

Interface Protector

► GEL 855xx

for RS 485/PROFIBUS (GEL 85500)
or CAN bus (GEL 85510)

Technical Information

Version 2013-08



General

- The Protector 485 is a surge arrester for connection to an RS485 (half duplex), a PROFIBUS interface or a CAN bus interface.
- In case of offsets on the potential of up to 10 V_{eff} AC (caused, e.g., by earth loops) the electronics are protected and communication is still maintained. As a result data transmission is not interrupted even under very difficult conditions.
Only in case of offsets on the potential of more than 10 V_{eff} AC (caused, e.g., by a lightning strike) is the communication interrupted for the duration of the interference while the electronics are fully protected.
- As an intermediate device, the Protector is connected directly to the interface of the device to be protected without further cabling. Due to the low series resistance in operation, a terminating resistor can be left in the device protected.
- Due to its compact design with a width of 22.6 mm, the Protector can be placed in a control cabinet with minimum space requirements.
- The marked field on the adhesive label of the Protector may be used to affix an equipment ID label.

Features

- Electromagnetic immunity
 - Burst (as per EN 61000-4-4) 4.4 kV
 - Surge (as per EN 61000-4-5) > 1.25 kV
- Protection against an offset on the potential of up to
 - 10 V_{eff} AC with maintenance of communication
 - 50 V_{eff} AC

- Speed of response in the nanosecond range
- Series resistance approx. 10 Ohm
- Internal circuit designed for high pulse energies, caused by lightning strike

Advantages

- Reliably protects the downstream hardware against damage due to an offset on the potential, e. g. in case of a lightning strike.
- Uninterrupted availability of the communication with the protected device.
- Quick to fit, as no additional cabling required.

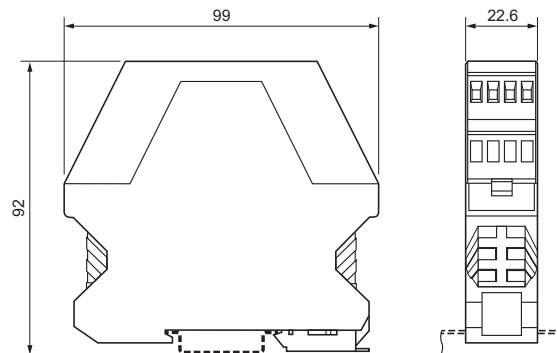
Fields of application

- Wind power (onshore, nearshore, offshore)
- Harsh industrial environment

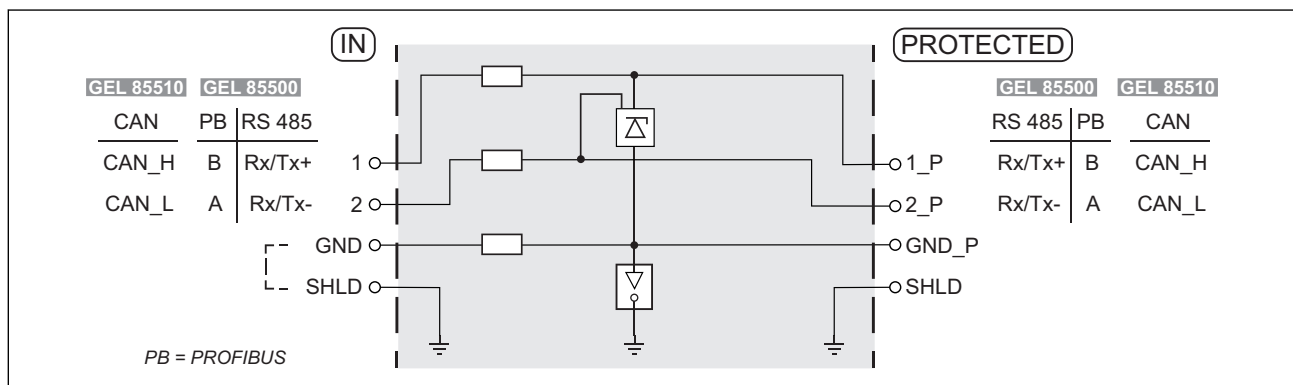
Technical Data

Electrical data	
Power supply	Passive component
Electromagnetic immunity Burst (according EN 61000-4-4) Surge (according EN 61000-4-5)	> 4.4 kV > 1.25 kV
Protection class	IP 20
Interface	
Serial interface	GEL 85500: RS 485 (half duplex), PROFIBUS GEL 85510: CAN bus
Connection	Screw-type terminals
Ambient data	
Operating temperature	-40 °C ... +85 °C
Storage temperature	-40 °C ... +85 °C
Condesation	no
Maximum atmospheric humidity	95 %, yearly average 75 %
Maximum operating altitude	3000 m
Vibration resistance acc. to DIN EN 60068-2-6	20 m/s ² , 9 to 50 Hz
Mechanical data	
Dimensions (W x H x D)	22.6 mm x 99 mm x 92 mm
Weight	80 g

Dimensions



Connection



Subject to technical modifications and typographical errors.
The latest version can be downloaded at www.lenord.de.

