

Transceiver for Digital Signals Type G 3440 4443



- 4-channel monostable transceiver
- 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: 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	2 voltage-type 1 x 2
Isolated in groups of	6 to 265 VAC/DC
Input voltage V_{BB}	45 to 400 Hz
Frequency range on AC	≤ 1 VAC/DC
Input voltage for signal "0"	≥ 6 VAC/DC
Input voltage for signal "1"	Typ. 10 mA (V_{BB} 10-18 VDC)
Input current for signal "1"	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 2 x 1
Isolated in groups of	μ (micro gap)
Contact ratings (AgCdO)	Resistive loads
Resistive loads	AC 1
	DC 1
	or
Inductive loads	AC 15
	DC 13
Mechanical lifetime	≥ 30 x 10 ⁶ operations
Electrical lifetime	
(at max load)	AC 1
Operating frequency	≥ 2 x 10 ⁶ operations
Dielectric voltage	≤ 7200 operations/h
Outputs - Dupline®	≥ 4 kVAC (rms)
Response time	1 pulse train

Supply Specifications

Power supply AC types		Overvoltage cat. III (IEC 60664)	Power supply DC type		Overvoltage cat. III (IEC 60664)
Rated operational voltage through term. 21 & 22	230	230 VAC ± 15% (IEC 60038)	Rated operational voltage through term. 21 & 22	824	15 to 30 VDC (ripple included)
	115	115 VAC ± 15% (IEC 60038)	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 60664)
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	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.

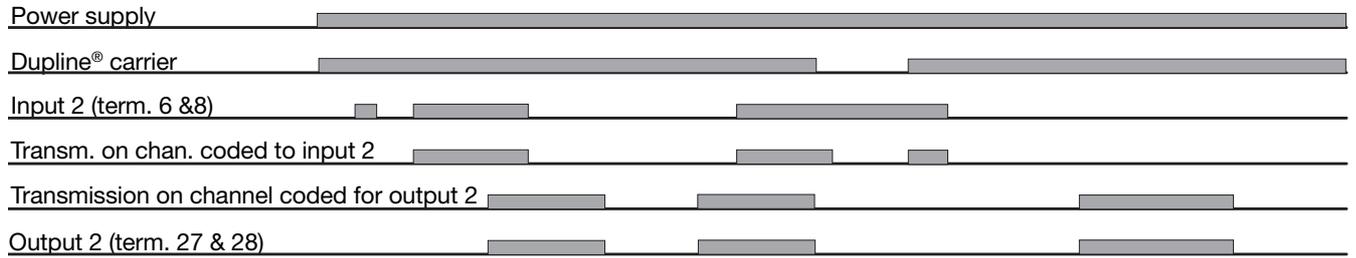
Output/input connections

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

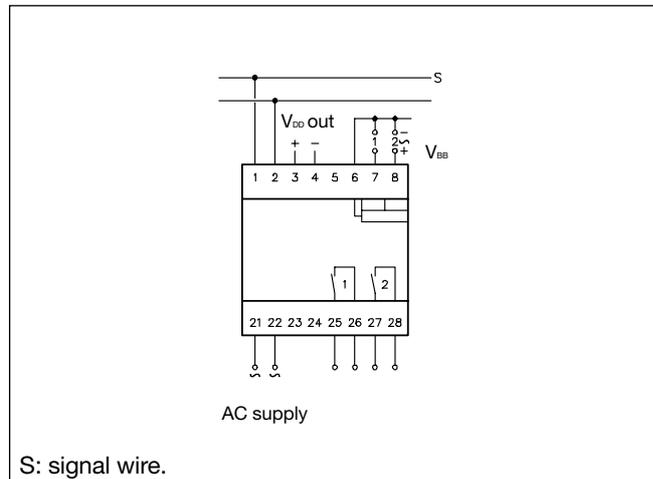
Operation Diagram

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

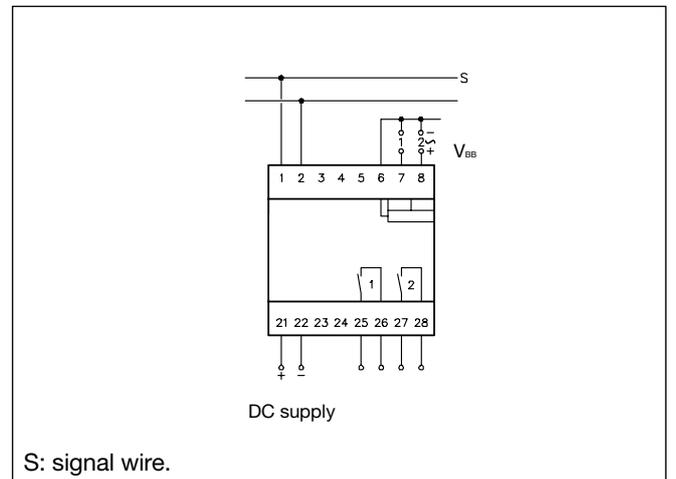


Wiring Diagrams

G 3440 4443 024/115/230
AC supply



G 3440 4443 824
DC supply



Accessories

DIN-rail FMD 411

For further information, see "Accessories".