	-40…+85	°C	
	Permitted rel. humidity during operation	5 – 85	%	Not condensing
	Surge capability (DA/DA)	1	kV	acc to. EN 61547
	Environmental rating	Indoor		
	IP protection class	IP 20		
	Mains switching cycles	> 100000	cycles	@ t_a = 25°C
	Expected ECG lifetime	50000	h	t_c = 60°C and 10% failure rate,
	Overheating protection	Yes		Auto reversible
	Overload protection	Yes		Auto reversible
	Short-circuit protection	Yes		Auto reversible
	No load proof	Yes		Secondary switching is not allowed
	DALI interface polarity	No	DALI cables can be connected without observing polarity	
	Type of connection	screw terminals		
	Dimensions	181x42x20	mm	L x W x H
	Holes interaxis	175.5	mm	
	Weight	100	g	
	Casing material	Plastic		White RAL9010

Note: All parameters are measured at 12-48V input, full load and 25°C of ambient temperature.

Product drawing





INPUT	Terminals	Screw terminals		
	Wire peeling length	5 - 8	mm	
	Cable cross section	0.5 - 2.5	mm²	Recommended cables for DC input:H05RN-F/2x1.0 mm² H07RN-F/2x1.5 mm² H03VV-F2x0,75 mm² NYM 3x1,5 mm² Recommended cables for DALI: NYM 3x1,5 mm² H03VV-F2x0,75 mm²
OUTPUT	Terminals	Screw terminals		1 LED+ / 1 LED-
	Wire peeling length	5 - 8	mm	
	Cable cross section	0.5 - 2.5	mm²	2 poles for V (+), 4 poles for V (-) Recommended cables: NYM 3x1,5 mm² H03VV-F2x0,75 mm²

Led wire length

EMI pass verified with wire length below 3.0 m without consideration of ECG as system, only verified dimmer together with LED module, from the dimmer to the LED module at full load.
Wiring longer than 3.0 m from ECG to LED module is possible, but site installation conditions may interfere with EMI with these longer cables. EMI is therefore not verified in this condition based on matching constant voltage driver.
For longer lengths than 3.0 m, appropriate cable cross section must be carefully selected to reduce voltage drop. The cables must be dimensioned correctly, and they should be isolated from every wiring or parts at voltage not SELV. It is suggested to use double insulated shielded and twisted cables.

Specifically, for 24 V applications, table below suggests the proper wire section for each cable length to ensure that the LED module input voltage is at least 23 V.

Vout 24V			Cable length [m]					
	AWG	mm2	5	10	20	30	40	50
Cable section	20	0.5	133	67	33	22	17	13
	18	0.75	196	98	49	33	24	20
	17	1	240	133	66	44	33	27
	16	1.5	240	198	99	66	50	40
	14	2.5	240	240	162	108	81	65
	12	4	240	240	240	174	130	104
	10	6	240	240	240	240	195	156
	8	10	240	240	240	240	240	240

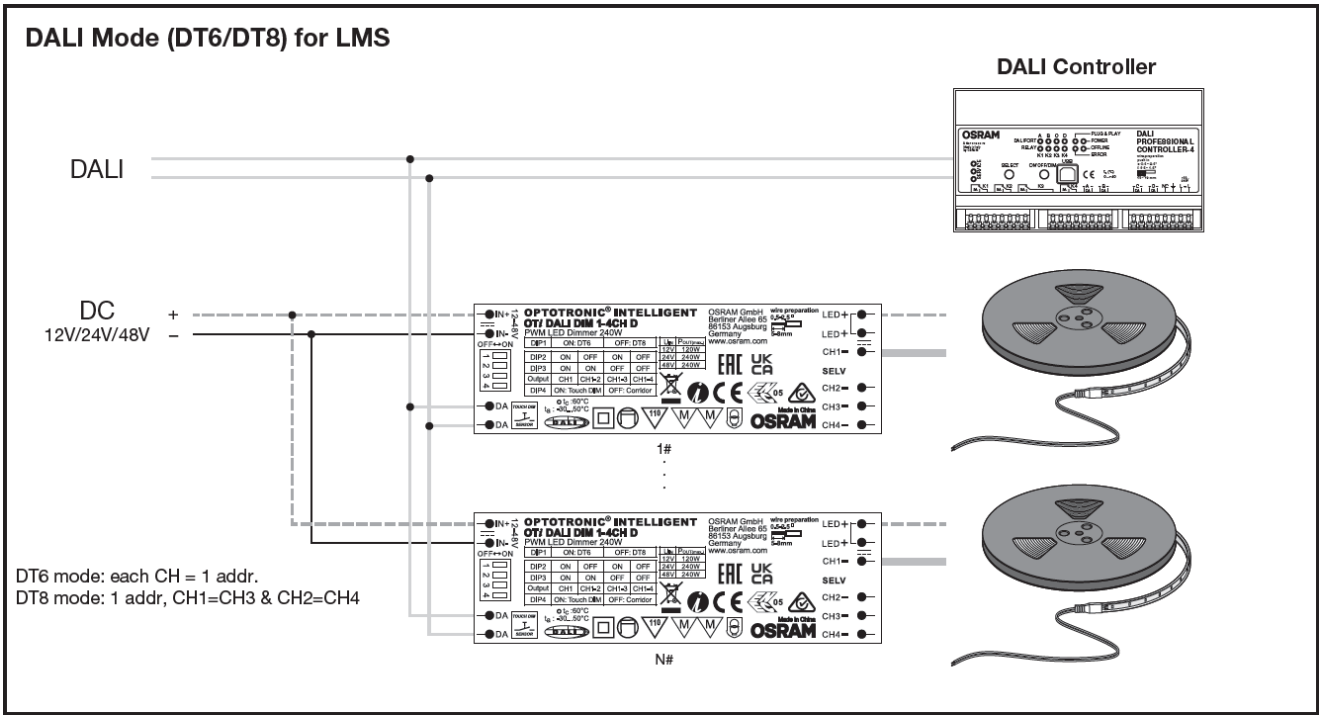
Values are indicative at ta 25°C. Each connection may increase total voltage drop.

Protection

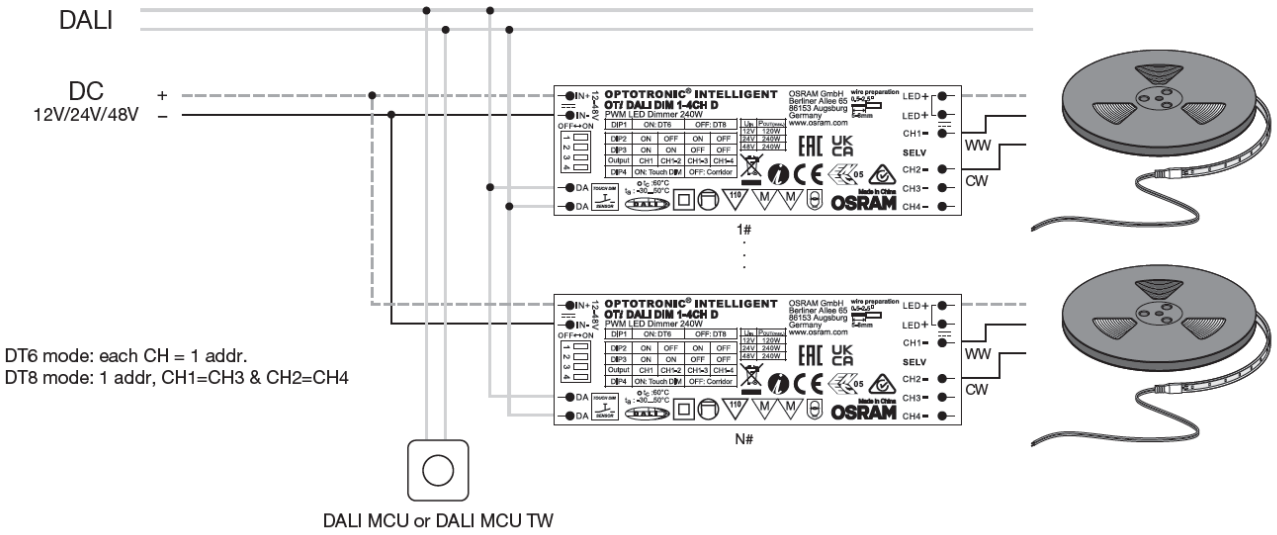
Over temperature, Overload, Short-circuit. Auto reversible.

Installation and connection diagrams

It is recommended to use only ON/OFF type constant voltage LED power supplies as input source.

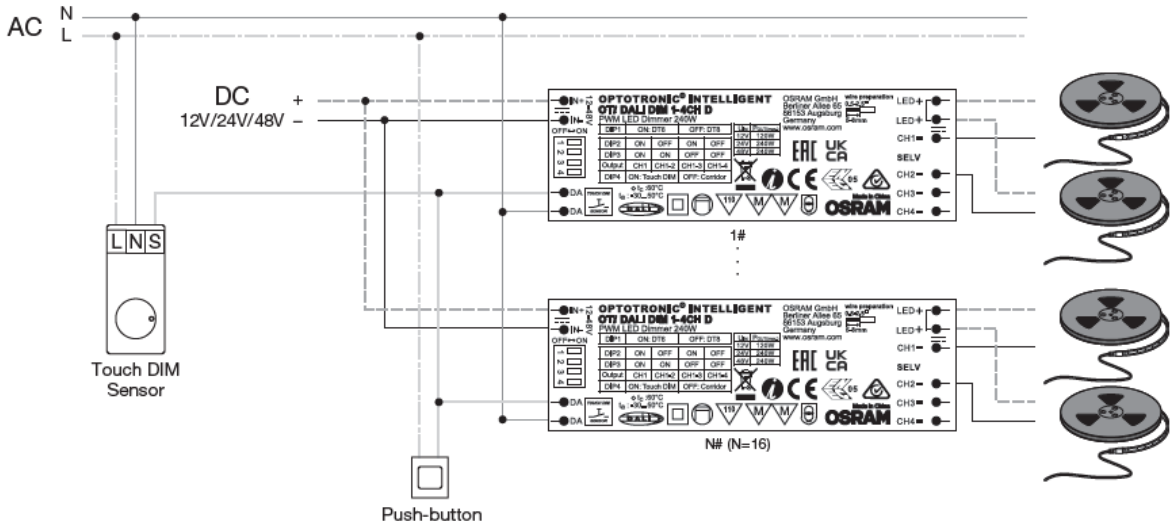


DALI Mode (DT6 for DALI MCU, DT8 for DALI MCU TW)



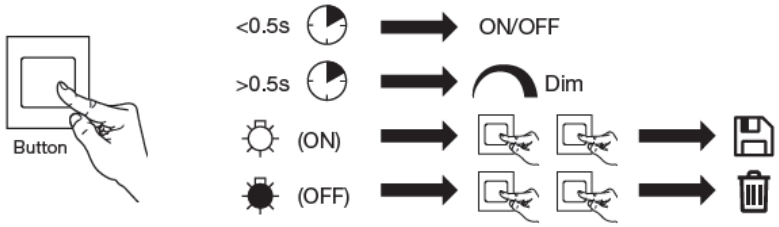
Touch DIM Mode

In addition to operation on DALI control units, OTI DALI DIM 1-4CH D offers the possibility of Touch DIM operation.

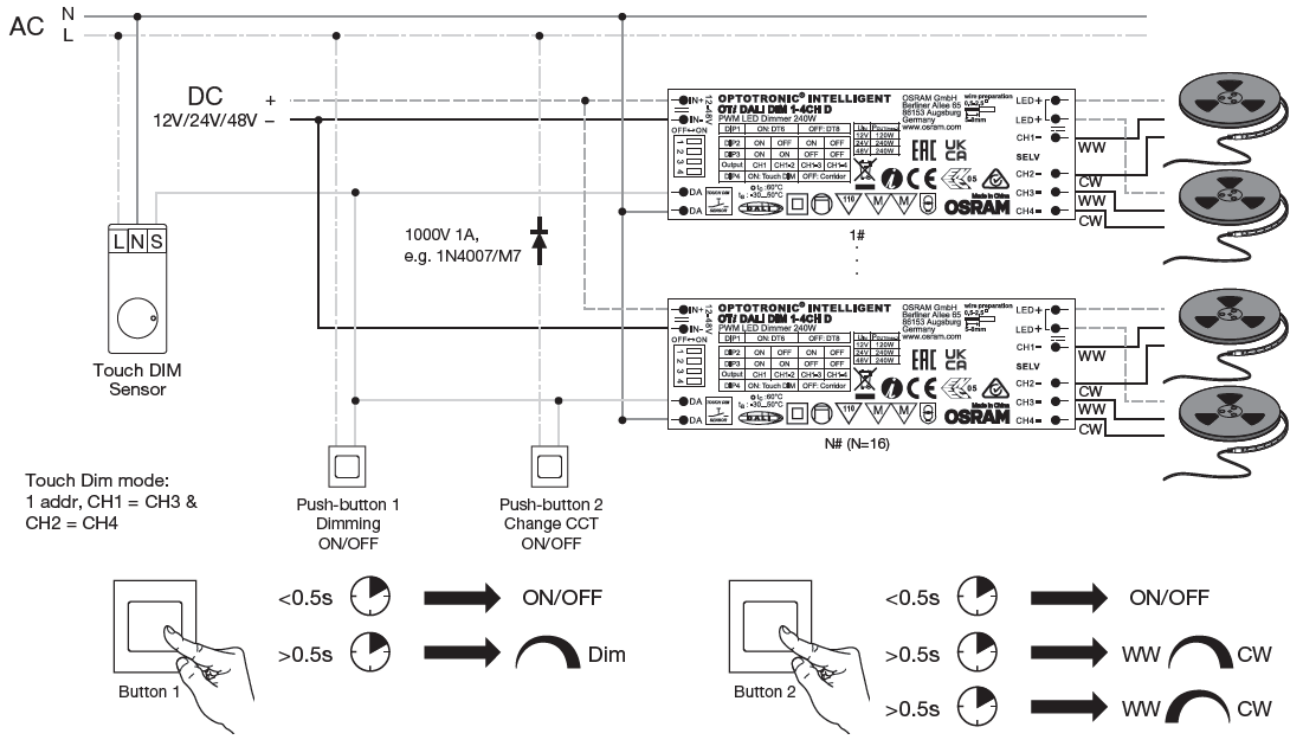


- Touch DIM mode 1* (default mode):
  The switch-on value is always the last dimming level before the light was switched off. After a mains voltage interruption, you get the same light level before the interruption happened.

- Touch DIM mode 2:
  The switch-on value is stored by double-clicking.
  After a mains voltage interruption as well, the dimmer turns on at the stored light value.
  This means, after a short press of the push-button, the dimmer dims to this stored light value.

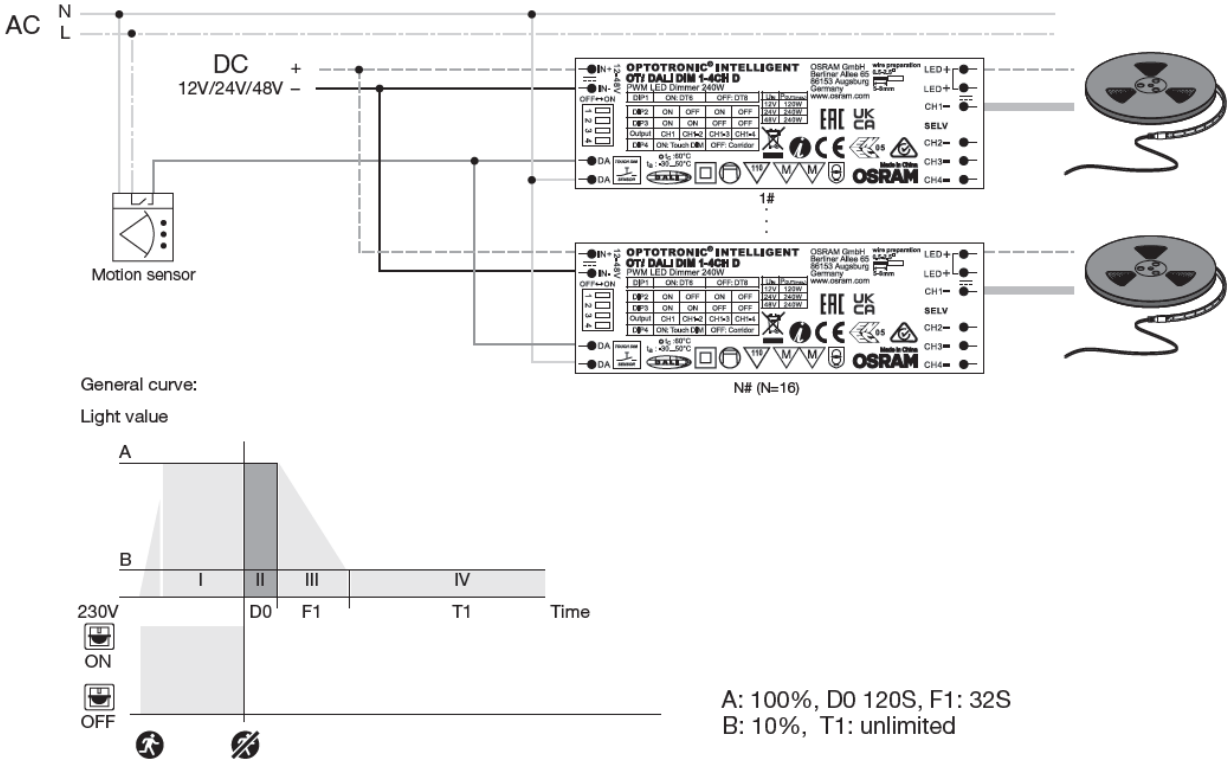


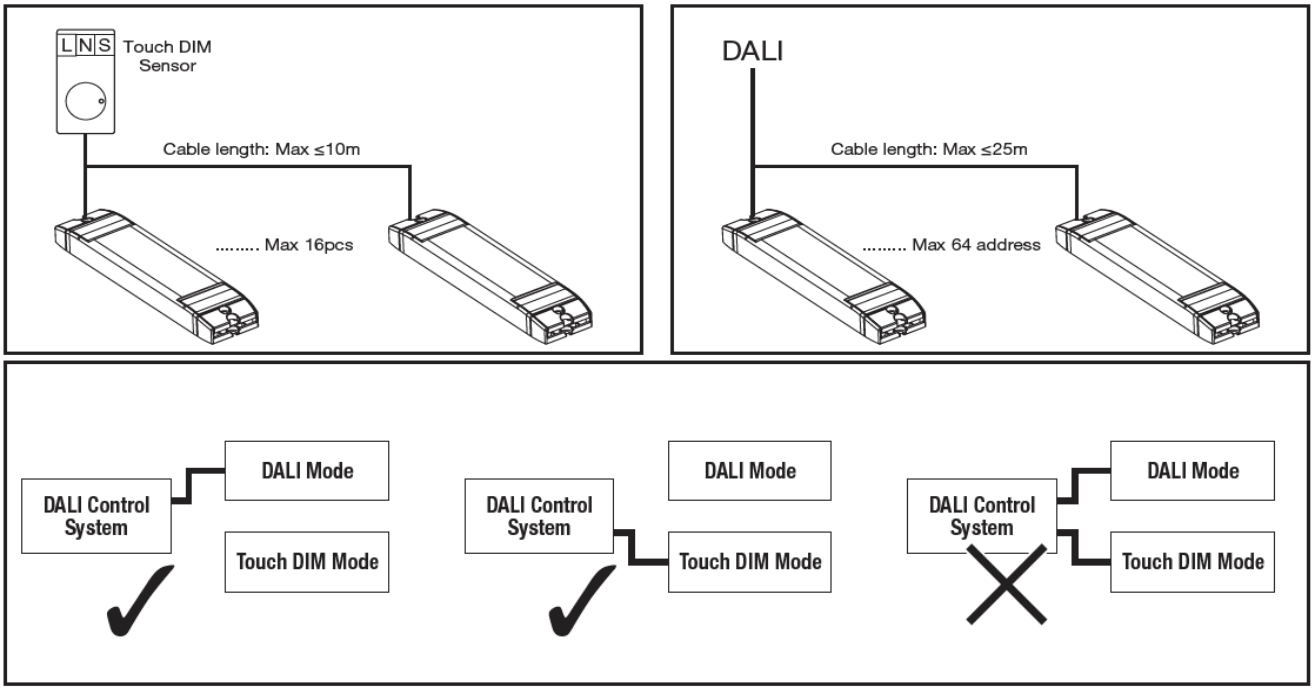
Touch DIM Mode (Tunable White)



Corridor Mode

It is possible to connect the OTI DALI DIM 1-4CH D directly to commercially available motion sensors. The Corridor Function is triggered by a switching signal, i.e. the voltage of the supply line (220–240 V, 50/60 Hz) is switched to the DALI control line inputs (DA, DA; see the diagram below). A preset “out-of-the-box” luminous flux program launches upon triggering. Three light value ranges and three-time ranges are available for this purpose.





Remarks

- **Output short circuit protection**: auto reversible when fault removed
- **Output overload protection:** auto reversible when fault removed
- **Over temperature protection:** the unit is protected against temporary overheating by shutting the unit down, auto reversible when temperature decreases
- **Application*:** the dimmer is intended to manage 12 V, 24 V or 48 V LED light sources like – but not limited to – OSRAM LINEARlight FLEX® , Tec Flex LED flexible strips, GinoLED Flex LED flexible strips, Value Flex LED flexible strips, OSRAM BackLED® and BoxLED® modules, OSRAM LINEARlight® Rigid FINESSE systems.
  * It is recommended to use only ON/OFF type constant voltage LED power supplies as input source..
- **No-load conditions:** hot plug-in or secondary switching of LEDs is not permitted.
- Intended for use with LED modules.
- The forward voltage of the LED light source shall be within the defined operating window of the control gear in all operating conditions including dimming if applicable.
- **Ecodesign regulation information:**
  Intended for use with LED modules. The forward voltage of the LED light source shall be within the defined operating window of the control gear in all operating conditions including dimming if applicable. Separate control gear and light sources must be disposed of at certified disposal companies in accordance with Directive 2012/19/EU (WEEE) in the EU and with Waste Electrical and Electronic Equipment (WEEE) Regulations 2013 in the UK. For this purpose, collection points for recycling centres and take-back systems (CRSO) are available from retailers or private disposal companies, which accept separate control gear and light sources free of charge. In this way, raw materials are conserved and materials are recycled.

Standards

EN 61347-1
EN 61347-2-13
EN 55015
EN 61547
EN 60598-1
EN 62384
CISPR 15

Ordering information

Product name	EAN 10	EAN 40	Pieces / Shipping carton
OT DALI DIM 1-4CH D	4062172166010	4062172166027	20

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