

# MIC1-401 static

## A&E Specifications – version 1.0

### MIC1-401 static camera

#### 18x camera version

The camera shall be a MIC1-401 static camera rated to IP68 / NEMA 4x with a high resolution 18x true day/night camera.

#### 36x camera version

The camera shall be a MIC1-401 static camera rated to IP68 / NEMA 4x with a high resolution 36x true day/night camera.

#### 1.0 The physical attributes of the unit shall meet the following design and performance specifications:

- 1.1 The unit shall be environmentally rated to IP68 / NEMA 4x
- 1.2 The unit shall operate from +50 degrees\* to -20 degree centigrade temperature variations (-30° with heater option), up to hurricane force wind conditions (above 120mph winds) and underwater to a depth of 1 meter
- 1.3 The unit shall be machined from 6mm thick solid aluminium
- 1.4 The unit shall be classed as vandal resistant
- 1.5 The unit shall have a weather resistant coating in a choice of colours:
  - 1.5.1 The unit shall be black (RAL9005)
  - 1.5.2 The unit shall be white (RAL9003)
  - 1.5.3 The unit shall be grey (RAL7001)
  - 1.5.4 The unit shall be available in bespoke RAL colours if pre-agreed minimum quantity levels are reached
- 1.6 The unit shall have the ability to be mounted either upright, inverted or canted at 45°
- 1.7 The unit shall be no more than 3.5Kg in weight
- 1.8 The unit shall comply with ROHS, CE and FCC standards
- 1.9 The unit shall have dimensions of 205(W) x 165(H) x 165(D)mm
- 1.10 The unit shall feature an optically perfect, flat viewing window
- 1.11 All weatherproof seals within the unit shall last for the 3yr warranty period of the unit without need for maintenance or replacement
- 1.12 To facilitate installation the unit shall be supplied with attached 4 inch PCD base as standard with pre-drilled hole suitable for a safety chain
- 1.13 The unit shall be capable of full operation at a composite cable length of 25 metres maximum between PTZ camera head and the power supply

\* Forward Vision recommends the use of a camera finished in white and using a sunshield in extremely sunny environments.

#### 2.0 The connectivity of the unit shall meet the following design and performance specifications:

- 2.1 Video, power and telemetry shall be supplied to the unit through Forward Vision's multi-connector via a single cable

### **3.0 The camera module within the PTZ unit shall meet or exceed the following design and performance specifications:**

#### **18x camera module**

- 3.1 The camera module shall feature a 1/4" EXview™ CCD
- 3.2 The camera module shall be a true day/night unit
- 3.3 The camera module shall switch from day mode (colour) to night mode (monochrome) via a photocell integrated into the PTZ camera head that can be set to user selectable levels, or via the remote keyboard.
- 3.4 The camera module shall have a resolution of 470TVL (NTSC) / 460TVL (PAL)
- 3.5 The camera module shall have an 18x optical zoom with 12x digital zoom
- 3.6 The camera module shall have a minimum illumination sensitivity of 0.7 lux (F1.4, 1/60s NTSC, 1/50s PAL), 0.11 lux (F1.4, 1/4s NTSC, 1/3s PAL), 0.01 lux or less (F1.4, 1/4s NTSC, 1/3s PAL, ICR ON)
- 3.7 The camera module shall have selectable on/off Backlight Compensation (BLC)
- 3.8 The camera module shall have 16 steps aperture control
- 3.9 The camera module shall have Automatic Gain Control (AGC) from -3 to -28 dB in 2dB steps
- 3.10 The camera module shall feature an automatic mechanical IR cut filter
- 3.11 The camera module shall have a signal to noise ration of greater than 50dB
- 3.12 The camera module shall use Internal / External (V-Lock) synchronisation
- 3.13 The camera module shall have a lens that performs to F=4.1mm (WIDE) to 73.8mm (TELE), F1.4 to F3.0
- 3.14 The camera module shall have an angle of view of 48° (WIDE end) to 2.8° (TELE end)
- 3.15 The camera module shall have a shutter speed of 1/1 to 1/10,000s (22 steps) NTSC
- 3.16 The camera module itself shall have up to 10 selectable settings that can be mapped to a preset on the remote keyboard, including shutter speed and colour control for ANPR applications

#### **36x camera module**

- 3.17 The camera module shall feature a 1/4" EXview™ CCD
- 3.18 The camera module shall be a true day/night unit
- 3.19 The camera module shall switch from day mode (colour) to night mode (monochrome) via the remote keyboard.
- 3.20 The camera module shall have a resolution of 470TVL (NTSC) / 460TVL ( PAL)
- 3.21 The camera module shall have an 36x optical zoom with 12x digital zoom
- 3.22 The camera module shall have a minimum illumination sensitivity of 1.4 lux (1/60s NTSC, 1/50s PAL), 0.1 lux (1/4s NTSC, 1/3s PAL), 0.01 lux or less (1/4s NTSC, 1/3s PAL, ICR ON)
- 3.23 The camera module shall have selectable on/off Backlight Compensation (BLC)
- 3.24 The camera module shall have 16 steps aperture control
- 3.25 The camera module shall have Automatic Gain Control (AGC) from -3 to -28 dB in 2dB steps
- 3.26 The camera module shall feature an automatic mechanical IR cut-filter
- 3.27 The camera module shall have a signal to noise ration of greater than 50dB
- 3.28 The camera module shall use Internal / External (V-Lock) synchronisation
- 3.29 The camera module shall have a lens that performs to F=3.4mm (WIDE) to 122.4mm (TELE), F1.6 to F4.5
- 3.30 The camera module shall have an angle of view of 57.8° (WIDE end) to 1.7° (TELE end)
- 3.31 The camera module shall have a shutter speed of 1/4 to 1/10,000s (20 steps) NTSC, 1/3 to 1/10,000s (20 steps) PAL
- 3.32 The camera module itself shall have up to 10 selectable settings that can be mapped to a preset on the remote keyboard, including shutter speed and colour control for ANPR applications

**4.0 The unit shall have the following electrical design and performance specifications:**

- 4.1 Total power consumption of the standard camera shall be no more than 11W
- 4.2 The unit shall have available power supplies providing +18V DC from one of the following input voltages 12V DC to 24V DC, 24V AC, 115V AC & 240V AC
- 4.3 The unit shall have available slim line power supplies for fitting in restricted spaces providing +18V DC from the following input voltages 115V AC or 240V AC
- 4.4 The camera unit shall be fitted with control PCB's including a control processor & voltage regulator

**5.0 The unit shall feature the following software specifications:**

- 5.1 The unit shall have the ability to operate with protocols other than Forward Vision's proprietary software, programmed prior to leaving the factory:
  - 5.1.1 The unit shall be compatible with American Dynamics protocol
  - 5.1.2 The unit shall be compatible with Ernitec protocol
  - 5.1.3 The unit shall be compatible with Kalatel protocol
  - 5.1.4 The unit shall be compatible with Molynx protocol
  - 5.1.5 The unit shall be compatible with Panasonic protocol
  - 5.1.6 The unit shall be compatible with Pelco P / Pelco D protocol
  - 5.1.7 The unit shall be compatible with Philips Bosch protocol
  - 5.1.8 The unit shall be compatible with VCL protocol
  - 5.1.9 The unit shall be compatible with Vicon protocol

**6.0 The unit shall have a range of options and accessories available for specific mounting and operational considerations:**

- 6.1 Suitable accessories shall be available for the unit to be mounted in an upright or inverted position, either on a base, from a ceiling on at the corner of a structure
- 6.2 The unit shall have an option to fit a washer nozzle to the 4" PCD base
- 6.3 The unit shall have an optional heater contained within the camera head & body
- 6.4 The unit shall have an optional integrated wiper with replaceable wiper blade
- 6.5 The unit shall have an optional safety chain
- 6.6 The unit shall have an optional 8 input alarm card (inc washer pump drive function) housed in the psu
- 6.7 The unit shall have an optional washer pump drive card (no alarm inputs) housed in the psu
- 6.8 The unit shall have an optional 3D, scaling perspective privacy card with unlimited zones (which is housed in the camera head)
- 6.9 The unit shall have available power supplies providing +18V DC from one of the following input voltages 12VDC to 24V DC, 24V AC, 115V AC & 240V AC
- 6.10 The unit shall have available slim line power supplies providing +18VDC from the following input voltages 115V AC or 240V AC
- 6.11 The unit shall have an optional sunshield available for use in environments with high levels of direct sunlight

**7.0 The unit shall have the following support information and equipment shipped with it:**

- 7.1 The unit shall have a comprehensive operation manual and installation manual provided by CD (English)
- 7.2 The unit shall come with a comprehensive quick start guide (English)