

Dimmer, 2 outputs Type G 3448 5234

Dupline
Fieldbus Installationbus



- Switching and dimming of lamps
- 8 control-channel receiver
- Negative or positive phase angle dimming
- For DIN-rail mounting
- LED-indications for Alarm, Dupline® carrier and outputs
- Lamp-protective soft-start function
- Channel coding by GAP 1605
- 4 lighting scenes
- Transmits the status of the dimming outputs
- Protected against short-circuit and overload

Product Description

The G3448 5234 2-output lighting scene dimmer is a component of the Dupline Installation System. It permits different types of lamps with wattages up to 2 x 230 W to be operated and dimmed and enables up to 4 lighting arrangements (per output) to be stored, which can then be retrieved at any time. In addition, it transmits the status of the dimming output for every individual output. The dimmer setting which was selected last is stored as a "memory setting" in the internal memory and is reselected next time the lighting is switched on via channel 1/5. A power failure will erase the memory setting. The brightness of the lighting scenes is preset at the factory in steps; these settings cannot be altered. By the aid of

push-button combinations or by means of the test unit, the lighting scenes can be unlocked, modified and also retrieved. With the change-over switches on the front panel, it is possible to select either negative phase angle control or positive phase angle control dimming. The lighting is switched on via a bulb-conserving softstart facility. The dimmer is electronically protected at the power output against overload and short circuits. The "Fault" LED on the front indicates both faults by means of different flashing frequencies. An alarm caused by an overload or short circuit must be reset manually after rectifying the fault by disconnecting the phase from the mains supply for approx. 3 seconds.

Ordering Key

G 3448 5234 230

Type: Dupline®
"H4"- Housing
Dimmer
8 Channels
2 outputs
MOSFET 2 x 230 W Analog
Power supply

Type Selection

Supply	Ordering no.
230 VAC	G 3448 5234 230

Supply Specifications

Power Supply	
Rated operational voltage	230 VAC ±10%
Power consumption	12 VA
Power dissipation	Max. 3.5 W
Frequency	50/60 Hz

Output Specifications

Outputs	2
Dimming capacity	2 x 230 W
Rated operational voltage	230 VAC ±10%
Dimming speed	3.6 s (5% - 100%)
Response time	1 Cycle: ≤ 272 ms @ 128 channels)

General Specifications

Power ON delay	7 s
Indication for	
Supply On	LED, Green
Alarm	LED, Red – Flashing
	Slow flashing: Overload
	Fast flashing: Short circuit
Dupline® carrier	LED, Yellow
Output On	LED, Red (one per output)
Environment	
Operating temperature	0° to +50°C/32° to +122°F
Humidity (non-condensing)	Max. 85%
Housing	H4-housing
Operating Device	Switch for selection of negative/positive phase angle control for each individual dimmer
Standards	IEC 60669, EN 55022/ EN 50081-1 and EN 55024/ EN 50082-1

Mode of Operation

Coding


With the GAP1605 programming unit, each switching channel can be assigned any address between A1 and P8 via the modular socket on the front of the dimmer. The allocation of the channels is as follows:


Channel	Description
DIMMER 1	1 ON / OFF / Dimming
	2 Lighting scene 1 (3)
	3 Lighting scene 2 (4)
	4 Dimmer 1 output status
DIMMER 2	5 ON / OFF / Dimming
	6 Lighting scene 1 (3)
	7 Lighting scene 2 (4)
	8 Dimmer 2 output status

Functions which are not required should remain uncoded. The coding of the dimmer can be carried out without either supply voltage or Dupline signal. It is retained permanently, but may be overwritten at any time. The Dimmer outputs are configured in such a way at the factory that they will be switched off in the event of a fault. This configuration, too, can be changed with the GAP1605. Setting "1" results in switching on the lighting to 100% in case of a fault, while setting "0" switches off the Dimmer outputs (factory setting).

Putting into service

Commissioning may only be carried out by an authorized, trained technician. Observe the connection diagram when installing. All lines to be connected must be dead. The N-connection is absolutely necessary for the operation of the dimmer. The desired operating mode should be selected before connecting the phase, because the switches are disabled during operation as a safeguard against accidental resetting.

 Turn to the left:
Positive phase angle control for inductive loads (Halogen lamps with conventional (threaded) transformer). (Positive edge triggered).

 Turn to the right:
Factory setting.
Negative phase angle control (Halogen lamps with electronic transformer), or ordinary ohmic load. (Negative edge triggered).

Although an incorrect setting will result in malfunction, it will not cause irreparable damage to the dimmer. The following table shows the allocation of terminals:

Terminal	Description
1	Dupline signal conductor + (D +)
2	Dupline signal conductor - (D -)
21	Line in
22/23/24	N-conductor
26	Line out - dimming channel 1
28	Line out - dimming channel 2

Connections between the Dupline signal and to earth potential will cause malfunctions and are not permissible. Attention should be paid to the correct polarity of the supply voltage and

the Dupline signal. In order to meet the requirements for protective low voltage, VDE 0100, part 410, should be observed and applied during installation.

Functions and programming

The dimmer is programmed with the GAP1605 programming unit. Up to eight addresses can be programmed, 2 x 3 of which (IN/OUT 1-3, 5-7 of the GAP1605) are dedicated to controlling the dimmer itself (light level) - see the following table "Factory Settings". The remaining two addresses (IN/OUT 4, 8 of the GAP1605) are output signals on the bus and indicating if the dimmers are activated. The addresses are selected in the configuration software as push button channels.

The eight addresses (including two status signal addresses)

Address	Description
1	Dimmer up/down (long activation) Turn on/Turn off (short activation)
2	Desired light level, see "Factory Settings"
3	Desired light level, see "Factory Settings"
4	Dimmer activated
5	Dimmer up/down (long activation) Turn on/Turn off (short activation)
6	Desired light level, see "Factory Settings"
7	Desired light level, see "Factory Settings"
8	Dimmer activated

The light levels 3 and 4 can be programmed by combining 2 addresses.

Channel combinations (Dimmer1 / Dimmer2)			Activation	
1 / 5	2 / 6	3 / 7	Short	Long
			ON / OFF	Dimming Up/Down 5%..100%
			Light. scene # 1 (40%)	Store light. scene # 1
			Light. scene # 2 (80%)	Store light. scene # 2
			Light. scene # 3 (20%)	Store light. scene # 3
			Light. scene # 4 (60%)	Store light. scene # 4
			100%	Lock / Unlock (Locked)
			0% / OFF	Set light. scenes back to factory settings

() Factory settings

The shown values are factory settings and are consequently protected against accidental resetting. Nevertheless, it is possible to disable the protection to change the default values. The following steps 1-4 explain how the protection can be disabled, the values changed, the protection reestablished and default settings restored. The steps are explained with addresses for Dimmer 1, but the same is valid for Dimmer 2.

Mode of Operation (cont.)

1. Programming access (Unlock)

- Activate address 2 and 3 for approx. 6 seconds.
- When the light starts dimming fast up to 100%, down to 5% and back to actual value, the programming access is open.

2. New light level

- Open for the programming access according to **1. Programming access**.
- Use address 1 to set the required light level.
- Activate, for approx. 3 seconds, the address to which the chosen light level is to be allocated.
- When the light starts dimming fast up to 100%, down to 5% and back to actual value, the new light level is stored.

Undesirable changes of the programmed parameters can be avoided by reestablishment of the programming protection – see **3. Protection**.

3. Protection (Lock)

- Activate address 2 and 3 for approx. 6 seconds.
- When the light starts dimming fast up to 100%, down to 5% and back to actual value, the programming access is closed.

4. Restoring of factory settings

- Activate address 1, 2 and 3 for approx. 9 seconds.
- When the light starts dimming fast up to 100%, down to 5% and back to actual value, the factory settings are restored.

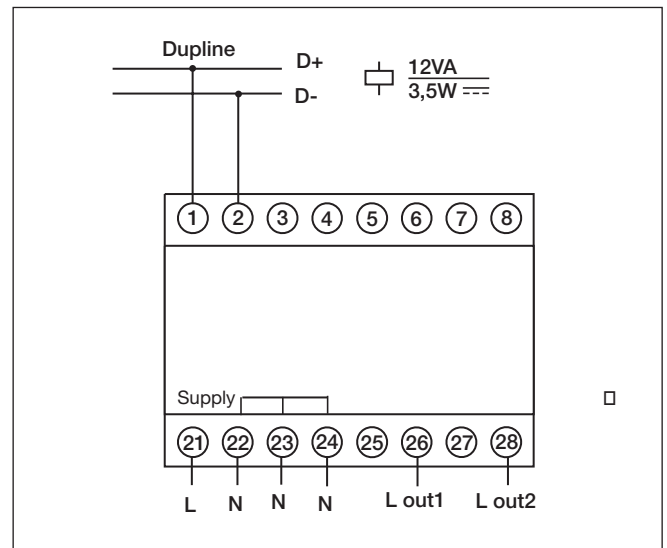
When the factory settings are restored the programming protection is not active.

LED indicators

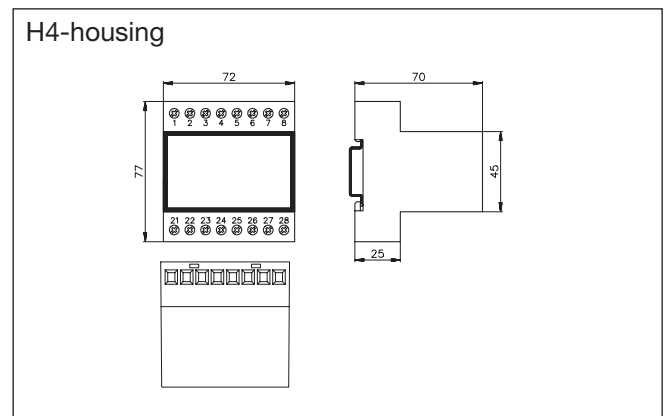
Front-mounted LEDs indicate the status of the device:

LED	Description
GREEN	<i>Supply ON</i>
YELLOW "Bus OK"	<i>Dupline carrier:</i> OFF: Bus fault ON: Bus is OK
RED Fault	<i>Monitoring:</i> OFF: Status OK ON, flashing slowly: Overload ON, flashing fast: Short circuit
RED Output 1	<i>Dimmer 1:</i> OFF: Dimmer output off ON: Dimmer output on
RED Output 2	<i>Dimmer 2:</i> OFF: Dimmer output off ON: Dimmer output on

Wiring Diagram



Dimensions (mm)



Mouser Electronics

Authorized Distributor

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