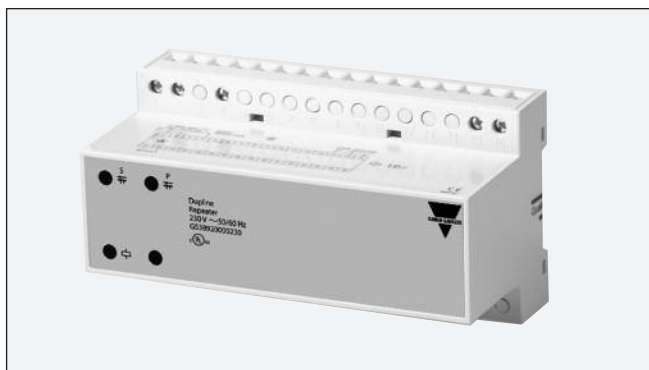


DuplineSafe Repeater Type GS 3892 0000



- Repeaters make any transmission-distance possible (cascading of repeaters possible)
- Power-booster for applications with several Dupline®-supplied units
- cULus approved
- Number of channels adjusted automatically
- H8-housing
- LED-indication for power supply, primary Dupline® OK and secondary Dupline® (follows Dupline® carrier)
- Built-in channel generator function for secondary Dupline®
- AC power supply

Product Description

The Dupline® Repeater is used to increase the distance in a standard Dupline® network, and a Dupline® network with

safety modules. Furthermore, it can be used as a "Power-booster" in sections with several Dupline®-supplied units.

Type Selection

Supply	Ordering no.
24 VAC	GS 3892 0000 024
115 VAC	GS 3892 0000 115
230 VAC	GS 3892 0000 230

General Specifications

Power ON delay	≤ 5 s
Indication for	
Supply ON	LED, green
Primary Dupline® OK	LED, yellow
Secondary Dupline® carrier	LED, yellow
Environment	
Degree of protection	IP 40
Pollution degree	3 (IEC 60664)
Operating temperature	0° to +50°C (+32° to +122°F)
Storage temperature	-50° to +85°C (-58° to +185°F)
Humidity (non-condensing)	20 to 80% RH
Mechanical resistance	
Shock	15 G (11 ms)
Vibration	2 G (6 to 55 Hz)
Dimensions	144 x 77 x 70 mm
Material (see "Technical Information")	H8-housing
Weight	485 g
Approvals	IEC/EN 61508-SIL3 EN954 cat 4 TÜV Rheinland Group cULus

Ordering Key

GS3892 0000 230

Type: Dupline®
H8-housing
Channel Generator (secondary Dupl.)
Power supply

Supply Specifications

Power supply	Overvoltage cat. III (IEC 60664)
Rated operational voltage through term. 21 & 22	230
Frequency	24
Voltage interruption	115
Rated operational power	6 VA
Power dissipation	≤ 7 W
Rated impulse withstand voltage	230
Dielectric voltage	115
Supply - Primary Dupline®	24
Supply - Secondary Dupline®	230

230 VAC, ±15% (IEC 60038)
115 VAC, ±15% (IEC 60038)
24 VAC, ±15%
45 to 65 Hz
≤ 40 ms
6 VA
≤ 7 W
4 kV
2.5 kV
800 V
≥ 4 kVAC (rms)
≥ 4 kVAC (rms)

Input Specifications

Input	Primary Dupline®
Dielectric voltage	
Primary Dupline to Secondary Dupline®	≥ 2 kVAC (rms)

Output Specifications

Output	Secondary Dupline®
Number of outputs	1
Output voltage	8.2 VDC
Current	≤ 45 mA
Short-circuit protection	≤ 60 s
Output impedance	≤ 15 Ω

Mode of Operation

The Dupline® repeater is used to increase the distance in a Dupline® network, with safety modules. Furthermore, it can be used as "Power-booster" in sections with several Dupline® supplied units.

Concerning the numbers of channels the repeater adjusts itself based on numbers of channels on the input side of the Dupline® network

The repeater has a built-in channel generator function for the secondary Dupline®. This channel generator function locks itself on the function of the channel generator on the primary side.

The repeater introduces a delay of 2 Dupline® scans when transferring signals from the secondary side to the primary side.

Reaction time

The total delay that is introduced due the Repeater, is the time it takes, for information from the safety transmitter, transmitting to the Channel Generator and passing it on to the safety relay.

If a safety transmitter (GS75102101) is installed on the secondary side of a Repeater then the signal from this transmitter will have an extra delay of two Du-

pline® Scan Cycles. This means that the safety function reaction time (as defined in the datasheet for GS38000143230) will be increased with the time corresponding to two Dupline® Scan Cycles.

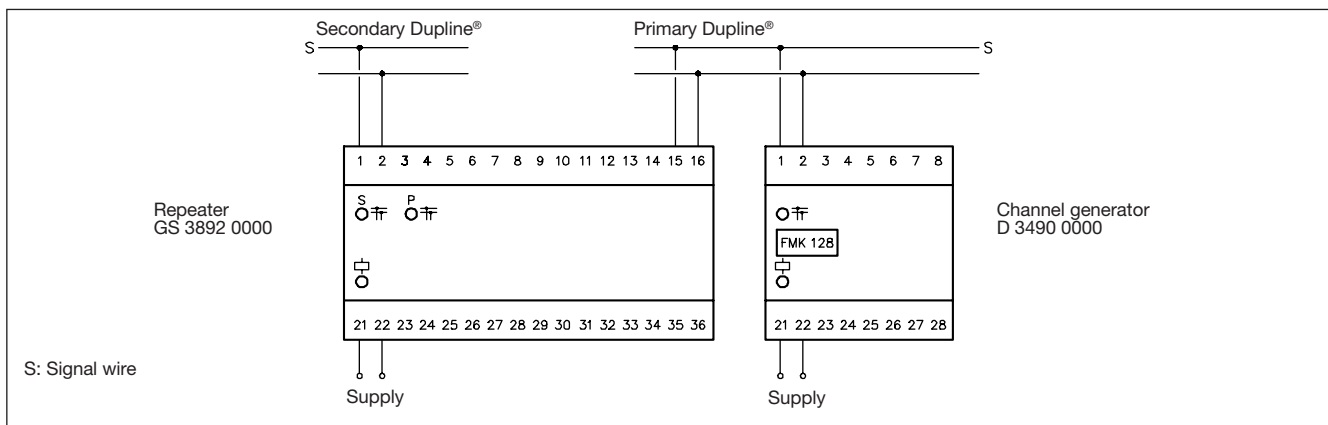
If a safety relay (GS38300143230) is installed on the secondary side of a Repeater then the safety function reaction time will be increased by 1 ms.

If both the safety transmitter and safety relay is placed on the secondary side of the Repeater, the delay will be: Two Dupline® Scan Cycles + 1 ms.

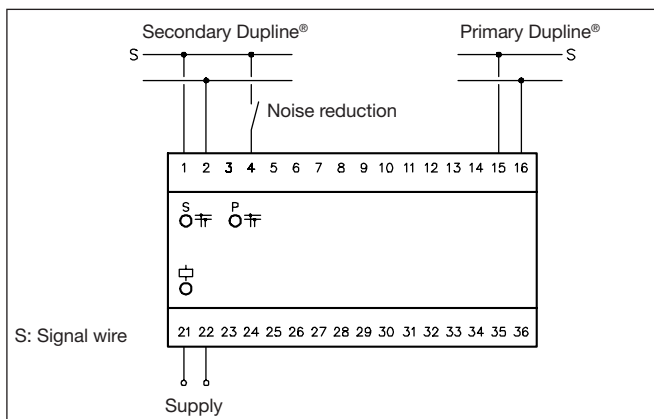
First information from the safety transmitter goes from the secondary side to the Channel Generator on the primary side; it introduces a delay of two Dupline® Scan Cycles. Next, the information goes from the Channel Generator through the Repeater back to the secondary side and to the safety relay; a delay of one ms. is introduced.

Dupline® Scan Cycle = (number of channels x 1 ms) + 8 ms

Application



Wiring Diagram



Dimensions (mm)

