

Dupline® Field- and Installationbus Transceiver for Digital Signals Type G 3440 4443

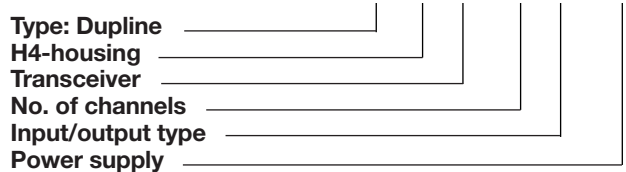


- 4-channel monostable transceiver (combined transmitter/receiver)
- 2 opto-isolated voltage inputs: 6 to 265 VAC/DC
- 2 SPST relay outputs
- Load 2 x 5 A/250 VAC
- H4-housing
- For mounting on DIN-rail (EN 50022)
- LED-indications for supply, Dupline carrier, inputs and outputs
- AC or DC power supply
- 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 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	2 voltage-type
Isolated in groups of	1 x 2
Input voltage V_{BB}	6 to 265 VAC/DC
Frequency range on AC	45 to 400 Hz
Input voltage for signal "0"	≤ 1 VAC/DC
Input voltage for signal "1"	≥ 6 VAC/DC
Input current for signal "1"	Typ. 10 mA (V_{BB} 10-18 VDC) lower at other input voltages
Input current limiter	Yes
Inrush current	≤ 450 mA (@ $V_{BB} = 265$ VDC)
Operating time for signal "1"	≤ 1 pulse train + 3 ms
Operating time for signal "0"	≤ 1 pulse train + 50 ms
Cable length	≤ 25 m
Dielectric voltage	
Inputs - Dupline	≥ 4 kVAC (RMS)
Inputs - Outputs	≥ 4 kVAC (RMS)

Output Specifications

Output	2 SPST relays
Isolated in groups of	2 x 1
Contact ratings (AgCdO)	μ (micro gap)
Resistive loads	AC 1 ≤ 5 A/250 VAC (1250 VA)
	DC 1 ≤ 0.25 A/250 VDC (62 W)
	or ≤ 5 A/25 VDC (125 W)
Inductive loads	AC 15 2.5 A/230 VAC
	DC 13 5 A/24 VDC
Mechanical lifetime	$\geq 30 \times 10^6$ operations
Electrical lifetime	
(at max load)	AC 1 $\geq 2 \times 10^6$ operations
Operating frequency	≤ 7200 operations/h
Dielectric voltage	
Outputs - Dupline	≥ 4 kVAC (RMS)
Response time	1 pulse train



Supply Specifications

Power supply AC types		Overvoltage cat. III (IEC 664)	Power supply DC type		Overvoltage cat. III (IEC 664)
Rated operational voltage through term. 21 & 22	230	230 VAC ± 15% (IEC 38)	Rated operational voltage through term. 21 & 22	824	15 to 30 VDC (ripple included)
	115	115 VAC ± 15% (IEC 38)	Ripple		≤ 3 V
	024	24 VAC ± 15%	Reverse-polarity protection		Yes
Frequency		45 to 65 Hz	Rated operational power		≤ 1.5 W
Voltage interruption		≤ 40 ms	Inrush current		≤ 1 A
Rated operational power		Typ. 4 VA	Rated impulse withstand voltage		800 V
Rated impulse withstand voltage	230	4 kV	Dielectric voltage		
	115	2.5 kV	Supply - Dupline		≥ 200 VAC (RMS)
	024	800 V	Supply - Inputs		≥ 4 kVAC (RMS)
Dielectric voltage			Supply - Outputs		≥ 4 kVAC (RMS)
Supply - Dupline		≥ 4 kVAC (RMS)	AC types as input supply source		
Supply - Inputs		≥ 4 kVAC (RMS)	Source voltage V _{DD} out through term. 3 & 4		12 VDC
Supply - Outputs		≥ 4 kVAC (RMS)	Source current		≤ 20 mA
			Short-circuit protection		Yes
			Dielectric voltage		
			Supply output - Dupline		≥ 200 VAC (RMS)
			Cable length		≤ 25 m

General Specifications

Power ON delay	Typ. 2 s
Power OFF delay	≤ 1 s
Output OFF delay upon loss of Dupline carrier	≤ 20 ms
Indication for	
Supply ON	LED, green
Dupline carrier	LED, yellow
Input/Output	LED, red (one per in-/output)
Environment	
Degree of protection	IP 20
Pollution degree	3 (IEC 664)
Operating temperature	-20 to +50°C (-4 to +122°F)
Storage temperature	-50 to +85°C (-58 to +185°F)
Humidity (non-condensing)	20 to 80%
Mechanical resistance	
Shock	15 G (11 ms)
Vibration	2 G (6 to 55 Hz)
Dimensions	
Material	
(see Technical information)	H4-Housing
Weight	
AC types	250 g
DC type	250 g

Mode of Operation

Each input and each output may be coded individually by means of the code programmer 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 (6 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.

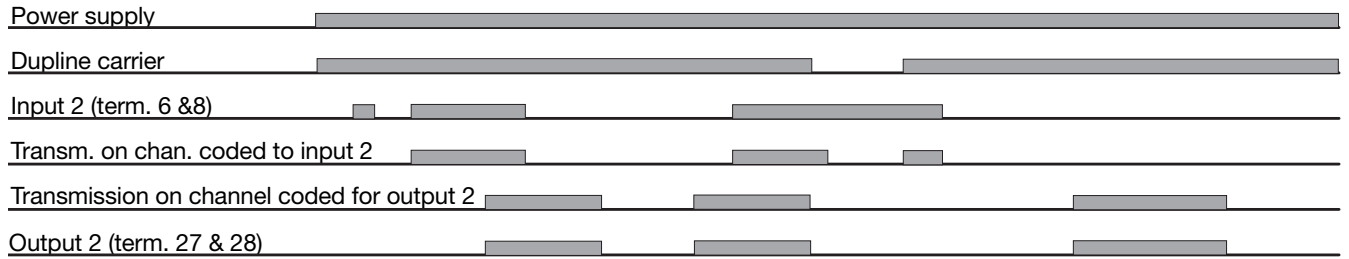
The table below shows the relation between the inputs/outputs of the G 3440 4443 and the In/Out-markings on the GAP 1605.

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

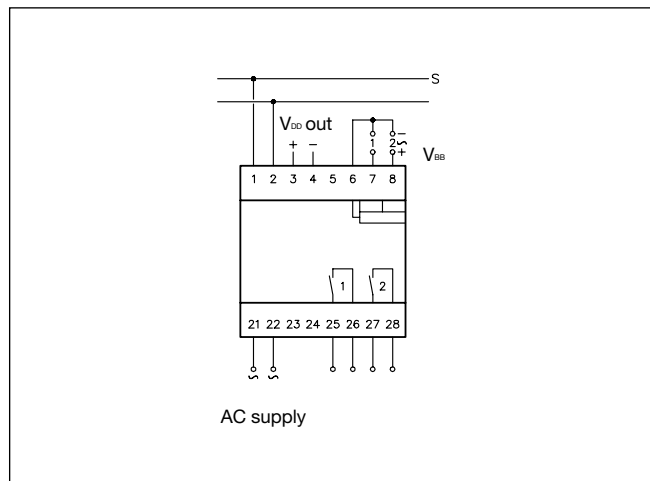
Operation Diagram

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



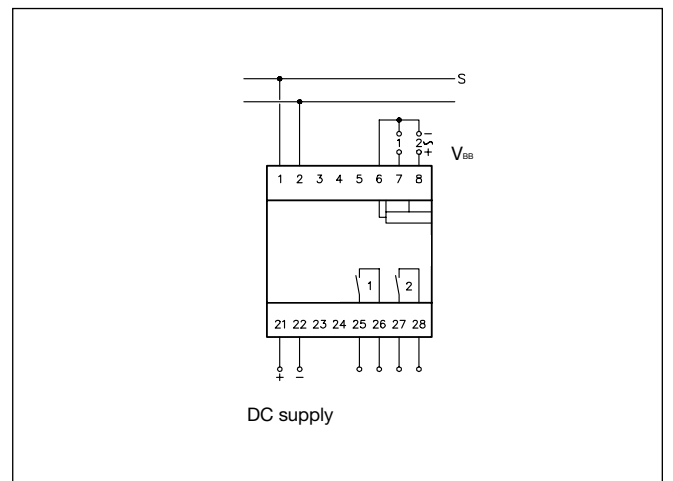
Wiring Diagrams

G 3440 4443 024/115/230
AC supply



S: signal wire.

G 3440 4443 824
DC supply



Accessories

DIN-rail FMD 411

For further information, see "Accessories".