Receiver with Demultiplex Output
Type D 1230 5111

Dupline® Fieldbus Installationbus



- **8-channel receiver**
- **8 : 1 demultiplex function**
- **2 NPN transistor outputs**
- **Enable and disable output operation**
- **D-housing**
- **Plug-in type module**
- **LED-indications for supply and output**
- **AC or DC power supply**

Product Description

Dupline® receiver with demultiplex output (8:1) for multiplex transmission on Dupline® channels. Applicable for transmitters with frequency input (type FFD 1680, SPEC 918). Increases the transmission capacity of a Dupline® system to max. 3825 x 8-bit measured values.

Ordering Key

D 1230 5111 024

- **Type: Dupline®**
- **D-housing**
- **Receiver**
- **No. of channels**
- **Output type**
- **Supply**

Type Selection

Supply	Ordering no. 8 channels 2 x 10 V/10 mA
24 VAC	**D 1230 5111 024**
120 VAC	**D 1230 5111 120**
220 VAC	**D 1230 5111 220**
12 VDC	**D 1230 5111 712**

Code Module: No code module required. D 1230 5111 automatically uses the highest available channel group of the Dupline® installation.

Output Specifications

Outputs	1 NPN transistor (enable)	1 NPN transistor (disable)
Output voltage V_{BB}	10 VDC	10 VDC
Reverse polarity protection	Yes	Yes
Current per output	≤ 2.5 mA	≤ 2.5 mA
Total load capability	100%	100%
Short-circuit protection	None	None
Built-in protective diodes	None	None
Off-state leakage current	≤ 100 µA	≤ 100 µA
Output voltage drop	≤ 1.2 V	≤ 1.2 V
Cable length	≤ 3 m	≤ 3 m
Dielectric voltage Output - Dupline®	≥ 2 kVAC (rms)	None
Response time	< 1 pulse train	< 1 pulse train

Supply Specifications

Power supply AC types		Overvoltage cat. III (IEC 60664)
Rated operational voltage through pins A1 & A2	220	230 VAC +6%, -15% (IEC 60038)
	120	120 VAC ± 10% (IEC 60038)
	024	24 VAC ± 10%
Frequency		45 to 65 Hz
Voltage interruption		≤ 40 ms
Rated operational power		Typ. 2.5 VA
Rated impulse withstand voltage	220	4 kV
	120	2.5 kV
	024	800 V
Dielectric voltage Supply - Dupline®		≥ 2 kVAC (rms)
Supply - Outputs		≥ 2 kVAC (rms)
Alternative DC supply (V_{DD} in) through pins 3 & 9		12 VDC ± 10%
Reverse polarity protection		Yes
Rate operational current		≤ 20 mA
Inrush current		≤ 1 A
Rated impulse withstand voltage		800 V
Dielectric voltage Supply - Dupline®		None
Supply - Enable output		≥ 2 kVAC (rms)
Supply - Disable output		None
AC types as supply source		
Source voltage (V_{DD} out) through pins 3 & 9		12 VDC
Source current		≤ 40 mA
Fan out		≤ 4 modules 700
Cable length		≤ 3 m

Dupline®
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General Specifications

Output OFF delay upon loss of Dupline® carrier	Undefined
Power ON delay	Undefined, ≤ 1 s
Indication for	
Supply ON	LED, green
Output ON (enable)	LED, red
Environment	
Degree of protection	IP 40
Pollution degree	3 (IEC 60664)
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%
Mechanical resistance	
Shock	15 G (11 ms)
Vibration	2 G (6 to 55 Hz)
Dimensions	
Material (see "Technical Information")	D - Housing
Weight	
AC types	200 g
DC types	125 g

Mode of Operation

8-channel receiver with demultiplexed outputs for enable and disable functions.

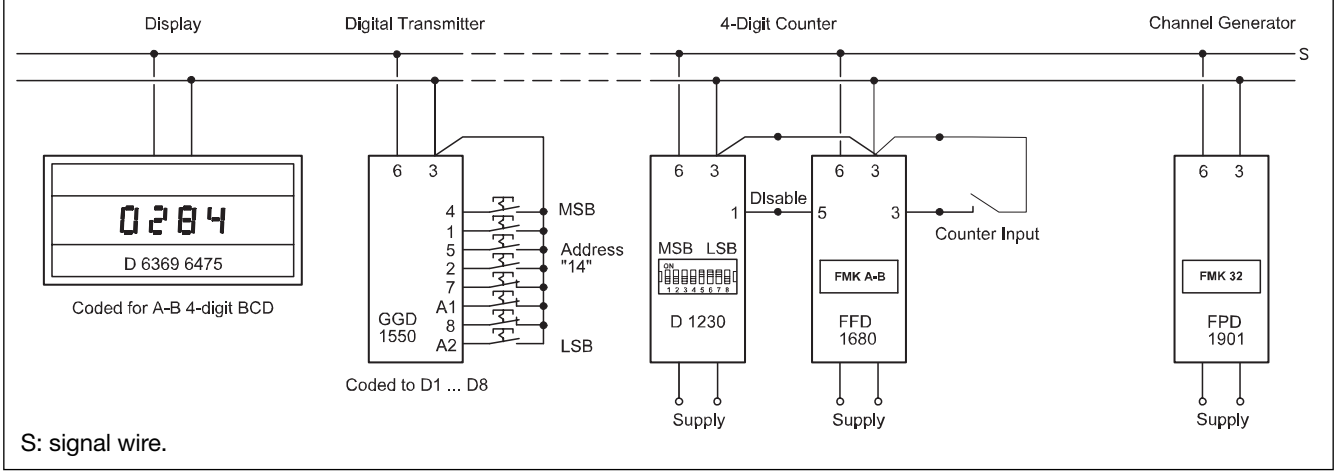
The receiver continuously receives the status of 8 channels on the highest channel group of a Dupline® installation (e.g. channel group P if 128 channels are selected on the channel generator). The status of these 8 channels is compared with the address selected by the DIP switch selector inside the D 1230 5111. As soon as the transmitted channel status is equal to the selected address, the two outputs change state (enable output turns on and disable output turns off).

This module used in connection with transmitters for analogue signals (type FFD 15..) allows the transmission of 255 individual analogue values on one channel group. The D 1230 5111 can be used for all Dupline® transmitters that have enable or disable inputs, e.g. FFD 15.., FFD 16.. or SPEC 918.

In the example given below the Dupline® installation uses 32 channels (FMK 32 of the channel generator). Therefore, the address setup of the D 1230 5111 is compared with the status of channel group D. As soon as the status of channel group D (provided by the transmitter GGD 1550) is equal to the address setup, the disable output of the D 1230 5111 turns off. This causes the FFD 1680 to transmit the counter value on channel groups A-B for display on the D6369 6475 (coded for channel groups A-B).

Note: If DC-supplied D 1230 5111 receivers are used, the length of the supply bus must not exceed 3 m in order to avoid disturbance unbalancing the Dupline®.

Example

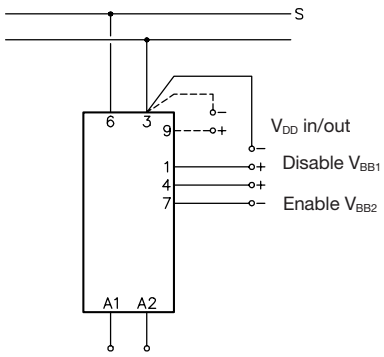


S: signal wire.

Specifications are subject to change without notice (28.09.99)
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Wiring Diagrams

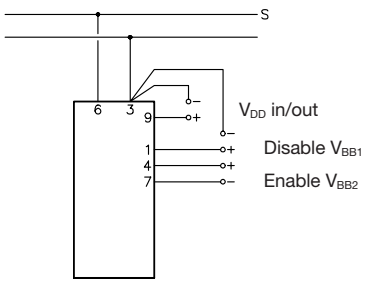
D 1230 5111 024/120/220
AC supply (DC supply V_{DD})



S: signal wire

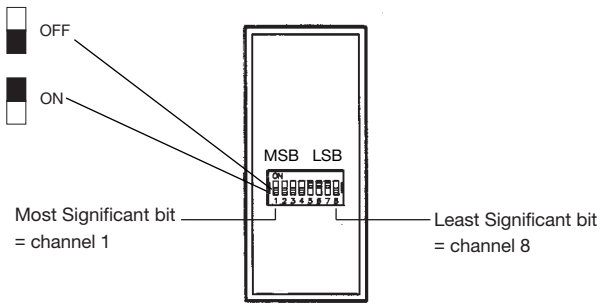
AC supply

D 1230 5111 712
DC supply



S: signal wire

Address Selection



Accessories

Socket◊	D 411
Socket cover	BB 5
Hold down spring◊	HF
Front mounting bezel	FRS 2
DIN-rail for D 411	FMD 411

For further information refer to "Accessories".