

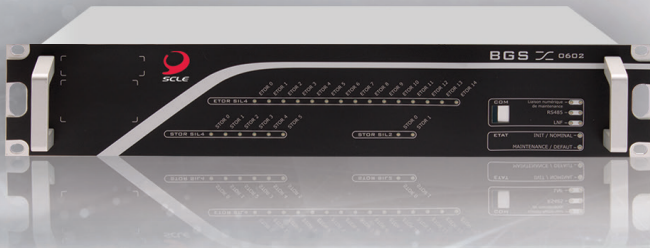


BGS

Generic Safety Platform SIL4 certified

A SIL4 safety platform for railway signalling digital applications

BGS is a generic product compliant with the **EN50129** standard and SIL4 certified since 2016 by Certifer. This device is operating on high-speed railway lines and tramways. The BGS platform enables generic and specific applications up to SIL4, based on the existing certificate.



SIL4 BGS

SIL4 certified

Modular and adaptable

Programmable and configurable

Easy maintenance

2 formats 19" rack and N.S1 unit

SIL4 certificate and references

BGS has been SIL4 certified **since 2016** and has been successfully used for **SIL2 and SIL4** generic and specific applications. It incorporates a **safe communication protocol** already in operation with a SIL4 safety level.

BGS has been in commercial operation on **high-speed railway lines and tramways** since 2017.

Modular and adaptable

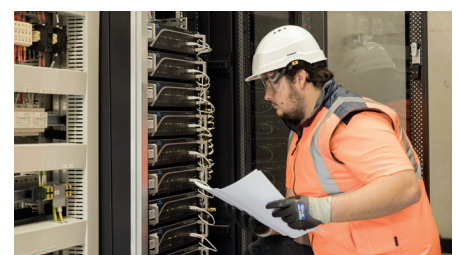
The BGS configuration is modular. SCLE SFE is able to modify and/or add software and hardware components as needed.

Programmable and configurable

BGS can embed a **C-ANSI** developed application software from SILO to SIL4. This software can be written manually or generated.

All the SIL4 embedded features are made available to the application in order to facilitate the development.

The generic BGS ensures the SIL4 safety of stored parameters, regardless of the safety level of the application.



BGS capacities

- From 0 up to 15 digital inputs
- From 0 up to 8 digital outputs, including 6 SIL4 and 2 SILO
- Digital communication link through IP or RS-485/422
- Safe digital communication protocol that complies with the EN50159 standard operable up to SIL4 (subset 98)
- RS-485-type digital link dedicated to remote monitoring
- From 0 up to 6 analogue inputs

Technical features

POWER SUPPLY	Minimum	Rated	Maximum
Voltage	21,5 Vdc	24 Vdc	28,8 Vdc
Current (all digital outputs are active)	1,4 A	1,7 A	1,9 A
Dielectric strength / Mass of the frame	2 kVac (50 Hz) / 1 mn		

SIL4 DIGITAL INPUTS	
Allowable voltage range	0 to 35 Vdc
Impedance	1 kΩ
Dielectric strength between digital inputs ; between digital input and power supply	500 Vac 50 Hz / 1 mn

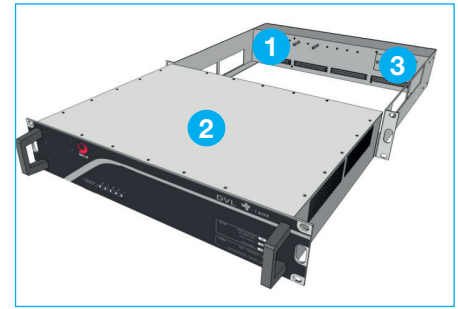
SIL4 DIGITAL OUTPUTS	
Type	Power supply
Maximum voltage of inactive output	0 Vdc
Voltage of the active output	Supply voltage - 5 %
Load impedance	125 Ω
Dielectric strength between SIL4 digital outputs ; between SIL4 digital output and the remainder	2 kVac 50 Hz / 1mn

SILO DIGITAL OUTPUTS	
Type	Relay
Interrupting capacity	30 VA
Maximum switchable voltage	400 V peak

ENVIRONMENT	Minimum	Maximum
Operating temperature	- 13 °F	+ 158 °F
Storage temperature	- 22 °F	+ 176 °F
Relative humidity	5 %	100 %

DIMENSIONS		
Depth	Rack drawer without handles	34 cm
	Rack drawer with handles	39 cm
	connecting strip	7,5 cm
Height x Width	9 x 60 cm	
Weight	≈ 8 kg	

DIGITAL LINKS	INTERFACE	PROTOCOL
SIL4 safe communication link	Ethernet - RJ45	Subset 98 or specific
Remote monitoring link	RS 485	JBUS / SIAM ST2
Maintenance link	USB2	Proprietary



BGS on 19" rack

- 1 Connecting strip
- 2 Rack drawer
- 3 Location for the remote parameters memory dongle



BGS in a 3-module N.S1 unit

Standards

EF5B68.1 IG.PS Specifications - N° 00/01 (IG.PS specifications), Index A
 NF EN 50126: 2000
 NF EN 50128: 2011
 NF EN 50159: 2011
 NF EN 50129: 2003
 UTE C 80-810
 NF EN 50121-4



BGS is designed and manufactured on our production site in Marseille, in collaboration with French associates and sub-contractors.

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Commitment for a sustainable performance

