

## video matrix switching system 64 inputs & 8 outputs

SIMATRIX 648

- Input terminals with selection assignment
- Freely-programmable picture cycle
- On-screen text and time of input
- On-screen time/date can be assigned to up to 8 monitors
- Freely-editable camera and alarm texts
- 64 positions can be called individually or as a sequence in conjunction with the SCU 302 control and power supply unit
- Home positioning of cameras with pan-and-tilt drive and lens control
- Password protection for activation/deactivation of alarm lines
- Time-controlled alarm programs (with day-of-week function)
- Selection of alarm line (max. 4 cameras)
- Alarm positioning of cameras with pan-and-tilt drive and lens control
- Alarm picture cycle on monitor
- Protocol functions using the optional IVM graphical user interface

SIMATRIX 648 is a space-saving 19-inch complete system in a desktop housing commencing with a configuration of 16 inputs and 4 outputs, and can be expanded up to 64 inputs and 8 outputs. It is freely-programmable and universally applicable video control centre. The application range extends from the pure matrix function up to event-controlled control centres in conjunction with external alarm contacts or messages for processing danger, alarms (e.g. TELEMAT MD/MTD VMD system).

IVM NT is an optional, user-friendly graphical interface for the SIMATRIX 648.

Operation is possible using external keyboards with freely-assignable macro keys.

## System characteristics

### Matrix unit

- Minimum configuration: 16 x 4
- Maximum configuration: 64 x 8
- Video inputs can be expanded in steps of 16, and video outputs in a steps of 4
- Monitoring of video signal failure
- On-screen text display

### System controller

- **Three serial interfaces V.24 (RS232) for connection of external systems such as:**
  - setup PC
  - Video motion detection system - TELEMAT MD/MTD
  - SISTORE digital recorder
  - IVM (interactive video management system)
  - TELSCAN digital picture transmission system
  - External system controller
  - LMS modular (V2.44 onwards)
- **Further connections are possible for the following external devices:**
  - Keyboards
  - K505 colour cameras
  - Camera control units
  - Alarm lines
  - Video recorders
  - Picture storage unit

## Principle of operation

SIMATRIX 648 can switch any video inputs to any of the video outputs (monitors, picture storage units, video printers etc.).

Automatic control by messages from external contacts or the TELEMAT video motion detection system, or by an external computer, is also possible.

SIMATRIX 648 connects the associated camera to the alarm monitor in the event of an alarm. The predefined video recorder or picture storage unit is activated. A predefined position can be automatically selected in the case of PTZ cameras.

The following features can be setup by the user:

- Assignment of alarm lines to cameras
- Assignment of alarm picture selection to alarm monitors
- Definition of group and individual switching

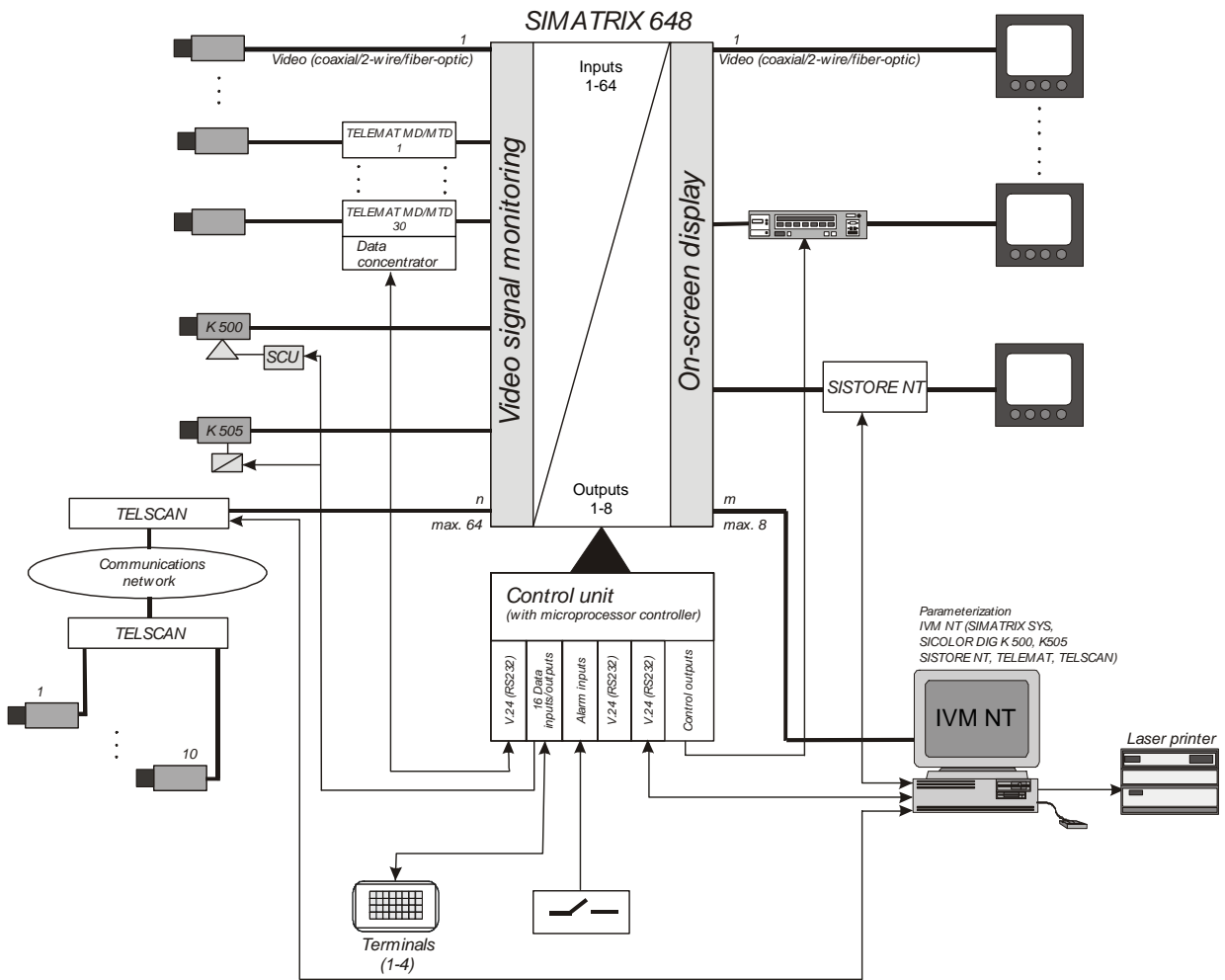
The alarms can be applied to the SIMATRIX 648 as a contact or a message via one of the V.24 (RS232) interfaces.

In addition to the switching of pictures, it is also possible to remotely-control PTZ cameras including preset positions.

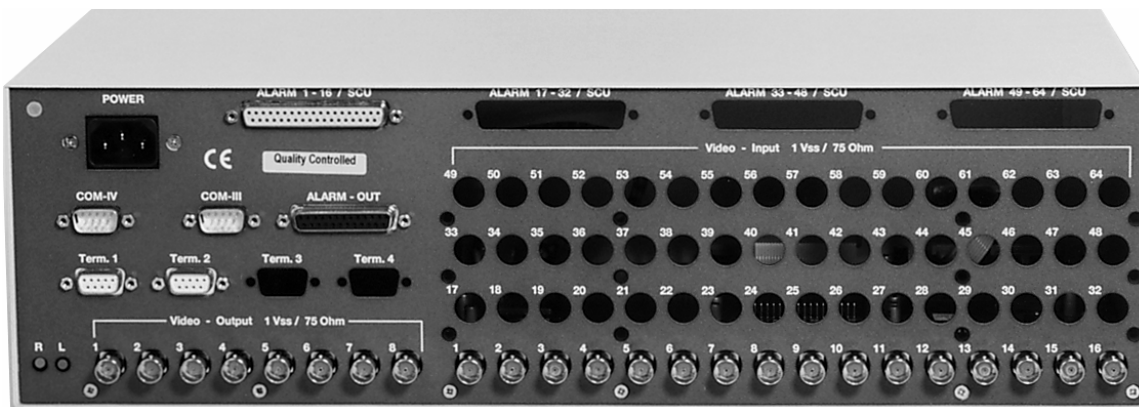
On-screen displays are possible for the time and date as well as text inserts for identifying cameras/alarms and definition of camera sequences.

Operational parameter settings are already available using the basic program and 6 further alarm programs supplied on diskette. It is frequently sufficient to make small modifications to individual parameters to satisfy customer-specific requirements.

**System Overview - video monitoring system with SIMATRIX 648 video matrix**



**Rear view of SIMATRIX 648 video matrix**



## Technical data

Matrix unit	
Video inputs	1Vpp, 75 Ohm, BNC
Video outputs	1Vpp, 75 Ohm, BNC
Detection of video signal failure	Checking of vertical sync pulses, with activated picture cycle at one video output
On-screen text display	Full IBM character set Internal synchronisation Character representation: white with black border Field size: 12 text lines with 24 characters each Character height: 18 screen lines
Crosstalk attenuation	≥ 56 dB at 5 MHz, ≥ 52 dB at 10 MHz
Differential gain	≤ 1%
Differential phase	≤ 1.5°
Frequency response flatness	-1 dB at 10 MHz -3 dB at 20 MHz
Matrix point switching time	Typ. 80 ms., max. 200 ms (following command input on video matrix)
Interfaces for: Parameterization PC (ext. controller), IVM, TELEMAT, TELSCAN, SISTORE NT, SIPORT,	3 x V.24 (RS232) interface Baud rate: 1200 bit/s to 19200 bit/s Connection: 3 x 9-pin Sub-D plug
Terminals	2 x TTY interface (20 mA) with power supply for external terminal Cable length up to 2 km with wire diameter 0.8 mm Baud rate: 1200 bit/s to 9600 bit/s Connection: 2 x 9-contact Sub-D socket
Control and power supply units (SCU)	8 x TTY interface (20 mA) Cable length up to 2 km with wire diameter 0.8 mm Baud rate: 1200 bit/s to 9600 bit/s
Alarm lines	16 x alarm input for alarm lines Cable length up to 10 m Connection: 1 x 37-contact Sub-D socket
Video recorder, picture storage unit	8 x control output (open-collector); max. 30 V, max. 50 mA Relay with 2 floating changeover contacts for common alarm output; max. 48 V, 250 mA Connection: 1 x 25-contact Sub-D socket
Power supply	220 V - 240 V, 50 Hz, 125 mA switchable to 110 V - 120 V, 60 Hz, 160 mA using plug-in jumper
Temperature of use	5 °C to 45 °C
Relative humidity	30% to 85%
Design (W x H x D)	19" desk-top housing 427 x 133 x 210 mm, 3 U

## Details for ordering

Type	Part no.	Designation	Weight
SIMATRIX 648	2GF2208-8AA	SIMATRIX matrix switcher 16x4, expandable to 64x8	4.70 kg

## Accessories for ordering

Type	Part no.	Description	Weight
SIM648-IM	2GF2208-8AB	SIMATRIX 648 extension module for 16 camera inputs	0.50 kg
SIM648-OM	2GF2208-8AC	SIMATRIX 648 extension module for 4 outputs	0.50 kg
SIM648-IO	2GF2208-8AE	SIMATRIX 648 extension module 16 alarms / 8xTTY	0.50 kg
SIM648-TM	2GF2208-8AD	SIMATRIX 648 extension module for 2 terminal connectors	0.30 kg
SIM648-SW/DMS	2GF2208-8AK	Kit for SIMATRIX 648 to DMS interface	0.20 kg
SIM648-SW/SIP	2GF2208-8AM	Kit for SIMATRIX 648 to SIPORT interface	0.20 kg
SUT48	2GF2400-8DA	SIMATRIX remote keyboard and fixed speed Siemens PTZ joystick	1.20 kg
SUT48NET	2GF2400-8FA	SIMATRIX remote keyboard & variable speed Siemens PTZ joystick	1.20 kg