

## 4x4 Distributing Matrix in 1 Rack Unit!



### Products:

- DEV 1995/50/4x4** - 4x4 Distributing Matrix CATV-Band 50 Ohm
- DEV 1995/75/4x4** - 4x4 Distributing Matrix CATV-Band 75 Ohm
- DEV 1996/50/4x4** - 4x4 Distributing Matrix L-Band 50 Ohm
- DEV 1996/75/4x4** - 4x4 Distributing Matrix L-Band 75 Ohm

### Features:

- /// 4x4 Distributing Matrix in a 19", 1 RU (45 mm) Chassis
- /// Versions for CATV-Band and L-Band with 50 Ohm and 75 Ohm Impedance available
- /// Configuration, Surveillance and Control via comfortable Web Interface
- /// Remote Control Protocol Support, e.g. SNMP

### Application Areas:

- /// Satellite Ground Stations
- /// Cable Head End Stations
- /// Broadcasting Industries

**DEV 199f/zz/4x4****dev****Front DEV 1996/zz/4x4****Rear DEV 1996/50/4x4****The Situation**

There are various applications in the RF world which do require the safe and reliable switching and distribution of a smaller number of high frequency signals.

For this kind of applications there is a need for a multi-purpose matrix with high uptime and low exchange time as a cost saving solution instead of many single isolated solutions.

**DEV worked out a Solution**

Especially for a small number of input and output signals, DEV Systemtechnik has developed a series of 4x4 matrices in a compact 1 RU chassis.

Multiple options for control and surveillance of the instrument were the top priorities to develop for the customer.

**The Technical Concept**

The 4x4 Distributing Matrix is available in two frequency ranges 47...862 MHz (CATV-Band) and 950...2150 MHz (L-Band). Both types are available in 50 Ohm with SMA connectors (optional with N connectors) or in 75 Ohm with precision F connectors.

The local user interface is realised as a comfortable Web Interface, thus providing means for configuring, switching and monitoring of the instrument. The obvious advantage is that the operator does not need the physical access to the instrument, once the matrix has been installed.

The task of integrating the instrument within an M&C system is simplified, since the instrument provides various communication interfaces and supports a number of protocol standards, e.g. SNMP.

There is no question that the matrix is equipped with DEV standards like redundant power supplies and a dry contact alarm connector.

## Technical Data

### DEV 199f/zz/4x4 Distributing Matrices

#### RF Specifications

Frequency range (f)	47...862 MHz	(DEV 1995/zz/4x4)
	950...2150 MHz	(DEV 1996/zz/4x4)
Number of inputs x outputs	4x4	
Impedance (zz), connectors	50 Ohm, SMA (f)	(DEV 199f/50/4x4 standard)
	50 Ohm, N (f)	(DEV 199f/50/4x4 with Option 03)
	75 Ohm, Precision F (f)	(DEV 199f/75/4x4)
Damage level	+10 dBm	
Nominal input level	-10 dBm	
Return loss at the inputs	>16 dB	
Return loss at the outputs	>15 dB	(DEV 1995/zz/4x4)
	>14 dB	(DEV 1996/zz/4x4)
Gain	5,5±1 dB	(DEV 1995/zz/4x4)
	5±2 dB	(DEV 1996/zz/4x4)
Frequency response:	±1 dB	(over the entire band)
	±0,125 dB	(within any 36 MHz interval)
Isolation	>55 dB	
Intermodulation distortion	<-40 dBc	(two tones @ -13 dBm)
Relay type	Semiconductor	

#### Remote Control

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 (Ethernet);</li> <li>• via SNMP (Ethernet);</li> <li>• via Sandar Prosan protocol (serial interface); OR (Ethernet/Telnet (up to 7 sessions) and via serial interface); OR</li> <li>• via Leitch protocol (Ethernet (Telnet port 23) and via serial interface).</li> <li>• via QEC protocol (Ethernet (Telnet port 23) and via serial interface).</li> </ul>

#### Alarms

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

#### Two Stage Alarm Signalisation 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	<30 VA

#### General Specifications

Housing	19" (483 mm), 1 RU (45 mm), 260 mm depth
Weight	~5 kg
Environmental conditions	ETS 300019 Part 1-3 Class 3.1

**Order Information**

DEV 1995/50/4x4	CATV-Band matrix, 4 inputs & 4 outputs in 50 Ohm (SMA (f)), 1 RU
DEV 1995/75/4x4	CATV-Band matrix, 4 inputs & 4 outputs in 75 Ohm (F (f)), 1 RU
DEV 1996/50/4x4	L-Band matrix, 4 inputs & 4 outputs in 50 Ohm (SMA (f)), 1 RU
DEV 1996/75/4x4	L-Band matrix, 4 inputs & 4 outputs in 75 Ohm (F (f)), 1 RU
Option 03	N connectors instead of SMA connectors (DEV 1995/50/4x4 and DEV 1996/50/4x4, only)
Option 52	RS 422 instead of RS 232
Option 53	RS 485 instead of RS 232

**Contact**

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