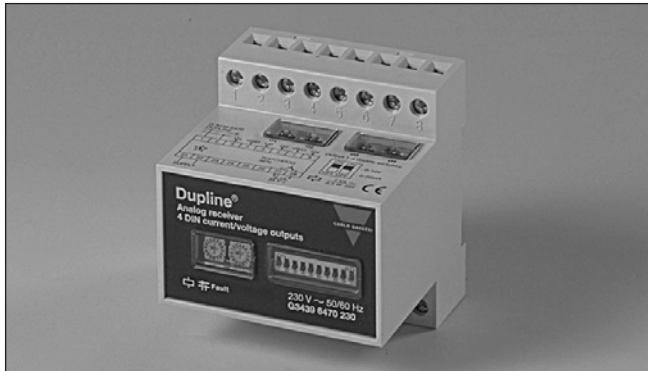


Universal Analog Output Module for DIN-Signals Type G 3439 6470



- 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: Dupline® _____
 H4-housing _____
 Receiver _____
 No. of channels _____
 Output type _____
 Power supply _____

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
Signal		
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
Resolution		
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
Dielectric voltage		
Output - Dupline®	250 VAC (rms)	250 VAC (rms)
Output - Watchdog output	2 kVAC (rms)	2 kVAC (rms)

Supply Specifications

Power supply AC-types	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)
Power supply DC-types	
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

Power ON delay	≤ 2 s
Indication for	
Supply ON	LED, green
Dupline® carrier	LED, yellow
Dupline® format error	LED, red
Illegal switch setting	LED, red - flashing
Environment	
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)
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	300 g
CE-marking	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

Mode	A-P	0-F
3 1/2 digit:	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
8-bit:	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
Analink:	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