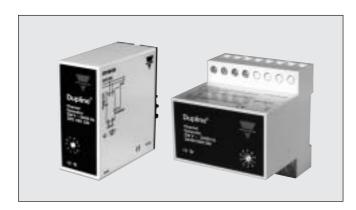
Channel Generators Types GPD 1901, G 3490 0000





- Generates 8, 16, 24, 32, 40, 48, 56, 64, 96 or 128 channels
- Number of channels selectable by rotary switch
- Number of sequences (1 or 2) selectable
- Quartz-controlled oscillator
- · Cable compensation
- Plug-in type (GPD)
- DIN-rail mounting type (G3490) (EN 50022)
- LED-indication for supply and Dupline® carrier
- · AC or DC power supply

Product Description

Standard channel generators for all Dupline® systems. Number of channels selectable by means of a rotary switch.

Ordering Key

GPD 1901 024

Type: Dupline® — Channel generator Supply —

Type Selection

Supply	Ordering no. No. of channels selectable	Ordering no. No. of channels selectable
24 VAC	GPD 1901 024	G 3490 0000 024
115 VAC	GPD 1901 115	G 3490 0000 115
230 VAC	GPD 1901 230	G 3490 0000 230
15 to 30 VDC	GPD 1901 824	G 3490 0000 824

Input/Output Specifications

Inputs Function Open loop voltage	1 contact 2 sequences 12 VDC	Outputs (cont.) Sequence time *	Time for 1 pulse train (± 1%):
Short-circuit current Contact resistance Cable length Insulation voltage Input - Dupline®	1.25 mA \leq 100 Ω \leq 3 m	Rotary switch No. of position: chanr A 8 B 16	nels: 15.63 ms 23.44 ms
Outputs Number of outputs Output voltage Current Short-circuit protection Output impedance	Dupline® carrier 1 8.2 VDC ≤ 70 mA ≤ 600 s ≤ 25 Ω	C 24 D 32 E 40 F 48 G 56 H 64 L 96 P 128 Distance to transmitter	39.06 ms 46.87 ms 54.68 ms 62.49 ms 70.31 ms 101.54 ms 132.80 ms
		* When using 2 sequence sequence time will be higher.	



Supply Specifications

Overvoltage cat. III (IEC 60664) Power supply AC types Rated operational voltage through term .: 21 & 22 (G3490) or 230 230 VAC ± 10% (IEC 60038) A1 & A2 (GPD1901) 115 115 VAC ± 10% (IEC 60038) 24 VAC ± 10% 024 45 to 65 Hz Frequency Power dissipation 4 W Voltage interruption ≤ 40 ms Typ. 2.5 VA Rated operational power Rated impulse withstand voltage 230 4 kV 115 2.5 kV 024 800 V Dielectric voltage Supply - Dupline® ≥ 4 kVAC (rms) Supply - Inputs ≥ 4 kVAC (rms) Power supply DC types Overvoltage cat. III (IEC 600664) Rated operational voltage through term .: 21 & 22 (G3490) or A1 & A2 (GPD1901) 824 15 to 30 VDC (ripple included) Power dissipation 3 W Ripple ≤ 3 V Reverse polarity protection Yes Current consumption ≤ 90 mA Inrush current ≤ 1 A Rated impulse withstand voltage 800 V Dielectric voltage Supply - Dupline® None Supply - Input ≥ 200 VAC (rms)

General Specifications

Power ON delay	≤ 3 S
Indication for Supply ON Dupline® carrier	LED, green LED, yellow
Environment Degree of protection Pollution degree Operating temperature Storage temperature	IP 20 3 (IEC 60664) -20° to +50°C (-4° to +122°F) -50° to +85°C (-58° to +185°F)
Humidity (non-condensing)	20 to 80%
Mechanical resistance Shock Vibration	15 G (11 ms) 2 G (6 to 55 Hz)
Dimensions Material (see "Technical Information")	D-housing, H4-housing
Weight	250 g

Mode of Operation

The channel generators generate pulse trains and synchronize the transmission signals for an entire system of Dupline® modules. At the same time they supply non-powered Dupline® transmitters.

The selection of 1 or 2 sequences means that 1 or 2 consecutive signals of a transmitter must show identical status until the channel generator changes the duty cycle for the respective channel. This change of duty cycle causes the receivers to change their status.

Note:

- Do not use 2 sequences if analog modules or counters are connected to the system.
- The transmission distance of a Dupline® network is reduced by 33% when using 2 sequences, compared to the figures given under "Cable Selection".

In Dupline® systems with digital transmitters and receivers the use of 2 sequences is only recommended in cases of extremely long cabling in high noise level environment. Application of 2 sequences

results in absolutely correct transmission but also in a slow reaction time for the system.

HF disturbance that is induced to the Dupline® may be suppressed by interconnection of pins 4 & 6 (GPD 1901) or terminals 4 & 1 (G 3490 0000. For inductive cables a separate capacitor of less than 1 μF may be mounted between pins 3 & 6 (GPD 1901) or terminals 1 & 2 (G3490 0000). But in the majority of cases the cable appears to be capacitive requiring no additional capacitor.

Note: It is highly recommended to place the channel generator in the middle of a Dupline® system.



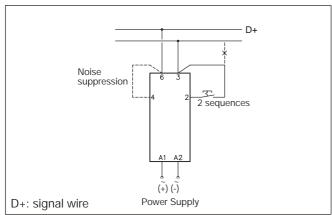
Operation Diagram

Power supply

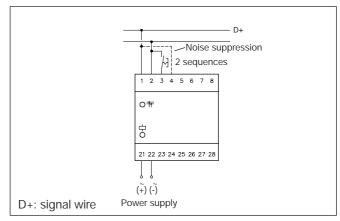
Dupline® carrier

Wiring Diagrams

GPD 1901



G 3490 0000



Accessories

Socket◊D 411-1Socket coverBB 5Hold down spring◊HFFront mounting bezelFRS 2DIN-rail for D 411FMD 411

For further information refer to "Accessories".