- **32 video inputs and 8 video outputs**
- **Windows 98/2000/XP PC or "On Screen Menu" configuration**
- **Master/Slave and Parallel systems layout**
- **Videoloss detector**
- **32 sequences (32 steps each)**
- **32 alarm inputs**

The full cross point video matrix switcher SM328A is a global solution for the collection and management of images. The matrix is capable of switching 32 video inputs to 8 independent outputs. This product can activate 32 different synchronized sequences among several monitors, with day, night or holidays cycles.

The matrix provides 32 alarm inputs and 8 relays controlled by events or alarm contacts (alarm groups). Alarms can be reset through a keyboard, external contacts or automatic timed reset. The SM328A can be easily configured through an On-Screen Menu or through a PC operating with Windows 98/2000/XP.

In applications like shopping malls, department stores and banks where monitors are shown to the public as a deterrent, an important feature of the matrix is the camera exclusion. If the operator recalls a video input or acts on a PTZ camera, the selected camera can be excluded and/or replaced by another video input from the switching sequence of any public monitor.

Following an alarm condition, in addition to a buzzer or on screen text, the SM328A is capable of intelligent actions: we can program on alarm actions on monitors (sequences and cameras) and on telemetry (scan on home position). For privacy reasons the video inputs can also be masked on fixed cameras.

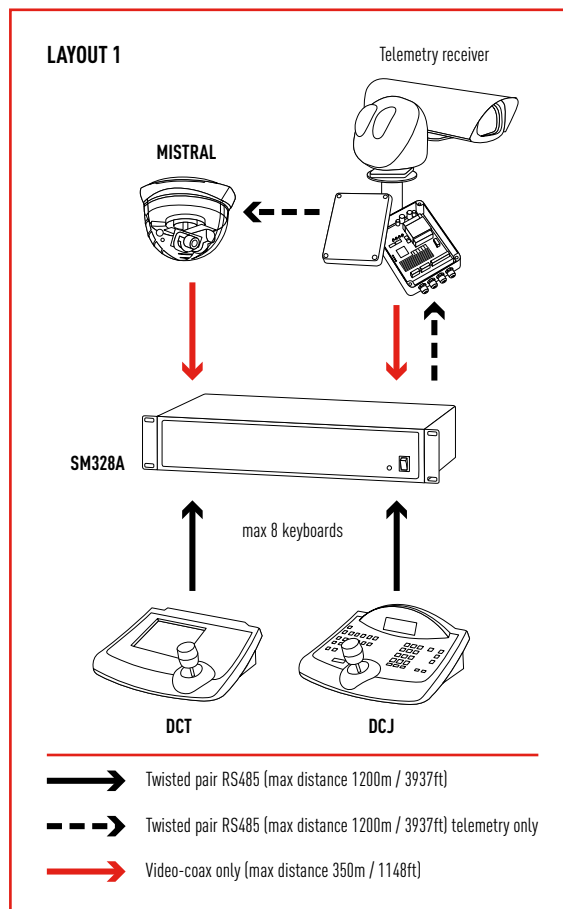The matrix is equipped with 2 RS485 serials outputs.

Through these outputs we can perform telemetry or other matrix control. It is also possible to connect additional matrixes in Master/Slaves or Parallel systems.

In a Master/Slave system the master matrix can receive 4 outputs from every Slave (max 4). See layout 2.

In a Parallel system, up to 9 matrixes can be connected together. See layout 3.

In a Master/Slave system, Master keyboards can control all system cameras; Slave keyboards control only local cameras. In a Parallel system each keyboard can control all system cameras.

DCK, DCJ and DCT keyboards, microprocessor controlled, allow you to directly control cameras, switching sequences and alarm conditions.

LAYOUT 1

- Telemetry receiver
- MISTRAL
- SM328A
- max 8 keyboards
- DCT
- DCJ

→ Twisted pair RS485 (max distance 1200m / 3937ft)

╌╌▶ Twisted pair RS485 (max distance 1200m / 3937ft) telemetry only

→ Video-coax only (max distance 350m / 1148ft)

10
VIDEO SWITCHING

SM328A
SYSTEM VIDEO MATRIX

TECHNICAL DATA

GENERAL

Max 32 video inputs

28 character text identification for each camera

Max 8 video outputs; one of these is optionally used for controlling the switching from video recorder

32 independent automatic 32-step sequences

Max 8 keyboards

Complete setup On Screen Display video or by PC software on Windows 98/2000/XP

Setup menu in four languages (Italian, English, French and German)

Video signal masking on fixed camera for privacy purposes

Camera exclusion feature if monitor is displayed in public areas

On alarm: actions on monitors (sequences and cameras recall) and telemetry (scan on Home position or Patrol)

Complete event log channel

Easy matrix control by PC

Management of date and time

3 time ranges: day, night or holidays

At a weekly level, single days show 4 different time of starting/ending the daily sequence

Management of 16 days for variable holidays

Management of 8 closing terms

Automatic management of daylight saving time (automatic for Europe/America/etc. and user defined)

Time events

64 time events max within 24 hours which allows:

- enable/disable keyboards
- enable/disable alarm contacts
- enable/disable single relays

Alarms

28 character alarm message per contact out of 32 contacts

32 alarm contacts, which can be configured one by one, 4 types of reset per contact:

- Time automatic reset, from 1 second to 1 hour from the contact enabling
- Reset from keyboard, after the authorised operator has entered a password
- External reset, after closing one contact
- Automatic reset for continual type alarm contacts, when the alarm signal stops

When an alarm is enabled, every output can independently proceed to acknowledge it (by selecting a cycling sequence or a fixed camera) or neglect it

Alarm contacts are selectable as NO or NC and are acknowledged based the enabling time range (day, night, or their combination)

The alarm contacts can be enabled/disabled even from a time event. Priority management based on the acknowledgement order, in case of multiple alarms. Warning buzzer and management of 8 relays on alarm

On alarm action on monitors (sequences and cameras) and on telemetry receivers (scan on home position)

System security

Optional management of videoloss and videotape video recorder

Keyboards can be time enabled/disabled based on the prescriptions of the matrix configuration

Trigger VCR and some DVR management

Supplied with instruction manual, 1 power cable, 1 serial cable 9 pins, 2 DB25 connectors, set-up disk, power supply

MECHANICAL

Metal enclosure

Epoxypolyester powder painted RAL9006 and black colour

Dimensions: 180x430x94mm (7x17x3.7in) Rack 19", 2U (HE)

2 DB25 connectors (alarms and relays)

6 RJ11 connectors (4 RJ11 for keyboards and 2 RJ11 for telemetry line)

1 DB9 male connector (PC and serial printer)

Power supply jack-connector

32 BNC video inputs

8 BNC video outputs

2 BNC connectors (VCR trigger and alarms reset)

ELECTRICAL

External wide range power supply

  - IN 100-240V AC - OUT 12V DC, 47/63Hz, 2A

Consumption: 24W

32 inputs 75 Ohm 1Vpp (PAL/NTSC)

8 outputs 75 Ohm 1Vpp (PAL/NTSC)

Bandwidth: > 6MHz

Lower cut-off frequency: (-3dB): 9Hz

Signal/noise ratio: >47dB@5.5MHz

Relay contacts: 50V AC/DC 0.5A max

PROTOCOL

Telemetry Line

VIDEOTEC (1200, 9600 baudrate)

MACRO (1200, 9600, 19200, 38400 baudrate)

PELCO D (2400, 4800, 9600, 19200 baudrate)

Pelco D is registered trademark.

SM328A may be interfaced with equipment not manufactured by Videotec. It is possible that the interface protocols have changed or are in a different configuration from earlier tested units. Videotec recommends a bench test prior to installation. Videotec will not be liable for any installation costs or lost revenues in the event a compatibility problem will occur.

COMMUNICATIONS

Four serial inputs RS485 for the reception of data from max 8 remote keyboards at a max distance of 1200m (3900ft)

Two auxiliary RS485 lines outputs for telemetry and other devices control at a max distance of 1200m (3900ft). Auxiliary A can be used to connect more matrixes in master-slaves or parallel systems

Serial input PC RS232 at a max distance of 15m (49ft) for matrix set-up, loading configuration from matrix to PC for analyzing the current settings and matrix control

RELATED PRODUCTS

DCK	Matrix and Mux Control Keyboard
DCJ	Matrix, Mux and Telemetry Control Keyboard with three axis joystick
DCT	Matrix, Mux, DVR and Telemetry Control Keyboard touch screen equipped with three axis joystick
MICRODEC485	Mini telemetry receiver 8 functions, 24V AC
DTMRX224	Telemetry receiver 12 functions, 24V AC
DTMRX2	Telemetry receiver 12 functions, 230V AC

10

VIDEO SWITCHING

SM328A
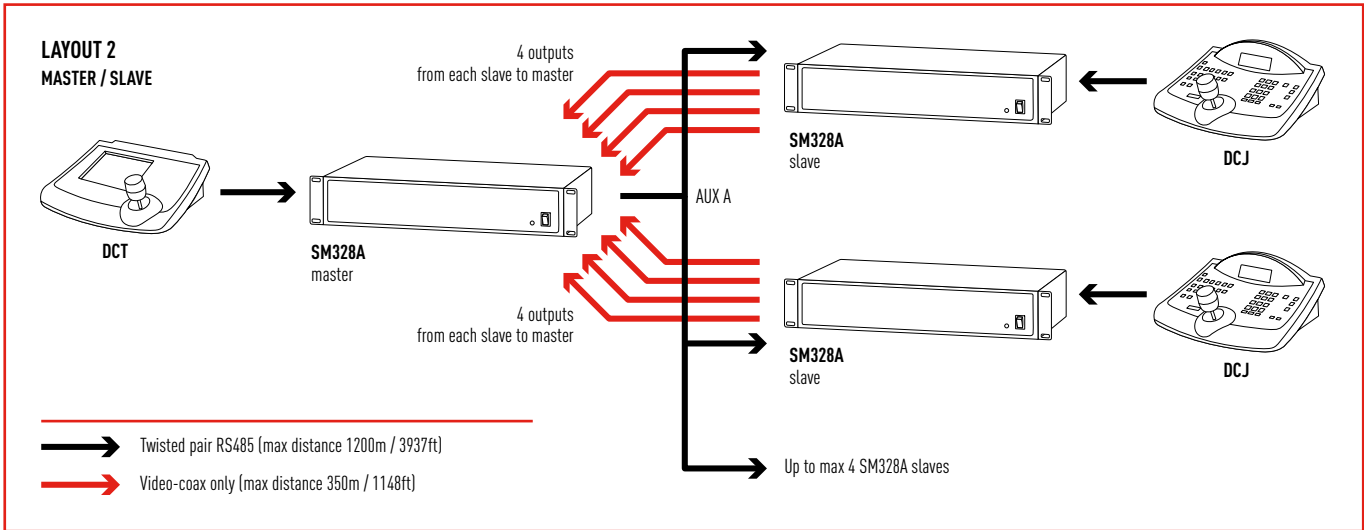## SYSTEM VIDEO MATRIX

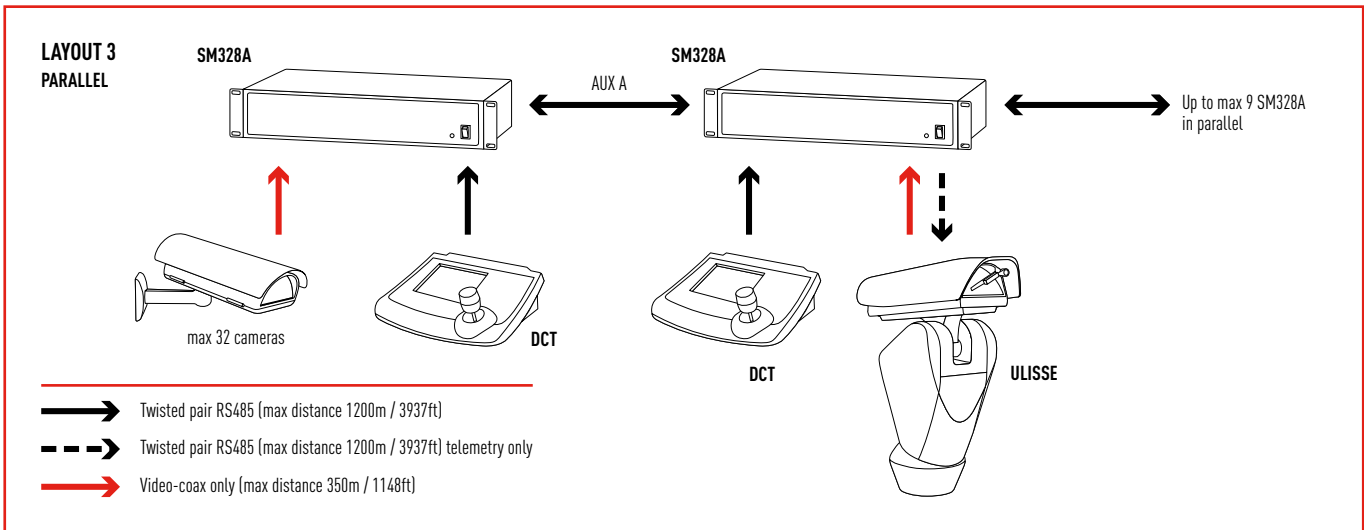|	
DTRX324	Telemetry receiver 17 functions, 24V AC
DTRX3	Telemetry receiver 17 functions, 230V AC
DTCOAX	Over the coax board for DTRX3 only trough matrix series SM
DTRXDC	Telemetry receiver 13 functions, for PTH355P
ULISSE	Positioning Unit
MISTRAL	Dome Camera

ENVIRONMENT

Indoor

Operating temperature: 0°C / +45°C (32°F / +113°F)

COMPLIANCE TO

CE according to EN 60065, EN 55022 Class A, EN 50130-4
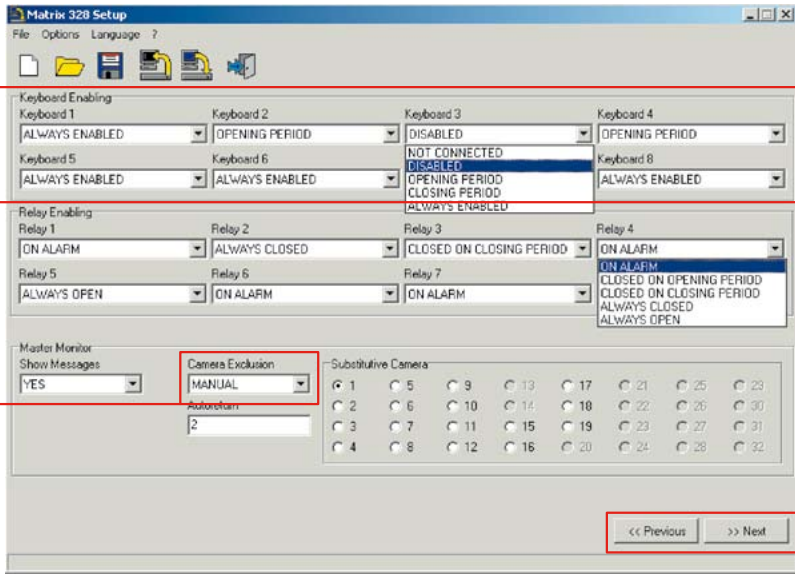
FCC according to Part. 15 Class B

LAYOUT 2
MASTER / SLAVE

4 outputs from each slave to master

SM328A slave

DCJ

DCT

SM328A master

AUX A

4 outputs from each slave to master

SM328A slave

DCJ

Up to max 4 SM328A slaves

→ Twisted pair RS485 (max distance 1200m / 3937ft)

→ Video-coax only (max distance 350m / 1148ft)

LAYOUT 3
PARALLEL

SM328A

SM328A

AUX A

Up to max 9 SM328A in parallel

max 32 cameras

DCT

DCT

ULISSE

→ Twisted pair RS485 (max distance 1200m / 3937ft)

⇢ Twisted pair RS485 (max distance 1200m / 3937ft) telemetry only

→ Video-coax only (max distance 350m / 1148ft)

	Unit Weight:	Package Weight:	Package Dimensions (BxHxL):	Master Carton:
	SM328A 4.8kg / 10.6lb	**SM328A** 5.2kg / 11.5lb	**SM328A** 26.5x17.5x49cm / 10.4x6.9x19.3in	**SM328A** -

MATRIX SETUP

Example: Keyboard enabling

Keyboards enabling

Camera exclusion feature

Skip between setup Windows

Example: Telemetry and AUX setup

Telemetry receiver decoding

Auxiliary lines setup

10

VIDEO SWITCHING

Example: Alarms setup

Alarm to be set

On alarm:
action on telemetry receiver

On alarm:
action on monitors

PC

32 VIDEO INPUTS

POWER SUPPLY

ALARMS / RELAY

AUX

KEYBOARDS

8 VIDEO OUTPUTS

EXTERNAL RESET

VCR TRIGGER INPUT

10

VIDEO SWITCHING

VIDEOTEC

VIDEO SWITCHING

10

ITALY: info@videotec.com
FRANCE: videotec.yr@wanadoo.fr
U.K.: uksales@videotec.com
U.S.A.: usasales@videotec.com
HONG KONG: info@videotec.com.hk