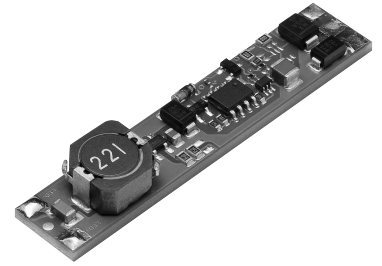
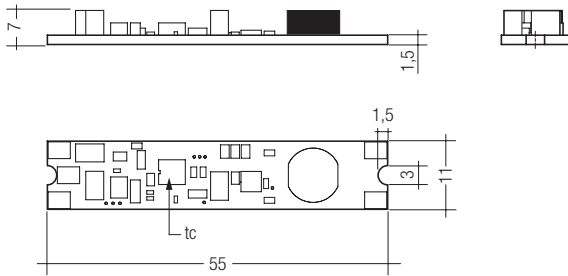


TALEXcontrol LED C700 12–48 V_{DC} 32 VA dim



- constant current source 700 mA for TALEXeos modules
- dimming range 10 to 100 %
- dimmable via switch or potentiometer (designed for a 100 kΩ potentiometer)
- step circuit ①
- suitable for central supplied LED installations
- high efficiency up to 95 %
- slim compact shape

- polarity reversal protection ②
- no-load and short-circuit protection (output side)
- connection technology: solder pads
- thermal conductive adhesive tape, premounted
- suitable for mounting on TridonicAtco mounting profiles, e.g. TALEXprofile Z200
- no overvoltage protection
- SELV ③

packaging:
box of 50

Designed according to:
EN 61347-1
EN 61347-2-13
EN 61547
EN 62384

type		LED C700 12–48 V _{DC} 32 VA dim
article number		86458945
input voltage U _{in}	V _{DC}	8–48 ④
efficiency ④ ⑥	%	>85
output current	mA _{DC}	700±10 %
output voltage ④ ⑤ (U _{in} < 30 V) (U _{in} ≥ 30 V)	V _{DC}	2.5 bis (U _{in} – 3 V) 5 bis (U _{in} – 3 V)
max. power loss	W	1.6
ambient temperature t _a	°C	-25 → +50
rated max. temperature t _c	°C	85
weight	g	5
dimensions L x W x H	mm	55 x 11 x 7

Possible number of TALEXeos modules connected to TALEXcontrol LED C700 12-48V 32VA dim

U_{in} = 24V_{DC} ④

colour	P211	P214	P215	P216
red, amber	1-7	n.A.	n.A.	n.A.
green, blue, white	1-5	1	–	–

U_{in} = 12V_{DC} ④

colour	P211	P214	P215	P216
red, amber	1-3	n.A.	n.A.	n.A.
green, blue, white	1-2	–	–	–

Possible number of TALEXcontrol LED C700 12-48V_{DC} 32VA dim connected to TridonicAtco TALEXconverter

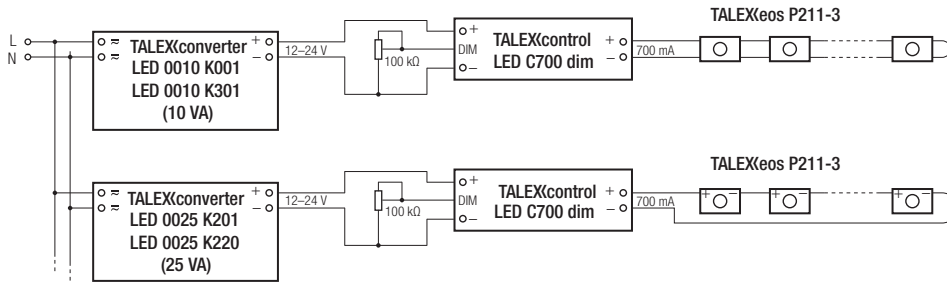
Numbers valid for full loaded TALEXcontrol LED C700 dim (32VA)

TALEXconverter	number of TALEXcontrol LED C700 dim
K001; 12V/24V 10 VA	1
K301; 12V/24V 10 VA	1
K220; 12V/24V 25 VA	2 (12V)/1 (24V)
K235; 12V/24V 60 VA	7 (12V)/3 (24V)
K240; 12V/24V 100 VA	11 (12V)/5 (24V)

- ① no DALI communication
- ② with accordant short-circuit protection of the power supply
- ③ to be provided with the power supply
- ④ Output voltage depending on supply voltage and the number of connected TALEX modules (U_{in} – 3V)
- ⑤ for more than 24V a heat sink is required
- ⑥ efficiency depends on the load of the TALEXcontrol LED C700 dim efficiency possible up to 95 %

Example wiring diagram TALEXcontrol LED C700 dim with TALEXeos modules

Dimming with potentiometer (potentiometer mode):



TALEXeos modules must be wired in series connection to the constant current source TALEXcontrol C700 dim

The potentiometer mode of the C700 dim is designed for a 100 kΩ potentiometer.

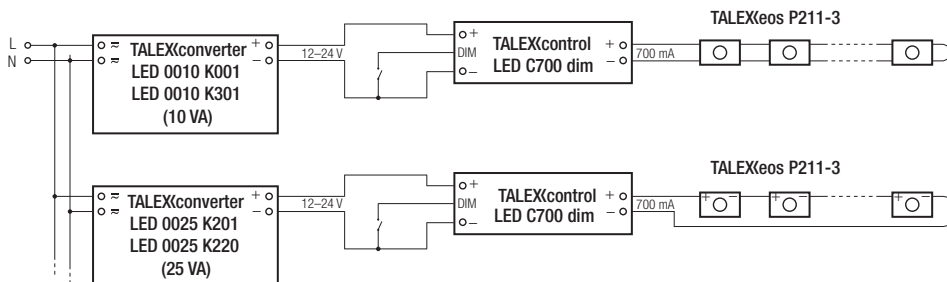
If a potentiometer with a value between approx. 32 kΩ and 80 kΩ is attached to the dim input, the controller switches to the potentiometer mode. The potentiometer mode can be disabled by removing the potentiometer and leaving the dim input open. By leaving this mode, the last active mode will be activated (switch mode or step circuit).

If a potentiometer with a resistance below 9 kΩ gets connected in switch mode, a close switch will be detected and the controller switches to step circuit after five minutes. The potentiometer mode will be activated as soon as the resistance reaches about 20 kΩ. After removing the potentiometer, the step circuit needs to be disabled to switch back to switch mode.

The dim input is designed for the use of a 100 kΩ potentiometer. The use of the several C700 dim in parallel with a single potentiometer leads to a change of the input resistance. In this case the potentiometer value needs to be adapted.

no. of C700 dim in parallel	value
1	100 kΩ
2	50 kΩ
3	33 kΩ
4	25 kΩ

Dimming with switch (switch mode):



The switch mode allows a direct connection of a push to make switch for dimming and switching. Brief push (< 0.6s) switches ballast ON and OFF. The ballasts switch-ON at light level set at switch-OFF.

When the push to make switch is held, the TALEXcontrol LED C700 dim is dimmed. After repush the TALEXcontrol LED C700 dim is dimmed in the opposite direction.

In installations with TALEXcontrol LED C700 dim with different dimming levels or opposite dimming directions (e.g. after a system extension), all TALEXcontrol LED C700 dim can be synchronized to 50 % dimming level by a 10 s push. Use of push to make switch with indicator lamp is not permitted.



The input voltage of the TALEXcontrol LED C700 dim must be absolutely kept. The operation on 230 V AC is not allowed.

Step circuit

Instead of a switch or potentiometer a switch can be used (e.g. motion sensor, time switch, switch)

The step circuit can be activated by applying a short circuit at the dim input for five minutes. If five short pushes are detected, (50–600 ms, time in between maximum 1 s) step circuit is deactivated and switch mode is active.

Due to no DALI communication is available, the step circuit has a fixed setting.

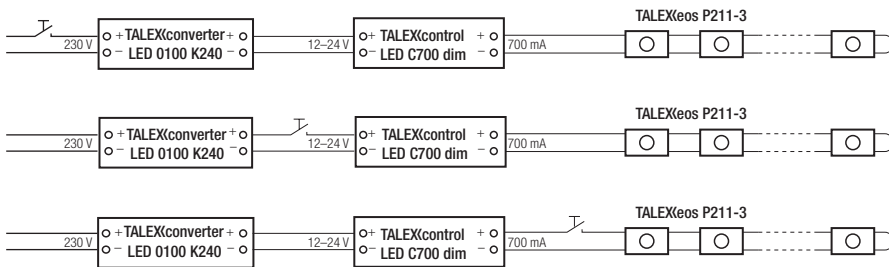
The step circuit is configured as follows:

- Switch closed = 100 %
- Switch open = 10 %
- Fade time 100 %–10 % = 32 s
- Fade time 10 %–100 % = 170 ms

After a power-down there will be a restart with the last activated mode. On the first power-up it will be the switch mode.

last mode (before power-down)	connected resistor	mode after power-up
switch mode (first power-up)	< 9 kΩ	switch mode
	32–80 kΩ	potentiometer mode
	> 900 kΩ	switch mode
step circuit	< 9 kΩ	step circuit
	32–80 kΩ	potentiometer mode
	> 900 kΩ	step circuit
potentiometer mode	< 9 kΩ	potentiometer mode
	32–80 kΩ	potentiometer mode
	> 900 kΩ	switch mode

Connection of an on/off switch for the TALEXcontrol LED C700 12-48 V 32 VA dim



! Load switch allowed under any operating condition.

Connection technology

The wiring can be in flexible cable (without ferules) or solid with a cross section of 0.25 mm² to 0.75 mm². The wire cables have to be soldered onto the dedicated solder pads.

Soldering information

Soldering has to be done under voltage-free conditions. The soldering temperature shall be chosen between 270 and 320 °C.

Mounting instructions

The TALEXcontrol LED C700 dim has to be glued onto a plain carrier by using the pre-mounted adhesive tape on the back side of the module. The protective foil therefore has to be removed from the adhesive tape. The carrier area has to be properly cleaned with appropriate methods.

Carrier material

The mounting onto metal carrier is allowed.



Dirt and humidity

The TALEXcontrol LED C700 dim has no dedicated protection against contamination or humidity. Protection against contamination and humidity is within the responsibility of the OEM manufacturer.



Protection against electrostatic discharge (EN61340-5-1/EN 61340-5-2)

The constant current source TALEXcontrol LED C700 dim contains electrostatic sensitive components. Measures for ESD protection have to be taken when mounting and assembling the module.



Safety switch off and SELV

Safety switch off and SELV have to be provided by the supplying converter unit. The use of TALEXconverter from TridonicAtco in combination with TALEXcontrol LED C700 dim ensures the required protection functionality.

Protection class

Suitable for use in protection class SK I and SK II luminaires.

Temperature ratings

The ambient operating temperature shall not exceed 50 °C. The rated max. temperature tc must not exceed 85°C under any operating conditions.

For an output voltage of more than 24V a heat sink is required.

