**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:

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

02 Electromagnetic compatibility:

a CE: EN50130-4, EN55022 (Class A), EN55032 (Class A), EN61000-6-4

b FCC: Part 15 (Class A)

c ICES-003 (Class A)

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

04 IP protection degree: EN60529 (IP66, IP68, IP69)

05 cULus Listed, TYPE 4X

06 EAC certification

**2 Products**

**2.1 Technical data**

**A General**

01 AISI 316L stainless steel construction

02 Electropolished and silicon micro shot peened external surfaces

03 Dynamic positioning control system

**B Mechanical**

01 Pre-wired multipolar cable (3m (118in))

02 Horizontal rotation: 360° continuous

03 Vertical rotation: from -90° up to +90°

04 Horizontal speed (variable): from 0.1°/s up to 100°/s

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

06 Accuracy of preset positions: 0.02°

07 Integrated wiper

08 Unit weight: 22kg (44lb)

**C Video**

01 Compression: H.264/AVC, MJPEG

02 2 independent video streams Full HD or 4 independent video streams depending on the configuration

03 Image resolution: from FullHD to 352x240 in 18 steps

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

05 Web Server

06 Certified ONVIF, Profile S

**D Camera**

**E. Day/Night Full HD 30x**

01 Image Device: 1/2.8 type Exmor™ CMOS sensor

02 Effective Pixels: approx. 2.38 Megapixels

03 Minimum Illumination, color (ICR-OFF):

a 1.4lx, 1/30s, 50 IRE (Normal mode)

b 0.35lx, 1/30s, 50 IRE (High sensitivity mode)

c 0.19lx, 1/3s, 50 IRE (Normal mode)

d 0.05lx, 1/3s, 50 IRE (High sensitivity mode)

04 Minimum Illumination, B/W (ICR-ON):

a 0.05lx, 1/30s, 50 IRE (Normal mode)

b 0.013lx, 1/30s, 50 IRE (High sensitivity mode)

c 0.002lx, 1/3s, 30 IRE (High sensitivity mode)

05 Lens: f=4.3 mm (wide) ~ 129.0 mm (tele), from F1.6 to F4.7

06 Zoom: 30x (360x with digital zoom)

07 Horizontal Viewing Angle: from 63.7° (wide end) up to 2.3° (tele end)

08 Minimum object distance: from 10mm (wide) up to 1200mm (tele)

09 Electronic Shutter: 1/1 to 1/10000 s, 22 steps

10 White balance: Auto, ATW, Indoor, Outdoor, Outdoor Auto, Sodium vapor lamp (Fix, Auto, Outdoor Auto), One-push, Manual

11 Gain: Auto, Manual, Gain Limit (from 3dB up to 43dB, steps: 3dB)

12 Wide Dynamic Range: On/Off/Visibility enhancer, Light level, Brightness compensation selection, Compensation level

13 Focus System: Auto (Sensitivity: Normal, Low), One-push AF, Manual, Focus compensation with ICR On, Interval AF, Zoom trigger AF

14 Picture Effects: E-flip, Mirror image, Color enhancement

15 Exposure Control: Auto, EV Compensation, Manual, Priority (Shutter priority, Iris priority), Brightness, Slow AE

16 S/N Ratio: more than 50dB

17 Wide-D (wide dynamic range): 130dB

18 De-fog: On/Off

**F Electrical**

01 Power supply/Current consumption:

a 230Vac, 0.5A max, 50/60Hz

b 24Vac, 5A max, 50/60Hz

c 120Vac, 1A max, 50/60Hz

02 Power consumption:

a 120W max

03 I/O alarm card

a Alarm inputs: 1

b Relay outputs: 1 (1A, 30Vac/60Vdc max)

**G Network**

01 Connection Ethernet port LAN 10/100T

**H Network protocols**

a Protocol: ONVIF, Profile S

b Streaming: RTSP, RTCP, RTP

c Device configuration: TCP/IPv4-IPv6, UDP/IPv4-IPv6, HTTP, NTP, DHCP, WS-DISCOVERY, QoS, IGMP (Multicast)

**I Environment**

01 Indoor/Outdoor

02 Operating temperature: from -40°C (-40°F) up to +60°C (140°F)

**2.2 Accessories**

**A  WASPT0V5L5M00** Water tank 5l (1 gal), pump with delivery up to 5m (16ft), IN 230Vac-24Vac-120Vac

**B  WASPT0V23L5M00** Water tank 23l (6 gal), pump with delivery up to 5m (16ft), IN 230Vac-24Vac-120Vac

**C  WASPT0V23L11M00** Water tank 23l (6 gal), pump with delivery up to 11m (36ft) with water floating, IN 230Vac-24Vac-120Vac

**D  WASPT1V23L30M00** Water tank 23l (6 gal), pump with delivery up to 30m (98ft) with water floating, IN 230Vac

**E  WASPT3V23L30M00** Water tank 23l (6 gal), pump with delivery up to 30m (98ft) with water floating, IN 120Vac

**2.3 Brackets and adaptors**

**A  NXPTZWB** AISI 316L stainless steel wall bracket

**B  NXPTZTW** AISI 316L stainless steel parapet or ceiling mounting bracket

**C  NXPTZCOL** AISI 316L stainless steel pole adapter module

**D  NXPTZCW** AISI 316L stainless steel corner adapter module

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| NXPTZHD - Configuration options | | | | | | | |
|  | **Voltage** |  |  |  |  | **Video Output** |  |
| **NXPTZHD** | **1** 230Vac | **F** Day/Night camera 30X zoom, FullHD | **V** With alarm board | **W** With wiper, 1 input, 1 output | **0** | **Z** IP H.264/AVC, Protocol ONVIF Profile S | **00A** |
|  | **2** 24Vac |  |  |  |  |  |  |
|  | **3** 120Vac |  |  |  |  |  |  |