

## Switching Arrays with Combiner



### Products:

**DEV 1911/xx** Multi-Channel On/Off Switch with Combiner, CATV-Band, 75 Ohm

### Features:

- Series of Multi-Channel On/Off Switches with **xx**: 8, 16, 24 or 32 Channels for the CATV-Band in 75 Ohm with BNC Connectors
- Each Channel can be switched on and off individually
- Integrated Combiner for up to 32 Signals
- 2 integrated Monitoring Outputs
- Comprehensive Web Interface for Surveillance and Setup of the Instrument
- Remote Control Protocol Support, e.g. SNMP
- Dual Redundant Power Supplies

### Application Areas:

- Cable Head End Stations

## DEV 1911

dev



Front DEV 1911/8



Rear DEV 1911/8

**The Situation**

In cable head end stations multiple modulators or converters are sending signals to a combiner of which the common path is connected to the CATV network. If, for instance, a modulator breaks down, it is essential to solve this problem fast and efficiently so that the TV spectators will not notice the defect at all. For this reason, precautions in the architecture of the cable head end stations have to be taken, to avoid interruptions of the signal transmission.

**DEV worked out a Solution**

DEV Systemtechnik has developed a series of multi-channel on/off switches with combiner for professional use. In case of a failure, the corresponding transmission unit can be taken out of the signal chain, without interruption of the signal transmission by just turning off the channel input to which the faulty device is connected to. By turning off the channel, the resulting open path will be automatically terminated with the appropriate load resistor.

**The Technical Concept**

The DEV 1911 covers the frequency range of the CATV-Band and provides signal ports in 75 Ohm impedance with BNC connectors. The instrument is available with 8, 16, 24 and 32 inputs, which can be switched on or off individually and which will be combined to a single output signal to be fed to the CATV network. Two monitoring ports for the output signal are an integral part of the output module. All RF ports are located at the rear side of the 19", 3 RU chassis.

The control of the instrument is either performed locally or via one of the implemented remote control protocols, e.g. SNMP. Additionally, a comfortable Web Interface is provided, which permits the configuration of parameters and the basic surveillance of the instrument.

There is no question that the models of this series are equipped with DEV standards like redundant, field replaceable power supply modules and with a dry contact alarm connector.

## Technical Data

### DEV 1911/xx Multi-Channel On/Off Switch with Combiner

#### RF Specifications

Frequency range	47...862 MHz	
Number of inputs	8	(DEV 1911/8)
	16	(DEV 1911/16)
	24	(DEV 1911/24)
	32	(DEV 1911/32)
Number of outputs	1	
Impedance, connectors	75 Ohm, BNC (f)	
Return loss	>14 dB	
Insertion loss	<25 dB	
Isolation on/off	>50 dB	
Switching cycles	>10E6	

#### Monitoring Ports

Number of monitoring ports	2
Return loss	>14 dB
Insertion loss	-20 dB of output signal

#### Remote Communication

Interfaces, connectors	<ul style="list-style-type: none"> <li>• Ethernet, RJ-45</li> <li>• serial interface RS 232 (optional RS 422/RS 485), Sub-D-9 (f)</li> </ul>
Remote control & surveillance, interface	<ul style="list-style-type: none"> <li>• via Web Interface (surveillance &amp; setup only), Ethernet;</li> <li>• via SNMP, Ethernet;</li> <li>• via Sandar Prosan protocol, serial interface;</li> <li>• via Leitch protocol, Ethernet/Telnet (up to 7 sessions) and optional via serial interface.</li> </ul>

#### Potential Free Contacts

Alarm connector	Sub-D-9 (m)
Contact load	60 V; 0,3 A
Summary Alarm	Via remote communication and via potential free contacts

Two Stage Alarm Signalization for Power Line Failure:

B-Alarm	One power supply unit does not deliver any secondary power.
A-Alarm	All power supply units do not deliver any secondary power.

#### Redundant Power Supply

Redundant power supplies	100...240 V AC supplied by two different lines
Power consumption	<100 VA

#### General Specifications

Housing	19" (483 mm), 3 RU (133 mm), 495 mm depth
Weight	~9 kg
Environmental conditions	ETS 300019 Part 1-3 Class 3.1

**Order Information**

DEV 1911/8	8 Channel On/Off Switch with Combiner, CATV-Band, 75 Ohm
DEV 1911/16	16 Channel On/Off Switch with Combiner, CATV-Band, 75 Ohm
DEV 1911/24	24 Channel On/Off Switch with Combiner, CATV-Band, 75 Ohm
DEV 1911/32	32 Channel On/Off Switch with Combiner, CATV-Band, 75 Ohm
Option 52	RS 422 instead of RS 232
Option 53	RS 485 instead of RS 232
Option 76	Leitch protocol is available via serial interface (instead of Sandar Prosan protocol)

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