DALI potentiometer for broadcast operation

DALI potentiometer for broadcast operation
Insert 2117 U
Insert 2117/11 U

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1 Safety

Warning

Electric voltage!
Risk of death and fire due to electrical voltage of 230 V.
– Work on the 230V supply system may only be performed by authorised electricians!
– Disconnect the mains power supply prior to installation and/or disassembly!

Hint
DALI potentiometer 2117 U and 2117/11 U have basic insulation (no SELV).

2 Intended use

DALI potentiometer 2117 U and 2117/11 U are used for light control in connection with DALI operating devices according to IEC 62386, e.g., DALI electronic ballast units. No other DALI controllers must be combined with DALI potentiometer 2117 U and 2117/11 U.

3 Environment

Consider the protection of the environment!
Used electric and electronic devices must not be disposed of with domestic waste.
– The device contains valuable raw materials which can be recycled. Therefore, dispose of the device at the appropriate collecting depot.

All packaging materials and devices bear the markings and test seals for proper disposal. Always dispose of the packaging material and electric devices and their components via the authorized collecting depots and disposal companies.
The products meet the legal requirements, in particular the laws governing electronic and electrical devices and the REACH ordinance.
(EU Directive 2002/96/EC WEEE and 2002/95/EC RoHS)
(EU REACH ordinance and law for the implementation of the ordinance (EC) No.1907/2006)

4 Operation

4.1 Dimming speed

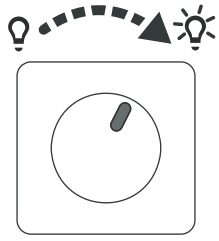

Fig. 1:

Slow rotation of the control element:
- Fine setting with up to 254 brightness levels.

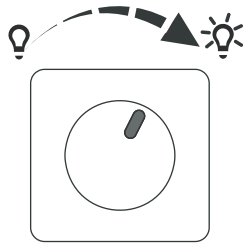

Fig. 2:

Fast rotation of the control element:
- Large brightness changes in order to reach the desired setting quickly.

4.2 Adjusting the basic brightness

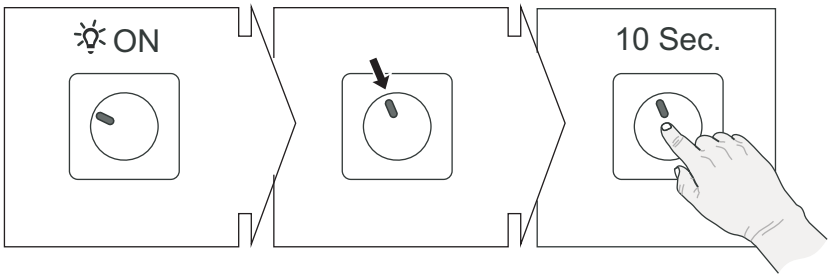

Fig. 3:

Turn the control element slowly to adjust the basic brightness.
1. Switch the lighting on.
2. Adjust the brightness.
3. Press the control element for 10 seconds.
   - The load flashes once after the setting has been made.

4.3 Deleting the basic brightness

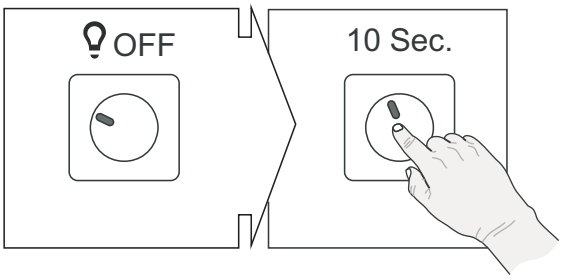

Fig. 4:

Turn the control element slowly to delete the basic brightness.
1. Switch the lighting off.
2. Press the control element for 10 seconds.
   - The load flashes once after the setting has been made.

4.4 Activation with memory function

At the factory, the DALI potentiometers are set to always switch on the illumination using the last brightness set (memory function). The manual adjustment of the switch-on brightness overwrites this function.

4.5 Changing the switch-on brightness

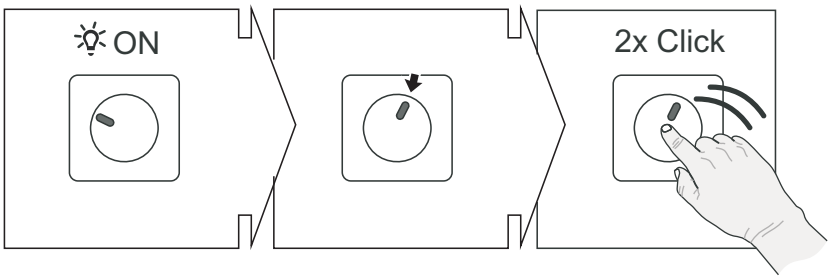

Fig. 5:

To adjust a fixed switch-on brightness carry out the following steps:
1. Switch the lighting on.
2. Adjust the brightness.
3. Double click fast on the control element.
   - The load flashes twice after the setting has been made.

The defined brightness overwrites the memory function (activation with the last brightness before deactivation).

Hint
If the illumination switches off after the double-click, the interval between the first and second button operation was too long.

4.6 Deleting the switch-on brightness

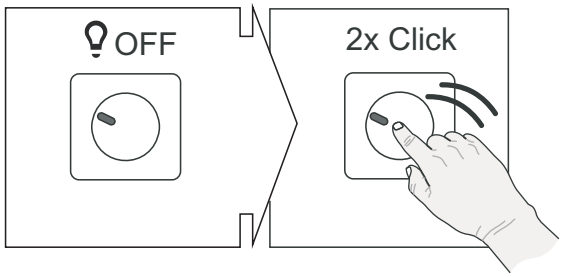

Fig. 6:

To delete a fixed switch-on brightness carry out the following steps:
1. Switch the lighting on.
2. Double click fast on the control element.
   - The load flashes twice after the setting has been made.

After the deletion of the switch-on brightness, the memory function continues to work (activation with the last brightness before deactivation).

4.7 Adjusting the colour of the light for orientation

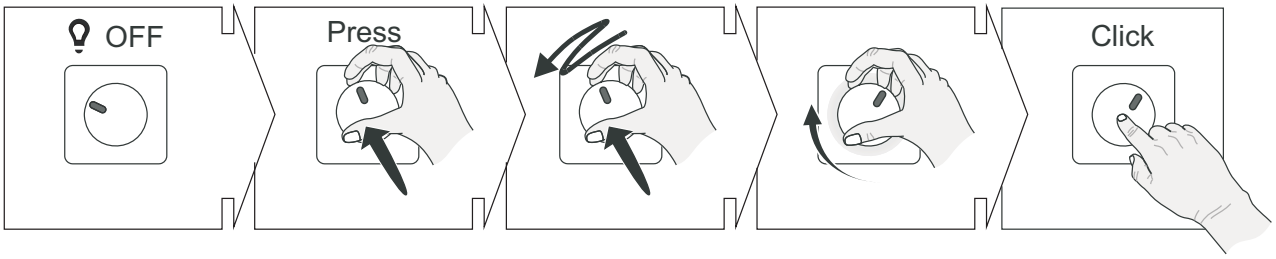

Fig. 7:

To change the colour of the light for orientation carry out the following steps:
1. Switch the lighting (load) off.
2. Press the control element, keep it pressed and turn it quickly back and forth three times.
3. Release the control element.
   - The light for orientation flashes 3 times.
4. Select the colour of the LED by turning the control element.
5. Confirm the selection of the colour with a brief press of the control element.
   - When the setting has been made the orientation light flashes 3 times.

4.8 Changing the power-on level (optional setting):

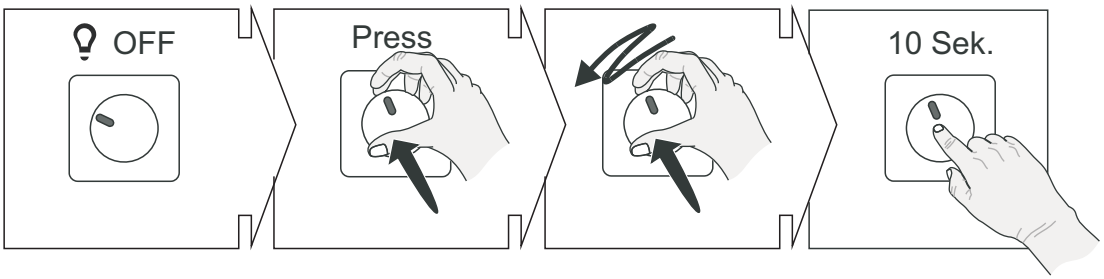

Fig. 8:

Changing the power-on level (switch-on brightness after mains power failure) effects a uniform brightness or deactivation of all connected operating devices with the last set brightness value before the power failure.
To change the power-on level carry out the following steps:

1. Switch the lighting (load) off.
2. Press the control element, keep it pressed and turn it quickly back and forth three times.
3. Release the control element.
   - The light for orientation flashes 3 times.
4. Press the control element for 10 seconds.
   - After the setting has been made the lighting (load) flashes once and the light for orientation 3 times.

When the mains voltage returns, the DALI control unit now switches on at the last brightness set.

4.9 Operation at several control points

The DALI control units can be operated from several control points. In the process, the brightness of the last operated potentiometer is always assumed first. This also applies to all other settings, such as basic brightness and memory function.

The colour of the light for orientation must be selected individual for each DALI potentiometer in a system.

5 Technical data

2117 U	
Nominal voltage: (via an external DALI power supply)	9.5 – 22.5 V ⎓
Power consumption: (dependent on the colour of the orientation illumination)	7 – 15 mA
Protective circuit	electronic
Maximum connectable DALI operating devices: (dependent on an external power supply)	64
Operating temperature:	0° C – +35° C
Protective class:	IP20
Maximum cable length in the system:	300 m
Number of colours of the light for orientation:	18 + Off

2117/11 U	
Nominal voltage:	230 V~ ±10%, 50 / 60 Hz
Power consumption:	7 – 15 mA
Open circuit voltage, output voltage:	15.5 V ⎓
Maximum drawn current:	75 mA
Protective circuit	electronic
Maximum connectable DALI operating devices:	37
Operating temperature:	0° C – +35° C
Protective class:	IP20
Maximum cable length in the system:	300 m
Number of colours of the light for orientation:	18 + Off

6 Setup and function

6.1 Features of function and equipment

DALI potentiometer 2117 U and 2117/11 U are used to control the brightness of connected DALI operating devices (e.g., DALI electronic ballast units, DALI LED modules, etc).

They operate in broadcast mode (uniform actuation of all DALI control units in the system).

For DALI potentiometer 2117 U an additional external DALI power supply is required. Device 2117/11 U has its own power supply.

6.2 Possible combinations

	 **2117 U**	 **2117/11 U**
 2115-21x	X	X
 6540-xxx	X	X
 6540-8xx-102	X	X

7 Installation and electrical connection

Warning

Electric voltage!
Risk of death due to electrical voltage of 230 V during short-circuit in the low-voltage line.
- Low-voltage and 230 V lines must not be installed together in a flush-mounted socket!

Warning

Electric voltage!
The upstream fuse must be disconnected when working on the lighting system.

7.1 Requirements for the electrician

Warning

Electric voltage!
Install the device only if you have the necessary electrical engineering knowledge and experience.
- Incorrect installation endangers your life and that of the user of the electrical system.
- Incorrect installation can cause serious damage to property, e.g. due to fire.

The minimum necessary expert knowledge and requirements for the installation are as follows:
- Apply the "five safety rules" (DIN VDE 0105, EN 50110):
  1. Disconnect from power;
  2. Secure against being re-connected;
  3. Ensure there is no voltage;
  4. Connect to earth and short-circuit;
  5. Cover or barricade adjacent live parts.
- Use suitable personal protective clothing.
- Use only suitable tools and measuring devices.
- Check the supply network type (TN system, IT system, TT system) to secure the following power supply conditions (classic connection to ground, protective earthing, necessary additional measures, etc.).

7.2 Mounting

Warning

Electric voltage!

Risk of death and fire due to electrical voltage of 230 V.

– Work on the 230V supply system may only be performed by authorised electricians!
– Disconnect the mains power supply prior to installation and/or disassembly!

The device must only be installed in suitable flush-mounted sockets (DIN 49073-1).

7.3 Inserting optical fibres

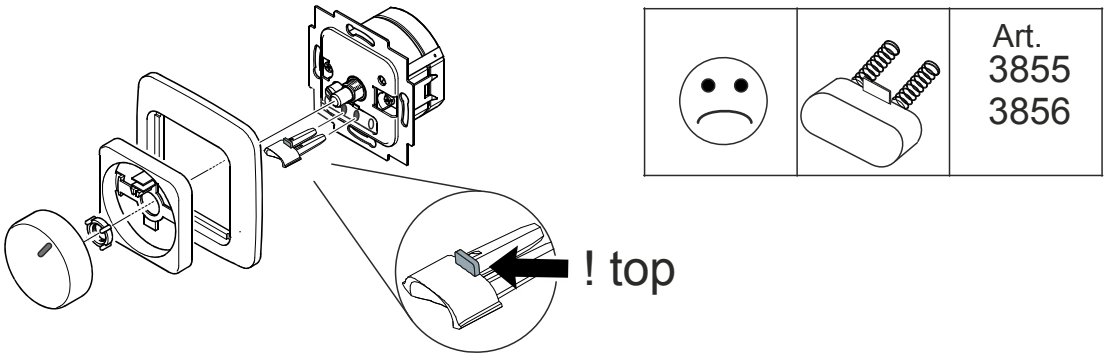

Fig. 9:

Insert the optical fibre directly into the two middle openings between the connecting terminals. In the process, align the plastic lug in the direction of the potentiometer axis.

Hint

- The glow lamps included with the control elements must not be used.
- The control elements of the impuls series are not suitable for illumination!

7.4 Electrical connection

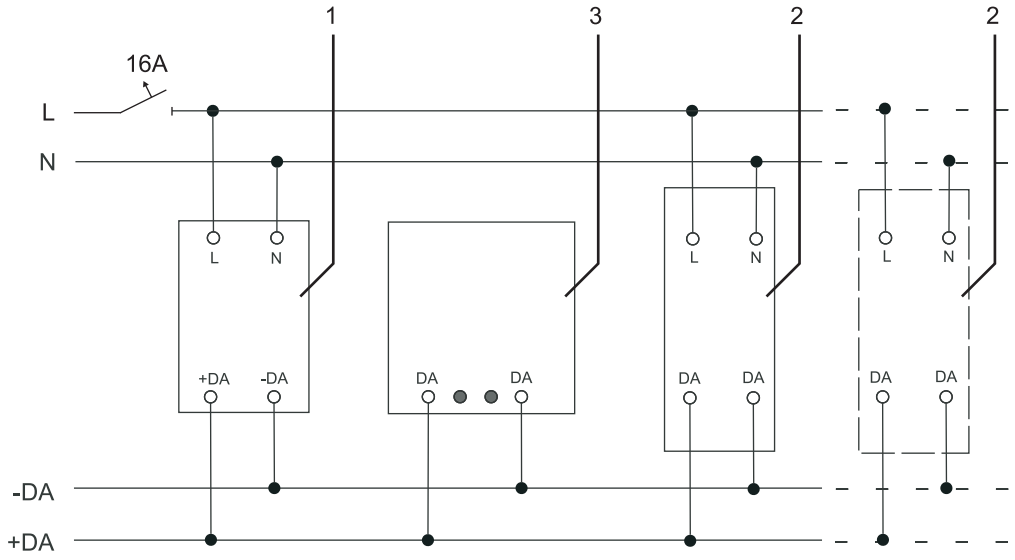

Fig. 10:

No.	Function
1	DALI power supply
2	2 DALI operating device
3	2117 U

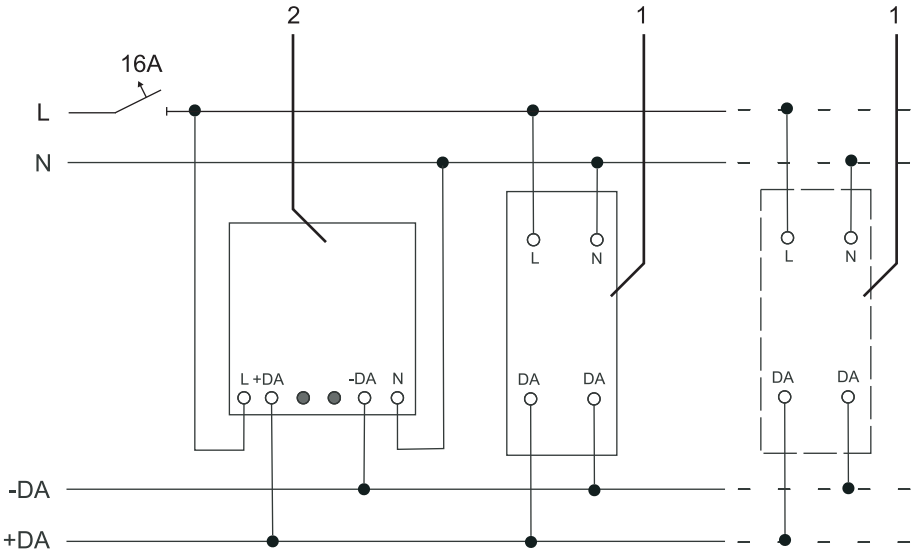

Fig. 11:

No.	Function
1	DALI operating device
2	2117/11 U

Notes

- If the DALI potentiometer 2117/11 U, is used in installations with an existing DALI power supply, the terminals L and N must not be assigned. The device is then supplied with current directly from the bus.
- Up to 3 DALI potentiometers 2117/11 U and 5 DALI potentiometers 2117 U can be operated in parallel. In the process, observe the maximum permissible power consumption.
- When DALI operating devices, e.g. electronic ballasts, are connected, the specifications of the respective manufacturer must be observed.
- The DALI control line and mains line may lie together in one NYM cable.
- Polyphase operation is permissible.

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Busch-Jaeger Elektro GmbH
PO box
58505 Lüdenscheid

Freisenbergstraße 2
58513 Lüdenscheid
Germany

www.BUSCH-JAEGER.com
info.bje@de.abb.com

Central sales service:
Phone: +49 (0) 180 5 669900
Fax: +49 (0) 180 5 669909

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