**DIVISION 28 ELECTRONIC SAFETY AND SECURITY**

**SECTION 28 20 00 ELECTRONIC SURVEILLANCE**

**SECTION 28 23 00 VIDEO SURVEILLANCE**

**SECTION 28 23 29 VIDEO SURVEILLANCE REMOTE DEVICES AND SENSORS**

**1 General**

**1.1 General requirements**

A) The components and materials used for the construction of the products are standard type, they are manufactured and available also as spare parts, as long as the products remain on the market.

B) All products and versions will be severely tested and validated by the internal laboratories of the manufacturer before being released on the market.

C) All products released on the market by the manufacturer are designed for 24x7x365 constant use.

D) For all products a Technical Support service is available, for free, via phone, e-mail and ticketing system.

**1.2 Quality**

A) The manufacturer has to repair or replace without charge any products in which construction and/or material defects are found for the stated warranty period, starting from the delivery date of the material.

B) The specified devices must be manufactured in Italy following the standards of EN ISO 9001: 2008 certification.

**1.3 Environmental sustainability**

A) All products must comply with RoHS-6/6 according to the specifications 2011/65/EU, 2005/717/EC, 2006/122/EC and REACH according to the specifications EC 1907/2006.

**1.4 Certifications**

A) All products must have the following certifications:

1. Electrical safety (CE): EN60950-1, IEC60950-1

2. Electromagnetic compatibility (CE): EN50130-4, EN610000-6-4, EN55022 (Class A), FCC Part 15 (Class A)

3. Outdoor installation (CE): EN60950-22, IEC60950-22

4. IP protection degree: EN60529 (IP66)

5. Salty fog resistance: EN50130-5, EN60068-2-52

6. UL certification: cULus Listed (TYPE 4X)

7. EAC certification

**2 Products**

**2.1 Thermal PTZ camera with up to 24x continuous zoom**

A) Ready to use thermal PTZ camera system that integrates exceptional factory-assembled combinations of lens and thermal camera for the best intrusion detection and the visual awareness in night time or total darkness.

B) The lens system features a continuous zoom up to 24x and an amazing AUTO FOCUS that allow quick and effective focus on targets while retaining flawless images.

C) The thermal PTZ camera system is provided with analog control or IP, certified ONVIF Profile S, and is compatible with most VMS on the market.

D) The Videotec's PTZ ASSISTANT plug-in software supports any VMS with the control of all special functions such as the Auto Focus.

E) Depending on temperature, the contrast of a scene can be adjusted dynamically by the ACE (Active Contrast Enhancement) function, while the Digital Detail Enhancement (DDE) allows more detailed and crisp images.

F) The STR (Spot Temperature Reading) function detects the temperature reading of a specific point of the monitored scene.

G) Due to its accuracy, reliability and robustness, this thermal PTZ camera is the ideal solution for the visual control of demanding outdoor areas, such as: fire detection, military installations, border patrol, harbour surveillance, perimeter surveillance, traffic, railways and highways control and industrial monitoring.

H) The thermal PTZ camera system features the following specifications:

1. General:

a. Constructed from aluminium and tecnopolymer

b. Epoxypolyester powder painting, RAL9002 colour

c. Top mount (OTT)

d. Transmission through toothed belt

e. Slip-ring

f. Electronic limit switches

g. Zero backlash

h. Pre-installed camera and lens

2. Mechanical features:

a. Cable glands: 3xM16

b. Horizontal rotation: continuous

c. Vertical rotation: +90° to -40°

d. Horizontal speed:from 0.02°/s up to 100°/s

e. Tilt speed:from 0.02°/s up to 50°/s

f. Preset accuracy: 0.02°

g. Unit weight: 17kg (37lb)

3. Camera:

a. Thermal camera (336x256):

Pixel dimension: 17μm

Spectral range: from 7.5μm up to 13.5μm

Digital Zoom: 4x

b. Thermal camera (640x512):

Pixel dimension: 17μm

Spectral range: from 7.5μm up to 13.5μm

Digital Zoom: 8x

4. Video:

a. VideoCompressione: H.264/AVC, JPEG

b. 2 independent video streams

c. Image resolution: from Full D1 (720x576 for PAL, 720x480 for NTSC) to 352x240 in 18 steps

5. Lenses:

a. 3x optical zoom, 35-105mm, F1.6

b. Minimum focusing distance: 7m

c. Field of view (640x512 pixel):

1. Wide: 17.97°H, 14.33°V

2. Tele: 5.93°H, 4.75°V

d. Field of view (336x256 pixel):

1. Wide: 8.98°H, 7.15°V

2. Tele: 2.97°H, 2.38°V

6. Electrical features:

a. Power supply/Current consumption:

1. 230Vac, 0.4A, 50/60Hz

2. 24Vac, 4A, 50/60Hz

3. 120Vac, 0.8A, 50/60Hz

b. Power consumption:

1. 100W max

2. 28.5W, P&T static, heating switched off

c. 4 self-powered alarm inputs

d. 2 dry contacts: 30Vdc max o30Vac, @ 1A

7. Communications:

a. Configuration through OSD

b. 2 half-duplex serial RS-485 interfaces or full-duplex RS-422

c. Firmware updating from console in remote mode (VIDEOTEC MACRO and PELCO D protocols)

d. Up to 999 units, addressable by means of dip-switches

8. Network:

a. Ethernet connection: IEEE 802.3 100Base-Tx

9. Network protocols:

a. ONVIF, Profile S

b. Device configuration: TCP/IPv4, UDP/IPv4, HTTP, NTP, DHCP, WS-DISCOVERY, QoS

c. For streaming: RTSP, RTCP, RTP

10. Environmental features:

a. Indoor / Outdoor

b. Operating temperature: from -40°C (-40°F) up to +65°C (149°F)\*

c. Cold start: -40°C

d. Surge immunity: up to 2KV (line to line), up to 4KV line to earth (Class 4)

*\* peak temperature*

11. Optional Accessories:

e. Junction weatherproof box for cables connection (according UL norm) (UPTJBUL)

12. Brackets and Adapters:

a. Wall bracket with internal cable channel (UPTWBA)

b. Parapet bracket with internal cable channel (UPTWBTAB)

I) Available models:

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| **ULISSE RADICAL THERMAL -Configuration options** |
|   | **Voltage** | **Thermal camera** | **Lens** |   |   | **Video Output** |   | **Frequency** |
| **UPKT** | **1** 230Vac | **A** 640X512 pixel | **F** Thermal zoom 3x | **S** | **A** | **0** Analog | **00A** | **-** 7.5-8.3Hz |
|  | **2** 24Vac | **B** 336x256 pixel |  |  |  | **N** IP H.264/AVC, Protocol ONVIF Profile S |  | **H** 25-30Hz |
|  | **3** 120Vac |  |  |  |  |  |  |  |