**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

2. Electromagnetic compatibility (CE): EN50130-4, EN55022 (Class A), EN61000-6-3, FCC Part 15 (Class A)

3. Outdoor installation (CE): EN60950-22, IEC 60950-22

4. IP protection degree: EN60529 (IP66)

5. EAC certification

**2 Products**

**2.1 Stainless steel Day/Night PTZ camera**

A) Exceptional integrated PTZ unit perfect for heavy-duty tasks and ideal to operate in the harshest and most corrosive environments, such as industrial and offshore/onshore marine applications.

B) These positioning units guarantee long-term performance, with low maintenance, thanks to the maximum care in the construction processes and the best quality AISI316L, passivated and electropolished. These special treatments create a shell in the surface that makes the product completely impervious to rusting and corrosion.

C) All models are available in analog or IP version.

D) The flexible operator control of pan/tilt/zoom functions allows the video transmission over the local area network (LAN) or over the Internet with H.264/AVC compression, compatible with ONVIF Profile S.

E) The Videotec's PTZ ASSISTANT plug-in software supports any VMS with the control of all special functions such as wiper and washer pump.

F) The unit is always supplied with integrated wiper; wide choice of tanks with washer pump available with different capacities and delivery heights.

G) The stainless steel Day/Night PTZ camera features the following specifications:

1. General:

a. Dynamic positioning control system

b. 16-character string for zone and preset titling

c. Maximum number of presets: 250

d. Functions: Autopan, Preset, Patrol, Tour (max 3), Autoflip

e. I/O alarm card:

1. 5 alarm inputs

2. 2 relay outputs (1A 30Vac/60Vdc max)

2. Mechanical features:

a. AISI 316L stainless steel construction

b. Passivated and electropolished external surfaces

c. Pre-wired multipolar cable (3m (118in))

d. Horizontal rotation: 360° continuous

e. Vertical rotation: from -90° to +90°

f. Pan speed: (variable): from 0.1° up to 100°/s

g. Tilt speed (variable): from 0.1° up to 100°/s

h. Preset accuracy: 0.02°

i. 6mm glass window

j. Integrated wiper

k. Unit weight: 20.5kg (45lb)

3. Electrical features:

a. Power supply/Current consumption:

1. 230Vac, 0.5A max, 50/60Hz

2. 24VAC, 5A max, 50/60Hz

3. 120VAC, 1A max, 50/60Hz

a. Power consumption:

1. 120W

2. 29W, P&T static, heating switched off

4. Video:

a. Analog version:

1. 1 video output, 75 Ohm, 1Vpp (PAL/NTSC)

a. IP version:

1. Video compression: H.264/AVC, JPEG

2. Two independent video streams

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

4. Web Server

5. ONVIF Profile S

5. 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 (only VIDEOTEC MACRO and PELCO D protocols)

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

6. Protocols:

a. AMERICAN DYNAMICS, ERNITEC, PANASONIC, PELCO D, VIDEOTEC MACRO

6. Network:

a. Connection Ethernet port LAN 10/100T

7. Network protocols:

a. Protocol: ONVIF, Profile S

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

c. Streaming: RTSP, RTCP, RTP

8. Video features:

a. Camera D/N 36x:

1. Standard Video PAL or NTSC

2. Optical zoom: 36x, f=3.4 (wide) to 122.4 mm (tele) / F1.6 to F4.5

3. Digital Zoom: 12x (432x with optical zoom)

4. WDR: Yes (Fix/Auto)

5. True Progressive Scan: Yes

6. Digital image stabilisation: Yes

7. White balance: Auto, ATW, Indoor, Outdoor (Fix/Auto), Sodium Vapor Lamp (Fix/Auto)

8. Horizontal Resolution: 550 TVL

9. Day/Night: Yes (Auto ICR)

10. Sensor: 1/4" EXView HAD CCD

11. Effective Pixels: PAL ~ 440000 pixel; NTSC ~ 380000 pixel

12. Min. day Illumination (ICR ON): PAL 0.01 Lux / 1/3s; NTSC 0.01 Lux / 1/4s

13. Min. day Illumination (ICR OFF): PAL 0.1 Lux / 1/3s; NTSC 0.1 Lux / 1/4s

14. “Shutter Time” automatic increase to improve the night surveillance

15. S/N ratio: Greater than 50dB

16. AE control: Automatic, Shutter priority, Diaphragm priority, Brightness priority and Manual

17. Back light compensation: Yes (On/Off)

18. Spherical masking (3D) of Privacy zones with automatic upgrade

19. Privacy Zone Masking: On/Off (24 positions)

20. Maximum number of masking blocks to be displayed: 8

21. Resolution of masking blocks: 160x120 HxV

22. Masking: up to 15 different masking types, 14 colour types or mosaic

23. Focusing system: Auto (Sensitivity: Normal, Low), Trigger PTZ, Manual

24. “Smart” lens control: Automatic Lens Reset Technology

25. High Zoom and Wide Horizontal Field of View Capability

26. Angle of view: 57.8° (wide) to 1.7° (tele)

27. Minimum object distance: 320mm (12.6in) (wide) to 1500mm (59.1in) (tele)

28. Electronic Iris Speed: 1/1 ÷ 1/10000s

b. Camera D/N 28x High Sensitivity:

1. Standard Video PAL or NTSC

2. Optical zoom: 28x, f=3.5 (wide) to 98mm (tele) / F1.35 to F3.7

3. Digital Zoom: 12x (336x with optical zoom)

4. Digital image stabilisation: Yes

5. White balance: Auto, ATW, Indoor, Outdoor (Fix/Auto), Sodium Vapor Lamp (Fix/Auto)

6. Horizontal Resolution: 550 TVL

7. Day/Night: Yes (Auto ICR)

8. Sensor: 1/4" Super HAD CCD II

9. Effective Pixels: PAL ~ 440000 pixel; NTSC ~ 380000 pixel

10. Min. day Illumination (ICR ON): PAL 0.0015 Lux / 1/3s; NTSC 0.0015 Lux / 1/4s

11. Min. day Illumination (ICR OFF): PAL 0.16 Lux / 1/3s; NTSC 0.16 Lux / 1/4s

12. “Shutter Time” automatic increase to improve the night surveillance

13. S/N ratio: Greater than 50dB

14. AE control: Automatic, Shutter priority, Diaphragm priority, Brightness priority and Manual

15. Back light compensation: Yes (On/Off)

16. Spherical masking (3D) of Privacy zones with automatic upgrade

17. Privacy Zone Masking: On/Off (24 positions)

18. Maximum number of masking blocks to be displayed: 8

19. Resolution of masking blocks: 160x120 HxV

20. Masking: up to 15 different masking types, 14 colour types or mosaic

21. Focusing system: Auto (Sensitivity: Normal, Low), Trigger PTZ, Manual

22. “Smart” lens control: Automatic Lens Reset Technology

23. High Zoom and Wide Horizontal Field of View Capability

24. Angle of view: 55.8° (wide) to 2.1° (tele)

25. Minimum object distance: 10mm (0.4in) (wide) to 1500mm (59.1in) (tele)

26. Electronic Iris Speed: 1/1 ÷ 1/10000s

9. Environmental features:

a. Indoor / Outdoor

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

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

10. Optional Accessories:

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

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

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

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

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

11. Brackets and Adapters:

a. AISI 316L stainless steel wall mount bracket (NXPTZWB)

b. AISI 316L stainless steel parapet or ceiling mounting bracket (NXPTZTW)

c. AISI 316L stainless steel corner adapter module (NXPTZCW)

d. AISI 316L stainless steel pole adapter module (NXPTZCOL)

H) Available models: the following table shows the configuration options depending on the installation needs:

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| **NXPTZ - Configuration options** | | | | | | | |
|  | **Voltage** | **Day/Night camera** |  |  |  | **Video Output** |  |
| **NXPTZ** | **1** 230Vac | **P** Day/Night camera 36x optical zoom lens, PAL | **V** With alarm board | **W** With wiper | **0** | **0** Analog | **00A** |
|  | **2** 24Vac | **N** Day/Night camera 36x optical zoom lens, NTSC |  |  |  | **Z** IP H.264/AVC, Protocol ONVIF Profile S |  |
|  | **3** 120Vac | **Q** Day/Night camera 28x optical zoom lens, PAL |  |  |  |  |  |
|  |  | **M** Day/Night camera 28x optical zoom lens, NTSC |  |  |  |  |  |