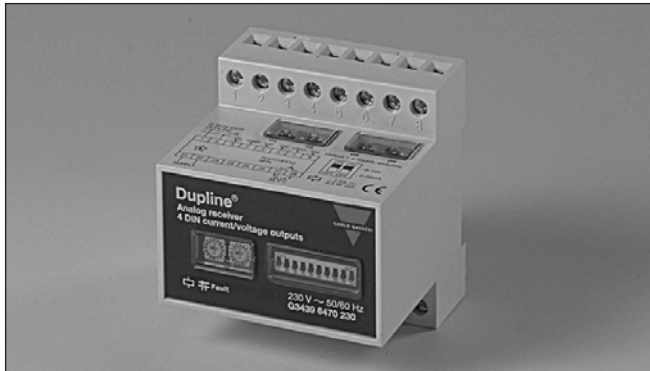


# Universal Analog Output Module for DIN-Signals Type G 3439 6470



- 4 analog outputs
- Outputs individually configurable for 0-20 mA, 4-20 mA or 0-10 VDC
- Selectable resolution: 1/1999 or 1/255 of full scale
- Selectable dataformat : 8-bit, AnaLink or 3 1/2 digit BCD
- EMC immunity according to EN50082-2 (industrial environment)
- DIN-rail mounting (EN 50022)
- Address-selection through rotary switches
- LED-indication for supply and Dupline® carrier
- LED-indication for invalid switch setting and faulty received data
- Watchdog output for faulty received data
- H4 housing

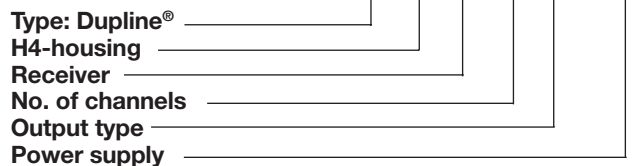
## Product Description

Dupline® 4 output universal analog output module with internal supply. The module receives signals on a digital format from Dupline® and converts them to analog outputs. The output type can be selected as 0-20 mA, 4-20 mA or 0-10 VDC for each output individually making a mix of analog output types on

the same module possible. The transmission format on Dupline® can be selected to fit the output module into existing installations, or simply to use the most suitable combination of resolution, signalling capacity and speed. The formats are: 8-bit binary, AnaLink and 3 1/2 digit BCD (with or without multiplexing).

## Ordering Key

**G 3439 6470 024**



## Type Selection

### Supply

24 VAC  
115 VAC  
230 VAC  
10-30 VDC

### Ordering no.

G 3439 6470 024  
G 3439 6470 115  
G 3439 6470 230  
G 3439 6470 800

## Output Specifications

	Outputs set to voltage	Outputs set to current
<b>Signal</b>		
Signal output	DIN-voltage output	DIN-current output
Signal range	0-10 VDC	0-20 mA / 4-20 mA
Output load	≥ 100 kΩ	0-450 Ω
Short circuit protection	Yes	Yes
Watchdog output	≤ 30 V	≤ 50 mA
<b>Resolution</b>		
A/D	11 bits or 8 bits	11 bits or 8 bits
Transmission	1/1999 or 1/255	1/1999 or 1/255
Output settling time	≤ 0.5 sec.	≤ 0.5 sec
Inaccuracy (11-bit) (ref. temp. 25°C)	< 0.4% of full-scale < 0.2% of reading < 1 count	< 0.4% of full-scale < 0.2% of reading < 1 count
Temperature influence (ref. temp. 25°C)	< ±15 ppm/K of full-scale < ±150 ppm/K of reading	< ±15 ppm/K of full-scale < ±150 ppm/K of reading
Recommended cable length	< 25 m	< 25 m
<b>Dielectric voltage</b>		
Output - Dupline®	250 VAC (rms)	250 VAC (rms)
Output - Watchdog output	2 kVAC (rms)	2 kVAC (rms)

## Supply Specifications

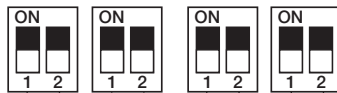
<b>Power supply AC-types</b>	Overvoltage cat. III (IEC 60664)
Operational voltage through term. 21 & 22	230 230 VAC, -10/+15 % (IEC 60038)
	115 115 VAC, -10/+15 % (IEC 60038)
	024 24 VAC, -10/+15 %
Frequency	45 to 65 Hz
Power consumption	typ. 7 VA
Power dissipation	≤ 8 W
Rated impulse withstand voltage	230 4 kV
	115 2.5 kV
	024 800 V
Dielectric Voltage	
Supply - Dupline®	4 kVAC (rms)
Supply - Signal output	4 kVAC (rms)
Supply - Watchdog output	4 kVAC (rms)
<b>Power supply DC-types</b>	
Operational voltage through term. 21 & 22	800 10,5 V - 30 VDC (Ripple incl.)
Ripple	< 3 V
Reverse polarity protection	Yes
Power consumption	< 4 W
Power dissipation	< 6 W
Rated impulse withstand voltage	800 V
Dielectric Voltage	
Supply - Dupline®	500 VAC (rms)
Supply - Signal output	250 VAC (rms)
Supply - Watchdog output	2 kVAC (rms)

## General Specifications

<b>Power ON delay</b>	≤ 2 s
<b>Indication for</b>	
Supply ON	LED, green
Dupline® carrier	LED, yellow
Dupline® format error	LED, red
Illegal switch setting	LED, red - flashing
<b>Environment</b>	
Degree of protection	IP 20
Pollution degree	3 (IEC 60664)
Operating temperature	0° to +50°C (+32° to +122°F)
Storage temperature	-20° to +85°C (-4° to +185°F)
<b>Humidity (non-condensing)</b>	20 to 80%
<b>Mechanical resistance</b>	
Shock	15 G (11 ms)
Vibration	2 G (6 to 55 Hz)
<b>Dimensions</b>	
<b>Material</b> (see Technical information)	H4-Housing
<b>Weight</b>	300 g
<b>CE-marking</b>	Yes

## Switch Settings

### Shunt-switches on system top



Current shunts on output 1-4:  
ON/ON = 0-10 V / (2-10 V)  
OFF/OFF = 0-20 mA / 4-20 mA

### Rotary switches in the front

<b>Mode</b>	A-P	0-F
<b>3 1/2 digit:</b>	Channel group-pair Ex. setting: C or D = C-D	Mux. address for output 1, rest of the outputs (if enabled) on the following addresses
<b>8-bit:</b>	Channel group	Same as 3 1/2 digit. Ex. setting 5 (with 2 outputs enabled) = Output 1 on mux address 5 Output 2 on mux address 6
<b>Analink:</b>	Channel group	Channel no. for output 1, rest of the outputs (if enabled) on the following channels. Setting of 0+9-F is not valid.

### Function switches in the front



#### Offset on output 1-4

ON = 4-20 mA / (2-10 V)  
OFF = 0-20 mA / 0-10 V

#### No. of enabled outputs

OFF ON : 1  
ON OFF : 2  
ON ON : 3  
OFF OFF : 4

#### Mode (Format)

OFF OFF : Analink  
OFF ON : 8-bit binary  
ON OFF : 3 1/2 digit BCD  
ON ON : Reserved for future use

#### Multiplex ON/OFF

(Only used in 3 1/2 digit BCD and 8-bit binary mode)

ON = Data is multiplexed  
OFF = Data to output 1 is received on the group (or grouppair) rotarysw. A-P is set to,  
data from input 2, 3, 4 (if enabled) on the following groups (or grouppairs)

#### Maintain ON/OFF

ON = Keep output in case of Dupline® (or format) error  
OFF = Zero output in case of Dupline® (or format) error