

Dimmer Type G 4248 4133



- Switching and dimming of lamps
- 4 control-channel receiver
- Negative or positive phase angle dimming
- For DIN-rail mounting
- LED-indications for Alarm and Dupline® carrier
- Lamp-protective soft-start function
- Channel coding by GAP 1605
- Supplied by Dupline® or 24 VDC external

Product Description

The Dupline® dimmer is for switching and dimming of different types of lamps up to 600 W. A manual switch makes it possible to select between incandescent lamps, HV halogen lamps, LV halogen lamps, LV halogen lamps

with electronic transformer for negative phase angle control and LV halogen lamps with conventional (threaded) transformer for positive phase angle control. The lighting is switched on by a lamp-protective soft-start function.

Type Selection

Supply	Ordering no.
By Dupline® or 24 VDC external	G 4248 4133

Output Specifications

Outputs	1
Dimming capacity	600 W
Rated operational voltage	230 VAC -15% / +10%
Dimming speed	3.3 s (10% - 100%)
Response time	1 Cycles: ≤ 272 ms @ 128 channels)

Supply Specifications

Power Supply	Supplied by Dupline®
Rated operational current	typ. 4 mA
Power Supply	24 VDC (18 V to 30 VDC)
Rated operational current	typ. 10 mA

Mode of Operation

The last selected dimming value is stored in an internal memory as a so-called memory value and a new value is set at the next switching via channel 2 or the external switch. The dimmer has four control channels. Through the modular plug connector at the front, the channels can be coded with four receiving addresses by means of the Dupline® programming unit GAP1605. The addresses control different functions:

Ordering Key **G 4248 4133**

Type: Dupline®	_____
"H4"- Housing	_____
Dimmer	_____
4 Channels	_____
1 output	_____
MOSFET 600W Analog	_____

General Specifications

Power ON delay	Undefined
Indication for Alarm	LED, Red – Flashing Slow flashing: Overload Fast flashing: Short circuit LED, Green
Dupline® carrier	
Environment	
Operating temperature	-10° to +45°C/14° to +113°F
Humidity (non-condensing)	Max. 85%
Housing	Distribution-board housing for DIN-rail mounting acc. to DIN EN 50022
Material	Polycarbonat (PC)
Size (WxHxD)	72 x 85 x 58 mm/4 PD
Terminals	U-clamp terminals
Terminal capacity	Min. Ø 0.4 mm up to max. 2,5 mm²
Operating Device	Button with memory in/out/dimming function Switch for selection of negative/positive phase angle control
Standards	IEC 60669, EN 55022/ EN 50081-1 and EN 55024/ EN 50082-1

- Channel 1: Dimmer switches to memory value
- Channel 2: Short signal ⇒ switching memory ON or OFF, long signal ⇒ increase / decrease of dimming
- Channel 3: Switching off
- Channel 4: Switching to full light, the dimming value stored in the memory is not influenced.

Mode of Operation (cont.)

A button at the front of the housing performs the function of channel 2, irrespective of the DUPLINE® bus.

The dimmer is electronically protected against overload and shortcircuit at the power output. The alarm LED at the front indicates overload and shortcircuit with different flashing frequencies:

An alarm caused by overload is automatically reset when the overload has been removed.

An alarm caused by shortcircuit must be reset manually after the fault has been corrected by separating phase L_{in} from the power supply for approx. 3 s.

Startup

Coding of addresses can take place before or after startup. When all wires are connected, it must be ensured that they are isolated from the supply.

The N-connection is needed for the operation of the dimmer. The desired mode of operation must be set before phase L_{in} is switched on, because the switch is kept inactive during operation in order to avoid wrong setting.

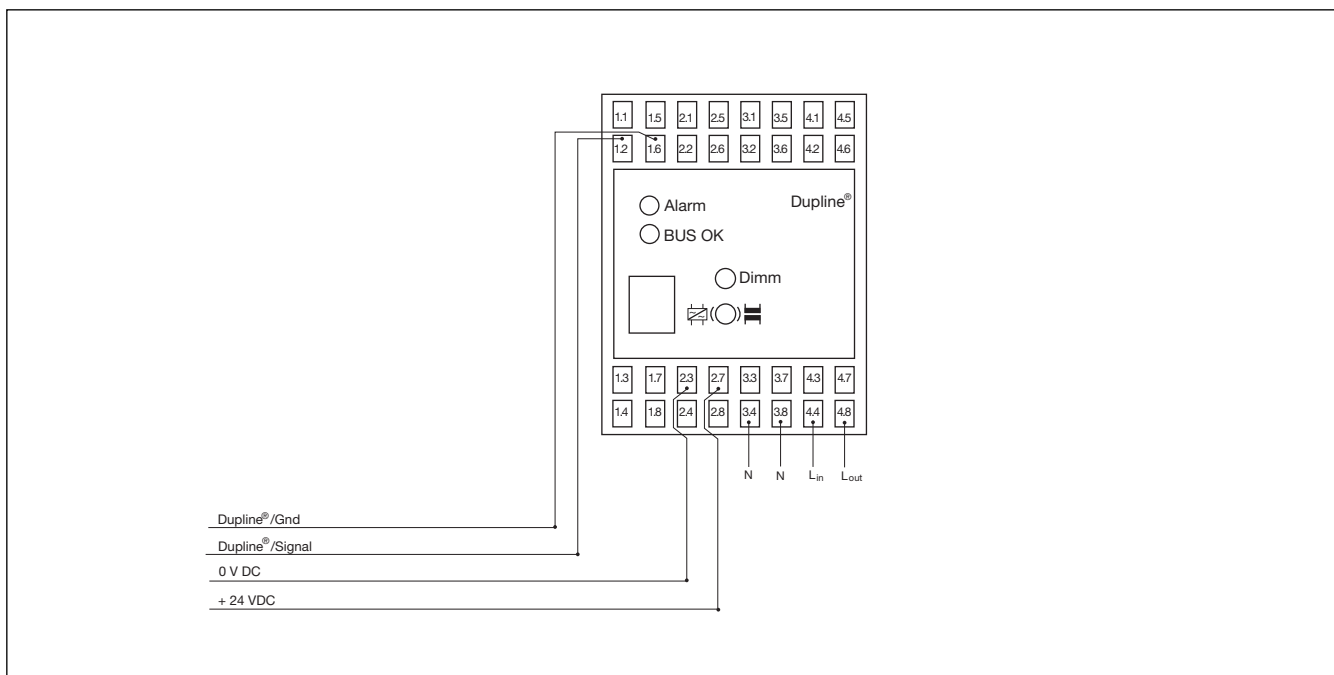
Left-hand position: Negative phase angle
Right-hand position: Positive phase angle

Wrong setting does not destroy the dimmer.

When the DUPLINE® signal is intact, the green LED is on.

With the button at the front of the housing it is possible to check whether the dimmer operates correctly. The patented snap-on system makes it easy to remove the module from the DIN-rail by pushing the housing upwards until it is disengaged.

Wiring Diagrams



Terminal Allocation

Terminal	Function
1.3/1.7	Control of Slave Dimmer
1.6	Dupline® GND
1.2	Dupline® Signal
4.4	L_{in}
4.8	L_{out}
3.4	N
3.8	N
2.3/2.7	24 VDC (0 V/24 V)

Accessories

It is possible to connect up to 10 slave Dimmers (500W/1500W) to one G 4248 4153 (Master).