**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. Photobiological safety (CE): EN62471 (LED illuminators)

5. IP protection degree: EN60529 (IP66)

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

7. UL certification (except versions with 33x lenses) : cULus Listed (TYPE 4X)

8. EAC certification

**2 Products**

**2.1 Outdoor IP PTZ units with top performance cameras and lenses**

A) Ready to use Full HD network PTZ system that integrates exceptional combinations of factory-installed lens and camera, Full HD 1080p, 60fps and 1/2" CMOS sensor for day-time and night-time broadcast quality video.

B) This PTZ camera unit is supplied with 154mm lenses (18x zoom) or with 500mm (33x zoom) lenses equipped with an advanced autofocus that allows and automatically maintains the focus on very far away subjects, with sharp details.

C) ONVIF Profile S certified and 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 wiper, washer pump, IR and Auto Focus.

E) Powerful motors guarantee exceptionally smooth tracking, even at a minimum speed of 0.02°/sec.

F) Optimal performance even in the complete darkness thanks to the powerful LED illuminators that can reach distances of over 300m (985ft) (with two UPTIRN illuminators, 10°, 850nm).

G) The version with 33x zoom features a Thermal Compensation System and a Visible Cut Filter.

H) Pre-wired camera and lens through snap-on connector for easy installation and maintenance.

I) Due to its characteristics of accuracy, reliability and robustness, this PTZ camera is the ideal solution for the visual control of large outdoor areas, such as: border patrol, harbour surveillance, long distance perimeter surveillance, traffic and highway control, military installations ...

J) The unit 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. Optical sensors for absolute positioning feedback

i. Integrated wiper

j. Pre-installed camera and lens

2. Mechanical features:

a. Cable glands: 3xM16

b. Horizontal rotation: 360° continuous

d. Zoom 18x:

Vertical rotation: +90° to -40°

Pan speed: (variable): from 0.02° up to 100°/s (from 0.02°/s up to 40°/s with LED illuminators)

Tilt speed (variable): from 0.02°/s up to 50°/s (from 0.02°/s up to 30°/s with LED illuminators)

e. Zoom 33x:

Vertical rotation: from +45° up to -20°

Horizontal speed (variable): from 0.02°/s up to 20°/s

Tilt speed (variable): from 0.02°/s up to 20°/s

f. Preset accuracy: 0.02°

g. Unit weight: 17kg (37lb) (18x), 30kg (66lb) (33x)

3. Camera:

a. Day/Night Full HD, 60fps, CMOS 1/1.9" sensor

b. Effective pixels: 2.38 Megapixel

c. Minimum Illumination Zoom 18x, Colour (ICR-OFF):

0.08lx, 50 IRE F2.5, 1/30s

d. Minimum Illumination Zoom 18x, B/W (ICR-ON):

0.06lx, 50 IRE F2.5, 1/30s

e. Minimum Illumination Zoom 33x, Colour (ICR-OFF):

0.1lx, 50 IRE F3.0, 1/30s

f. Minimum Illumination Zoom 33x, B/W (ICR-ON):

0.07lx, 50 IRE F3.0, 1/30s

g. Zoom 18x:

Horizontal Viewing Angle: 40.6° (wide end) to 2.4° (tele end)

Vertical Field of View: 30.8° (wide end) to 1.8° (tele end)

h. Zoom 33x:

Horizontal Viewing Angle: 23.42° (wide end) to 0.74° (tele end)

Vertical Field of View: 17.74° (wide end) to 0.55° (tele end)

i. S/N Ratio: more than 50 dB

j. WDR (wide dynamic range): 90dB

k. Electronic Shutter: 1/1 to 1/10,000 s

l. Exposure Control: Exposure compensation, AGC, Electronic Shutter, Iris

m. White balance: ATW, ATW PRO, Fluorescent lamp, Mercury lamp, Sodium vapor lamp, Metal halide lamp, White LED, Open Push WB, Manual

n. Wide-D: View-DR

o. Tone correction: Visibility enhancer

p. Noise reduction: XDNR

4. Video:

a. Compression: H.264/AVC, JPEG

b. Multiple video stream capability: up to 3 independent streams and up to 20 simultaneous clients

c. Resolution: 1920x1080, 1280x720, 1024x576, 720x576, 720x480, 704x576, 640x480, 640x360, 352x288, 320x184

d. Range of Bitrate setting: 64 kbps to 32 Mbps

e. Selectable frame rate from 1 to 60 images per second (fps)

5. Lenses:

a. Zoom 18x, 8.6-154mm, F2.5

b. Zoom 33x, 15.2-500mm, F3.0 (Thermal compensation system and Visible Cut Filter)

6. Electrical features:

a. Power supply/Current consumption:

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

2. 24Vac, 4A (8A with LED illuminators), 50/60Hz

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

b. Power consumption:

1. 100W

2. 150-190W max with LED illuminators in 24Vac

3. 28.5W (18x), 24W (33x), P&T stopped, heating switched off

c. Camera power supply: 12Vdc (800mA)

d. 4 self-powered alarm inputs

e. 2 dry contacts: 30Vdc max or 30Vac, @ 1A

7. Network:

a. Ethernet connection: IEEE 802.3 100Base-Tx

8. Network protocols:

a. ONVIF, Profile S

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

c. For streaming: RTSP, RTCP, RTP

9. Environmental features:

a. Indoor / Outdoor

b. Operating temperature: -40°C (-40°F)/+60°C (140°F)

c. Cold start with 18x lenses:-40°C (-40°F)

d. Cold start with 33x lenses:-30°C (-22°F )

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

10. Optional Accessories:

a. LED illuminator, 10°, 850nm, 24Vac – 12/24Vdc (UPTIRN108A00)

b. LED illuminator, 30°, 850nm, 24Vac – 12/24Vdc (UPTIRN308A00)

c. LED illuminator, 60°, 850nm, 24Vac – 12/24Vdc (UPTIRN608A00)

d. LED illuminator, 10°, 940nm, 24Vac – 12/24Vdc (UPTIRN109A00)

e. LED illuminator, 30°, 940nm, 24Vac – 12/24Vdc (UPTIRN309A00)

f. LED illuminator, 10°, white light, 24Vac – 12/24Vdc (UPTIRN10WA00)

g. LED illuminator, 30°, white light, 24Vac – 12/24Vdc (UPTIRN30WA00)

h. LED illuminator, 60°, white light, 24Vac – 12/24Vdc (UPTIRN60WA00)

i. Sensor and Power supply for version with illuminators, IN 230Vac, in waterproof metal box (UPTIRPS230N)

j. Sensor and Power supply for version with illuminators, IN 100Vac, in waterproof metal box (UPTIRPS100N)

k. Sensor and Power supply for version with illuminators, IN 120Vac, in waterproof metal box (according UL norm) (UPTIRPS120UL)

l. Water tank 5l, pump with delivery up to 5m (16ft), IN 230Vac-24Vac-120Vac (WASPT0V5L5M00)

m. Water tank 23l, pump with delivery up to 5m (16ft), IN 230Vac-24Vac-120Vac (WASPT0V23L5M00)

n. Water tank 23l, pump with delivery up to 11m (36ft), IN 230Vac-24Vac-120Vac (WASPT0V23L11M00)

o. Water tank 23l, pump with delivery up to 30m (98ft), IN 230Vac (WASPT1V23L30M00)

p. Water tank 23l, pump with delivery up to 30m (98ft), IN 120Vac (WASPT3V23L30M00)

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

11. Brackets and Adapters:

a. Wall bracket with internal cable channel (UPTWBA)

b. Parapet bracket with internal cable channel (UPTWBTAB)

c. Pole mount adaptor for UPTWBA (PTCC1) (only 18x zoom versions)

d. Corner mount adaptor for UPTWBA (WCWGC) (only 18x zoom versions)

K) Available models:

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| **Available models** |
| **Model Number** | **230vac** | **24Vac** | **120Vac** | **Camera Full HD 60fps Sensor CMOS 1/2"** | **18x lenses** | **33x lenses (Thermal compensation +****Visible Cut Filter)** | **Wiper** | **Brackets for UPTIRN** | **ONVIF protocol, Profile S** |
| UPK1QAWAN00A | p | – | – | p | p | – | p | – | p |
| UPK1QEWAN00A | p | – | – | p | – | p | p | – | p |
| UPK2QAJAN00A | – | p | – | p | p | – | p | p | p |
| UPK2QEJAN00A | – | p | – | p | – | p | p | p | p |
| UPK3QAWAN00A | – | – | p | p | p | – | p | – | p |
| UPK3QEWAN00A | – | – | p | p | – | p | p | – | p |