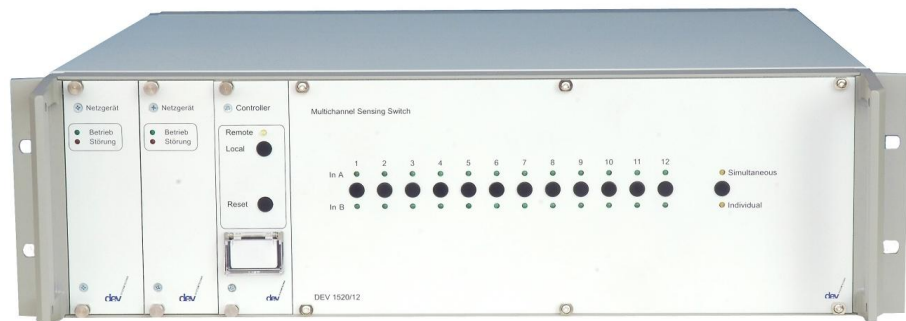


# L-Band Sensing Switch



## **DEV 1520/xx** **2:1 Multi Channel L-Band DPST** **Sensing Switch for Redundancy** **Purposes**

### **Features:**

- // the RF signal level of the 2 incoming signals per channel is measured and monitored
- // automatically switching to the redundancy signal path when main signal falls below the preset threshold (-10...-50 dBm)
- // configurations from 4 to 16 channels available
- // redundant power supplies with alarming function
- // Ethernet with SNMP

### **Application Areas:**

- // Cable Head End Stations



## DEV 1520/xx

### 2:1 Multi Channel L-Band DPST Sensing Switch

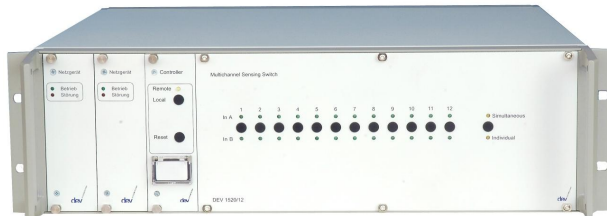
#### The Problem

Large cable head end stations need a 1:1 redundancy for operational safety and a high uptime when feeding L-Band signals into their network e.g. backup for failed LNBS, converters, etc.

#### DEV Systemtechnik worked out a solution

For redundancy applications involving backup for various failed signal transmission units, the DEV 1520 was developed which is available in configurations ranging from 4 to 16 channels.

Each incoming signal is measured and compared with the threshold level, which can be individually defined. If the RF signal level of the main path falls below the preset threshold an alarm is generated. In this case the DEV 1520 is able to switch automatically to the redundancy signal path. Switching through an M&C system in accordance with the alarms is also possible. The status of the signal level can be examined via the remote interface and the via front panel indication. Therefore, failsafe signal delivery is ensured.



#### The Technical Concept

##### DEV 1520

The DEV 1520/xx exists in several configurations. The number behind the slash (“/”) indicates the number of signal paths, e.g. 12. The number of signal paths can range between 4 and 16 in increments of 4. In any case, it is possible to switch each channel individually or simultaneously with 3 other channels of the same antenna. The unit is delivered with Ethernet control and redundant power supplies.

##### DEV 11-0026

DPST Sensing Switch Card 2:1, 950...2150 MHz, 75 Ohm, F Connectors. Two input ports can be switched to one output port.

Both input channels are individually monitored for the user defined RF threshold level. Alarming is provided. The instrument is able to control the switching to redundancy autonomously.



## Technical Data:

<b>RF Specifications:</b>	
Frequency range:	<b>950...2150 MHz</b>
Impedance:	<b>75 Ohm</b>
Connectors:	<b>F (f)</b>
No. of cards per chassis:	<b>4, 8, 12 or 16</b>
No. of channels per card:	<b>1</b>
No. of input ports per channel:	<b>2</b>
No. of output ports per channel:	<b>1</b>
Damage sum level:	<b>+30 dBm</b>
Input sum level:	<b>&lt;-10...-50 dBm</b>
Return loss selected path:	<b>&gt;14 dB, typ. 16 dB</b>
Return loss not selected path:	<b>&gt;14 dB</b>
Insertion loss:	<b>&lt;2 dB</b>
Amplitude frequency response:	<b>±0,5 dB</b>
Switching cycles:	<b>&gt;10E6 (no DC) &gt;10E5 (0,25 A, 28V DC)</b>
Remote control:	<b>Ethernet SNMP protocol, RS 232 (9600 7 ODD 1) Sandar Prosan protocol</b>
<b>Alarms:</b>	
Two stage alarm signalisation for power line failure:	<b>Potential free contacts</b>
Alarm connector:	<b>Sub-D 9 (m)</b>
Contact load:	<b>60 V; 0,3 A</b>
B-Alarm:	<b>One power supply unit does not provide any secondary power.</b>
A-Alarm:	<b>All power supply units do not provide any secondary power.</b>
<b>Redundant Power Supply:</b>	
Redundant power supplies:	<b>100...260 V AC out of two different phases, +24 V DC</b>
Power consumption:	<b>20 VA</b>
<b>General Specifications:</b>	
Housing:	<b>19", 3 RU (133 mm), 430 mm depth</b>
Weight:	<b>~8 kg</b>
Environmental conditions:	<b>ETS 300019 Part 1-3 Class 3.1</b>



## Order Information:

DEV 1520/xx L-Band Sensing Switch  
DEV 11-0026 DPST Sensing Switch Card, L-Band, 75 Ohm

*Technical specifications are subject to change*



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