

Dupline

Технические характеристики

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Dupline® Fieldbus: General Purpose

Channel Generators/Interfaces

Types

G3490

G3496

G3800



Dimensions (mm)
Functions

77 x 72 x 70
Standard channel generator.

77 x 72 x 70
Plug & Play RS232 /RS485 Interface with built-in protocols for specific PLC brands and Modbus.

77 x 144 x 70
Controller and Modbus Interface with built-in GSM Modem (option) or external Radio Modem. Logger (option).
DIN-Rail, H8.

Housing type

DIN-Rail, H4.

DIN-Rail, H4.

DIN-Rail, H8.

Electrical Characteristics

Number of channels
Features/Signal types

Selectable

Selectable
Possibility for 3-wire operation with DC-power on the 3'rd wire.

Selectable
4 x Contact/NPN input+
4 x PNP 10-30 VDC output
2 x RS232+1 x RS485
Possibility for alarms, monitoring and control via SMS messages.

Power Supply

024 = 24 VAC
115 = 115 VAC
230 = 230 VAC
824 = 15-30 VDC

700 = 20-30 VDC

800 = 10-30 VDC
230 = 115-230 VAC

General Characteristics

Degree of protection
Operating temperature
Storage temperature
Remarks

IP 20
-20°C to +50°C
-50°C to +85°C

IP 20
0°C to +50°C
-50°C to +85°C
Built-in protocol for specific PLC brands for easy interfacing.

IP 20
0°C to +50°C
-20°C to +85°C
Up to 32 controllers can be networked together via RS485 or Ethernet via converter module.

References

Channel Generator

G3490 0000

- Optolink
- LG
- GE-Fanuc
- Mitsubishi
- Omron
- Modbus
- Allen-Bradley
- Schneider
- Koyo
- Matsushita
- Siemens
- Toshiba
- IDEC
- GSM Modem, -RS485
- +GSM Modem, -RS485
- GSM Modem, +RS485
- +GSM Modem, +RS485
- GSM Modem, +RS485, +Logging
- +GSM Modem, +RS485, +Logging

- G3496 0000**
- G3496 0001**
- G3496 0002**
- G3496 0003**
- G3496 0004**
- G3496 0005**
- G3496 0006**
- G3496 0007**
- G3496 0008**
- G3496 0009**
- G3496 0010**
- G3496 0011**
- G3496 0012**

- G3800 0015**
- G3800 1015**
- G3800 0016**
- G3800 1016**
- G3800 0036**
- G3800 1036**



	Channel Generators/Interfaces		Digital Input Modules	
Types	G3891	GTI50	G3410 5501	G3420
Dimensions (mm)	77 x 144 x 70	55 x 70 x 15 mm	77 x 72 x 70	77 x 72 x 70
Functions	Gateways to Fieldbus systems (Profibus-DP, DeviceNet etc.)	Dupline® Modbus RTU Interface module for Text Displays and Touchscreens.	Dupline® powered transmitter with 8 monostable volt-free contacts.	Input module for external supply with optoisolated inputs.
Housing type	DIN-Rail, H8.	Closed plastic housing with 25p male sub-D.	DIN-Rail, H4.	DIN-Rail, H4.
Electrical Characteristics				
Number of channels	Selectable.		8	8
Features/Signal types		Supports Modbus RTU function code 3 and code 16.	Volt-free input contacts.	Contact/NPN Voltage (6-265 VAC/DC).
Power Supply	230 = 115/230 VAC	Powered by RS485 port.	Powered by Dupline®.	024 = 24 VAC 115 = 115 VAC 230 = 230 VAC 800 = 10-30 VDC
General Characteristics				
Degree of protection	IP 20	IP 20	IP 20	IP 20
Operating temperature	0°C to +50°C	-20°C to +60°C	-20°C to +50°C	-20°C to +50°C
Storage temperature	-20°C to +85°C	-50°C to +85°C	-50°C to +85°C	-50°C to +85°C
Remarks			Low power consumption.	
References		GTI50		
Profibus-DP with C. G.	G3891 0020			
Profibus-DP analog output multiplex	G3891 0021			
Devicenet	G3891 0050			
Lonworks	G3891 0051			
Modbus / TCP	G3891 0052			
Profibus-DP passive	G3891 0120			
8 channel			G3410 5501	
Contact/NPN				G3420 5501
Voltage				G3420 5502

Fieldbus



Digital Input Modules

Types

G4420 7401



G5010



G6391 0240



Dimensions (mm)
Functions

36 x 85 x 58
Input module for counting of pulses from energy meters, item detectors etc.

49 x 22.5 x 56
Dupline powered single input Module.

34.2 x 37.5 x 36.8
Plug-in module to EM4 or WM22 with 2 S0 input contacts for measuring water, gas etc.

Housing type

DIN-Rail, H2.

DIN-Rail, Mini-E.

Plug-in.

Electrical Characteristics

Number of channels

4

1

2

Features/Signal types

S0 contact input (DIN 43 864).
Max. count frequency: 14 Hz.

Contact input.

Reads actual internal value of total energy and/or reactive energy from EM4/WM22 and transmits to Dupline®. 2 x S0 contact input.
Powered through the Dupline® network and EM4/WM22.

Power Supply

230 = 230 VAC
724 = 15-30 VDC

Powered through the Dupline® network.

General Characteristics

Degree of protection

IP 40

IP 20

IP 20

Operating temperature

-20°C to +60°C

-20°C to +50°C

0°C to +50°C

Storage temperature

-20°C to +85°C

-50°C to +85°C

-20°C to +50°C

Remarks

Decentral counting.
Counter values stored in non-volatile memory.

References

4 channel Counter

G4420 7401

1 channel

G5010 1106





2 channels

G5010 2206

2 channel plug-in module

G6391 0240



	Digital I/O Modules		Digital Output Modules	
Types	G3440 4443	G3440 5543	G3430 / G3830	G8830 1143
				
Dimensions (mm)	77 x 72 x 70	77 x 72 x 70	77 x 72 x 70 (H4) 77 x 144 x 70 (H8)	26 x 39 x 17
Functions	Combined I/O module for external supply with optoisolated inputs and relay outputs.	I/O module for digital signals.	Output modules for external supply with isolated outputs.	Decentral relay module with 1 x SPST relay for control of lights.
Housing type	DIN-Rail, H4.	DIN-Rail, H4.	DIN-Rail, H4. DIN-Rail, H8 (G3830 5543).	Compact regular, with solid cables. For decentral installation.
Electrical Characteristics				
Number of channels	4	6	1, 2, 4, 8	1
Features/Signal types	2 x 6-265 VAC/DC inputs + 2 x SPST relay outputs.	4 opto isolated inputs and 2 SPST relay outputs.	10 A SPDT relay. 10 A SPST relay. 0.7 A NPN transistor. 0.7 A PNP transistor.	1 x 13A/250 VAC relay Inrush current: <130A.
Power Supply	024 = 24 VAC 115 = 115 VAC 230 = 230 VAC 824 = 15-30 VDC	024 = 24 VAC 115 = 115 VAC 230 = 230 VAC	024 = 24 VAC 115 = 115 VAC 230 = 230 VAC 800 = 10-30 VDC 824 = 15-30 VDC	Powered through the Dupline® network.
General Characteristics				
Degree of protection	IP 20	IP 20	IP 20	IP 20
Operating temperature	-20°C to +50°C	-20°C to +50°C	-20°C to +50°C	0°C to +50°C
Storage temperature	-50°C to +85°C	-50°C to +85°C	-50°C to +85°C	-50°C to +85°C
Remarks				Recommended minimum load 100 mA / 12 V.
References				
2 input + 2 output SPST	G3440 4443			
4 input + 2 output SPST		G3440 5543		
1 x 13 A SPST				G8830 1143
1 x 5 A SPDT			G3430 1149	
2 x 5 A SPDT			G3430 2249	
4 x 5 A SPST			G3430 4443	
8 x 5 A SPST			G3830 5543	
8 x 0.7 A NPN			G3430 5511	
8 x 0.7 A PNP			G3430 5521	

Fieldbus



Analog Input Modules

Types

G3429 6470

G3210 1161

G3210 1111



Dimensions (mm)

77 x 72 x 70

Functions

Universal analog input module for external supply.

77 x 36 x 70

Analog input module powered from Dupline® and input signal.

77 x 36 x 70

Dupline®-powered Analog input module for Pt100 temperature sensor.

Housing type

DIN-Rail, H4.

DIN-Rail, H2.

DIN-Rail, H2.

Electrical Characteristics

Number of channels

Selectable

1

1

Features/Signal types

4 x isolated analog input.
Input type individually configurable (0-20 mA, 4-20 mA, 0-10 VDC).

1 x 4-20 mA input.

1 x Pt100 3-wire input
Ranges:
(-50°C to +40°C)
(+30°C to +120°C)
(-10°C to +100°C)

Power Supply

024 = 24 VAC
115 = 115 VAC
230 = 230 VAC
800 = 10-30 VDC

Powered through the Dupline® network and 4-20 mA input signal.

Powered through the Dupline® network.

General Characteristics

Degree of protection

IP 20

IP 20

IP 20

Operating temperature

0°C to +50°C

0°C to +50°C

0°C to +50°C

Storage temperature

-20°C to +85°C

-50°C to +85°C

-50°C to +85°C

Remarks

Protocol freely selectable (Analink, Multiplexed BCD or 8-bit).

Uses Analink 8-bit protocol.

Uses Analink 8-bit protocol.
Built-in cable compensation.

References

Univesel Analog input
Dupline powered analog input

G3429 6470

G3210 1161

-50°C to +40°C

+30°C to +120°C

-10°C to +100°C

G3210 1111

G3210 1112

G3210 1113



	Analog Output Mod.	Digital Sensors		Temp. Sensor
Types	G3439 6470	G6110 1145	G8910 1101	G8911 1010
Dimensions (mm)	77 x 72 x 70	M18 x 55	Ø11 x 68	67 x 35 x 15
Functions	Universal analog output module for external supply.	Dupline® powered inductive proximity switch.	Dupline® powered magnet proximity switch.	Temperature sensor for outdoor use.
Housing type	DIN-Rail, H4.	M18.	Cylindrical.	Flat pack sensor housing.
Electrical Characteristics				
Number of channels	Selectable	1	1	1
Features/Signal types	4 x analog outputs. Output type configurable for 0-20 mA, 4-20 mA or 0-10 VDC.	Detects proximity of metal objects.	Detects proximity of magnet.	1 x Analink Range: -30°C to +60°C.
Power Supply	024 = 24 VAC 115 = 115 VAC 230 = 230 VAC 800 = 10-30 VDC	Powered through the Dupline® network.	Powered through the Dupline® network.	Powered through the Dupline® network.
General Characteristics				
Degree of protection	IP 20	IP 67	IP 67	IP 67
Operating temperature	0°C to +50°C	-25°C to +70°C	-20°C to +50°C	-25°C to +70°C
Storage temperature	-20°C to +85°C	-30°C to +80°C	-20°C to +70°C	-55°C to +85°C
Remarks	Protocol freely selectable (Analink, Multiplexed BCD or 8-bit).	Available with cable or M12 connector. Flush mounting.	Available in Ø 11 plastic housing or with M14 metal thread.	8-bit resolution.
References				
Universal Analog output	G3439 6470			
Cable		G6110 1145		
M12 plug		G6110 1145-1		
Ø11			G8910 1101	
M14			G8910 1101-G	G8911 1010





Fieldbus



Dupline® Fieldbus: General Purpose

Types	Repeater	Optolink Interface	
	D3892 0000	G3491 0000	G3491 0090
Dimensions (mm)	77 x 144 x 70	77 x 72 x 70	77 x 72 x 70
Functions	Dupline® signal Repeater for extension of transmission distance.	RS232 to fibre optic interface.	RS232 to fibre opto-link interface.
Housing type	DIN-Rail, H8.	DIN-Rail, H4.	DIN-Rail, H4.
Electrical Characteristics			
Number of channels	Adjusts automatically.	Adjusts automatically.	Adjusts automatically.
Features/Signal types	All Dupline® signal types. Regenerates the Dupline® signal carrier through channel-generator output.	Reads/controls up to 63 Dupline® systems which are networked through optolinks (G3491 0000).	Used as interface between computer or PLC with RS232 and a fibre optic Lan-ring.
Power Supply	024 = 24 VAC 115 = 115 VAC 230 = 230 VAC	024 = 24 VAC 115 = 115 VAC 230 = 230 VAC	024 = 24 VAC 115 = 115 VAC 230 = 230 VAC
General Characteristics			
Degree of protection	IP 20	IP 20	IP 20
Operating temperature	0°C to +50°C	0°C to +50°C	0°C to +50°C
Storage temperature	-50°C to +85°C	-20°C to +85°C	-20°C to +85°C
Remarks		Operates with G3491 0090.	Operates with G3491 0000.
References			
Repeater (Booster)	D3892 0000		
RS232 fibre interface		G3491 0000	
RS232 to optolink interface			G3491 0090






	Converters		Display modules	Power Supply
Types	G3491 0040	G3492 / G3493	G5460 6606	G3485 0000
				
Dimensions (mm)	77 x 72 x 70	77 x 72 x 70	96 x 96 x 78	77 x 72 x 70
Functions	Private line Modem for long distance transmission of Dupline® signals.	Optical repeater for converting Dupline® from electrical to optical transmission media.	LED status indicator for 16 Dupline® channels.	3-wire power supply, used when multiple Dupline® modules are supplied through a DC-bus.
Housing type	DIN-Rail, H4.	DIN-Rail, H4.	Panel mounting.	DIN-Rail, H4.
Electrical Characteristics				
Number of channels	Adjusts automatically	Adjusts automatically	16	Selectable
Features/Signal types	Digital, 8-bit analog, non-multiplexed 3 1/2 digit BCD analog.	All Dupline® signal types.	Each of the 16 LED's indicates the status of the digital channels assigned to it.	Supply current ≤ 4 A (up to 25°C) or ≥ 3 A (up to 50°C)
Power Supply	024 = 24 VAC 115 = 115 VAC 230 = 230 VAC	230 = 115/230 VAC	024 = 24 VAC 115 = 115 VAC 230 = 230 VAC	15-30 VDC
General Characteristics				
Degree of protection	IP 20	IP 20	IP 40	IP 20
Operating temperature	0°C to +50°C	0°C to +50°C	0°C to +50°C	0°C to +50°C
Storage temperature	-20°C to +85°C	-20°C to +85°C	-20°C to +60°C	-20°C to +85°C
Remarks	Operates pair-wise.	Operates pair-wise. Runs on 50/125, 62.5/125 or 100/140 micro m with STN connectors.		Multiple units can be connected in parallel to increase length and size of a Dupline® system.
References				
Long distance modem	G3491 0040			
Optical/electrical converter		G3492 0000		
Electrical/optical converter		G3493 0000		
LED indicator for Dupline			G5460 6606	
3-wire power supply				G3485 0000

Fieldbus



Dupline® Fieldbus: General Purpose

	Software		
Types	DUPDATAACC	DUP-SERV-ADD	DUP-SERV-SW
Dimensions (mm)			
Functions	 <p>Software package with DDE-driver and ActiveX driver for G3800. Controller and interface unit.</p>	 <p>A data logging, visualization and alarm handling software package to be installed in a windows based PC.</p>	 <p>A data logging, visualization and alarm handling software package to be installed in a windows based PC.</p>
Electrical Characteristics			
Features/Signal types	All Dupline® signal types. Copy and paste of dynamic Dupline links into EXCEL spreadsheets.	Works only with G3800 xx36. Log and control energy consumption, analog values and digital events and alarms.	Works only with G3800 xx36. Log and control energy consumption, analog values and digital events and alarms.
References	DUPDATAACC	DUP-SERV-ADD	DUP-SERV-SW DUP-SERV-SW2



	Chan. Gen. / Interf.	Digital Input Modules		
Types	G3800	G4420 7401	G5010	G6391 0240
Dimensions (mm)	77 x 144 x 70	36 x 85 x 58	49 x 22.5 x 56	34.2 x 37.5 x 36.8
Functions	Controller and Modbus interface with built-in GSM Modem (option) or external radio Modem. Logger (option).	Input module for counting of pulses from energy meters, item detectors etc.	Dupline powered single input Module.	Plug-in module to EM4 or WM22 with 2 S0 input contacts for measuring water, gas etc.
Housing type	DIN-Rail, H8.	DIN-Rail, H2.	DIN-Rail, Mini-E.	Plug-in.
Electrical Characteristics				
Number of channels	Selectable.	4	1	2
Features/Signal types	4 x Contact/NPN input+ 4 x PNP 10-30 VDC output 2 x RS232+1 x RS485 Possibility for alarms, monitoring and control via SMS messages.	S0 contact input (DIN 43 864). Max. count frequency: 14 Hz.	Contact input.	Reads actual internal value of total energy and/or reactive energy from EM4/WM22 and transmits to Dupline® 2 x S0 contact input.
Power Supply	800 = 10-30 VDC 230 = 115-230 VAC	230 = 230 VAC 724 = 15-30 VDC	Powered through the Dupline® network.	Powered through the Dupline® network and EM4/WM22.
General Characteristics				
Degree of protection	IP 20	IP 40	IP 20	IP 20
Operating temperature	0°C to +50°C	-20°C to +60°C	-20°C to +50°C	0°C to +50°C
Storage temperature	-20°C to +85°C	-20°C to +85°C	-50°C to +85°C	-20°C to +50°C
Remarks	Up to 32 controllers can be networked together via RS485 or Ethernet via converter module.	Decentral counting. Counter values stored in non-volatile memory.		
References				
4 channel Counter		G4420 7401		
1 input			G5010 1106	
2 inputs			G5010 2206	
-GSM Modem, -RS485	G3800 0015			
+GSM Modem, -RS485	G3800 1015			
-GSM Modem, +RS485	G3800 0016			
+GSM Modem, +RS485	G3800 1016			
-GSM Modem, +RS485, +Logging	G3800 0036			
+GSM Modem, +RS485, +Logging	G3800 1036			
2 channel plug-in module				G6391 0240







Types	Digital Input Modules		Digital Output Modules	
	G2110 4401	G8810 1102	G3430 4243	G3430 4249
Dimensions (mm)	66 x 66 x 23	26 x 39 x 17	77 x 72 x 70	77 x 72 x 70
Functions	Alarm input module for use with external sensors in windows, doors etc.	Small size enables it to be installed behind power outlets.	Output module for up/down of two DC rollerblind modules.	Relay module with Interlocking relay for control of 2 rollerblind motors.
Housing type	Open PCB with standard alarm junction box enclosure.	Compact regular with solid cable.	DIN-Rail, H4.	DIN-Rail, H4.
Electrical Characteristics				
Number of channels	4	1	4	4
Features/Signal types	4 x Contact/NPN inputs.	1 x voltage input (90 to 265 VAC).	2 x SPST x 2 DPDT relays 5A/24VDC loads	5 A 250 VAC or 0.25A/250 VDC loads.
Power Supply	Powered through the Dupline® network or from external 10 to 30 VDC supply.	Powered through the Dupline® network.	230 = 230 VAC	024 = 24 VAC 115 = 115 VAC 230 = 230 VAC 824 = 15-30 VDC
General Characteristics				
Degree of protection	IP 20	IP 20	IP 20	IP 20
Operating temperature	-20°C to +50°C	-20°C to +50°C	0°C to +50°C	-20°C to +50°C
Storage temperature	-50°C to +85°C	-50°C to +70°C	-20°C to +85°C	-50°C to +85°C
Remarks	Supports Dupline® 3-wire power concept.		Used with G3800 XXXX.	Used with G3800 XXXX.
References				
1 channel compact	G2110 4401 700	G8810 1102	G3430 4243	G3430 4249
2 SPST & 2 DPDT				
2 SPST & 2 SPDT				






	Digital Output Modules			
Types	G3430 4445	G3430 5545	G8230 1143	G8830 1143
Dimensions (mm)	77 x 72 x 70	77 x 72 x 70	40 x 45 x 16	26 x 39 x 17
Functions	4 Channel output module with SPST relay.	Central relay module with 8 x SPST relays for resistive loads.	Decentral receiver for digital signals supplied by Dupline®.	Decentral relay module with 1 x SPST relay for control of lights.
Housing type	DIN-Rail, H4.	DIN-rail, H4.	Compact housing made for PL and OPUS concrete back boxes.	Compact regular, with solid cables. For decentral installation.
Electrical Characteristics				
Number of channels	4	8	1	1
Features/Signal types	16 A 250 VAC	8 x 16A/250 VAC relays Inrush current: <130A.	1 x SPST relay up to 250 VAC / 13 A.	1 x 13A/250 VAC relay Inrush current: <130A.
Power Supply	024 = 24 VAC 115 = 115 VAC 230 = 230 VAC	024 = 24 VAC 115 = 115 VAC 230 = 230 VAC	Powered through the Dupline® network.	Powered through the Dupline® network.
General Characteristics				
Degree of protection	IP 20	IP 20	IP 40	IP 20
Operating temperature	-5°C to +50°C	-5°C to +50°C	-20°C to +50°C	0°C to +50°C
Storage temperature	-50°C to +85°C	-50°C to +85°C	-50°C to +85°C	-50°C to +85°C
Remarks	Bistabile contacts.	Total module load maximum 32 A.		Recommended minimum load 100 mA / 12 V.
References	G3430 4445	G3430 5545	G8230 1143	G8830 1143



	Digital Output Mod.	Dimmers		
Types	G8830 2149	G3448 5134	G3448 5234	G3448 5238
				
Dimensions (mm)	50 x 50 x 30	77 x 72 x 70	77 x 72 x 70	77 x 72 x 70
Functions	Output module for Rollerblind motor.	Dimmer with 1 x 500 W output, and 4 senario functions.	Dimmer with 2 x 230 W outputs, and 4 senario functions each.	Dimmer with 2 outputs (1-10 V), and 4 senario functions each.
Housing type	Compact for mounting in Euro box.	DIN-Rail, H4.	DIN-Rail, H4.	DIN-Rail, H4.
Electrical Characteristics				
Number of channels	2	8	8	8
Features/Signal types	2 x 5 A/250 VAC	1 x 500 W	2 x 230 W	Relay outputs 2 x 250 VAC/10 A.
Power Supply	230 = 230 VAC	230 = 230 VAC	230 = 230 VAC	230 = 230 VAC
General Characteristics				
Degree of protection	IP 20	IP 20	IP 20	IP 20
Operating temperature	-20°C to +50°C	0°C to +50°C	0°C to +50°C	0°C to +50°C
Storage temperature	-50°C to +85°C	-50°C to +85°C	-50°C to +85°C	-20°C to +85°C
Remarks	Built in interlocking to protect motor.	Dimmer speed 3.6 sec (5-100%).	Dimmer speed 3.6 sec (5-100%).	Allows up to 50 mA ballast.
References				
	G8830 2149	G3448 5134	G3448 5234	G3448 5238



	Dimmer	Inductive Sensor	Thermostat
Types	G3448 5239	G6110 1145	G8110 3394
			
Dimensions (mm)	77 x 72 x 70	55 x 18	FUGA 50 x 50 x 33
Functions	Daylight controller with 2 outputs (1-10 V).	Inductive Sensor. Used to monitor the state of doors etc.	Thermostat with built-in temperature sensor.
Housing type	DIN-rail, H4.	M18 standard alarm.	Fuga and Opus housings.
Electrical Characteristics			
Number of channels	7	1	3
Features/Signal types	Relay outputs 2 x 250 VAC/10 A	1 x digital signal when activated by a metallic object.	
Power Supply	230 = 230 VAC	Powered through the Dupline® network.	Powered through the Dupline® network.
General Characteristics			
Degree of protection	IP 20	IP 67	IP 20
Operating temperature	-5°C to +50°C	-25°C to +70°C	0°C to +50°C
Storage temperature	-50°C to +85°C	-30°C to +80°C	-20°C to +70°C
Remarks	Operates with the G8210 2220. Allows up to 50 mA ballast.		Includes night set-back 4°C.
References	G3448 5239	G6110 1145 G6110 1145-1	G8110 3394 G8210 3394
Ø11			
M14			
FUGA			
OPUS			

Types

G8210 3394



OPUS 66 x 66 x 30

Dimensions (mm)



PIR Movement Detectors

Types

G8110 1127

G8210 1128

G8310 1127

G8510 1127



Dimensions (mm)
Functions

FUGA 50 x 50 x 33
Passive infrared detector with built-in transmitter.

OPUS 66 x 66 x 30
Passive infrared detector with built-in transmitter.

25 x 76
PIR sensor for ceiling.

84 x 84 x 48
Passive infrared sensor (PIR) for detection of movement of persons. Used for intruder alarm or light control.

Housing type

Fuga and Opus housings.

Opus housing. Ceiling mounting.

LK ceiling box PL52 and PL55.

ELKO housing.

Electrical Characteristics

Number of channels
Features/Signal types

1

1

1
1 x Digital signal when PIR is activated.

1
1 x Digital signal when PIR is activated.

Power Supply

Powered through the Dupline® network.

Powered through the Dupline® network.

Powered through the Dupline® network.

Powered through the Dupline® network.

General Characteristics

Degree of protection
Operating temperature
Storage temperature
Remarks

IP 20
0°C to +50°C
-20°C to +85°C
Detects movements up to 6 meter.

IP 20
0°C to +50°C
-20°C to +70°C
Maximum range 6 m.

IP 20
0°C to +50°C
-20°C to +70°C
Maximum range 6 m.

IP 40
-10°C to +50°C
-30°C to +70°C
Maximum range 10 m.

References

FUGA
OPUS

G8110 1127
G8210 1127

G8210 1128

G8310 1127

G8510 1127

Types





G8210 1127






Dimensions (mm)

OPUS 66 x 66 x 30



	PIR Movement Detector		Mag. prox. sensor	Water sensor
Types	G8910 1127	G8910 2129	G8910 1101	G8910 2116
				
Dimensions (mm)	104 x 55 x 57	104 x 55 x 57	55 x 18	70 x 40 x 16
Functions	Passive infrared sensor (PIR) for detection of movement of persons. Used for intruder alarm or light control.	Passive infrared sensor (PIR) for detection of movement of persons.	Magnetic proximity Sensor. Used to monitor the state of windows etc.	Water Sensor for detection of water on the floor in a building.
Housing type	Direct wall mounting.	Direct wall mounting.	Ø 11 or Ø 14 housing.	Direct wall mounting.
Electrical Characteristics				
Number of channels	1	1	1	2
Features/Signal types	1 x Digital signal when PIR is activated.	1 x Digital signal when PIR is activated.	1 x digital signal when activated by magnet.	1 x signal always activated when sensor is connected. 1 x digital signal when water is detected.
Power Supply	Powered through the Dupline® network.	Powered through the Dupline® network.	Powered through the Dupline® network.	Powered through the Dupline® network.
General Characteristics				
Degree of protection	IP 40	IP 40	IP 67	IP 67
Operating temperature	-10°C to +50°C	0°C to +50°C	-20°C to +50°C	-20°C to +50°C
Storage temperature	-30°C to +70°C	-20°C to +85°C	-20°C to +70°C	-50°C to +85°C
Remarks	Maximum range 10 m.	Used with light controls.		
References				
	G8910 1127	G8910 2129	G8910 1101 G8910 1101-G	G8910 2116
Cable				
M12 plug				



	Smoke Detector	Light Sensors	
Types	G8920 5517	G8511 1120	G8210 2220
			
Dimensions (mm)	Ø 100 x 51	77 x 102 x 40	66 x 66 x 35
Functions	Smoke detector operating according to the Tyndall effect.	Light intensity sensor for indoor and outdoor use.	Light sensor for daylight regulation applications.
Housing type	Direct ceiling mounting.	Direct wall mounting.	Direct ceiling mounting.
Electrical Characteristics			
Number of channels	5	1	2
Features/Signal types	I/01 = Alarm out I/02 = Monitoring of sensor I/03 = Monitoring of battery I/04 = Dirty sensor I/05 = Forced alarming	1 x Analink Range: 0.1 to 100000 LUX and 0.1 to 300000 LUX.	1 x channel for sync. input for light level data. 1 x channel for light level output.
Power Supply	Powered through the Dupline® network.	Powered through the Dupline® network.	Powered through the Dupline® network.
General Characteristics			
Degree of protection	IP 43	IP 44	IP 20
Operating temperature	5°C to +40°C	-10°C to +60°C	0°C to +50°C
Storage temperature	-5°C to +85°C	-20°C to +70°C	-20°C to +85°C
Remarks	Transmission via Dupline® with an individual detection area on 60 m ² .	8-bit resolution.	Works only with G3448 5239.
References			
OPUS	G8920 5517 709	G8511 1120	G8210 2220



Temperature Sensors / Controllers

Types	G8111 2211	G8145 2574	G8611 1010	G8911 1010
Dimensions (mm)	FUGA 50 x 50 x 28	FUGA 50 x 50 x 28	84 x 84 x 37	67 x 35 x 15
Functions	Analink temperatur sensor.	Temperature controller for controlling/monitoring heat or cooling in a single room.	Temperature sensor for indoor use.	Temperature sensor for outdoor use.
Housing type	Direct wall mounting box.	FUGA/OPUS housing.	ELKO	Flat pack sensor housing.
Electrical Characteristics				
Number of channels	2	2 needed + 3 optional	1	1
Features/Signal types	1 x channel sends temperature in Analink format. 1 x channel indicates "heat on". Range: +10°C to +35°C.	Integrated sensor 0-50°C input. Has built-in PID temperature regulator. Can control heat, cooling and night setback. -30°C to +60°C.	1 x Analink Range: -30°C to +60°C.	1 x Analink Range: -30°C to +60°C.
Power Supply	Powered through the Dupline® network.		Powered through the Dupline® network.	Powered through the Dupline® network.
General Characteristics				
Degree of protection	IP 20	IP 20	IP 20	IP 67
Operating temperature	-25°C to +70°C	0°C to +50°C	-30°C to +85°C	-25°C to +70°C
Storage temperature	-30°C to +80°C	-20°C to +70°C	-55°C to +85°C	-55°C to +85°C
Remarks		Must be used with G3800 xxxx for smart-house applications.	8-bit resolution.	8-bit resolution.
References			G8611 1010	
FUGA	G8111 2211	G8145 2574		
OPUS	G8211 2211	G8245 2574		
M12 plug				G8911 1010

Types	G8211 2211	G8245 2574
Dimensions (mm)	OPUS 66 x 66 x 35	OPUS 66 x 66 x 35



Remote Control Modules

Types

G4085 5562

G4185 5531

G8185 5532

G8185 5533



Dimensions (mm)
Functions

63 x 95
IR Remote control transmitter for control of lights, dimming roller blinds etc.

80 x 80 x 37
IR Remote control receiver.

FUGA 50 x 50 x 30
IR-receiver for Dupline® IR remote controller.

FUGA 50 x 50 x 30
IR-receiver for B&O remote control.

Housing type

Handheld.

Direct wall mounting.

FUGA/OPUS housing.

FUGA/OPUS housing.

Electrical Characteristics

Number of channels
Features/Signal types

8
8 x inputs activated by Dupline® handheld remote control.

8
8 x inputs activated by B&O handheld remote control.

Power Supply

Powered by 2 x 1.5 V AA batteries (LR06).

Powered through the Dupline® network.

Powered through the Dupline® network.

Powered through the Dupline® network.

General Characteristics

Degree of protection
Operating temperature
Storage temperature
Remarks

IP 40
-10°C to +45°C
-20°C to +70°C
Designed solely for use with G4185 5531 and G8285 5532.

IP 42
-10°C to +45°C
-20°C to +70°C
Designed solely for use with G4085 5562.

IP 20
0°C to +50°C
-20°C to +70°C
Working with G4085 5562.

IP 20
0°C to +50°C
-20°C to +70°C
Working with B&O remote control.

References

FUGA
OPUS

G4085 5562

G4185 5531

G8185 5532
G8285 5532

G8185 5533
G8285 5533

Types

G8285 5532

G8285 5533



Dimensions (mm)




OPUS 66 x 66 x 30

OPUS 66 x 66 x 30

Fieldbus



Types

	Remote Contr. Mod.	Light Switches	
	G8585 5533	G8110	G8210
			
Dimensions (mm)	84 x 84 x 31	55 x 55 x 11	66 x 66 x 11
Functions	IR-receiver for B&O remote control.	Light switch with built-in bus interface and individually addressable pushbuttons and LED's.	Light switch with built-in bus interface and individually addressable pushbuttons and LED's.
Housing type	ELKO housing.	FUGA design.	OPUS design.
Electrical Characteristics			
Number of channels	8	8	8
Features/Signal types	8 x inputs activated by B&O handheld remote control.	4 x Pushbuttons. 4 x LED indicators.	4 x Pushbuttons. 4 x LED indicators.
Power Supply	Powered through the Dupline® network.	Powered through the Dupline® network.	Powered through the Dupline® network.
General Characteristics			
Degree of protection	IP 20	IP 20	IP 20
Operating temperature	0°C to +50°C	0°C to +50°C	0°C to +50°C
Storage temperature	-20°C to +70°C	-20°C to +70°C	-20°C to +70°C
References	G8585 5533	G8110 4406 G8110 4407 G8110 4408 G8110 4409	G8210 4406 G8210 4408
Grey colour			
White colour			
Light grey colour			
Charcoal grey colour			



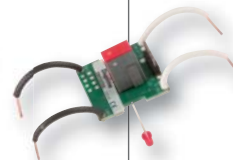
Light Switches

Types

G8510

G8810 4401

G8410 2203/06



Dimensions (mm)

84 x 84 x 28.5

28 x 28 x 10

27 x 27 x 12

Functions

Light switch with built-in bus interface and individually addressable pushbuttons and LED's.

Universal light switch interface for use with standard mechanical light switches.

Decentral digital transceiver designed for GIRA light switch.

Housing type

ELKO design.

Ultrasmall size for decentral installation behind standard light switches.

Open PCB.

Electrical Characteristics

Number of channels

6

4

2

Features/Signal types

1 to 3 Pushbuttons (PB).

4 x Contact inputs.

2 x contact inputs and 3 x LED outputs, where two are external LED's on wire.

Power Supply

1 to 3 LED indicators.
Powered through the Dupline® network.

Powered through the Dupline® network.

Powered by Dupline®.

General Characteristics

Degree of protection

IP 20

IP 20

-20°C to +85°C

Operating temperature

0°C to +50°C

0°C to +50°C

Storage temperature

-20°C to +70°C

-20°C to +70°C

Remarks

Max length of input wires 20 cm.

G8410 2206 has one built-in LED at I/O 7.

References

One button

G8510 1101

Two buttons

G8510 2201

Three buttons

G8510 3301

G8810 4401

2 channels




G8410 2203

2 channels + LED at I/O 7

G8410 2206




Types




	Wireless modules		Power Supply
	G3486 0058	G8186 4407	G3495 0012
			
Dimensions (mm)	72 x 77 x 70	FUGA 55 x 55 x 11	72 x 77 x 70
Functions	Dupline® wireless base unit.	Wireless light switch for smarthouse.	Power supply. Used to supply Dupline® DC modules.
Housing type	H4 Housing.	Direct wall mounting.	H4 Housing.
Electrical Characteristics			
Number of channels	Unlimited	4	
Features/Signal types	Wireless communication with 868 MHz, max. range 100 m.	4 individual inputs with 4 dedicated LED's.	Shortcircuit protected. Output watt = 9.6 W.
Power Supply	230 = 230 VAC	Battery CR2032	115 = 115 VAC 230 = 230 VAC
General Characteristics			
Degree of protection	IP 20	IP 20	IP 20
Operating temperature	-20°C to +50°C	0°C to +50°C	0°C to +45°C
Storage temperature	-50°C to +85°C	-20°C to +70°C	-40°C to +85°C
Remarks	Works with G8X86 4407703.	Works with G3486 0058230.	
References			
White (FUGA)	G3486 0058	G8186 4407	
Light grey (FUGA)		G8186 4408	
Antracit (FUGA)		G8186 4409	
Output 12 VDC			G3495 0012
Output 24 VDC			G3495 0024

Types

Dimensions (mm)	
References	
White (OPUS)	
Light grey (OPUS)	

G8286 4406

OPUS 66 x 66 x 11
G8286 4406
G8286 4408



	Sensors	Direction indicator	Passive indicators
Types	GP6520../GP6540..	GP6565 0201	GP6589..
			
Dimensions (mm)	85 x 85 x 50	110 x 110 x 66	85 x 85 x 50
Functions	Ultrasonic sensors for detection of cars with or without LED indication.	Quick indication of free parking spaces.	Passive indicator for sensor.
Housing type	Direct mounting on ceiling.	Direct mounting on ceiling or wall.	Direct mounting on ceiling.
Electrical Characteristics			
Number of channels	4	4	-
Features/Signal types	1 x signal for occupancy. 1 x signal for booking parking spaces. 1 x signal for booking parking spaces for disabled people. 1 x signal for common calibration.	2 x signals for start marker. 2 x signals for end marker.	No programming. Only wire connected.
Power Supply	3-wire system with Dupline® and sensor supply.	3-wire system with Dupline® and direction indicator supply.	
General Characteristics			
Degree of protection	IP 61	IP 66	IP 61
Operating temperature	-25°C to +70°C	-25°C to +70°C	-25°C to +70°C
Storage temperature	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C
References			
Red/Green LED	GP6520 2201	GP6565 0201	GP6589 0101
Red/Blue LED	GP6520 2202		GP6589 0102
Without LED	GP6540 3421		



Dupline® Fieldbus: Parking Guidance System

Types

4-digit display

GP6763 0104



3-digit display with arrow

GP6763 0105



Dimensions (mm) Functions

280 x 140 x 70
4- digit display.

600 x 240 x 100
3-digit display with built in
direction indicator.

Housing type

Aluminium box with clear
plexiglass front and black fibre
plate as cover.

Aluminium box with frosted
plexiglass front.

Electrical Characteristics

Power Supply

24 VDC min.; 30 VDC max./
0.10 A
(Overvoltage category III
(IEC60664)).

85 - 264 VAC
230 VAC / 0.35 A
47 - 63 Hz

Features

- Shows number of free parking places with bright green LED.
- RS 485 communication.

- Shows number of free parking places and guides driver the right way.
- RS 485 communication.

General Characteristics

Degree of protection

IP 50

IP 65

Operating temperature

-25°C to +70°C

-10°C to +50°C

Pollution degree

3(IEC 60664)

3(IEC 60664)

Humidity

20 to 90% non condensing.

20 to 90% non condensing.

References

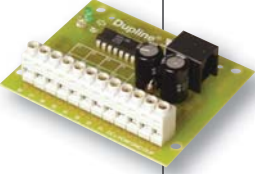
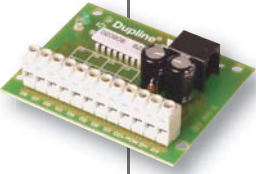
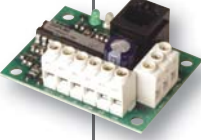
GP6763 0104

GP6763 0105



	Digital I/O Modules		Converter		Tools
Types	GH3440 4412	GH6440 4412	GH3485 0000		GHTU8
Dimensions (mm)	77 x 72 x 70	80 x 77 x 50	77 x 72 x 70		145 x 90 x 28
Functions	I/O module for irrigation valve control.	I/O module for irrigation valve control.	Dupline® to Hi-Line converter.		Dupline® test unit for monitoring and control of Dupline® channels. Used for Hi-line modules.
Housing type	DIN-Rail, H4.	Fully molded housing for underground installation.	DIN-Rail, H4.		Handheld.
Electrical Characteristics					
Number of channels	4	4	Adjusts automatically		Adjusts automatically
Features/Signal types	2 outputs for control of 3-wire 12 VDC latching valve, and 2 contact inputs.	2 outputs for control of 3-wire 12 VDC latching valve, and 2 contact inputs.	Converts the Dupline® signal to Hi-Line 28 VDC level for control of irrigation valves (see GH3440 4412 and GH6440 4412). 724 = 20-30 VDC.		Digital, multiplexed BCD and 8-bit analog signals.
Power Supply	Powered through Hi-Line signal (see GH34850000).	Powered through Hi-Line signal (see GH34850000).			Powered through the Dupline® network.
General Characteristics					
Degree of protection	IP 20	IP 67	IP 20		IP 40
Operating temperature	0°C to +50°C	0°C to +50°C	0°C to +50°C		0°C to +50°C
Storage temperature	-50°C to +85°C	-50°C to +85°C	-50°C to +85°C		-20°C to +85°C
Remarks					Options for latching digital signals and for reading multiplexed BCD values.
References					
	GH3440 4412	GH6440 4412	GH3485 0000		GHTU8



	Input Module	Output Modules	Input/Output Module
Types	G2120	G2130	G2140 4421
			
Dimensions (mm)	Open PCB 72.3 x 59 mm	Open PCB 74 x 59 mm	Open PCB 54 x 40 mm
Functions	8 contact inputs for push-buttons or transistors. LED indications for supply and carrier.	8 outputs for control of floor indicators and lamps. LED indications for supply and carrier.	2 push-button inputs. 2 PNP-transistor outputs. LED indications for supply and carrier.
Housing type	Snap locks or DIN-rail (vertical or horizontal).	Snap locks or DIN-rail (vertical or horizontal).	Snap locks or DIN-rail (vertical or horizontal).
Electrical Characteristics			
Number of channels	8	8	4
Features/Signal types	3-wire operation with DC-power on wire 3.	3-wire operation with DC-power on wire 3.	3-wire operation with DC-power on wire 3.
Power Supply	700 = 10 - 30 VDC	700 = 10 - 30 VDC	700 = 10 - 30 VDC
General Characteristics			
Degree of protection			
Operating temperature	-20°C to +50°C	-20°C to +50°C	-20°C to +50°C
Storage temperature			
References			
NPN	G2120 5501 700	G2130 5511 700	
PNP	G2120 5502 700	G2130 5521 700	G2140 4421 700



Input/Output Module

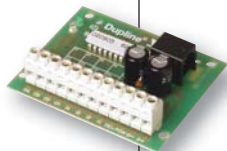
Master Modules

Types

G2140 55.0

G2196

G3496



**Dimensions (mm)
Functions**

Open PCB 74 x 59 mm
4 push-button inputs
4 transistor outputs
LED indications for supply and carrier.

Open PCB 86 x 54 mm
128 signals
RS 485/RS 232 interface to control system
LED indications for supply, carrier and RS485Tx.

77 x 72 x 70
Plug & Play RS232 /RS485 Interface with built-in protocols for specific PLC brands and Modbus.

Housing type

Snap locks or DIN-rail (vertical or horizontal).

Snap locks or DIN-rail (vertical or horizontal).

DIN-Rail, H4.

Electrical Characteristics

**Number of channels
Features/Signal types**

8
3-wire operation with DC-power on wire 3.

128 inputs and 128 outputs.
3-wire operation with DC-power on wire 3.

Selectable.
Possibility for 3-wire operation with DC-power on the 3'rd wire.

Power Supply

700 = 10 - 30 VDC

700 = 20 - 30 VDC

700 = 20-30 VDC

General Characteristics

**Degree of protection
Operating temperature
Storage temperature
Remarks**

-20°C to +50°C

-20°C to +60°C

IP 20
0°C to +50°C
-50°C to +85°C
Built-in protocol for specific PLC brands for easy interfacing.

References

- NPN outputs
- PNP outputs
- Standard protocol
- Lucky Goldstar K-series
- GE-Fanuc 90-30 series
- Mitsubishi FX & A-series
- Omron
- Modbus RTU Slave
- Allen-Bradley
- Schneider
- Koyo
- Matsushita
- Siemens
- Toshiba
- IDEC

**G2140 5510 700
G2140 5520 700**

**G2196 0000 700
G2196 0001 700
G2196 0002 700
G2196 0003 700
G2196 0004 700
G2196 0005 700**

**G3496 0000
G3496 0001
G3496 0002
G3496 0003
G3496 0004
G3496 0005
G3496 0006
G3496 0007
G3496 0008
G3496 0009
G3496 0010
G3496 0011
G3496 0012**

Fieldbus

По вопросам продаж и поддержки обращайтесь:

Алматы (7273)495-231	Казань (843)206-01-48	Новокузнецк (3843)20-46-81	Смоленск (4812)29-41-54
Архангельск (8182)63-90-72	Калининград (4012)72-03-81	Новосибирск (383)227-86-73	Сочи (862)225-72-31
Астрахань (8512)99-46-04	Калуга (4842)92-23-67	Омск (3812)21-46-40	Ставрополь (8652)20-65-13
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Брянск (4832)59-03-52	Краснодар (861)203-40-90	Пенза (8412)22-31-16	Томск (3822)98-41-53
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Волгоград (844)278-03-48	Курск (4712)77-13-04	Ростов-на-Дону (863)308-18-15	Тюмень (3452)66-21-18
Вологда (8172)26-41-59	Липецк (4742)52-20-81	Рязань (4912)46-61-64	Ульяновск (8422)24-23-59
Воронеж (473)204-51-73	Магнитогорск (3519)55-03-13	Самара (846)206-03-16	Уфа (347)229-48-12
Екатеринбург (343)384-55-89	Москва (495)268-04-70	Санкт-Петербург (812)309-46-40	Хабаровск (4212)92-98-04
Иваново (4932)77-34-06	Мурманск (8152)59-64-93	Саратов (845)249-38-78	Челябинск (351)202-03-61
Ижевск (3412)26-03-58	Набережные Челны (8552)20-53-41	Севастополь (8692)22-31-93	Череповец (8202)49-02-64
Иркутск (395)279-98-46	Нижний Новгород (831)429-08-12	Симферополь (3652)67-13-56	Ярославль (4852)69-52-93
Россия (495)268-04-70	Киргизия (996)312-96-26-47	Казахстан (7172)727-132	

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