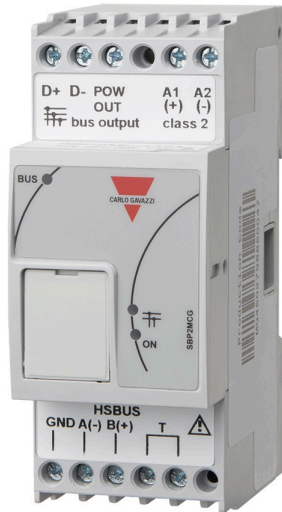


SBP2MCG324



Dupline® Carpark Bus Generator



Benefits

- **Integrated system.** Dupline® is the brand name for Carlo Gavazzi's 3-wire bus system.
- **Cost reduction.** The use of a bus system is a proven way to reduce installation costs – especially when the distance between I/O points are extensive.
- **Fast and easy installation.** Completely free topology, no special cable required, no screen or twist. It can go for 2 km and even further with repeaters.
- **High noise immunity.** Can run next to power cables.
- **Scalability.** New modules can be progressively integrated into the system according to the application needs.
- **Modularity.** The system is composed by many modules, powered by the bus, so that each installation can be precisely and easily sized.

Description

The Carpark bus generator SBP2MCG324 is part of the Dupline® carpark system and works only together with the Carpark controller UWP 3.0.

The SBP2MCG324 is a channel generator that generates the Dupline® 3-wire carrier signal with power and communication for the connected sensors and indicators.

Each Carpark bus generator can have up to 90 Carpark sensors connected, with max. 50 sensors in series. Additional Dupline® smart building modules such as PIR detectors, light switches, relay modules and DALI dimmers can be connected to the same Dupline® bus.

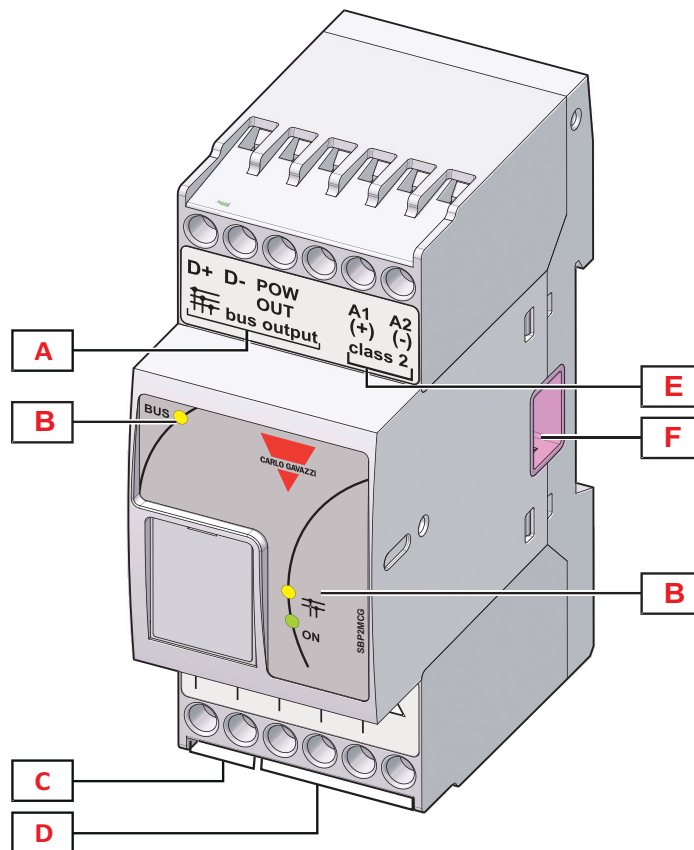
Applications

Parking Guidance Systems

Main features

- Transmit digital and analogue data collected from the wide ranges of sensors and I/O modules .
- Data are sent to the controller UWP 3.0 that elaborates them according to the programmed logic.
- Up to 7 SBP2MCG324 can be connected on the same UWP 3.0.
- Connection to UWP 3.0 via internal bus or terminals via the high speed bus.

Structure

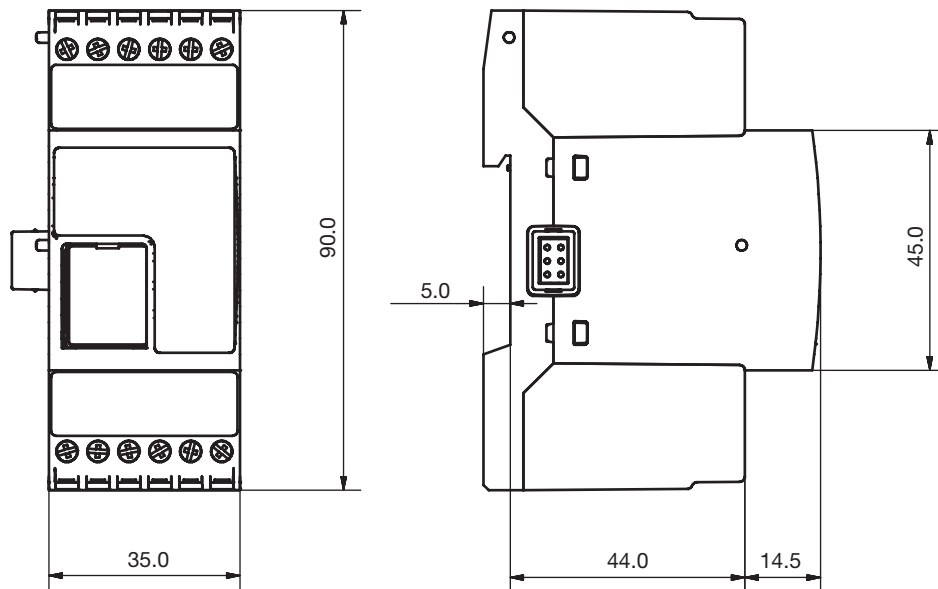


Element	Component	Function
A	Dupline bus	Connection to carpark sensors and smart Dupline® modules
B	Information LED	Indicating the following status: Green LED: Power supply Yellow LEDs: Dupline® bus and HS bus communication
C	HS bus	HS bus connection
D	HS bus termination	Termination for HS bus
E	Power supply	Power supply connection block
F	Local bus port (left side and right side)	Left side: connecting the UWP 3.0, SH2WBU230N, Dupline modules. Right side: connecting the SH2WBU230N, Dupline modules.

Features

General



Material	Noryl
Dimensions	2-DIN module
Weight	150 g
Protection grade	Front: IP50; Screw terminal: IP20
Dielectric strength	Power supply to Dupline®: 500 V AC for 1 min. (IEC60664-1, TAB. A.1)
Fail-safe condition	If the SBP2MCG324 loses the communication with the UWP 3.0, the Dupline® output will be switched off. In this situation all the modules connected to the bus will go into the fail-safe output status individually programmed with the UWP tool.
Terminal	12 screw-type; Section: 1.5 mm ² maximum; Torque: 0.4-0.8 Nm



Environmental

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% RH

Compatibility and conformity

Electromagnetic compatibility (EMC) - immunity	EN 61000-6-2 Electrostatic discharge: EN 61000-4-2 Radiated radiofrequency: EN 61000-4-3 Burst immunity: EN 61000-4-4 Surge: EN 61000-4-5 Conducted radio frequency: EN 61000-4-6 Power frequency magnetic fields: EN 61000-4-8 Voltage dips, variations, interruptions: EN 61000-4-11
Electromagnetic compatibility (EMC) - emissions	EN 61000-6-3 Conducted and radiated emissions: CISPR 22 (EN55022), cl. B Conducted emissions: CISPR 16-2-1 EN55016-2-1) Radiated emissions: CISPR 16-2-3 (EN55016-2-3)
Approvals	 

Power Supply

Rated operational voltage	28 VDC ($\pm 20\%$), 2.6 A (with max. load), CL.2	
Rated impulse voltage	500 V (1.2/50 μ s) (IEC 60664-1, tab. F.1)	
Rated operational power	3 W	
Reverse-polarity protection	Yes	
Connection	A1 (+) and A2 (-)	
Power-ON delay	Typical 4 s	
Power-OFF delay	1 s	
Voltage output	POW out	Nominal: 28 VDC $\pm 20\%$

Note: No galvanic separation between power supply A1 + A2 and power out.
Use always separate power supplies for each SBP2MCG324.

Dupline®

Dupline® voltage rated	8.2 V
Maximum Dupline® voltage	10 V
Min. Dupline® peak voltage	4.5 V
Maximum Dupline® current	130 mA, CL.2
Maximum current on pow	2.6 A
Terminal	D+, D- and pow out

Note: The Dupline® bus is located on the upper connector and also on the local bus connector on the right side of the module.

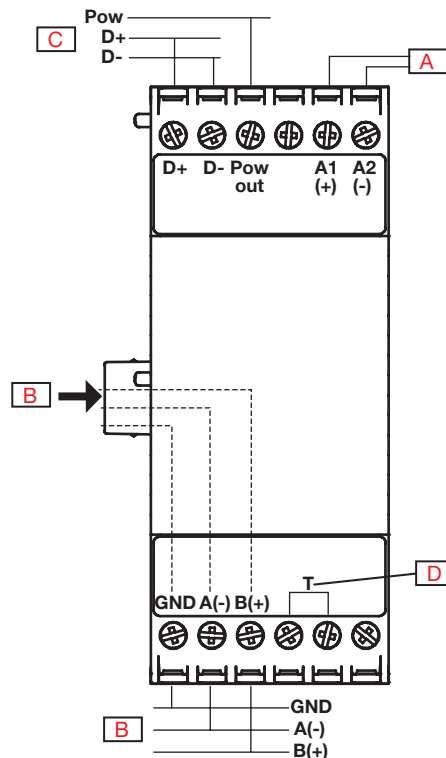
HS Bus

Bus type	RS485 high speed bus
Protocol	Internal proprietary protocol
Connection	By local bus (left and right connectors) or terminals GND, A(-), B(+). T1, T2: termination inputs. They have to be short-circuited on the last module of the network. See wiring diagrams.

LEDs indication

Green LED	Power status	ON: supply ON OFF: supply OFF 1 blink: Controller hardware error. The SBP2MCG324 is damaged 2 blinks: D+ voltage higher than expected. Voltage D+>9,5V, D+ could have been connected to POW
	Dupline® bus	ON steady: communication OK on the Dupline® bus OFF: no communication is present on the Dupline® bus 1 blink: D+/D- short circuit 2 blinks: pull down voltage high. One module could be missing the D- connection 3 blinks: Dupline® bus voltage error. Vdup<6V or Vdup > 9,5V 4 / 5 blinks: Dupline® bus overload. Dupline® current is too high 6 blinks: module inverted. One module could be connected with D+/D- inverted
Yellow LED	Bus	ON: communication OK on HS bus OFF: no communication is present on the HS bus Blinking: communication error on HS bus

Connection Diagrams



A	24 VDC supply	C	Dupline® Bus and 28 VDC power for 3-wire modules
B	HS Bus	D	These two terminals must be short-circuited in the last module of the network

References

Further reading

Information	Document	Where to find it
Carpark configuration manual	System manual	http://www.productselection.net/MANUALS/UK/configuration_manual.pdf

Order code



SBP2MCG324



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