

- 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.

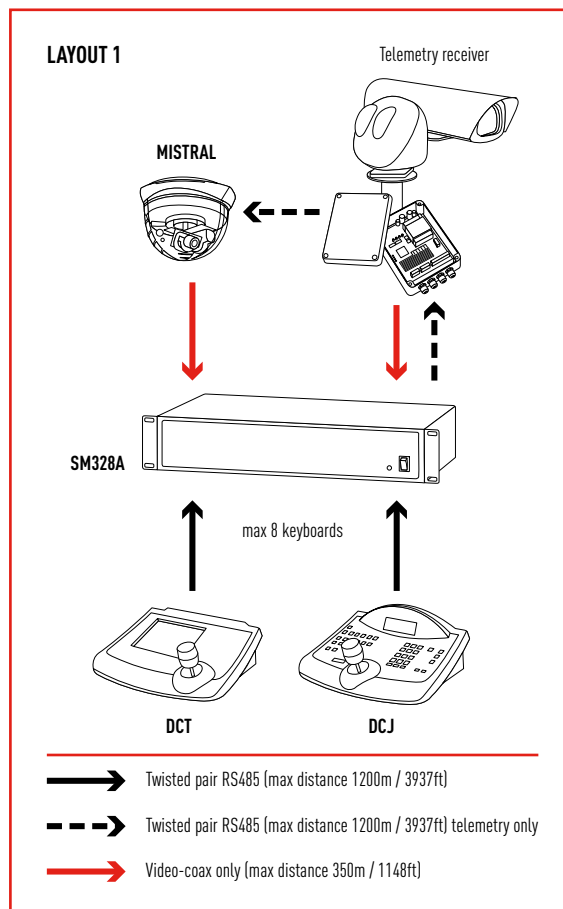
Through these outputs we can perform telemetry or other matrix control. It is also possible to connect additional matrixes in Master/Slaves or Parallel systems.

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.



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

VIDEOTECH (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

SM328A

SYSTEM VIDEO MATRIX



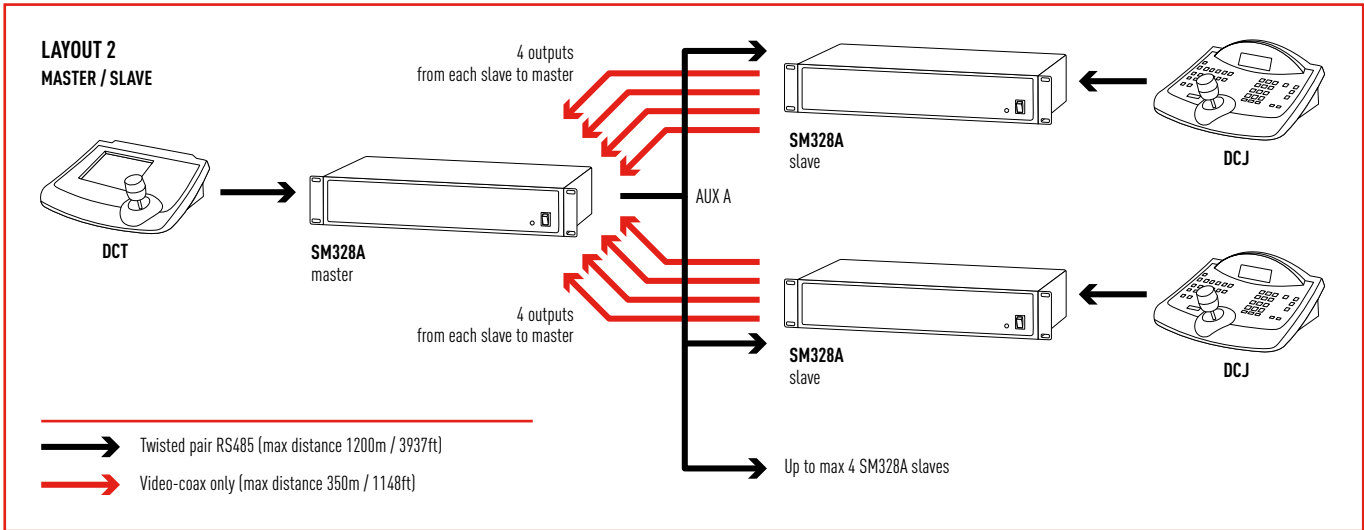
DTRX324	Telemetry receiver 17 functions, 24V AC
DTRX3	Telemetry receiver 17 functions, 230V AC
DTCOAX	Over the coax board for DTRX3 only trough matrix series SM
DTRXDC	Telemetry receiver 13 functions, for PTH355P
ULISSE	Positioning Unit
MISTRAL	Dome Camera

ENVIRONMENT

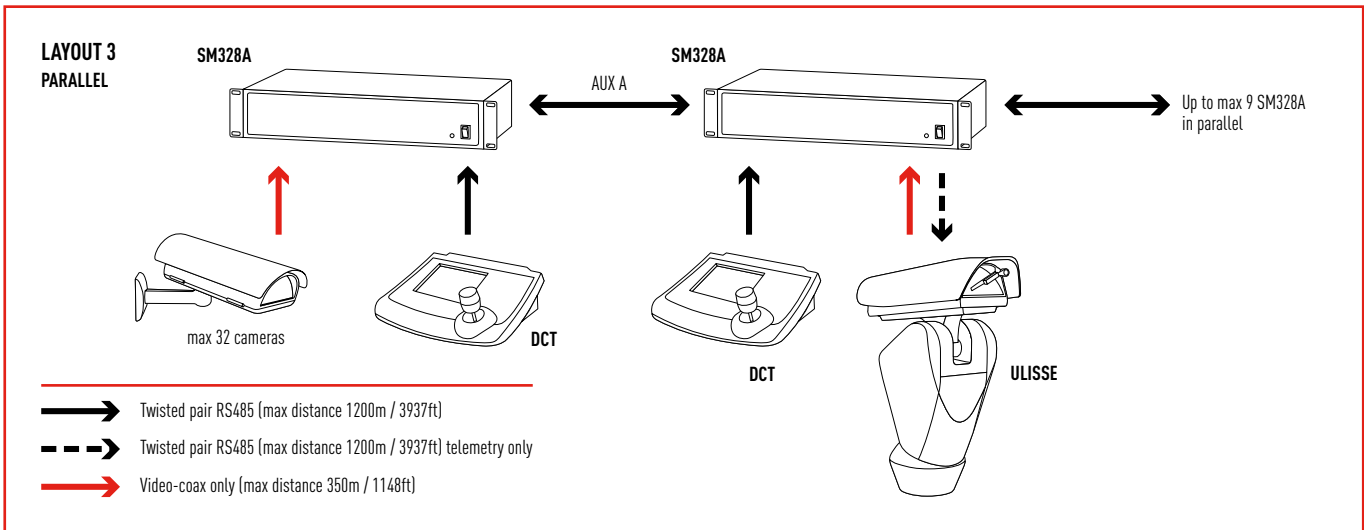
Indoor
 Operating temperature: 0°C / +45°C (32°F / +113°F)

COMPLIANCE TO

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



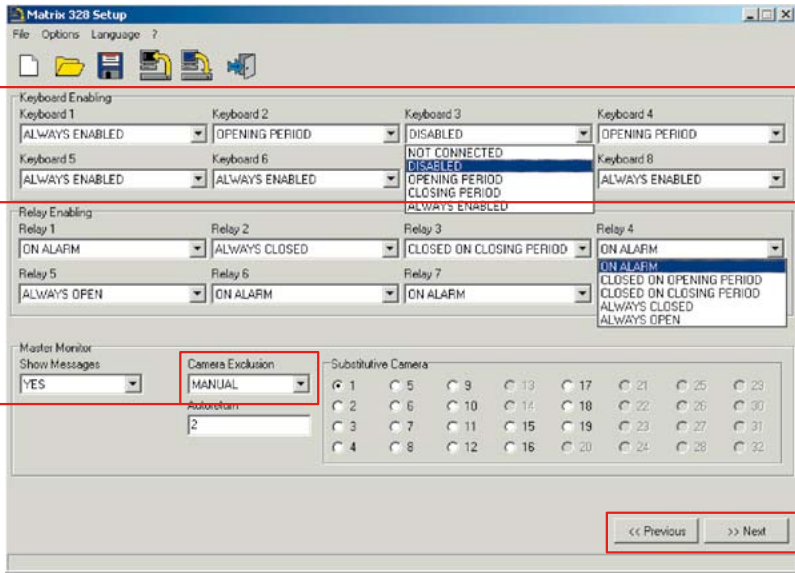
10 VIDEO SWITCHING



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

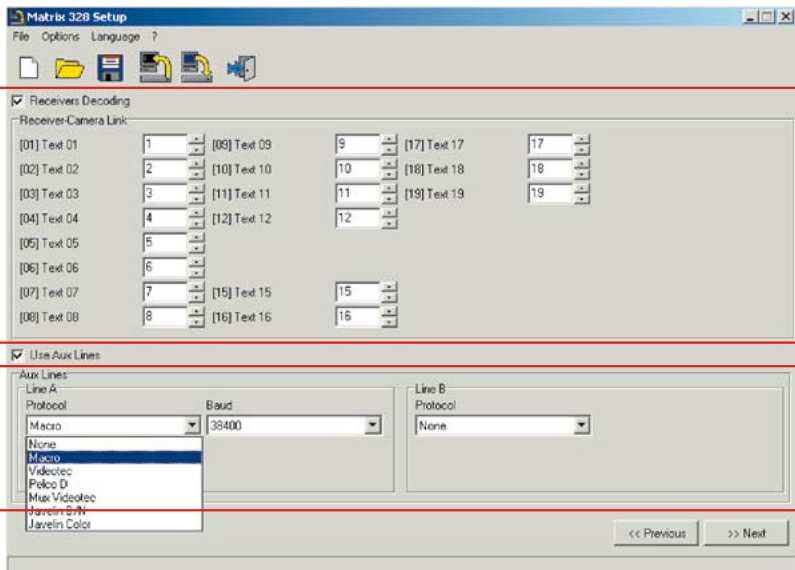
Example: Keyboard enabling



The screenshot shows the 'Matrix 320 Setup' window with several sections highlighted by red boxes and labels:

- Keyboards enabling:** A red box highlights the 'Keyboard Enabling' section, which contains dropdown menus for Keyboard 1 through Keyboard 8. Keyboard 3 is currently set to 'DISABLED'.
- Relay Enabling:** A red box highlights the 'Relay Enabling' section, which contains dropdown menus for Relay 1 through Relay 7. Relay 4 is currently set to 'ON ALARM'.
- Camera exclusion feature:** A red box highlights the 'Camera Exclusion' dropdown menu, which is set to 'MANUAL'. Below it is an 'Autoreturn' input field with the value '2'.
- Skip between setup Windows:** A red box highlights the '<< Previous' and '>> Next' buttons at the bottom right of the window.

Example: Telemetry and AUX setup

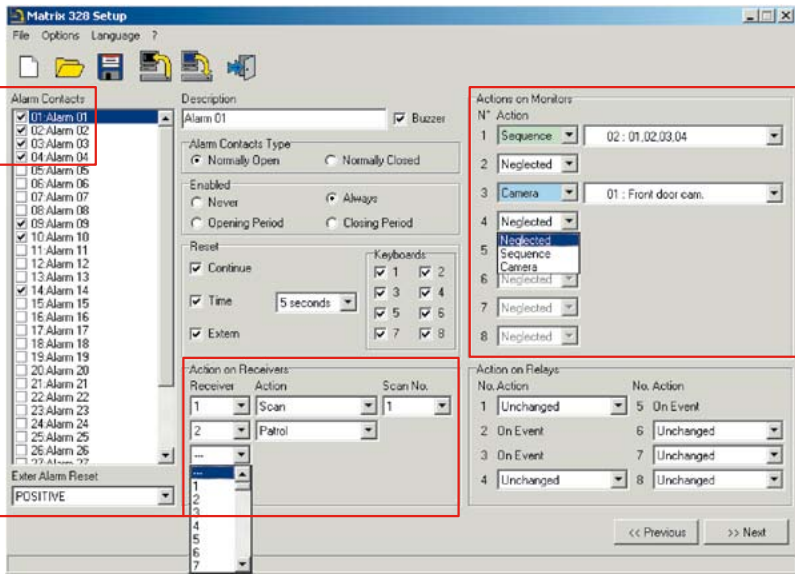


The screenshot shows the 'Matrix 320 Setup' window with two sections highlighted by red boxes and labels:

- Telemetry receiver decoding:** A red box highlights the 'Receivers Decoding' section, which is checked. It contains a 'Receiver-Camera Link' table with 19 rows and 4 columns of text labels (e.g., [01] Text 01, [09] Text 09, etc.).
- Auxiliary lines setup:** A red box highlights the 'Use Aux Lines' section, which is checked. It contains settings for 'Line A' (Protocol: Micco, Baud: 38400) and 'Line B' (Protocol: None). A dropdown menu for 'Line A' is open, showing options like 'None', 'Micco', 'Videotec', 'Polco D', 'Mux Videotec', 'Javelin 2W', and 'Javelin Color'.

MATRIX SETUP

Example: Alarms setup



The screenshot shows the 'Matrix 328 Setup' window with the following configuration for Alarm 01:

- Alarm Contacts:** Alarm 01 is selected (indicated by a red box and the label 'Alarm to be set').
- Description:** Alarm 01, Buzzer checked.
- Alarm Contacts Type:** Normally Open.
- Enabled:** Always.
- Reset:** Continue, Time: 5 seconds, Extem checked.
- Keyboards:** 1-8 are checked.
- Action on Receivers:**

Receiver	Action	Scan No.
1	Scan	1
2	Patrol	
- Enter Alarm Reset:** POSITIVE (indicated by a red box and the label 'On alarm: action on telemetry receiver').
- Actions on Monitors:**

N° Action	Sequence	Camera
1	Sequence	02 : 01.02.03.04
2	Neglected	
3	Camera	01 : Front door cam.
4	Neglected	
5	Sequence	
6	Camera	
7	Neglected	
8	Neglected	
- Action on Relays:**

No. Action	No. Action
1	Unchanged
2	On Event
3	On Event
4	Unchanged
5	On Event
6	Unchanged
7	Unchanged
8	Unchanged

