

# Dupline® Decentralized Analog Input Module Type G 8810 6311



- 2 x 0-10 VDC analog inputs
- 1 x thermistor 10K3 input
- 1 x variable resistor 1-11 K $\Omega$
- Analink protocol (8-bit resolution)
- Uses one Dupline® address per used input
- DC-powered (15-30 VDC)
- Compact housing for decentralized installation inside wall-box or environmental sensor housings
- Address programming via GAP1605

## Product Description

Dupline® Analink transmitter with 4 analog inputs. The compact size of the module makes it possible to fit it into a wall-box or environmental sensor housing, thereby enabling a decentralized installation concept where the Dupline® bus and DC power are multi-dropped from sensor to sensor. This simplifies

the wiring to the controller compared to the traditional star wiring connections, reduces the number of DDCs and sub-panels required and provides a higher flexibility for last-minute changes and enhancements. The module has 1 x thermistor 10K3 input, 1 x variable resistor 1-11 K $\Omega$  and 2 x 0-10 VDC inputs.

## Ordering Key

**G 8810 6311**

Type: Dupline® \_\_\_\_\_  
 Housing \_\_\_\_\_  
 Transmitter \_\_\_\_\_  
 Number of Inputs \_\_\_\_\_  
 Input type \_\_\_\_\_

## Type Selection

Supply	Ordering no.
15-30 VDC	G8810 6311

## Supply and Bus Specifications

<b>Power Supply</b>	
Operational voltage range	15 - 30 V DC
Max ripple	1 V
Reverse polarity protection	Yes
Overvoltage category	Overvoltage cat. II (IEC 60664-1, par. 4.3.3.2)
Rated impulse voltage	500 V (1,2/50 $\mu$ s) (IEC 60664-1, tab. F.1)
Typ. current consumption	15 mA (only internal)
Max. output current	100 mA (not self-limited)
Power on delay	$\leq$ 2 s
Power off delay	$\leq$ 1 s
<b>Dupline® Bus</b>	
Min. Dupline® voltage	4.5 V
Typ. Dupline® bus load	1.5 mA
V1 signal	Channel I/O1
V2 signal	Channel I/O2
Thermistor signal	Channel I/O3
Potentiometer signal	Channel I/O4

## Specifications for Analog Inputs

<b>Input 1 and 2</b>	
Input type	2 x 0-10 VDC
Inaccuracy	< 0.5% fs (over entire temp range) ( $\pm$ 1 Analink bit)
Max input level	50 V
Input impedance	>100 K $\Omega$
Cable length	< 5 m
Resolution	
Analink count = 0	The module is not connected
Analink count = 1	Voltage input < 0.04 mV ((Count/255) x 10 V)
Analink count = 2	Voltage input < 0.08 mV ((Count/255) x 10 V)
Analink count = 254	Voltage input < 9.96 V ((Count/255) x 10 V)
Analink count = 255	Voltage input $\geq$ 10.00 V
<b>Input 3</b>	
Input type	1 x Thermistor 10K3
Signal range	Trend standard, 0 - 50°C
Inaccuracy	< 0.5°C (over entire temp range) ( $\pm$ 1 Analink bit)
Cable length	< 5 m
Resolution	
Analink count = 0	The module is not connected

## Specifications for Analog Inputs (cont.)

Analink count = 1	The temperature is 0.2°C or less, or thermistor is open (not connected)	Resolution Analink count = 0 Analink count = 1	The module is not connected < 0,4% ((Count/255) x 100%) or variable resistor is short-circuited
Analink count = 2	The temperature is 0.4°C ((Count/255) x 50°C)	Analink count = 2	
Analink count = 254	The temperature is 49.8°C ((Count/255) x 50°C)	Analink count = 254	
Analink count = 255	The temperature is 50°C or more, or thermistor input is short-circuited	Analink count = 255	
<b>Input 4</b> Input type Signal range Inaccuracy  Cable length	1 x 1-11KΩ 0 - 100% < 1% (over entire temp range) (±1 Analink bit) < 5 m	<b>Analink Protocol</b> Response time	256 Dupline <sup>®</sup> cycles (36s @ 128 channels)

## General Specifications

<b>Environment</b> Pollution degree Operating temperature Storage temperature	2(IEC 60664-1, par. 4.6.2) 0 to +50°C (-4 to +122°F) -50 to +85°C (-58 to + 185°F)	<b>Address coding</b>	GAP1605 with GAP-TPH-CAB connection cable <b>Note:</b> Connection on 4 pcb holes
<b>Humidity</b> (non-condensing)	20 - 90%	<b>Dielectric strength</b> Dupline <sup>®</sup> to signal input	None
<b>Housing</b> Material Colour	Macromel Ambra	<b>EMC</b> Immunity - Electrostatic discharge - Radiated radiofrequency - Burst immunity - Surge - Conducted radiofrequency - Power frequency magnetic fields - Voltage dips, variations, interruptions	EN61000-6-2 EN61000-4-2 EN61000-4-3 EN61000-4-4 EN61000-4-5 EN61000-4-6 EN61000-4-8 EN61000-4-11
<b>Dimensions</b> (h x w x d)	50 x 30 x 18 mm	<b>Emission</b> - Conducted and radiated emissions - Conducted emissions - Radiated emissions	CISPR 22 (EN55022), cl.B CISPR 16-2-1 (EN55016-2-1) CISPR 16-2-3 (EN55016-2-3)
<b>Weight</b>	50 g	<b>Approvals</b>	CE cULus according to UL60950
<b>Protection degree</b>	IP20		
<b>Terminal block</b> Power supply input Dupline <sup>®</sup> bus Cross-sectional area	2 x spring terminal (double) 2 x spring terminal (double) Terminal: 1.5 mm <sup>2</sup>		
<b>Cable x 8</b> DC+ supply for sensor DC- supply for sensor Signal ground V1 input 0-10 VDC V2 input 0-10 VDC Thermistor input Signal ground Variable resistor input Cross-section area Wire length	Out (+) Out (-) GND CH2 CH1 TH GND P 0.14 mm <sup>2</sup> 0.25 m		

