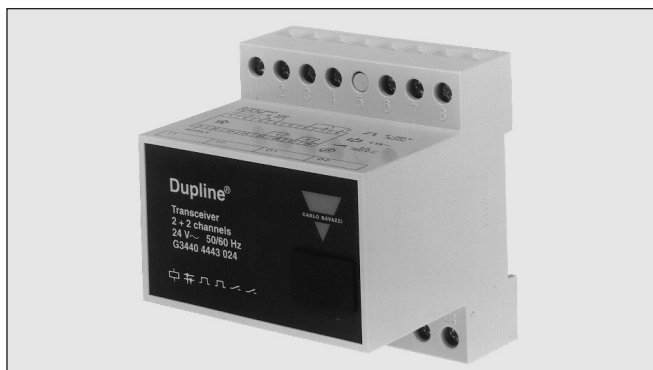


# Transceiver for Digital Signals Type G 3440 4443

CARLO GAVAZZI



- 4-channel monostable transceiver
- 2 opto-isolated voltage inputs:  
10 to 265 VAC/DC
- 2 SPST relay outputs
- Load 2 x 5 A/250 VAC
- H4-housing
- For mounting on DIN-rail (EN 50022)
- LED-indications for supply, Dupline® carrier, inputs and outputs
- AC or DC power supply
- Channel coding by GAP 1605

## Product Description

Dupline® transceiver with 2 inputs for AC/DC voltages and 2 SPST relay outputs.

## Ordering Key

**G 3440 4443 024**

Type: Dupline® \_\_\_\_\_  
 H4-housing \_\_\_\_\_  
 Transceiver \_\_\_\_\_  
 No. of channels \_\_\_\_\_  
 Input/output type \_\_\_\_\_  
 Power supply \_\_\_\_\_

## Type Selection

### Supply

24 VAC  
 115 VAC  
 230 VAC

15 to 30 VDC

### Ordering no.

4 channels  
 2 x voltage input  
 2 x SPST relay outputs

G 3440 4443 024  
 G 3440 4443 115  
 G 3440 4443 230

G 3440 4443 824

## Input Specifications

### Inputs

Isolated in groups of  
 Input voltage  $V_{BB}$   
 Frequency range on AC  
 Input voltage for signal "0"  
 Input voltage for signal "1"  
 Input current for signal "1"

Input current limiter  
 Inrush current  
 Operating time for signal "1"  
 Operating time for signal "0"  
 Cable length  
 Dielectric voltage  
 Inputs - Dupline®  
 Inputs - Outputs

2 voltage-type  
 1 x 2  
 10 to 265 VAC/DC  
 45 to 400 Hz  
 $\leq 1$  VAC/DC  
 $\geq 10$  VAC/DC  
 Typ. 10 mA ( $V_{BB}$  10-18 VDC)  
 lower at other input voltages  
 Yes  
 $\leq 450$  mA (@  $V_{BB} = 265$  VDC)  
 $\leq 1$  pulse train + 3 ms  
 $\leq 1$  pulse train + 50 ms  
 $\leq 25$  m  
 $\geq 4$  kVAC (rms)  
 $\geq 4$  kVAC (rms)

## Output Specifications

### Output

Isolated in groups of  
 Contact ratings (AgCdO)  
 Resistive loads  
 Inductive loads  
 Mechanical lifetime  
 Electrical lifetime  
 (at max load)  
 Operating frequency  
 Dielectric voltage  
 Outputs - Dupline®

### Response time

2 SPST relays  
 2 x 1  
 $\mu$  (micro gap)  
 $\leq 5$  A/250 VAC (1250 VA)  
 $\leq 0.25$  A/250 VDC (62 W)  
 or  $\leq 5$  A/25 VDC (125 W)  
 2.5 A/230 VAC  
 5 A/24 VDC  
 $\geq 30 \times 10^6$  operations  
 $\geq 2 \times 10^6$  operations  
 $\leq 7200$  operations/h  
 $\geq 4$  kVAC (rms)  
 1 pulse train

## Supply Specifications

<b>Power supply AC types</b>	Overvoltage cat. III (IEC 60664)	Rated operational voltage through term. 21 & 22 824	15 to 30 VDC (ripple included)
Rated operational voltage through term. 21 & 22 230	230 VAC $\pm$ 15% (IEC 60038)	Ripple	$\leq$ 3 V
115	115 VAC $\pm$ 15% (IEC 60038)	Reverse-polarity protection	Yes
024	24 VAC $\pm$ 15%	Rated operational power	$\leq$ 1.5 W
Frequency	45 to 65 Hz	Power dissipation	$\leq$ 5.5 W
Voltage interruption	$\leq$ 40 ms	Inrush current	$\leq$ 1 A
Rated operational power	Typ. 4 VA	Rated impulse withstand voltage	800 V
Power dissipation	$\leq$ 8 W	Dielectric voltage	
Rated impulse withstand voltage	230 4 kV	Supply - Dupline®	$\geq$ 200 VAC (rms)
	115 2.5 kV	Supply - Inputs	$\geq$ 4 kVAC (rms)
	024 800 V	Supply - Outputs	$\geq$ 4 kVAC (rms)
Dielectric voltage		<b>AC types as input supply source</b>	
Supply - Dupline®	$\geq$ 4 kVAC (rms)	Source voltage $V_{DD}$ out through term. 3 & 4	12 VDC
Supply - Inputs	$\geq$ 4 kVAC (rms)	Source current	$\leq$ 20 mA
Supply - Outputs	$\geq$ 4 kVAC (rms)	Short-circuit protection	Yes
<b>Power supply DC type</b>	Overvoltage cat. III (IEC 60664)	Dielectric voltage	
		Supply output - Dupline®	$\geq$ 200 VAC (rms)
		Cable length	$\leq$ 25 m

## General Specifications

<b>Power ON delay</b>	Typ. 2 s
<b>Power OFF delay</b>	$\leq$ 1 s
<b>Output OFF delay</b> upon loss of Dupline® carrier	$\leq$ 20 ms
<b>Indication for</b>	
Supply ON	LED, green
Dupline® carrier	LED, yellow
Input/Output	LED, red (one per in-/output)
<b>Environment</b>	
Degree of protection	IP 20
Pollution degree	3 (IEC 60664)
Operating temperature	-20° to +50°C (-4° to +122°F)
Storage temperature	-50° to +85°C (-58° to +185°F)
<b>Humidity</b> (non-condensing)	20 to 80%
<b>Mechanical resistance</b>	
Shock	15 G (11 ms)
Vibration	2 G (6 to 55 Hz)
<b>Terminals</b>	Screwterminals
Tightening torque	0.8 Nm
<b>Dimensions</b>	H4-Housing
<b>Weight</b>	250 g

## Mode of Operation

Each input and each output may be coded individually by means of the code program-mer GAP 1605. For the general procedure of coding, please refer to the respective data sheet. In order to allocate a code address to the inputs/outputs of the G 3440 4443, it is necessary to set the GAP 1605 in single channel addressing mode.

When a voltage (10 to 265 VAC/DC) is applied to input 1 (terminal 7), the G 3440 4443 transmits on the Dupline® channel coded for input 1. Output 1 turns on when a transmitter coded to the same Dupline® address as output 1 becomes activated.

The table below shows the relation between the inputs/outputs of the G 3440 4443 and the In/Out-markings on the GAP 1605.

### Output/input connections

Input 1: terminals 6 & 7  
 Input 2: terminals 6 & 8  
 Output 1: terminals 25 & 26  
 Output 2: terminals 27 & 28

GAP 1605	G 3440 4443
In/out 1	Input 1
In/out 2	Input 2
In/out 3	Not used
In/out 4	Not used
In/out 5	Output 1
In/out 6	Output 2
In/out 7	Not used
In/out 8	Not used

## Operation Diagram

Shown with channels 1 - 2 transmitting and channels 3 - 4 receiving

Power supply

Dupline® carrier

Input 2 (term. 6 &8)

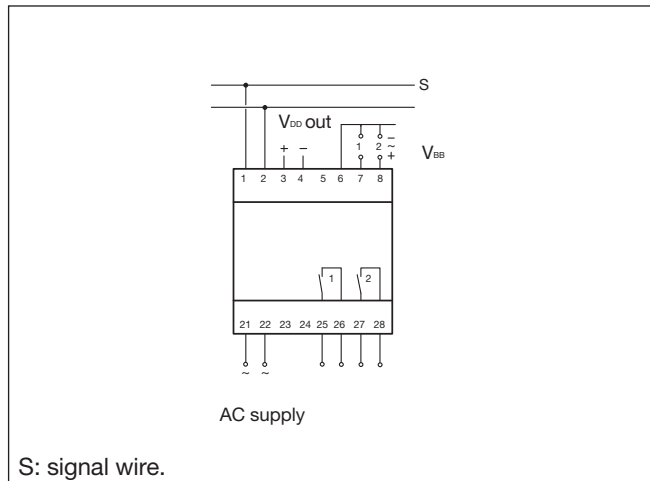
Transm. on chan. coded to input 2

Transmission on channel coded for output 2

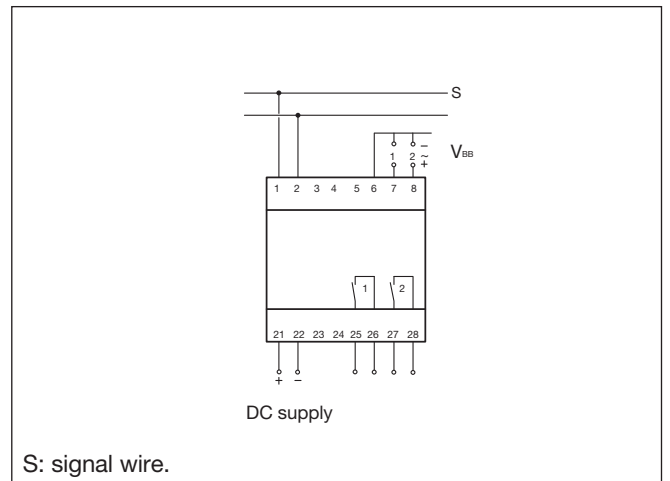
Output 2 (term. 27 & 28)

## Wiring Diagrams

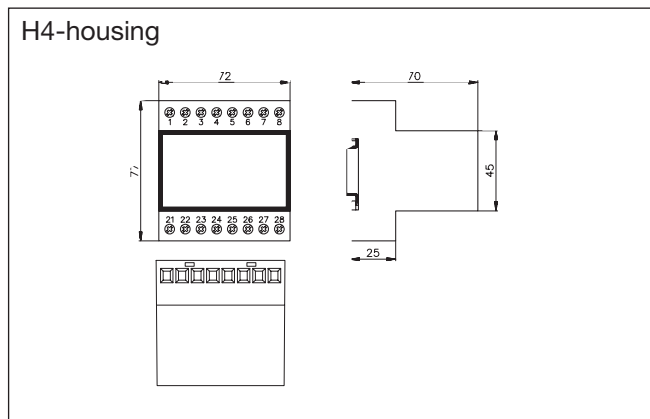
G 3440 4443 024/115/230  
AC supply



G 3440 4443 824  
DC supply



## Dimensions (mm)



## Accessories

DIN-rail

FMD 411

For further information, see "Accessories".