For more than 20 years ESP has been developing and supplying security related products to the UK electrical industry. As a leading safety and security product specialist, the company offers a comprehensive range of electronic security and fire detection solutions to meet the requirements of installers and contractors.

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The ESP CCTV range offers the installer a practical range of security and observation solutions reflecting the best features of established and emerging CCTV technology. The range includes cameras with true HD 720P resolution using the latest Sony AHD image processor to deliver superior image quality.

CAMERA SELECTION GUIDE
To select the correct camera consider if the location is internal or external (bear in mind that external cameras are also suitable for internal use). Decide which lens size will achieve the desired image from the guide below.

<table>
<thead>
<tr>
<th>Distance from Camera</th>
<th>&lt; 3 meters &gt;</th>
<th>&lt; 10 meters &gt;</th>
<th>&lt; 15 meters &gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 meters</td>
<td>9-22mm Lens</td>
<td>2.8-12mm Lens</td>
<td>2.8-12mm Lens</td>
</tr>
<tr>
<td>20 meters</td>
<td>5-50mm Lens</td>
<td>9-22mm Lens</td>
<td>4-9mm Lens</td>
</tr>
<tr>
<td>30 meters</td>
<td>5-50mm Lens</td>
<td>9-22mm Lens</td>
<td>9-22mm Lens</td>
</tr>
<tr>
<td>50 meters</td>
<td>N/A</td>
<td>5-50mm Lens</td>
<td>9-22mm Lens</td>
</tr>
</tbody>
</table>
HDVC550VFB
5-50mm LENS TRUE HD CAMERA

- 5 to 50mm Varifocal Lens
- True High Definition 1.3MP Sony AHD sensor
- Built in 50m Infrared LED Illumination
- D-WDR incorporating ATR
- 2D and 3D Noise Reduction
- Exposure Control
- High Light Compensation
- 3-Axis Cable Management Bracket
- IP66 Weatherproof Bullet Housing

Press/Element 1/3” SONY CMOS
Effective Pixels NTSC: PAL: 1280(H) x 720(V)
Horizontal Resolution 720P
Minimum Illumination 0.1 Lux/F1.6
0 Lux (with IR LED ON)
Scanning System Progressive
Auto Electronic Shutter NTSC: 1/60s~1/100,000s,
PAL: 1/50s~1/100,000s
IR Distance 50 Meters
Video Output 1Vpp, 75Ω
Auto Gain Control Auto
Power/Current DC12V(±10%)/560mA
Lens 5-50mm Manual Zoom Lens
Dimension 260(L) x 136(H) x 115(D)mm
Weight 1200g
Storage Temperature -30 ~ +60°C RH95% Max
Operating Temperature -10 ~ +50°C RH95% Max

HDVC622VFB
6-22mm LENS TRUE HD CAMERA

- 6 to 22mm Varifocal Lens
- True High Definition 1.3MP Sony AHD sensor
- Built in 50m Infrared LED Illumination
- D-WDR incorporating ATR
- 2D and 3D Noise Reduction
- Exposure Control
- High Light Compensation
- 3-Axis Cable Management Bracket
- IP66 Weatherproof Bullet Housing

Press/Element 1/3” SONY CMOS
Effective Pixels NTSC: PAL: 1280(H) x 720(V)
Horizontal Resolution 720P
Minimum Illumination 0.1 Lux/F1.6
0 Lux (with IR LED ON)
Scanning System Progressive
Auto Electronic Shutter NTSC: 1/60s~1/100,000s,
PAL: 1/50s~1/100,000s
IR Distance 50 Meters
Video Output 1Vpp, 75Ω
Auto Gain Control Auto
Power/Current DC12V(±10%)/560mA
Lens 6-22mm Manual Zoom Lens
Dimension 260(L) x 136(H) x 115(D)mm
Weight 1200g
Storage Temperature -30 ~ +60°C RH95% Max
Operating Temperature -10 ~ +50°C RH95% Max
HDVC2812VFB
2.8-12mm LENS TRUE HD CAMERA

- 2.8 to 12mm Varifocal Lens
- True High Definition 1.3MP Sony AHD sensor
- Built in 35m Infrared LED Illumination
- D-WDR incorporating ATR
- 2D and 3D Noise Reduction
- Exposure Control
- High Light Compensation
- 3-Axis Cable Management Bracket
- IP66 Weatherproof Bullet Housing

Pick up Element  1/3" SONY CMOS
Effective Pixels  NTSC/ PAL:1280(H) x 720(V)
Horizontal Resolution  720P
Minimum Illumination  0.1 Lux/F1.4, 0 Lux (with IR LED ON)
Scanning System  Progressive
Auto Electronic Shutter NTSC: 1/60s~1/100,000s, PAL: 1/50s~1/100,000s
IR Distance  35 Meters
Video Output  1Vpp, 75Ω
Auto Gain Control  Auto
Power/Current  DC12V/+/-10%/360mA
Lens  2.8-12mm Manual Zoom
Dimension  267(W) x 85(H) x 95(D)mm
Weight  1000g
Storage Temperature  -30 ~ +60ºC RH95% Max
Operating Temperature  -10 ~ +50ºC RH95% Max

HDVC36FB
3.6mm LENS TRUE HD CAMERA

- 3.6mm Fixed Lens
- True High Definition 1.3MP Sony AHD sensor
- Built in 20m Infrared LED Illumination
- D-WDR incorporating ATR
- 2D and 3D Noise Reduction
- Exposure Control
- High Light Compensation
- 3-Axis Cable Management
- IP66 Weatherproof Bullet Housing

Pick up Element  1/3" SONY CMOS
Effective Pixels  NTSC/ PAL:1280(H) x 720(V)
Horizontal Resolution  720P
Minimum Illumination  0.1 Lux/F2.00, 0 Lux (with IR LED ON)
Scanning System  Progressive
Auto Electronic Shutter NTSC: 1/60s~1/100,000s, PAL: 1/50s~1/100,000s
IR Distance  20 Meters
Video Output  1Vpp, 75Ω
Auto Gain Control  Auto
Power/Current  DC12V/+/-10%/240mA
Lens  3.6mm Fixed Lens
Dimension  153(W) x 70(H) x 57(D)mm
Weight  350g
Storage Temperature  -30 ~ +60ºC RH95% Max
Operating Temperature  -10 ~ +50ºC RH95% Max
**HDVC622VFD**

6-22mm LENS TRUE HD CAMERA

- Vandal resistant
- 6 to 22mm Varifocal Lens
- True High Definition 1.3MP Sony AHD sensor
- 25m Infrared LED Illumination
- D-WDR incorporating ATR
- 2D and 3D Noise Reduction
- Exposure Control
- High Light Compensation
- 3-Axis Cable Management Bracket
- IP66 Weatherproof Dome Housing
- WB622VFD Wall Mounting Bracket available - see page 22

**HDVC2812VFD**

2.8-12mm LENS TRUE HD CAMERA

- 2.8 to 12mm Varifocal Lens
- True High Definition 1.3MP Sony AHD sensor
- 25m Infrared LED Illumination
- D-WDR incorporating ATR
- 2D and 3D Noise Reduction
- Exposure Control
- High Light Compensation
- IP66 Weatherproof Dome Housing
- DB2812VFD Deep base available - see page 22
HDVC36FDL
3.6mm LENS TRUE HD CAMERA

- 3.6mm Fixed Lens
- True High Definition 1.3MP Sony AHD sensor
- Built in 20m Infrared LED Illumination
- D-WDR incorporating ATR
- 2D and 3D Noise Reduction
- Exposure Control
- High Light Compensation
- IP66 Weatherproof Dome Housing

HDVC36FD Grey | HDVC36FDW White
3.6mm LENS TRUE HD CAMERA

- 3.6mm Fixed Lens
- True High Definition 1.3MP Sony AHD sensor
- Built in 10m Infrared LED Illumination
- D-WDR incorporating ATR
- 2D and 3D Noise Reduction
- Exposure Control
- High Light Compensation
- IP66 Weatherproof Dome Housing

Pick up Element: 1/3” SONY CMOS
Effective Pixels: NTSC/ PAL:1280(H) x 720(V)
Horizontal Resolution: 720P
Minimum Illumination: 0.1 Lux/F2.0
- 0 Lux (with IR LED ON)
Scanning System: Progressive
Auto Electronic Shutter: NTSC: 1/60s~1/100,000s, PAL: 1/50s~1/100,000s
IR Distance: 20 Meters
Video Output: 1Vpp, 75Ω
Auto Gain Control: Auto
Power/Current: DC12V/+/-10%/240mA
Lens: 3.6mm Fixed Lens
Dimension: 60 x 56(H)mm
Weight: 360g
Storage Temperature: -30 ~ +60°C RH95% Max
Operating Temperature: -10 ~ +50°C RH95% Max
**HDVC18PTZ**  
EXTERNAL TRUE HD PTZ CAMERA

- True High Definition 1.3MP AHD sensor
- 4.7-84.6mm varifocal lens
- Full pan, tilt and zoom operation
- Full 360° rotation pan function
- 18 x optical zoom
- Up to 50m IR night illumination
- Complete with 2 amp power supply
- IP66 weatherproof rating

---

**PTZCON**  
PAN, TILT & ZOOM CONTROLLER

- For use with PTZ cameras
- Keyboard for programming and camera control
- Integrated LCD display
- 3D joystick for control of camera pan, tilt and zoom functions

<table>
<thead>
<tr>
<th>Protocol</th>
<th>Pelco-P, Pelco-D, Panasonic, HikVision, Samsung, RULE, Dahua, SAE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baud rate (bps)</td>
<td>1200, 2400, 4800, 9600, 19200</td>
</tr>
<tr>
<td>Max camera support</td>
<td>255</td>
</tr>
<tr>
<td>Controllers supported</td>
<td>16 in total (15 auxiliary)</td>
</tr>
<tr>
<td>Power supply</td>
<td>DC 12V±10%</td>
</tr>
<tr>
<td>Power consumption</td>
<td>6W MAX</td>
</tr>
<tr>
<td>Working temperature</td>
<td>0°C-50°C</td>
</tr>
<tr>
<td>Dimension</td>
<td>420 x 260 x 170mm</td>
</tr>
</tbody>
</table>

**Specifications**

- Rated Voltage: 1.2V DC
- Max current: 1.25A
- IR effective distance: 50m
- Protection: IP66
- Pan rotation: 360° Endless rotation
- Speed: Pan 0.6–200°/s Tilt 3.5–30°/s
- Working conditions: -10°C - +50°C
- Dimensions: 150(W) x 235(H) x 205(D)mm

---

**720P PAN, TILT & ZOOM CAMERA**
### PTZ10EXT  EXTERNAL PTZ CAMERA

- 650TVL Sony Effio-E CCD camera
- 5-50mm varifocal lens
- Full pan, tilt and zoom operation
- Full 360° rotation pan function
- 10 x optical zoom
- Up to 50m IR night illumination
- Complete with 2 amp power supply
- IP66 weatherproof rating

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated Voltage</td>
<td>12V DC</td>
</tr>
<tr>
<td>Max current</td>
<td>1.25A</td>
</tr>
<tr>
<td>IR effective distance</td>
<td>50M</td>
</tr>
<tr>
<td>Protection</td>
<td>IP66</td>
</tr>
<tr>
<td>Pan rotation</td>
<td>360° Endless rotation</td>
</tr>
<tr>
<td>Speed</td>
<td>Pan 0.6-200°/s Tilt 3.5-30°/s</td>
</tr>
<tr>
<td>Working conditions</td>
<td>-10°C to +50°C</td>
</tr>
<tr>
<td>Dimensions</td>
<td>150(W) x 235(H) x 205(D) mm</td>
</tr>
</tbody>
</table>

### PTZ10INTC  INTERNAL PTZ CEILING MOUNT CAMERA

- 650TVL Sony Effio-E CCD camera
- 5-50mm varifocal lens
- Full pan, tilt and zoom operation
- Full 360° rotation pan function
- 10 x optical zoom
- Up to 40m IR night illumination
- Complete with 2 amp power supply
- Ceiling mounting

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated Voltage</td>
<td>12V DC</td>
</tr>
<tr>
<td>Max current</td>
<td>1.25A</td>
</tr>
<tr>
<td>IR effective distance</td>
<td>40M</td>
</tr>
<tr>
<td>Pan rotation</td>
<td>360° Endless rotation</td>
</tr>
<tr>
<td>Speed</td>
<td>Pan 0.6-200°/s Tilt 3.5-30°/s</td>
</tr>
<tr>
<td>Working conditions</td>
<td>-10°C to +50°C</td>
</tr>
<tr>
<td>PTZ10INTC Dimensions</td>
<td>Ø 142 x 135(H) mm</td>
</tr>
</tbody>
</table>

### PTZ10INTW  INTERNAL PTZ WALL MOUNT CAMERA

- 650TVL Sony Effio-E CCD camera
- 5-50mm varifocal lens
- Full pan, tilt and zoom operation
- Full 360° rotation pan function
- 10 x optical zoom
- Up to 40m IR night illumination
- Complete with 2 amp power supply
- Ceiling mounting

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated Voltage</td>
<td>12V DC</td>
</tr>
<tr>
<td>Max current</td>
<td>1.25A</td>
</tr>
<tr>
<td>IR effective distance</td>
<td>40M</td>
</tr>
<tr>
<td>Pan rotation</td>
<td>360° Endless rotation</td>
</tr>
<tr>
<td>Speed</td>
<td>Pan 0.6-200°/s Tilt 3.5-30°/s</td>
</tr>
<tr>
<td>Working conditions</td>
<td>-10°C to +50°C</td>
</tr>
<tr>
<td>PTZ10INTW Dimensions</td>
<td>127.5(W) x 205(H) x 194(D) mm</td>
</tr>
</tbody>
</table>
HDV16RX
PRO 16 CHANNEL TRUE HD DVR
- Integral digital hard drive – 4TB, 8TB, 12TB or 16TB
- Networkable for remote viewing from PC or Smartphone
- Realtime 720P HD recording and playback
- HDMI and VGA outputs (HDMI cable included)
- USB memory stick backup
- Mouse driven menu (USB mouse included)
- WIFI connection to network - requires DVRWLA ordered separately

SYSTEM
- Main Processor: Embedded Processor
- Operating System: Embedded LINUX

VIDEO & AUDIO
- Video input: 16 channel BNC
- Audio input: 16 channel RCA
- Audio output: 1 channel RCA

DISPLAY
- Video output: 1 x HDMI, 1 x VGA
- Display Split: 1, 4, 9 and 16
- Resolution: 1024 x 768, 1280 x 720, 1280 x 1024, 1440 x 900, 1920 x 1080

RECORDING
- Video/Audio Compression: H.264 Main profile/G.711A
- Resolution: 1280x720P
- Record Rate (Main stream): 16ch 720P Realtime
- Recording mode: Manual/Alarm/Motion Detection/Schedule

PLAYBACK & BACKUP
- Sync Playback: 8ch 720P Realtime
- Backup Mode: Network/USB2.0 devices

NETWORK
- Ethernet: RJ45 10M/100M/1000M
- Network Functions: HTTP, IPv4/IPv6, TCP/IP, UPNP, RTSP, UDP, SMTP, NTP, DHCP, DNS, PPPOE, DDNS, FTP
- Network Monitoring: Web browsers, CMS, Android & iPhone apps

STORAGE
- Internal HDD: 4 SATA HDD, up to 4TB per HDD

AUXILIARY INTERFACE
- Alarm input: 16 channel
- Alarm output: 4 channel
- PTZ control: RS485 with multi-protocol
- USB interface: 2

GENERAL
- Power Supply: DC12V/6A
- Power Consumption: <10W (without hard disk)
- Operation Condition: 0°C ~ +55°C / 10% ~ 90%
- Dimensions: 430(W) x 350(D) x 70(H) mm
**HDV16R**

**16 CHANNEL TRUE HD DVR**

- Integral digital hard drive – 2TB, 4TB or 8TB
- Networkable for remote viewing from PC or Smartphone
- Realtime 720P HD recording and playback
- HDMI and VGA outputs (HDMI cable included)
- USB memory stick backup
- Mouse driven menu (USB mouse included)
- WIFI connection to network - requires DVRWLA ordered separately

<table>
<thead>
<tr>
<th>SYSTEM</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Processor</td>
<td>Embedded Processor</td>
<td></td>
</tr>
<tr>
<td>Operating System</td>
<td>Embedded LINUX</td>
<td></td>
</tr>
<tr>
<td>VIDEO &amp; AUDIO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Video input</td>
<td>16 channel BNC</td>
<td></td>
</tr>
<tr>
<td>Audio input</td>
<td>6 channel RCA</td>
<td></td>
</tr>
<tr>
<td>Audio output</td>
<td>1 channel RCA</td>
<td></td>
</tr>
<tr>
<td>DISPLAY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Video output</td>
<td>1 x HDMI, 1 x VGA</td>
<td></td>
</tr>
<tr>
<td>Display Split</td>
<td>1, 4, 9 and 16</td>
<td></td>
</tr>
<tr>
<td>Resolution</td>
<td>1024 x 768, 1280 x 720, 1280 x 1024, 1440 x 900, 1920 x 1080</td>
<td></td>
</tr>
</tbody>
</table>

| RECORDING       |                  |                  |
| Video/Audio Compression | H.264 Main profile/G.711A |
| Resolution      | 1280x720P        |
| Record Rate (Main stream) | 16ch Realtime 720P recording |
| Recording mode  | Manual/Alarm/Motion Detection/Schedule |

| PLAYBACK & BACKUP |                  |                  |
| Sync Playback     | 1ch Realtime 720P + 3ch 12FPS 720P |
| Backup Mode       | Network/USB2.0 devices |

| NETWORK          |                  |                  |
| Ethernet         | RJ45 10M/100M/1000M |
| Network Functions| HTTP, IPv4/IPv6, TCP/IP, UPNP, RTSP, UDP, SMTP, NTP, DHCP, DNS, PPPoE, DDNS, FTP |
| Network Monitoring| Web browsers, CMS, Android & iPhone apps |

| STORAGE          |                  |                  |
| Internal HDD     | 2 SATA HDD, up to 4TB per HDD |

| AUXILIARY INTERFACE |                  |                  |
| Alarm input       | 4 channel        |
| Alarm output      | 1 channel        |
| PTZ control       | RS485 with multi-protocol |
| USB interface     | 2                |

| GENERAL          |                  |                  |
| Power Supply     | DC12V/4A         |
| Power Consumption| <10W (without hard disk) |
| Operation Condition| 0°C – +55°C / 10% – 90% |
| Dimensions       | 326(W) x 243(D) x 52(H) mm |
### HDV8RX
PRO 8 CHANNEL TRUE HD DVR

- Integral digital hard drive – 2TB, 4TB or 8TB
- Networkable for remote viewing from PC or Smartphone
- Realtime 720P HD recording and playback
- HDMI and VGA outputs (HDMI cable included)
- USB memory stick backup
- Mouse driven menu (USB mouse included)
- WiFi connection to network - requires DVRWLA ordered separately

### SYSTEM
- Main Processor: Embedded Processor
- Operating System: Embedded LINUX

### VIDEO & AUDIO
- Video input: 8 channel BNC
- Audio input: 6 channel RCA
- Audio output: 1 channel RCA

### DISPLAY
- Video output: 1 x HDMI, 1 x VGA
- Display Split: 1, 4 and 9
- Resolution: 1024x768, 1280x720, 1280x1024, 1440x900, 1920x1080

### RECORDING
- Video/Audio Compression: H.264 Mainprofile/G.711A
- Resolution: 1280x720P
- Record Rate (Main stream): 8ch Realtime 720P recording
- Recording mode: Manual/Alarm/Motion Detection/Schedule

### PLAYBACK & BACKUP
- Sync Playback: 8ch Realtime 720P playback
- Backup Mode: Network/USB2.0 devices

### NETWORK
- Ethernet: RJ45 10M/100M
- Network Functions: HTTP, IPv4/IPv6, TCP/IP, UPNP, RTSP, UDP, SMTP, NTP, DHCP, DNS, PPPOE, DDNS, FTP
- Network Monitoring: Web browsers, CMS, Android & iPhone apps

### STORAGE
- Internal HDD: 2 SATA HDD, up to 4TB per HDD

### AUXILIARY INTERFACE
- Alarm input: 4 channel
- Alarm output: 1 channel
- PTZ control: RS485 with multi-protocol
- USB interface: 2

### GENERAL
- Power Supply: DC12V/4A
- Power Consumption: <10W (without hard disk)
- Operation Condition: 0°C ~ +55°C / 10% ~ 90%
- Dimensions: 326(W) x 243(D) x 52(H) mm

---

XMeye App
HDV8R 8 CHANNEL TRUE HD DVR
HDV4R 4 CHANNEL TRUE HD DVR

- Hard drive options: HDV4R – 1TB, 2TB or 4TB
  HDV8R – 1TB, 2TB or 4TB
- Networkable for remote viewing from PC or Smartphone
- Realtime 720P HD recording and playback
- HDMI and VGA outputs (HDMI cable included)
- USB memory stick backup
- Mouse driven menu (USB mouse included)
- WIFI connection to network - requires DVRWLA ordered separately

SYSTEM
Main Processor        Embedded Processor
Operating System      Embedded LINUX

VIDEO & AUDIO
Video input          HDV4R – 4 channel BNC
                     HDV8R – 8 channel BNC
Audio input          HDV4R – 4 channel RCA
                     HDV8R – 2 channel RCA
Audio output         1 channel RCA

DISPLAY
Video output       1 x HDMI, 1 x VGA
Display Split      HDV4R – 1 and 4
                   HDV8R – 1, 4 and 9
Resolution         1024x768, 1280x720, 1280x1024,
                   1440x900, 1920x1080

RECORDING
Video/Audio Compression H.264 Mainprofile/G.711A
Resolution       1280x720P
Record Rate (Main stream) HDV4R – 4ch Realtime 720P recording
                     HDV8R – 8ch Realtime 720P recording
Recording mode      Manual/Alarm/Motion Detection/Schedule

PLAYBACK & BACKUP
Sync Playback       HDV4R – 4ch Realtime 720P playback
                     HDV8R – 8ch Realtime 720P playback
Backup Mode        Network/USB2.0 devices

NETWORK
Ethernet            RJ45 10M/100M
Network Functions   HTTP, IPv4/IPv6, TCP/IP, UPNP, RTSP, UDP,
                     SMTP, NTP, DHCP, DNS, PPOE, DDNS, FTP
Network Monitoring  Web browsers, CMS, Android & iPhone apps

STORAGE
Internal HDD        1 SATA HDD, up to 4TB per HDD

AUXILIARY INTERFACE
Alarm input          NO
Alarm output         NO
PTZ control          RS485 with multi-protocol
USB interface        2

GENERAL
Power Supply        DC12V/2A
Power Consumption    <10W (without hard disk)
Operation Condition  0°C ~ +55°C / 10% ~ 90%
Dimensions          250(W) x 210(D) x 45(H) mm
**CCTV KITS**

**HDV4KD** 4 CHANNEL TRUE HD CCTV SYSTEM  
**HDV8KD** 8 CHANNEL TRUE HD CCTV SYSTEM

- 4 x 1.3MP HD day/night dome cameras - see **HDVC36FD** page 9
- Hard drive options: HDV4KD – 1TB, 2TB or 4TB  
  HDV8KD – 1TB, 2TB or 4TB
- Remote monitoring via wired or Wi-Fi connection - requires DVRWLA ordered separately
- Mobile monitoring with Android or iPhone APP
- Triplex operation – Playback / Record / Remote view simultaneously
- VGA or HDMI output (HDMI lead supplied)
- Four recording options – Continuous / Scheduled / Motion
- USB back up of recordings for easy evidence transfer
- Mouse driven comprehensive user interface
- Silent fanless operation

**SYSTEM**

<table>
<thead>
<tr>
<th>Main Processor</th>
<th>Embedded Processor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating System</td>
<td>Embedded LINUX</td>
</tr>
</tbody>
</table>
| Video input | HDV4KD – 4 channel BNC  
HDV8KD – 8 channel BNC |
| Audio input | HDV4KD – 4 channel RCA  
HDV8KD – 2 channel RCA |
| Audio output | 1 channel RCA |

**DISPLAY**

- Video output 1 x HDMI, 1 x VGA
- Display Split HDV4KD – 1 and 4  
HDV8KD – 1, 4 and 9
- Resolution 1024x768, 1280x720, 1280x1024, 1440x900, 1920x1080

**RECORDING**

- Video/Audio Compression H.264 Mainprofile/G.711A
- Resolution 1280x720P
- Record Rate (Main stream) HDV4KD – 4ch Realtime 720P recording  
HDV8KD – 8ch Realtime 720P recording
- Recording mode Manual/Alarm/Motion Detection/Schedule

**PLAYBACK & BACKUP**

- Sync Playback HDV4KD – 4ch Realtime 720P playback  
HDV8KD – 8ch Realtime 720P playback
- Backup Mode Network/USB2.0 devices

**NETWORK**

- Ethernet RJ45 10M/100M
- Network Functions HTTP, IPv4/IPv6, TCP/IP, UPNP, RTSP, UDP, SMTP, NTP, DHCP, DNS, PPPOE, DDNS, FTP
- Network Monitoring Web browsers, CMS, Android & iPhone apps

**STORAGE**

- Internal HDD 1 SATA HDD, up to 4TB per HDD

**AUXILIARY INTERFACE**

- Alarm input NO
- Alarm output NO
- PTZ control RS485 with multi-protocol
- USB interface 2

**GENERAL**

- Power Supply DC12V/2A
- Power Consumption <10W (without hard disk)
- Operation Condition 0°C ~ +55°C / 10% ~ 90%
- Dimensions 250(W) x 210(D) x 45(H) mm
HDV4KB  4 CHANNEL TRUE HD CCTV SYSTEM
HDV8KB  8 CHANNEL TRUE HD CCTV SYSTEM

- 4 x 1.3MP HD day/night bullet cameras - see HDVC36FB page 7
- Hard drive options: HDV4KB – 1TB, 2TB or 4TB
                   HDV8KB – 1TB, 2TB or 4TB
- Remote monitoring via wired or Wi-Fi connection - requires DVRWLA ordered separately
- Mobile monitoring with Android or iPhone APP
- Triplex operation – Playback / Record / Remote view simultaneously
- VGA or HDMI output (HDMI lead supplied)
- Four recording options – Continuous / Scheduled / Motion
- USB back up of recordings for easy evidence transfer
- Mouse driven comprehensive user interface
- Silent fanless operation

SYSTEM
Main Processor  Embedded Processor
Operating System Embedded LINUX

VIDEO & AUDIO
Video input  HDV4KB – 4 channel BNC
             HDV8KB – 8 channel BNC
Audio input  HDV4KB – 4 channel RCA
             HDV8KB – 2 channel RCA
Audio output 1 channel RCA

DISPLAY
Video output  1 x HDMI, 1 x VGA
Display Split HDV4KB – 1 and 4
              HDV8KB – 1, 4 and 9
Resolution  1024×768, 1280×720, 1280×1024, 1440×900, 1920×1080

RECORDING
Video/Audio Compression H.264, Mainprofile/G.711A
Resolution  1280×720P
Record Rate (Main Stream) HDV4KB – 4ch Realtime 720P recording
HDV8KB – 8ch Realtime 720P recording
Recording mode Manual/Alarm/Motion Detection/Schedule

PLAYBACK & BACKUP
Sync Playback HDV4KB – 4ch Realtime 720P playback
HDV8KB – 8ch Realtime 720P playback
Backup Mode  Network/USB2.0 devices

NETWORK
Ethernet  RJ45 10M/100M
Network Functions  HTTP, IPv4/IPv6, TCP/IP, UPNP, RTSP, UDP, SMTP, NTP, DHCP, DNS, PPPoE, DDNS, FTP
Network Monitoring  Web browsers, CMS, Android & iPhone apps

STORAGE
Internal HDD  1 SATA HDD, up to 4TB per HDD

 AUXILIARY INTERFACE
Alarm input  NO
Alarm output  NO
PTZ control  RS485 with multi-protocol
USB interface  2

GENERAL
Power Supply  DC12V/2A
Power Consumption  <10W (without hard disk)
Operation Condition  0ºC – +55ºC / 10% – 90%
Dimensions  250(W) x 210(D) x 45(H) mm
### MON23  23.6” LED CCTV MONITOR
- Energy efficient wide screen LED panel
- Sleek black design
- Full composite BNC video input
- Video loop out via BNC
- Additional HDMI, VGA and S-VIDEO video inputs

<table>
<thead>
<tr>
<th>Specification</th>
<th>23.6” LED CCTV MONITOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>23.6” LED</td>
</tr>
<tr>
<td>Aspect Ratio</td>
<td>16:9</td>
</tr>
<tr>
<td>Resolution (H x V)</td>
<td>1920 x 1080</td>
</tr>
<tr>
<td>Colours</td>
<td>16.7M</td>
</tr>
<tr>
<td>Viewing Angle</td>
<td>H: 170° V: 160°</td>
</tr>
<tr>
<td>Contrast Ratio</td>
<td>10000:1 (DCR)</td>
</tr>
<tr>
<td>Response Time</td>
<td>2ms</td>
</tr>
<tr>
<td>Speakers</td>
<td>2 each (2 watts)</td>
</tr>
<tr>
<td>Inputs</td>
<td>BNC, HDMI, VGA, Audio</td>
</tr>
<tr>
<td>Outputs</td>
<td>BNC, Audio</td>
</tr>
<tr>
<td>VESA Wall Hanging</td>
<td>100 x 100mm</td>
</tr>
<tr>
<td>Power Supply</td>
<td>AC100-240V~50/60 Hz 1.1A</td>
</tr>
</tbody>
</table>

### MON21  21.5” LED CCTV MONITOR
- Energy efficient wide screen LED panel
- Sleek black design
- Full composite BNC video input
- Video loop out via BNC
- Additional HDMI, VGA and S-VIDEO video inputs

<table>
<thead>
<tr>
<th>Specification</th>
<th>21.5” LED CCTV MONITOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>21.5” LED</td>
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<tr>
<td>Aspect Ratio</td>
<td>16:9</td>
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<tr>
<td>Resolution (H x V)</td>
<td>1920 x 1080</td>
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<tr>
<td>Colours</td>
<td>16.7M</td>
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<tr>
<td>Viewing Angle</td>
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<tr>
<td>Contrast Ratio</td>
<td>10000:1 (DCR)</td>
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<td>Response Time</td>
<td>2ms</td>
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<td>Speakers</td>
<td>2 each (2 watts)</td>
</tr>
<tr>
<td>Inputs</td>
<td>BNC, HDMI, VGA, Audio</td>
</tr>
<tr>
<td>Outputs</td>
<td>BNC, Audio</td>
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<tr>
<td>VESA Wall Hanging</td>
<td>100 x 100mm</td>
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<tr>
<td>Power Supply</td>
<td>AC100-240V~50/60 Hz 1.1A</td>
</tr>
</tbody>
</table>
**MON18 18.5” LED CCTV MONITOR**
- Energy efficient wide screen LED panel
- Sleek black design
- Full composite BNC video input
- Video loop out via BNC
- Additional HDMI, VGA and S-VIDEO video inputs

<table>
<thead>
<tr>
<th>Size</th>
<th>18.5” LED</th>
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</thead>
<tbody>
<tr>
<td>Aspect Ratio</td>
<td>16:9</td>
</tr>
<tr>
<td>Resolution (H x V)</td>
<td>1360 x 768</td>
</tr>
<tr>
<td>Colours</td>
<td>16.7M</td>
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<tr>
<td>Viewing Angle</td>
<td>H: 170° V: 160°</td>
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<tr>
<td>Contrast Ratio</td>
<td>10000:1 (DCR)</td>
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<tr>
<td>Response Time</td>
<td>2ms</td>
</tr>
<tr>
<td>Speakers</td>
<td>2 each (2 watts)</td>
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<tr>
<td>Inputs</td>
<td>BNC, HDMI, VGA, Audio</td>
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<td>Outputs</td>
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<td>VESA Wall Hanging</td>
<td>100 x 100mm</td>
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<td>Power Supply</td>
<td>AC100-240V-50/60 Hz 1.1A</td>
</tr>
</tbody>
</table>

**MON15 15.6” LED CCTV MONITOR**
- Energy efficient wide screen LED panel
- Sleek black design
- Full composite BNC video input
- Video loop out via BNC
- Additional HDMI, VGA and S-VIDEO video inputs

<table>
<thead>
<tr>
<th>Size</th>
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<tbody>
<tr>
<td>Aspect Ratio</td>
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<tr>
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<td>16.7M</td>
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<td>Power Supply</td>
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</table>
The BDeye is a combined CCTV and video door entry solution in one small high design package ideally suited for the executive home or modern office. At the centre of the system is an 8” TFT monitor with a built in full feature DVR. The monitor feeds power to, and accepts video signals from, up to 4 internal or external CCTV cameras.

- 8” TFT monitor with built in slimline DVR
- 500GB hard drive
- LAN connection for remote viewing
- Touch panel controls
- High gloss white or black finish
- Desk or wall mounted
- Plug and play DIN cables
- 4 channel quad display
- Remote viewing via iPhone & Android App
- USB memory stick for data backup
- Up to two optional video entry call points
- Simple set up and operation

Contents of BDeye
1 x BDeye 8” TFT monitor
1 x BDeye camera with IR illumination
1 x BDeye remote control
1 x USB mouse and USB memory stick
1 x 15m cable
1 x Power supply unit

BDEYE VDE
Additional video door entry call point for BDeye c/w 15m cable
CCTV ACCESSORIES

**CAB-BNC CABLE CONNECTOR**
- Connector for use with Power and BNC video cables

**DUAL FUNCTION, POWER & BNC CABLES**
- CAB10 - 10m Power and BNC video cable
- CAB20 - 20m Power and BNC video cable
- CAB40 - 40m Power and BNC video cable
- CAB80 - 80m Power and BNC video cable

**PSIL1 CAMERA POWER SUPPLY**
- For use with CCTV cameras
- 12 volt
- 1 amp

---

**CPS4** 4 WAY 4 AMP BOXED POWER SUPPLY
**CPS9** 9 WAY 9 AMP BOXED POWER SUPPLY
**CPS16** 16 WAY 16 AMP BOXED POWER SUPPLY

- 12VDC power limited output
- Protected outputs
- 100VAC-240VAC (50/60Hz) universal input
- Filtered and electronically regulated output
- Short circuit and thermal overload protection
- AC input and DC output LED indicators
- CPS4 dimensions 182(W) x 260(H) x 66(D)mm
- CPS9 dimensions 322(W) x 322(H) x 86(D)mm
- CPS16 dimensions 322(W) x 322(H) x 86(D)mm
**CCTV ACCESSORIES**

**DB2812VFD DEEP BASE FOR DOME CAMERA**
- Optional Deep Base for conduit access and cable management
- For HDVC2812VFD Dome Camera

**TFT-BRA2 TILT, PIVOT, ROTATE MONITOR BRACKET**
- 27° tilt 180° swivel
- Close to wall fit
- To fit screens 12-23” (30-58cm)
- Supports 20kg (44lbs)

**TMPROHD AHD CCTV TEST MONITOR**
- Compatible with both AHD and analogue CCTV cameras
- Durable design with quality carry case
- 3.5” LCD low reflection screen
- 12vOC 1A power output for camera
- Lithium battery rechargeable (4 hrs working time)
- Integral CAT5 cable checker
- PTZ camera control and testing

**WB622VFD WALL MOUNT BRACKET**
- Optional Wall Mount Bracket for Horizontal Mounting
- For HDVC622VFD Dome Camera

**TFT-BRA1 FIXED MONITOR BRACKET**
- Close to wall fit
- Picture style finish
- To fit screens 12-23” (30-58cm)
- Supports 20kg (44lbs)
**HDBALUNV**  SINGLE CHANNEL  
HD PASSIVE BALUN
- AHD camera transmission over CAT5 cable
- Single Channel HD Passive Balun
- Transmitter and Receiver pack
- Compatible with AHD and analogue CCTV cameras

**HDBALUNVP**  SINGLE CHANNEL  
HD VIDEO & POWER BALUN
- AHD camera transmission and power over CAT5 cable
- Single Channel HD Video & Power Balun
- Transmitter and Receiver pack
- Compatible with AHD and analogue CCTV cameras

**HDBALUNVPCT**  SINGLE CHANNEL HD VIDEO  
& POWER TRANSMITTER BALUN
- AHD camera transmission and power over CAT5 cable
- Single Channel HD Video & Power Transmitter Balun
- Compatible with AHD and analogue CCTV cameras

**CAM2001**  EXTERNAL  
DUMMY CAMERA
- Medium external dummy camera
- Optional red LED
- Dimensions (mm) 245L x 100W x 185H
- Battery housed in junction box

**WARN1**  EXTERNAL WARNING SIGN
- External durable use - 420mm x 300mm
- Space available to add scheme ownership details
EXTERNAL AREA PROTECTION
The External Area Protection range is the ideal solution for securing driveways, gardens, forecourts and yards of both domestic and commercial properties.
GUARDCAM WF-M
AREA PROTECTION SYSTEM WITH MONITOR

Surveillance and protection of external areas around homes, offices or industrial and agricultural units.
- 7” TFT screen with simple user interface
- Wire free transmission of images
- Accepts up to four GuardCam WF-T units
- SD card video recording in receiver unit
- Stable clear images at up to 150m wire free
- Built in motion detection with area masking facility
- Time date stamping of recordings
- Warning alert of motion detection
- CE FCC approved

GUARDCAM WF-SA
AREA PROTECTION SYSTEM WITH RECEIVER

Surveillance and protection of external areas around homes, offices or industrial and agricultural units.
- Wire free transmission of images
- Accepts up to four GuardCam WF-T units
- Direct AV connection to TV
- Simple user interface
- SD card video recording in receiver unit
- Stable clear images at up to 150m wire free
- Built in motion detection with area masking facility
- Time date stamping of recordings
- Warning alert of motion detection
- CE FCC approved

<table>
<thead>
<tr>
<th>Detection Method</th>
<th>Passive Infrared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensor Range</td>
<td>12m x 140°</td>
</tr>
<tr>
<td>Camera Resolution</td>
<td>640 X 480</td>
</tr>
<tr>
<td>LED Floodlight output</td>
<td>8 x 1W Nichia High Power LED</td>
</tr>
<tr>
<td>Lumen output</td>
<td>1100</td>
</tr>
<tr>
<td>Time adjustment</td>
<td>5 seconds ~ 10 minutes</td>
</tr>
<tr>
<td>Lux adjustment</td>
<td>Dark ~ daylight</td>
</tr>
<tr>
<td>Transmitter signal</td>
<td>2.4GHz FHSS Technology</td>
</tr>
<tr>
<td>Transmitter output</td>
<td>16dBm</td>
</tr>
<tr>
<td>Transmission Range</td>
<td>150m open field</td>
</tr>
<tr>
<td>Voltage</td>
<td>100~240V 50Hz/60Hz</td>
</tr>
<tr>
<td>Current drain</td>
<td>225±20mA</td>
</tr>
<tr>
<td>IP rating</td>
<td>IP55</td>
</tr>
<tr>
<td>Operating Temp.</td>
<td>-10°C ~ 40°C</td>
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<td>Time adjustment</td>
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<tr>
<td>Transmitter signal</td>
<td>2.4GHz FHSS Technology</td>
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<tr>
<td>Transmitter output</td>
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<tr>
<td>Transmission Range</td>
<td>150m open field</td>
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<tr>
<td>Voltage</td>
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<tr>
<td>Current drain</td>
<td>225±20mA</td>
</tr>
<tr>
<td>IP rating</td>
<td>IP55</td>
</tr>
<tr>
<td>Operating Temp.</td>
<td>-10°C ~ 40°C</td>
</tr>
</tbody>
</table>
Additional transmitter for GuardCam WF systems.
- For use with GuardCam WF system
- 12m 140 degree PIR
- 8W 1100 lumen LED floodlight
- Up to four units per system
- Easy pairing to GuardCam monitor (GuardCam WF-MR) or GuardCam receiver (GuardCam WF-SAR)
- High quality stable images

GUARDCAM WF-T
EXTERNAL AREA PROTECTION CAMERA

Detection Method  Passive Infrared
Sensor Range  12m x 140°
Camera Resolution  640 x 480
LED Floodlight output  8 x 1W Nichia High Power LED
Lumen output  1100
Time adjustment  5 seconds - 10 minutes
Lux adjustment  Dark - daylight
Transmitter signal  2.4GHz FHSS Technology
Transmitter output  16dBm
Transmission Range  150m open field
Voltage  100-240V 50Hz/60Hz
Current drain  225±20mA
IP rating  IP55
Operating Temp.  -10°C - 40°C
Dimensions  160 x 176 x 260MM
Weight  1400g

GUARDCAM LED
COMBINED SECURITY LED FLOODLIGHT

GuardCam LED is a complete all-in-one PIR floodlight, camera, speaker and DVR system. Simply connect to mains power, fix to wall, set the time and date and switch on!
- Detect the intruder
- Floodlight the area
- Initiate a high resolution 1080 x 720P video recording
- Deliver an audible warning
- Ability to record users own warning message
- Captures 60,000 still images or 750 twenty second video clips with 4GB card supplied
- Maximum card size allowable now 32GB

Supply Voltage  100-240VAC
Current drain (activated)  0.4amp
Current drain (quiescent)  0.005amp
LED output  1100 Lumens
PIR detection angle  160 deg
PIR detection range  12 metres
Camera exposure control  Automatic
Camera white balance  Automatic
Camera sharpness  Automatic
SD card format  FAT Maximum 32GB
Image Format  JPEG / AVI
IP rating  IP44
Dimensions (mm)  180 x 190 x 315mm
Weight  1.206KG
CanCam is a battery powered high resolution surveillance camera with integral PIR detector, SD card recording and black infrared illumination.

CanCam VR has all the features of CanCam but with the added benefit of a steel vandal resistant case for installation in vulnerable applications such as a shed, rear of van, portable cabin, garage or out house.

- For internal or external use
- Battery or 6vdc powered
- PIR or time lapse controlled
- Black covert infra red illumination
- Internal SD card recording
- Up to 8MP still image resolution
- Up to HD720P video resolution
- High quality fixed 6mm lens
- Up to 1000 still images or 100 video clips with full card overwrite
- Weather proof IP55

**PIR**
- Range: 10-12 m
- Angle of detection: 48 degrees
- Finish: Black (Covert)

**INFRA RED**
- Effective range: 15m
- Angle of illumination: 55 degrees
- Type: Black covert

**CONNECTIVITY AND POWER**
- TV output: AV composite video/audio
- PC Output: Mini 5P - Btype USB
- Power: 6vDC plug in power supply
- Battery: 4 x C cell
- DIMENSIONS: Ø 75mm x 140mm

**CANCAM**
STAND ALONE EXTERNAL SURVEILLANCE SYSTEM

**CAMERA**
- Lens: High precision multi layer coated
- Focal length: 6mm [approx. 50° field of view]
- Focal capability: 1.5m – infinite
- White balance: Automatic
- Exposure control: Automatic

**RECORER**
- Media: SD maximum 32GB
- Video resolution: HD720P or VGA 640x480
- Still image resolution: 3MP or 5MP or 8MP
- Audio: with video only

**IMAGE CAPTURE**
- Still image: 1 – 9 burst selectable
- Video: 5 - 300 secs
- Stamping: Time and date
- Control: Via on board data screen

**CANCAM VR**
VANDAL RESISTANT SURVEILLANCE SYSTEM
NIGHTHAWK
LOW ENERGY LED SECURITY LIGHT
- LED floodlight – 1100 lumen output
- 50,000 hours LED life
- Low energy 12.7w max. power consump.
- 160 degree PIR detector
- Wide spread illumination up to 120º
- Adjustable on time of 5 secs to 5 mins
- Adjustable lux – dusk to dark
- Adjustable floodlight and PIR direction – Horizontal and vertical axis
- Additional switching capability – 50W LED – 500W halogen
- Ideal for use with up to four NH150LED floodlights
- Weather proof, suitable for external use

NH150
LOW ENERGY LED FLOOD LIGHT
- LED floodlight – 1100 lumen output
- Wide spread illumination up to 120º
- Low energy 12.1w maximum power consumption
- Adjustable floodlight direction – Horizontal and vertical axis
- Ideal for use with the NightHawk security light with the capability to switch up to 4 extra NH150LED units
- Weather proof, suitable for external use
Introducing the next generation of Access Control products from ESP. The new Aperta range not only includes proximity reader systems and accessories such as magnetic door locks but also a completely new simplified and easy to install video door entry systems for both single house and multi way apartment applications.
A flexible range of superb quality hands-free colour video door entry products specifically for installation in single dwellings. Simplicity of installation is the key to Aperta single way systems, requiring only 2 wires throughout and all outdoor stations and monitors powered by a single power supply.

The range includes 2 quick and easy to select base kits with options for combined keypad entry or a stylish but simple bell push outdoor station. Alternatively you can build your own system from 2 outdoor station and 4 monitor options. You really need look no further to find the ideal single way video door entry solution.

SINGLE WAY SYSTEM EXAMPLE COMPONENTS

- APDSSW | APDSSWK | Door stations
- APMONW | APMONB | Colour monitors
- APMONWG | APMONBG
- APPOWSW | Combined Power Supply & BUS Separator (Connect up to 5 devices)
**APKIT COLOUR VIDEO DOOR ENTRY SYSTEM**

- Simple 2 core cable installation
- Single power supply (included) supports all monitors and outdoor stations in a flexible combination of upto 5 devices
- Clear high resolution colour picture on 7” hands free TFT monitor

**STATION**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Image sensor</td>
<td>1/3&quot; Colour CCD</td>
</tr>
<tr>
<td>Min. Illumination</td>
<td>0.1 LUX</td>
</tr>
<tr>
<td>Illumination</td>
<td>6 LEDs</td>
</tr>
<tr>
<td>Lens</td>
<td>3.6mm</td>
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<tr>
<td>Power</td>
<td>24VDC</td>
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<tr>
<td>Operating Temp.</td>
<td>-20°C to +40°C</td>
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<td>Dimensions</td>
<td>85mm(W) x 165mm(H) x 53mm(D)</td>
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<td>Weight</td>
<td>390g</td>
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**MONITOR**

<table>
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<th>Feature</th>
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<tbody>
<tr>
<td>Power</td>
<td>24VDC</td>
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<tr>
<td>Installation</td>
<td>Surface Mounted</td>
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<td>Operational Temp.</td>
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<td>Consumption</td>
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<td>Dimensions</td>
<td>215mm(W) x 152mm(H) x 18mm(D)</td>
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<td>Weight</td>
<td>450g</td>
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**APKITKP COLOUR VIDEO DOOR ENTRY KEYPAD SYSTEM**

- Simple 2 core cable installation
- Single power supply (included) supports all monitors and outdoor stations in a flexible combination of upto 5 devices
- Clear high resolution colour picture on 7” hands free TFT monitor
- Outdoor station with built in keypad for code door unlocking

**STATION**

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<td>Power</td>
<td>24VDC</td>
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<tr>
<td>Operating Temp.</td>
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<tr>
<td>Dimensions</td>
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<td>Weight</td>
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**MONITOR**

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<td>Surface Mounted</td>
</tr>
<tr>
<td>Operational Temp.</td>
<td>0°C to +40°C</td>
</tr>
<tr>
<td>Consumption</td>
<td>300mA</td>
</tr>
<tr>
<td>Dimensions</td>
<td>215mm(W) x 152mm(H) x 18mm(D)</td>
</tr>
<tr>
<td>Weight</td>
<td>450g</td>
</tr>
</tbody>
</table>
**APDSSW**  SINGLEWAY VIDEO DOOR STATION
- Waterproof IP55 outdoor station
- High resolution colour camera
- Simple 2 core cable installation

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Image sensor</td>
<td>1/3&quot; Colour CCD</td>
</tr>
<tr>
<td>Min. Illumination</td>
<td>0.1 LUX</td>
</tr>
<tr>
<td>Illumination</td>
<td>6 LEDs</td>
</tr>
<tr>
<td>Lens</td>
<td>3.6mm</td>
</tr>
<tr>
<td>Viewing Angle</td>
<td>70°</td>
</tr>
<tr>
<td>Power</td>
<td>24VDC</td>
</tr>
<tr>
<td>Operating Temp.</td>
<td>-20°C ~ +40°C</td>
</tr>
<tr>
<td>Dimensions</td>
<td>85mm(W)x165mm(H)x53mm(D)</td>
</tr>
<tr>
<td>Weight</td>
<td>390g</td>
</tr>
</tbody>
</table>

**APDSSWKP**  SINGLEWAY VIDEO DOOR STATION WITH KEYPAD
- Waterproof IP55 metal outdoor station
- High resolution colour camera
- Built in keypad for door code unlocking
- Simple 2 core cable installation

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Image sensor</td>
<td>1/3&quot; Colour CCD</td>
</tr>
<tr>
<td>Min. Illumination</td>
<td>0.1 LUX</td>
</tr>
<tr>
<td>Illumination</td>
<td>6 LEDs</td>
</tr>
<tr>
<td>Lens</td>
<td>3.6mm</td>
</tr>
<tr>
<td>Viewing Angle</td>
<td>70°</td>
</tr>
<tr>
<td>Power</td>
<td>24VDC</td>
</tr>
<tr>
<td>Operating Temp.</td>
<td>-20°C ~ +40°C</td>
</tr>
<tr>
<td>Dimensions</td>
<td>87mm(W)x200mm(H)x53mm(D)</td>
</tr>
<tr>
<td>Weight</td>
<td>640g</td>
</tr>
</tbody>
</table>

**APPOWSW**  COMBINED POWER & BUS SEPARATOR UNIT FOR SINGLEWAY SYSTEM
- Single way system component
- 24VDC/800mAh power output
- Dimensions 75mm(W)x60mm(H)x125mm(L)
- Only 1 power supply per system required

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Image sensor</td>
<td>1/3&quot; Colour CCD</td>
</tr>
<tr>
<td>Min. Illumination</td>
<td>0.1 LUX</td>
</tr>
<tr>
<td>Illumination</td>
<td>6 LEDs</td>
</tr>
<tr>
<td>Lens</td>
<td>3.6mm</td>
</tr>
<tr>
<td>Viewing Angle</td>
<td>70°</td>
</tr>
<tr>
<td>Power</td>
<td>24VDC</td>
</tr>
<tr>
<td>Operating Temp.</td>
<td>-20°C ~ +40°C</td>
</tr>
<tr>
<td>Dimensions</td>
<td>87mm(W)x200mm(H)x53mm(D)</td>
</tr>
<tr>
<td>Weight</td>
<td>640g</td>
</tr>
</tbody>
</table>
APMONW White | APMONB Black
COLOUR VIDEO DOOR ENTRY MONITOR

- Simple 2 core cable installation
- 7” TFT screen with clear high resolution colour picture
- Durable white or black casing

<table>
<thead>
<tr>
<th>Feature</th>
<th>APMONW</th>
<th>APMONB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power</td>
<td>24VDC</td>
<td>24VDC</td>
</tr>
<tr>
<td>Installation</td>
<td>Surface Mounted</td>
<td>Surface Mounted</td>
</tr>
<tr>
<td>Operational Temp.</td>
<td>0°C to +40°C</td>
<td>0°C to +40°C</td>
</tr>
<tr>
<td>Consumption</td>
<td>300mA</td>
<td>350mA</td>
</tr>
<tr>
<td>Dimensions</td>
<td>215mm(W)x152mm(H)x18mm(D)</td>
<td>183mm(W)x185mm(H)x20mm(D)</td>
</tr>
<tr>
<td>Weight</td>
<td>450g</td>
<td>550g</td>
</tr>
</tbody>
</table>

APMONWG White | APMONBG Black
COLOUR VIDEO DOOR ENTRY MONITOR WITH RECORD FACILITY

- 7” TFT screen with clear high resolution colour picture
- Simple 2 core cable installation
- On screen menu for simple system set up & customisation
- Optional still or video recording and playback of callers (4GB SD card included)
- Durable white or black casing

<table>
<thead>
<tr>
<th>Feature</th>
<th>APMONWG</th>
<th>APMONBG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power</td>
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</tr>
<tr>
<td>Installation</td>
<td>Surface Mounted</td>
<td>Surface Mounted</td>
</tr>
<tr>
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</tr>
<tr>
<td>Consumption</td>
<td>350mA</td>
<td>350mA</td>
</tr>
<tr>
<td>Dimensions</td>
<td>183mm(W)x185mm(H)x20mm(D)</td>
<td>183mm(W)x185mm(H)x20mm(D)</td>
</tr>
<tr>
<td>Weight</td>
<td>550g</td>
<td>550g</td>
</tr>
</tbody>
</table>
A flexible range of superb quality hands-free colour video door entry products specifically for installation in multiple apartments. Simplicity of installation is the key to Aperta multiway systems, supporting up to 32 apartments in one system and requiring only 2 wires throughout with all outdoor stations and monitors powered by a single power supply. The keypad multiway door station allows both apartment calling plus door unlocking by passcode, no need for 2 separate keypads.

The keypad apartment calling also means that no additional buttons or panels are required, keeping the installation simple, neat and compact. You really need look no further to find the ideal multi way door entry solution.
APDSMW
MULTIWAY VIDEO DOOR STATION
- Waterproof IP55 metal multiway outdoor station
- High resolution colour camera
- Built in keypad for door calling and code unlocking
- Simple 2 core cable installation

<table>
<thead>
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<tr>
<td>Viewing Angle</td>
<td>70°</td>
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</tr>
<tr>
<td>Operating Temp.</td>
<td>-20°C ~ +40°C</td>
</tr>
<tr>
<td>Dimensions</td>
<td>87mm(W)x 200mm(L)x 53mm(D)</td>
</tr>
<tr>
<td>Weight</td>
<td>640g</td>
</tr>
</tbody>
</table>

APPOWMW
POWER SUPPLY UNIT FOR MULTIWAY SYSTEM
- Multi way system component
- 24VDC/4.2A power output
- Dimensions 100mm(W)x200mm(L)x40mm(D)
- Only 1 power supply per system required

APSEPMW
POWER BUS SEPARATOR UNIT FOR MULTIWAY SYSTEM
- Multi way system component
- For use with APPOWMW power supply

APBC4MW
4 BRANCH CONTROLLER FOR MULTIWAY SYSTEM
- Multi way system component
- 1 unit supports wiring to 4 apartments or 4 outdoor stations (APDSMW)
APMONW White  |  APMONB Black
COLOUR VIDEO DOOR ENTRY MONITOR

- Simple 2 core cable installation
- 7” TFT screen with clear high resolution colour picture
- Durable white or black casing

<table>
<thead>
<tr>
<th>Specification</th>
<th>APMONW</th>
<th>APMONB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power</td>
<td>24VDC</td>
<td></td>
</tr>
<tr>
<td>Installation</td>
<td>Surface Mounted</td>
<td>Surface Mounted</td>
</tr>
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<td>0°C~ +40°C</td>
</tr>
<tr>
<td>Consumption</td>
<td>300mA</td>
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</tr>
<tr>
<td>Dimensions</td>
<td>215mm(W)x152mm(H)x18mm(D)</td>
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</tr>
<tr>
<td>Weight</td>
<td>450g</td>
<td>550g</td>
</tr>
</tbody>
</table>

APMONWG White  |  APMONBG Black
COLOUR VIDEO DOOR ENTRY MONITOR WITH RECORD FACILITY

- 7” TFT screen with clear high resolution colour picture
- Simple 2 core cable installation
- On screen menu for simple system set up & customisation
- Optional still or video recording and playback of callers (4GB SD card included)
- Durable white or black casing

<table>
<thead>
<tr>
<th>Specification</th>
<th>APMONWG</th>
<th>APMONBG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power</td>
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<td></td>
</tr>
<tr>
<td>Installation</td>
<td>Surface Mounted</td>
<td>Surface Mounted</td>
</tr>
<tr>
<td>Operational Temp.</td>
<td>0°C~ +40°C</td>
<td>0°C~ +40°C</td>
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<tr>
<td>Consumption</td>
<td>350mA</td>
<td></td>
</tr>
<tr>
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<td></td>
</tr>
<tr>
<td>Weight</td>
<td>550g</td>
<td></td>
</tr>
</tbody>
</table>
EZTAG3 PROXIMITY & KEYPAD DOOR ENTRY

- Easy install, simple self-contained programming
- Up to 1,010 key tag holders or Pin numbers
- 2 separate user groups
- 2 relay outputs
- Anti tamper option
- Weather/dust proof robust construction
- Complete with 10 tags

EZT-ST10 Additional Proximity Tags (10 Pack)

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working temp.</td>
<td>-10 ~ +55°C</td>
</tr>
<tr>
<td>Voltage</td>
<td>DC: 12V<del>24V AC: 12V</del>24V</td>
</tr>
<tr>
<td>Working current</td>
<td>&lt;120mA</td>
</tr>
<tr>
<td>Standby current</td>
<td>&lt;90mA</td>
</tr>
<tr>
<td>Card mode</td>
<td>1D / IC card</td>
</tr>
<tr>
<td>Reader frequency</td>
<td>125KHz</td>
</tr>
<tr>
<td>Effective distance</td>
<td>&lt;5CM</td>
</tr>
<tr>
<td>Capacity</td>
<td>1010 Cards or Fobs</td>
</tr>
</tbody>
</table>

EZTAG3 PROXIMITY & KEYPAD DOOR ENTRY KIT

- Complete entry system in one box comprising of:
  EZTAG3 complete with 10 Tags
  EV-ML-250 Electronic lock
  EV-EXIT Exit release button
  EV-EBG Emergency break glass
  EVBPSBB Boxed power supply
### APKITAO AUDIO DOOR ENTRY SYSTEM

- Two-wire connection
- Durable/Weatherproof door station
- Clear 2 way audio
- Lock release option
- Wiring distance up to 100 meters
- Easy DIY installation

<table>
<thead>
<tr>
<th><strong>HANDSET</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Input range</td>
<td>DC12V</td>
</tr>
<tr>
<td>Output power</td>
<td>&lt;=0.6W</td>
</tr>
<tr>
<td>Working current</td>
<td>&lt;=50mA</td>
</tr>
<tr>
<td>Dimension</td>
<td>215mm x 85mm x 60mm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>CALL POINT</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Input range</td>
<td>DC12V</td>
</tr>
<tr>
<td>Output power</td>
<td>&lt;=0.6W</td>
</tr>
<tr>
<td>Working current</td>
<td>&lt;=50mA</td>
</tr>
<tr>
<td>IP rating</td>
<td>55</td>
</tr>
<tr>
<td>Dimension</td>
<td>150mm x 65mm x 50mm</td>
</tr>
</tbody>
</table>

### APKITAOH ADDITIONAL APKITAO AUDIO HANDSET

- Two-wire connection
- Durable/Weatherproof door station
- Clear 2 way audio
- Lock release option
- Wiring distance up to 100 meters
- Easy DIY installation

<table>
<thead>
<tr>
<th><strong>HANDSET</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Input range</td>
<td>DC12V</td>
</tr>
<tr>
<td>Output power</td>
<td>&lt;=0.6W</td>
</tr>
<tr>
<td>Working current</td>
<td>&lt;=50mA</td>
</tr>
<tr>
<td>Dimension</td>
<td>215mm x 85mm x 60mm</td>
</tr>
</tbody>
</table>
**ACCESS CONTROL ACCESSORIES**

**ENTERD ELECTRIC LOCK**
- Holding force 295kg/650lbs
- 160mA 12Vdc input
- For use with Yale type rim locks
- Surface mounting version available
- Fail secure
- Dimensions - 28.5 x 31 x 160mm
  NB. Requires EVBPSBB power supply

**EV-ML-250 ELECTROMAGNETIC LOCK**
- Holding force 250kg/550lbs max
- Z & L mounting bracket included
- Dual voltage 12 & 24 VDC
- Fail secure
- Dimensions excl. bracket - 250 x 26 x 41mm
  NB. Requires EVBPSBB power supply

**ENTERD-YLR SURFACE ELECTRIC LOCK**
- Holding force 295kg/650lbs
- 160mA 12Vdc input
- For use with Yale type surface locks
- Flush mounting version available
- Fail secure
  NB. Requires EVBPSBB power supply

**EV-ML-500XT ELECTROMAGNETIC LOCK**
- IP67 rated weather resistant external lock
- Holding force 500kg/1200lbs max
- Z & L mounting bracket included
- Dual voltage 12 & 24 VDC
- Fail secure
- Dimensions excl. bracket - 220 x 42 x 62mm
  NB. Requires EVBPSBB power supply
**EV-EXIT**  PUSH TO EXIT
LOCK RELEASE BUTTON

- Stainless steel fascia
- Flush mounting
- Push to make contacts

**EVBPSBB**  BOXED POWER SUPPLY

- Back up battery output
- 100-240vAC, 50/60Hz input
- 1.5A /12vDC fail safe output
- 1A 12vDC fail secure output
- Size: 129 x 73 x 50mm LWD

**EV-EBG**  EMERGENCY
BREAK GLASS

- Surface mounted
- Emergency break glass
to release door

**BAT7**  12V 7.0AH SLA BATTERY

- Back up battery for EVBPSBB
The MAGfire systems have been created to balance performance, reliability and aesthetics whilst being fully CPR compliant and certified to EN54 standards. The range includes everything required to complete high quality, durable, conventional and addressable fire alarm installations.
16 zone addressable fire alarm panel supplied with 1 loop. Expandable to 2 loops using MAGPRO16-L250. A maximum of 250 devices can be connected to each loop.

- 16 Zones
- Maximum 250 devices per loop
- Memory Log: 10,000 events
- Networkable up to 32 Panels
- Class change function
- 4 x 40 character LCD display
- Free programing software
- Micro USB port for PC connection
- Loop & battery calculator software included
- Certified to EN54–2/4

**INPUTS**
- Loops: 1 expandable to 2
- Devices Per Loop: 250
- Protocol: MAGPRO

**POWER**
- Mains Fail Consumption: 125mA DC – 1 LOOP
  213mA DC – 2 LOOP
- Mains Supply: 230V AC + - 10%
- Max Loop Current: 500mA DC
- Backup: 1x12V 17Ah

**OUTPUTS**
- 2 Sounders: 24v DC @ 500mA
- 4 Programmable Relays: 24v DC @ 100mA
- 3 Monitored Outputs: 24v DC @ 100mA
- 3 Monitored Inputs: Volt free contacts

**ENVIRONMENT**
- Working Temperature: -5°C TO +40°C
- Storage: -10°C TO 60°C
- Humidity: 0 - 95%
- Weight: 3.6KG
- Dimensions: 320 x 220 x 80mm
MAGPRO96
ADDRESSABLE 96 ZONE FIRE PANEL

96 zone addressable fire alarm panel supplied with 1 loop. Expandable to 4 loops using additional MAGPRO96-L250’s. A maximum of 250 devices can be connected to each loop.

- 96 Zones
- Maximum 250 devices per loop
- Memory Log: 10,000 events
- Networkable up to 32 Panels
- 320 x 240 pixel touch screen display
- Free programming software
- Micro USB port for PC connection
- Loop & battery calculator software included
- Certified to EN54–2/4

<table>
<thead>
<tr>
<th>INPUTS</th>
<th>Loops</th>
<th>1 expandable to 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Devices Per Loop</td>
<td>250</td>
<td></td>
</tr>
<tr>
<td>Protocol</td>
<td>MAGPRO</td>
<td></td>
</tr>
<tr>
<td>POWER</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mains Fail Consumption</td>
<td>285mA DC - 1 LOOP</td>
<td>360mA DC - 2 LOOP</td>
</tr>
<tr>
<td></td>
<td>435mA DC - 3 LOOP</td>
<td>510mA DC - 4 LOOP</td>
</tr>
<tr>
<td>Mains Supply</td>
<td>230V AC + - 10%</td>
<td></td>
</tr>
<tr>
<td>Max Loop Current</td>
<td>500mA DC</td>
<td></td>
</tr>
<tr>
<td>Backup</td>
<td>1x12V 17Ah</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OUTPUTS</th>
<th>1 Sounder</th>
<th>24V DC @ 300mA</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 Programable Relays</td>
<td>110v ac @ 1A</td>
<td></td>
</tr>
<tr>
<td>2 Monitored Outputs</td>
<td>24V DC @ 300mA</td>
<td></td>
</tr>
<tr>
<td>1 Auxiliary Output</td>
<td>24V DC @ 300mA</td>
<td></td>
</tr>
<tr>
<td>1 Fault Output</td>
<td>24V DC @ 300mA</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ENVIRONMENT</th>
<th>Working Temperature</th>
<th>-5°C TO +40°C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Storage</td>
<td>-10°C TO 60°C</td>
</tr>
<tr>
<td></td>
<td>Humidity</td>
<td>0 - 95%</td>
</tr>
<tr>
<td></td>
<td>Weight</td>
<td>4.2KG</td>
</tr>
<tr>
<td></td>
<td>Dimensions</td>
<td>456 x 350 x 125mm</td>
</tr>
</tbody>
</table>

MAGPRO96-L250
Single Loop Expander 250 Devices
ADDRESSABLE FIRE PANELS

MAGPRO-REP
ADDRESSABLE REPEATER PANEL

- Slimline flush mount design
- Compatible with MAGPRO16 Ver2.8 and higher
- Compatible with MAGPRO96
- Requires 24V DC
- Max consumption of 0.11A (110mA)
- Each panel in network will require a MAGPRO-NIC
- Maximum of 32 panels in the network
- 1000m distance from MAGPRO-REP to MAGPRO-NIC
- Dimensions 200 x 330 x 48mm
- Ring type network
- 10,000 event log within the repeater

MAGPRO-NIC
NETWORK INTERFACE CARD

- Networks between MAGPRO16/96 & REP Panels
- MAGPRO16 Firmware REV 2.8 or higher Required
- MAGPRO96 Firmware REV 4.2 or higher Required
- RS-485 Communication protocol
- On-board LED indication
- Power supply from the panel
- Programing from the panel
- 1000m transmission distance between modules

POWER
- From a MAGPRO Panel AUX / GND
- External* 24v/-4 VDC
- Consumption 110mA

INPUT
- Communication RS485
- Max length between panels 1000m

OUTPUT
- Communication RS485
- Max length between panels 1000m

TECHNICAL SPEC
- Memory LOG 10,000 events
- Network type Ring
- MAGPRO16 Firmware Compatibility Ver 2.8 or higher
- MAGPRO96 Firmware Compatibility Ver 4.2 or higher
- Max number of panels 32
- Connection to MAGRO Panel Via MAGPRO-NIC

ENVIRONMENT
- Working Temperature (-5 +50)
- Humidity 95%
- Weight 770g
- Dimension 200 x 330 x 48mm

*Recommend a Boxed Power Supply with battery backup
MAGPRO-SD1
ADDRESSABLE SMOKE DETECTOR
- Sensitivity level selectable from the control panel - High/Normal/Middle/Low
- Protected area - 120m²
- Installation height - up to 16m
- Day/Night mode
- Low profile design
- LED indication with 360° visibility
- Certified to EN54–7
- Base ordered separately see below

MAGPRO-HD1
ADDRESSABLE HEAT DETECTOR
- Can work as a fixed temperature or rate of rise detector
- Class A1R, A2S, BS selectable from the control panel
- Day/Night mode
- Protected area - up to 35m²
- Installation height - up to 3.5m
- Low profile design
- LED indication with 360° visibility
- Certified to EN54–5
- Base ordered separately see below

MAGPRO-HSD1
COMBINED SMOKE & HEAT DETECTOR
- Sensitivity selectable from the control panel - High/Normal/Middle/Low
- Class A1R temperature sensor (according to EN54-5)
- Protected area - up to 120m²
- Installation height - up to 16m
- Day/Night mode
- Low profile design
- LED indication with 360° visibility
- Certified to EN54–5/7
- Base ordered separately see below

MAGPRO-DB
Detector Base
MAGPRO-DBS
Sounder Base
MAGPRO-DBSS
Sounder Strobe Base
MAGPRO-DBSC
Detector base cover blank plate
MAGPRO-WSS23 SOUNDER STROBE
- Certified to EN54-23
- Piezo sounder
- Adjustable sound level - 92dB/100 dB
- 32 sound types selectable from the panel
- Loop synchronization & powered
- Base MAGPRO-DB ordered separately

MAGPRO-WSS SOUNDER STROBE
- Certified to EN54–3
- Piezo sounder
- Adjustable sound level - 92dB/100 dB
- 32 sound types selectable from the panel
- Loop synchronization & powered
- Base MAGPRO-DB ordered separately

MAGPRO-WS SOUNDER
- Certified to EN54–3
- Piezo sounder
- Adjustable sound level - 92dB/100 dB
- 32 sound types selectable from the panel
- Loop synchronization & powered
- Base MAGPRO-DB ordered separately

MAGPRO-PROG PROGRAMMING TOOL
For reading/writing addresses and setting of parameters within detectors and modules.
- Built in MAGPRO-DB standard base
- Mains or battery powered (4 x 1.5V not included)
- Programming cable included

MAGPRO-CP MANUAL CALL POINT
- Resettable call point
- Certified to EN54–11–A
- Built in isolator
- IP60 Rated
- Optional protective plastic cover
MAGPRO-IM
LOOP ISOLATOR MODULE
- Protection against short circuit
- Auto reset after short circuit
- 4 x cable entry points
- A maximum of 30 devices between two isolators
- Certified to EN54–17

MAGPRO-MINI
1 INPUT MODULE
- Single volt free contact
- Compact size – 58mm x 25mm x 12mm
- Example applications – Integration of third party control devices
- Compliant to EN54–18

24V BOXED POWER SUPPLIES
BPS-1 24V 1 amp Boxed power supply
BPS-2 24V 2 amp Boxed power supply
BPS-5 24V 5 amp Boxed power supply
Nb Boxed power supplies require 2 x 12V batteries (not supplied)

ZRL2  LED INDICATOR PLATE
- Flash rate – permanent
- Current – 28 mA Max
- Operating Voltage Range - 5-28V DC

BAT18  BACK UP BATTERY
- 12V 17ah SLA back up battery

DOOR HOLDERS
DR916-24 24V DC Door Holder
DR916-240 240V AC Door Holder
DR916-FMB Floor Mounting Bracket
DR916-KP Spare Keep Plate
**MAGPRO-R** MAINS RELAY OUTPUT MODULE WITH ISOLATOR
- Suitable for control of 240VAC voltage circuits up to 5A
- Loop powered
- Built in isolator
- Compliant to EN54–18
- Example application - AC 240V door magnet override

**MAGPRO-0i4O** 4 OUTPUT MODULE WITH ISOLATOR
- 4 Relay outputs
- Loop powered
- Built in isolator
- Certified to EN54–18
- Example applications - Shutdown of ventilation equipment and door override

**MAGPRO-1OSi** CONVENTIONAL SOUNDER MODULE WITH ISOLATOR
- Integrate conventional sounders into an addressable system
- Loop powered
- Built in isolator
- Requires 24V PSU
- Compliant to EN54–18

**MAGPRO-4i00** 4 INPUT MODULE WITH ISOLATOR
- 4 Monitored Inputs
- Loop powered
- Built in isolator
- Certified to EN54–18
- Example applications - Input from external equipment, extinguishing/sprinkler panel

**MAGPRO-2i2O** 2 INPUT 2 OUTPUT MODULE WITH ISOLATOR
- 2 Monitored Inputs
- 2 Outputs
- Loop powered
- Built in isolator
- Certified to EN54–18
- Example application - Link to monitoring station signalling devices

**MAGPRO-CZM** CONVENTIONAL ZONE MODULE WITH ISOLATOR
- Integrate conventional detectors into an addressable system
- Max number of detectors in one zone - 32
- Loop powered
- Built in isolator
- Certified to EN54–18
- Example applications - Integrate conventional equipment i.e. beam detectors
**FLK2P**

2 ZONE CONVENTIONAL FIRE ALARM KIT

FLK2P kit contains:
- 1 MAG2P 2 zone fire panel
- 6 PSD-2 Optical smoke detectors complete with bases
- 2 SCP-2R Resettable call points
- 2 BA-2R Banshee sounders
- 1 BAT7 12v 7.0ah SLA battery

**FLK4PH**

4 ZONE CONVENTIONAL FIRE ALARM KIT

FLK4PH kit contains:
- 1 MAG4P 4 zone fire panel
- 5 PSD-2 Optical smoke detectors complete with bases
- 1 FHD-2 Fixed temperature heat detector complete with base
- 2 SCP-2R Resettable call points
- 2 BA-2R Banshee sounders
- 1 BAT7 12v 7.0ah SLA battery
MAG2P
2 ZONE FIRE PANEL

- 2 programmable zones
- Active end of line monitoring and head removal
- 30 fire detectors per zone
- Unlimited number of call points per zone
- Integral evacuate alarm button
- 'Class change' facility
- Enable/disable security key
- One man walk test facility
- Volt free fire change over relay
- Volt free fault change over relay
- Individual sounder circuit fault ID
- Individual zone/sounder isolate
- Certified to EN54-2/4
- Requires only 1x12v battery
- MAG2P - ABS casing

<table>
<thead>
<tr>
<th>INPUTS</th>
<th>Max detectors per zone</th>
<th>30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thresholds for zone conditions</td>
<td>0 - 2 mA (Fault condition)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 - 6 mA (Normal condition)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6 - 110 mA (Fire condition)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>110 mA - Short (Fault condition)</td>
<td></td>
</tr>
<tr>
<td>POWER</td>
<td>Mains fail consumption</td>
<td>50mA</td>
</tr>
<tr>
<td></td>
<td>Mains supply</td>
<td>230 VAC ± 10%</td>
</tr>
<tr>
<td></td>
<td>Standby supply</td>
<td>1 x 7ah 12V S.L.A. Battery</td>
</tr>
<tr>
<td></td>
<td>Power availability</td>
<td>0.7 amps</td>
</tr>
<tr>
<td>OUTPUTS</td>
<td>Sounder 1</td>
<td>24V (max 300mA fused)</td>
</tr>
<tr>
<td></td>
<td>Sounder 2</td>
<td>24V (max 300mA fused)</td>
</tr>
<tr>
<td></td>
<td>Fault/fire relay</td>
<td>Volt free 500mA @ 24V (max load)</td>
</tr>
<tr>
<td></td>
<td>Auxiliary output</td>
<td>24VDC (300mA fused)</td>
</tr>
<tr>
<td>ENVIRONMENT</td>
<td>Working Temperature</td>
<td>0 to 40 °C</td>
</tr>
<tr>
<td></td>
<td>Storage Temperature</td>
<td>-20 to 60 °C</td>
</tr>
<tr>
<td></td>
<td>Humidity</td>
<td>0 - 95%</td>
</tr>
<tr>
<td></td>
<td>Dimensions MAG2P</td>
<td>340 x 290 x 100mm</td>
</tr>
<tr>
<td></td>
<td>Dimensions MAG2</td>
<td>200 x 290 x 80mm</td>
</tr>
<tr>
<td></td>
<td>Weight</td>
<td>MAG2P = 2.1Kg, MAG2 = 2.7Kg</td>
</tr>
</tbody>
</table>
MAG4P
4 ZONE FIRE PANEL

- 4 programmable zones
- Active end of line monitoring and head removal
- 30 fire detectors per zone
- Unlimited number of call points per zone
- Integral evacuate alarm button
- ‘Class change’ facility
- Enable/disable security key
- One man walk test facility
- Volt free fire change over relay
- Volt free fault change over relay
- Individual sounder circuit fault ID
- Individual zone/sounder isolate
- Certified to EN54–2/4
- Requires only 1x12v battery
- MAG4P - ABS casing

**INPUTS**

- Max detectors per zone 30
- Thresholds for zone conditions:
  - 0 – 2 mA (Fault condition)
  - 2 – 6 mA (Normal condition)
  - 6 – 110 mA (Fire condition)
  - 110 mA – Short (Fault condition)

**POWER**

- Mains fail consumption 50mA
- Mains supply 230 VAC ± 10%
- Standby supply 1 x 7ah 12V S.L.A. Battery
- Power availability 0.7 amps

**OUTPUTS**

- Sounder 1 24V (max 300mA fused)
- Sounder 2 24V (max 300mA fused)
- Fault/fire relay Volt free 500mA @ 24V (max load)
- Auxiliary output 24VDC (300mA fused)

**ENVIRONMENT**

- Working Temperature 0 to 40 °C
- Storage Temperature –20 to 60 °C
- Humidity 0 - 95%
- Dimensions MAG4P 340 x 290 x 100mm
- Dimensions MAG4 320 x 220 x 80mm
- Weight MAG4P - 2.5Kg  MAG4 - 3.5Kg
CONVENTIONAL FIRE PANELS

MAG816 8 ZONE FIRE PANEL
EXPANDABLE TO 16 ZONES

- Up to 16 programmable zones
- Up to 16 sounder circuits
- Active end of line monitoring and head removal
- Up to 32 fire detectors per zone
- Unlimited number of call points per zone
- Integral evacuate alarm button
- Repeater facility and ‘Class change’ facility
- Enable/disable security key
- One man walk test facility
- Volt free fire/fault change over relay
- Individual sounder circuit fault ID
- Individual zone/sounder isolate
- Alarm delay options
- Certified to EN54–2/4
- Requires 1 x 12V batteries
- ABS casing

MAGFMK FLUSH KIT FOR MAG816 PANEL

<table>
<thead>
<tr>
<th>INPUTS</th>
<th>Max. detectors per zone</th>
<th>32</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thresholds for zone conditions</td>
<td>0 – 2 mA (Fault condition)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 – 10 mA (Normal condition)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>10 – 110 mA (Fire condition)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>110mA – + Short (Fault condition)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>POWER</th>
<th>Mains fall consumption 130mA (1 zone expander)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>260mA (4 zone expanders)</td>
</tr>
<tr>
<td></td>
<td>Mains supply 230 VAC ± 10%</td>
</tr>
<tr>
<td></td>
<td>Standby supply 1 x 18ah 12V S.L.A. Batteries</td>
</tr>
<tr>
<td></td>
<td>Power availability 0.7 amps</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OUTPUTS</th>
<th>On board sounder circuits (4) 300mA @ 24V fuse resettable (PTC)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sounder expander cards (4) 150mA @ 24V fuse resettable (PTC)</td>
</tr>
<tr>
<td></td>
<td>Fault/fire relay Volt free 500mA @ 24V (max load)</td>
</tr>
<tr>
<td></td>
<td>Auxiliary output 24VDC (300mA fused)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ENVIRONMENT</th>
<th>Working Temperature 0 to 40°C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Storage Temperature –20 to 60°C</td>
</tr>
<tr>
<td></td>
<td>Humidity 0 to 93%</td>
</tr>
<tr>
<td></td>
<td>Dimensions (mm) 456 x 350 x 125mm</td>
</tr>
<tr>
<td></td>
<td>Weight 4.2 KG</td>
</tr>
</tbody>
</table>

FIRE ZONE / SOUNDER OUTPUT MATRIX

<table>
<thead>
<tr>
<th>Number of zone cards fitted</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>2</th>
<th>3</th>
<th>1</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of sounder cards fitted</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Number of zones</td>
<td>8</td>
<td>12</td>
<td>16</td>
<td>8</td>
<td>12</td>
<td>4</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>Number of sounder outputs</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>8</td>
<td>8</td>
<td>12</td>
<td>12</td>
<td>16</td>
</tr>
</tbody>
</table>

NB The MAG816 features 4 sounder circuits. Space is provided for up to 4 extra expansion cards of any combination. Sounder cards carry 4 sounder circuits, Zone cards carry 4 fire zones. The MAG816 is supplied as standard with 8 fire zones and 4 sounder circuits.

MAGZC816 4 Zone Expander Card

MAGSC816 4 Zone Sounder Expander Card
These MAGfire detectors have been developed to provide a perfect compliment to the MAGfire MAG panels. All detectors are supplied with a diode base. Fully compliant with CPR and approved to EN54 standards.

**CSD-2**  COMBINED OPTICAL SMOKE & FIXED HEAT DETECTOR

**PSD-2**  OPTICAL SMOKE DETECTOR

**FHD-2**  FIXED TEMPERATURE HEAT DETECTOR

**RHD-2**  RATE OF RISE HEAT DETECTOR

<table>
<thead>
<tr>
<th>MODEL</th>
<th>CSD-2</th>
<th>PSD-2</th>
<th>FHD-2</th>
<th>RHD-2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Combined smoke/heat</td>
<td>Optical smoke</td>
<td>Fixed temp heat</td>
<td>Rate of rise heat</td>
</tr>
<tr>
<td>Type</td>
<td>Conventional</td>
<td>Conventional</td>
<td>Conventional</td>
<td>Conventional</td>
</tr>
<tr>
<td>Approval</td>
<td>EN54-7, EN54-5</td>
<td>EN54-7</td>
<td>EN54-5</td>
<td>EN54-5</td>
</tr>
<tr>
<td>Class</td>
<td>A1R</td>
<td>N/A</td>
<td>A2S</td>
<td>A1R</td>
</tr>
<tr>
<td>Operating Voltage</td>
<td>9 - 30VDC</td>
<td>9 - 30VDC</td>
<td>9 - 30VDC</td>
<td>9 - 30VDC</td>
</tr>
<tr>
<td>Standby Current @ 24v</td>
<td>&lt; 60μA</td>
<td>&lt; 60μA</td>
<td>&lt; 60μA</td>
<td>&lt; 60μA</td>
</tr>
<tr>
<td>Alarm Current @ 24v</td>
<td>49mA</td>
<td>49mA</td>
<td>49mA</td>
<td>49mA</td>
</tr>
<tr>
<td>Wire Gauge</td>
<td>0.4mm - 2.0mm TWIN</td>
<td>0.4mm - 2.0mm TWIN</td>
<td>0.4mm - 2.0mm TWIN</td>
<td>0.4mm - 2.0mm TWIN</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-10°C to 60°C</td>
<td>-10°C to 60°C</td>
<td>-10°C to 60°C</td>
<td>-10°C to 60°C</td>
</tr>
<tr>
<td>Test Facility</td>
<td>Simulated Smoke/Heat</td>
<td>Simulated Smoke</td>
<td>Heat Source</td>
<td>Heat Source</td>
</tr>
</tbody>
</table>
The new range of MAGfire detectors have been developed to provide a perfect compliment to 12V hardwire intruder alarm systems. All detectors are supplied with a relay base. Fully compliant with CPR and approved to EN54 standards.

<table>
<thead>
<tr>
<th>MODEL</th>
<th>CSD-212</th>
<th>PSD-212</th>
<th>FHD-212</th>
<th>RHD-212</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Combined smoke/heat</td>
<td>Optical smoke</td>
<td>Fixed temp heat</td>
<td>Rate of rise heat</td>
</tr>
<tr>
<td>Type</td>
<td>Conventional</td>
<td>Conventional</td>
<td>Conventional</td>
<td>Conventional</td>
</tr>
<tr>
<td>Approval</td>
<td>EN54-7, EN54-5</td>
<td>EN54-7</td>
<td>EN54-5</td>
<td>EN54-5</td>
</tr>
<tr>
<td>Class</td>
<td>ATR</td>
<td>N/A</td>
<td>A2S</td>
<td>ATR</td>
</tr>
<tr>
<td>Operating Voltage</td>
<td>9 - 30VDC</td>
<td>9 - 30VDC</td>
<td>9 - 30VDC</td>
<td>9 - 30VDC</td>
</tr>
<tr>
<td>Standby Current @ 12v</td>
<td>&lt; 50µA</td>
<td>&lt; 50µA</td>
<td>&lt; 50µA</td>
<td>&lt; 50µA</td>
</tr>
<tr>
<td>Alarm Current @ 12v</td>
<td>29mA</td>
<td>29mA</td>
<td>29mA</td>
<td>29mA</td>
</tr>
<tr>
<td>Wire Gauge</td>
<td>0.4mm - 2.0mm TWIN</td>
<td>0.4mm - 2.0mm TWIN</td>
<td>0.4mm - 2.0mm TWIN</td>
<td>0.4mm - 2.0mm TWIN</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-10°C to 60°C</td>
<td>-10°C to 60°C</td>
<td>-10°C to 60°C</td>
<td>-10°C to 60°C</td>
</tr>
<tr>
<td>Test Facility</td>
<td>Simulated Smoke/Heat</td>
<td>Simulated Smoke</td>
<td>Heat Source</td>
<td>Heat Source</td>
</tr>
</tbody>
</table>
**BD5000-100**

**FIRERAY 5000 MOTORISED REFLECTIVE BEAM**

- 100m operational Distance
- Integral laser alignment
- Auto Align Fast automatic beam alignment
- Low level system Controller
- 24v DC 37mA max current draw
- EN 54:12 & UL268 approved

**BD5000-50**

**FIRERAY 5000 MOTORISED REFLECTIVE BEAM**

- 50m operational Distance
- Integral laser alignment
- Auto Align Fast automatic beam alignment
- Low level system Controller
- 24v DC 37mA max current draw
- EN 54:12 & UL268 approved
CONVENTIONAL CALL POINT AND SOUNDERS

SCP2-R
RESETTABLE CALL POINT
- Surface or flush mounting
- Complete with surface back box
- Spare keys available - SCP2RK

BA-2R
RED BANSHEE SOUNDER
- Sound Output @ 1m 89 - 110 dBA
- Current - 3-39 mA
- IP Rating - IP45

ZRL2
REMOTE LED INDICATOR PLATE
- Flash rate - permanent
- Current - 28 mA Max
- Operating Voltage Range - 5-28V DC

BA-2W
WHITE BANSHEE SOUNDER
- Sound Output @ 1m 89 - 110 dBA
- Current - 3-39 mA
- IP Rating - IP45
**BS-1R** Red | **BS-1W** White
BEDROOM SOUNDER
- Sound Output @ 1m - 90 dBA
- Current - 7 mA

**FS-1L**
LED STROBE
- Flash rate - 60/minute
- 12V & 24V (80mA & 30mA)
- IP Rating - IP65

**BS-1R** BANSHEE
SOUNDER AND STROBE
- Sound Output - 89-110 dBA
- Flash rate - 60/minute
- Current - 60 mA plus sounder
- IP Rating - IP45

**CB-1R** BANSHEE
SOUNDER AND STROBE
- Sound Output - 89-110 dBA
- Flash rate - 60/minute
- Current - 60 mA plus sounder
- IP Rating - IP45

**CB-1RIP66** WATERPROOF
SOUNDER AND STROBE
- Sound Output - 89-110 dBA
- Flash rate - 60/minute
- Current - 40 mA plus sounder
- IP Rating - IP66
**IFB-1**
INTERNAL FIRE BELL
- Sound Output - 95 dBA
- Current - 11 mA
- 6" diameter
- IP Rating - IP21C

**WFB-1**
WEATHERPROOF FIRE BELL
- Sound Output - 95 dBA
- Current - 25 mA
- 8" diameter
- IP Rating - IP55

**SD-DB**
DETECTOR DEEPBASE
- Deepbase for PSD2, CSD2, PSD212 & CSD212

**DBS1**
DETECTOR BASE SOUNDER
- Sound Output @ 1m - 93 dBA
- Current - 18 mA

**BAT18**
12V 17AH SLA BATTERY
- Back up battery for MAG16

**BAT7**
12V 7.0AH SLA BATTERY
- Back up battery for MAG2P, MAG2, MAG4P and MAG4
24V BOXED POWER SUPPLIES
BPS-1 24V 1 amp Boxed power supply
BPS-2 24V 2 amp Boxed power supply
BPS-5 24V 5 amp Boxed power supply
Nb Boxed power supplies require 2 x 12V batteries (not supplied)

DOOR HOLDERS
DR916-24 24V DC Door Holder
DR916-240 240V AC Door Holder

DR916-KP
SPARE KEEPER PLATE
For use with DR916-24 and DR916-240

MAGR 8 ZONE RELAY MODULE
FOR MAG816
- Expander module providing 8 relay switches for zone activation
- Separate zone (max. 8) activation in fire condition
- N.O & N.C options

DR916-FMB
FLOOR MOUNTING BRACKET
For use with DR916-24 and DR916-240

MAGISORP
FIRE SYSTEM ISOLATION SWITCH
- Complies with BS5839 Part1
- Isolates the mains voltage supply to the fire system
- Enables safety for maintenance and offers protection against tamper
- Both the live and neutral supply is switched
The new emergency lighting collection provides contractors and installers with a comprehensive, contemporary product range that has been independently tested to comply with the latest industry standards and regulations.
EM8WMBULK
8W T5 IP65 MAINTAINED BULKHEAD

- 6000K colour temperature
- 8W T5 Fluorescent Lamp
- Polycarbonate housing
- Ceiling or wall mounted
- Charge and discharge protection
- Green LED Indicator
- 3 Hours Emergency Duration

- 2.4V 4500mAh Ni-CAD Battery
- BS EN 60598-2-22 Standards
- Mains light output - 113 Lumens
- Emergency light output - 97 Lumens
- Dimensions - 352 x 118 x 73mm
- Weight - 1.1Kg

Photometric spacing data 1 Lux (centre to centre in metres on emergency escape routes)

<table>
<thead>
<tr>
<th>Mounting Height</th>
<th>Axial/Wall</th>
<th>Axial/Axial</th>
<th>Transverse/Axial</th>
<th>Transverse/Transverse</th>
<th>Transverse/Wall</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.0m</td>
<td>1.9</td>
<td>4.7</td>
<td>5.3</td>
<td>5.9</td>
<td>2.3</td>
</tr>
<tr>
<td>2.5m</td>
<td>1.9</td>
<td>4.7</td>
<td>5.2</td>
<td>5.8</td>
<td>2.2</td>
</tr>
<tr>
<td>3.0m</td>
<td>1.7</td>
<td>4.9</td>
<td>5.1</td>
<td>5.3</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Illuminance values based on a maintenance factor of 0.85

EMBULKFLUSH Optional Flush Mounting Kit  EMBULKLD Emergency Legend
EMLED3WMBULK2
3W LED IP65 MAINTAINED BULKHEAD

- 6000K colour temperature
- SMD 2835 LED Lamp
- Polycarbonate housing
- Ceiling or wall mounted
- Charge and discharge protection
- Green LED Indicator
- 3 Hours Emergency Duration
- Luminous Efficacy - 34 lm/w
- 3.6V 1500mAH Ni-CAD Battery
- BS EN 60598-2-22 Standards
- Mains light output - 121 Lumens
- Emergency light output - 119 Lumens
- Dimensions - 345 x 110 x 60mm
- Weight - 0.6Kg

EMBULKLEG Emergency Legend

Photometric spacing data 1 Lux (centre to centre in metres on emergency escape routes)

<table>
<thead>
<tr>
<th>Mounting Height</th>
<th>Axial/Wall</th>
<th>Axial/Axial</th>
<th>Transverse/Axial</th>
<th>Transverse/Transverse</th>
<th>Transverse/Wall</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.0m</td>
<td>3.1</td>
<td>7.4</td>
<td>6.5</td>
<td>5.6</td>
<td>2.4</td>
</tr>
<tr>
<td>2.5m</td>
<td>3.3</td>
<td>8.3</td>
<td>7.3</td>
<td>6.3</td>
<td>2.6</td>
</tr>
<tr>
<td>3.0m</td>
<td>3.4</td>
<td>9.0</td>
<td>8.0</td>
<td>6.9</td>
<td>2.7</td>
</tr>
</tbody>
</table>

Illuminance values based on a maintenance factor of 0.85

EMLED3WMEXBOX
3W LED MAINTAINED SIGN

- 6500K colour temperature
- Viewing distance – 32m
- SMT 5050 LED Lamp
- Steel housing
- Wall mounted
- Charge and discharge protection
- Green LED Indicator
- 3 Hours Emergency Duration
- 3.6V 1800mAH Ni-CAD Battery
- BS EN 60598-2-22 Standards
- Dimensions - 390 x 190 x 60mm
- Weight - 1.3Kg

EMLED3WMEXBOXU
3W LED Maintained Emergency Sign UP

EMLED3WMEXBOXD
3W LED Maintained Emergency Sign DOWN

EMLED3WMEXBOXL
3W LED Maintained Emergency Sign LEFT

EMLED3WMEXBOXR
3W LED Maintained Emergency Sign RIGHT
**EMLED5WMFLUSH**

5W LED MAINTAINED EMERGENCY FLUSH

- 6500K colour temperature
- LED Lamp
- Steel housing
- Recessed mounting
- Charge and discharge protection
- Green LED Indicator
- 3 Hours Emergency Duration

**EM2WMEXSIGN**

LED 2W MAINTAINED EXIT SIGN

- 6000K colour temperature
- Viewing distance – 24m
- SMD 3528 Lamp
- Polycarbonate frame with legend
- Ceiling or wall mounted
- Charge and discharge protection

Photometric spacing data 1 Lux (centre to centre in metres on emergency escape routes)

<table>
<thead>
<tr>
<th>Mounting Height</th>
<th>Axial/Wall</th>
<th>Axial/Axial</th>
<th>Transverse/Axial</th>
<th>Transverse/Transverse</th>
<th>Transverse/Wall</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.0m</td>
<td>2.3</td>
<td>5.5</td>
<td>5.5</td>
<td>5.5</td>
<td>2.3</td>
</tr>
<tr>
<td>2.5m</td>
<td>2.5</td>
<td>6.0</td>
<td>6.0</td>
<td>6.1</td>
<td>2.5</td>
</tr>
<tr>
<td>3.0m</td>
<td>2.7</td>
<td>6.5</td>
<td>6.5</td>
<td>6.6</td>
<td>2.7</td>
</tr>
</tbody>
</table>

Illuminance values based on a maintenance factor of 0.85
EM9WNMSPOT2
LED IP65 NON MAINTAINED EMERGENCY TWIN SPOT

- 2 x 15 SMD 2835 LED Lamps
- Polycarbonate housing & heads
- Wall mounted
- Charge and discharge protection
- Green LED Indicator
- 3 Hours Emergency Duration

Photometric spacing data 1 Lux

<table>
<thead>
<tr>
<th>Mounting Height</th>
<th>Transverse to Wall</th>
<th>Transverse to Transverse</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.5m</td>
<td>5.8</td>
<td>13.8</td>
</tr>
<tr>
<td>4.0m</td>
<td>7.2</td>
<td>17.4</td>
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<tr>
<td>6.0m</td>
<td>8.4</td>
<td>20.7</td>
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</tbody>
</table>

Calculated with lamp heads fixed at 30° below horizontal

EM3WNMDLK
3W LED NON MAINTAINED DOWNLIGHT KIT

- 3W LED Lamp
- Aluminium housing
- Recessed mounting
- Charge and discharge protection
- Green LED Indicator
- 3 Hours Emergency Duration
- Luminous Efficacy - 53.44 lm/w

Photometric spacing data 1 Lux (centre to centre in metres on emergency escape routes)

<table>
<thead>
<tr>
<th>Mounting Height</th>
<th>Axial/ Wall</th>
<th>Axial/ Axial</th>
<th>Transverse/ Axial</th>
<th>Transverse/ Transverse</th>
<th>Transverse/ Wall</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.0m</td>
<td>2.9</td>
<td>7.2</td>
<td>7.1</td>
<td>7.2</td>
<td>2.8</td>
</tr>
<tr>
<td>2.5m</td>
<td>3.1</td>
<td>7.7</td>
<td>7.6</td>
<td>7.7</td>
<td>2.9</td>
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<tr>
<td>3.0m</td>
<td>3.1</td>
<td>8.1</td>
<td>8.0</td>
<td>8.0</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Illuminance values based on a maintenance factor of 0.85
PRODUCT AWARENESS TRAINING DAYS

Held in the new purpose built showroom at our Redditch offices the training days are aimed at electrical contractors and wholesalers who would like to add fire and security equipment to their product portfolio but feel they do not have the core knowledge to do this with confidence. Most aspects of security will be covered including CCTV, Access Control and External Area Protection with a separate training day dedicated entirely to Fire Protection products.