ETHERNET OVER COAX

HIGHWIRE Series



veracity

LONG RANGE ETHERNET OVER COAX HIGHWIRE

Longstar Series



**ETHERNET EXTENDERS** 

OUTREACH Series



LONG RANGE ETHERNET LONGSPAN

NGSPAN Series



FIBRE TO ETHERNET LIGHTSPAN



NTP TIME SERVER

TIMENET Pro



CAMERA INSTALLATION TOOLS

POINTSOURCE PINPOINT



PRODUCT GUIDE

POWER SUPPLIES INJECTORS OUTSOURCE Series







### PRODUCT GUIDE

This Product Guide provides short-form information on all Veracity IP Transmission Products and is intended as a useful product comparison and product overview.

A full datasheet for each product is available on the Veracity website www.veracityglobal.com

Each product has an example application diagram which illustrates how the product might be connected. Further application diagrams can be found in the datasheets and on the website.

POE (Power Over Ethernet) is a core feature of most modern IP installations, so we have provided a useful reference table on page 4 which shows the POE Classes, IEEE standard, the power levels at the PSE (Power Sourcing Equipment) and the maximum power which can be delivered at the PD (Powered Device).

For more information of POE and how it works, please visit our website. Use the Power Sources key on page 2, to know which sources can be used with each product, as indicated throughout the guide.

# veracity

# POE REFERENCE TABLE

POE CLASS	IEEE STANDARD	POE POWER AT PSE	POE POWER AT PD
0	802.3af	15.4W	12.95W
1	802.3af	4W	3.84W
2	802.3af	7W	6.49W
3	802.3af	15.4W	12.95W
4	802.3at	30W	25.5W
5	802.3bt	45W	40W
6	802.3bt	60W	51W
7	802.3bt	75W	62W
8	802.3bt	90W	71.3W
PSE = Power Sourcing Equipment PD = Powered Device			

**PSE** = Power Sourcing Equipment **PD** = Powered Device



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#### 1 PORT ETHERNET OVER COAX

HIGHWIRE®



PRODUCT CODE VHW-HW

#### **HIGHWIRE**

- Upgrade analogue to IP cameras no recabling.
- Uses legacy coaxial cabling.
- Supports HD and 4K IP cameras.
- Fully transparent full-duplex 100Base-TX.
- Easy to install no IP address or other setup.
- 500m on RG11 or up to 300m on RG59.
- 12-40V DC or 24V AC power input.
- Non-POE, local power required at camera.

  Device Size L:104mm, W:54mm, H:24mm

#### COAX TO 500M | ETHERNET OVER COAX



POWER SOURCES

#### 1 PORT POE OVER COAX

(BASE + CAMERA)

HIG**HW**IRE® POWERSTAR



PRODUCT CODES

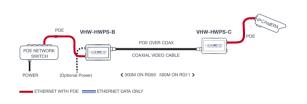
Base Camera VHW-HWPS-B VHW-HWPS-C

#### **HIGHWIRE POWERSTAR**

- Upgrade analogue to IP cameras no recabling.
- I Same as HIGHWIRE with POE over coax.
- POE switch powers HIGHWIRE Base device, HIGHWIRE Camera device and IP Camera.
- For maximum range and power Veracity's 57V DC PSU can be used as an alternative to POE in.
- Up to 25W POE to IP camera with 57V DC PSU.
- SAFEVIEW™ Instant LED status confirmation.

Device Size L:104mm W:54mm H:24mm

#### COAX TO 500M | ETHERNET & POE OVER COAX



POWER SOURCE OR POE POWERED

#### 2 PORT POE OVER COAX (CAMERA)

HIG**HW**IRE® POWERSTAR DUO



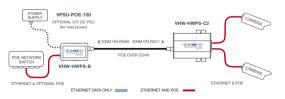
PRODUCT CODE VHW-HWPS-C2

#### **HIGHWIRE POWERSTAR DUO**

- Replace 1 analogue camera with 2 IP cameras without the need to recable.
- Combines standard HIGHWIRE with two-port POE network switch.
- No configuration is required.
- Pairs with HIGHWIRE Powerstar Base device.
- POE switch can power Base, Duo & IP cameras.
- SAFEVIEW™ Instant LED status confirmation.

  Device Size L:132mm W:75mm H:22mm

#### ${\bf COAX\ TO\ 500M\ }\mid$ ETHERNET & POE OVER COAX



POWER SOURCES OR POE POWERED

6

#### 4 PORT POE OVER COAX (CAMERA)

HIG**HW**IRE® POWERSTAR QUAD

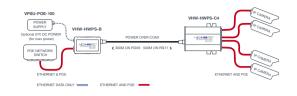
PRODUCT CODE VHW-HWPS-C4

#### **HIGHWIRE POWERSTAR QUAD**

- Replace 1 analogue camera with up to 4 IP cameras without recabling.
- Supports up to 4 HD IP cameras over one coax link.
- Pairs with HIGHWIRE Powerstar Base device.
- POE switch can power Base. Quad & IP cameras.
- I SAFEVIEW™ Instant LED status confirmation.
- No configuration required.

  Device Size L:132mm, W:75mm, H:22mm.

#### COAX TO 500M | ETHERNET & POE OVER COAX



POWER SOURCES



OR POE POWERED

#### 4 PORT POE OVER COAX (BASE)

HIG**HW**IRE® POWERSTAR BASE 4



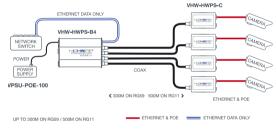
PRODUCT CODE VHW-HWPS-B4

#### **HIGHWIRE POWERSTAR BASE 4**

- Replaces typical 4 channel analogue video encoders to enable the installation of replacement IP cameras over existing coax.
- Ethernet and POE over coax.
- Reuses existing coax.
- Fully automatic configuration.
- Gigabit Ethernet network uplink SFP port for optional fibre uplink.

Device Size L:173mm W:110mm H:22mm

#### COAX TO 500M | ETHERNET & POE OVER COAX



POWER SOURCES • • • •

#### 8 PORT POE OVER COAX (BASE)

HIG**HW**IRE® POWERSTAR BASE 8



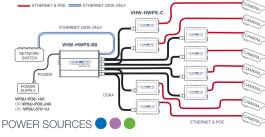
PRODUCT CODE VHW-HWPS-B8

#### **HIGHWIRE POWERSTAR BASE 8**

- 8 channels per Base device, up to 32Ch in 1U.
- Full duplex 100Base-TX on each coax link.
- Gigabit uplink port fibre option via SFP socket.
- Only 1 main switch port needed per 8 channels.
- POE or POE Plus per channel, on all channels.
- Up to 300m on RG59, 500m on RG11.
- Automatic configuration for simple installation.

Device Size L:173mm W:110mm H:40mm

#### COAX TO 500M | ETHERNET & POE OVER COAX



#### 4 PORT POE OVER COAX (BASE)

HIG**HW**IRE® POWERSTAR BASE 4 LINKLOCK



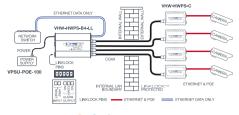
PRODUCT CODE VHW-HWPS-B4-LL

#### HIGHWIRE POWERSTAR BASE 4 LINKLOCK

- Tamper-proof Ethernet and POE over coax.
- Relay contact alarm output on tamper, with reset pins.
- Interference with cable shuts channel immediately.
- Reuses existing coax cabling.
- Fully automatic configuration. Simple installation.
- Gigabit Ethernet network uplink SFP port for optional fibre uplink.

Device Size L:173mm W:110mm H:22mm

#### COAX TO 500M | TAMPER-PROOF POE OVER COAX



8 PORT POE OVER COAX (BASE)

HIG**HW**IRE® POWERSTAR BASE 8 LINKLOCK



PRODUCT CODE VHW-HWPS-B8-LL

#### HIGHWIRE POWERSTAR BASE 8 LINKLOCK

- I Tamper-proof Ethernet and POE over coax.
- Eight Tamper-proof channels per Base device.
- Relay contact alarm output on tamper, with reset pins.
- Interference with cable shuts channel.
- Gigabit uplink port fibre option via SFP socket.
- Fully automatic configuration. Simple installation.
- Full-duplex 100Base-TX on each coax.

Device Size L:173mm W:110mm H:40mm

#### COAX TO 500M | TAMPER-PROOF POE OVER COAX



POWER SOURCES | | | |

#### 1 PORT LONG RANGE POE OVER COAX (BASE & CAMERA)

HIG**HW**IRE® LONGSTAR

PRODUCT CODES

Base Camera VLS-1P-BC VLS-1P-CC

#### **HIGHWIRE LONGSTAR**

- Long range Ethernet and POE over coax cable.
- Fully automatic. Simple installation.
- Unrestricted 100Base-TX and POE over 1400m (4,600ft) on RG11.
- Ruggedised, extreme temperature range.
- BS EN 50121-4 compliant (rail and metro).
- Note: LONGSTAR is not compatible with the HIGHWIRE Powerstar range.

Device Size L:115mm W:55mm H:27mm

#### CAT5/6 | 100BASE-TX TO 1400M | LAN & POE



POWER SOURCES ON POE POWERED

8

# 1 PORT LONG RANGE ETHERNET OVER COAX

HIG**HW**IRE® LONGSTAR LITE



PRODUCT CODE

VLS-1N-LC (Non-POE)

#### HIGHWIRE LONGSTAR LITE

- Long range Ethernet over coax cable.
- Fully automatic. Simple installation. Requires pair.
- Unrestricted 100Base-TX over 1400m (4,600ft) on RG11.
- | Ruggedised, extreme temperature range.
- BS EN 50121-4 (rail and metro compliant).
- Up to 4.2km (2.5 miles) data-only link at 10Base-T.

Device Size L:115mm W:55mm H:27mm

#### CAT5e/6 | 100BASE-TX TO 1400M | LAN



POWER SOURCES

#### 4 PORT POE OVER COAX BUNDLE

HIG**HW**IRE® ENCODER REPLACEMENT KIT



PRODUCT CODES

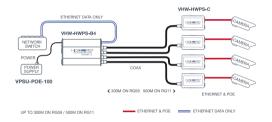
VHW-HWPS-ERK4-UK or EU or US

#### HIGHWIRE ENCODER REPLACEMENT KIT

- | Kit comes with HIGHWIRE Base 4, four HIGHWIRE Powerstar (camera) devices and a 1500mA 57V Power Supply and Power Cord.
- Fully automatic configuration.
- Replaces typical 4 channel analogue video encoders to enable the installation of replacement IP cameras over existing coax.
- Ethernet and POE over coax.

Base Device Size L:173mm W:110mm H:22mm

#### COAX TO 500M | ETHERNET OVER COAX



POWER SOURCE | • 57V 1500mA INCLUDED IN BUNDLE

# 1 PORT COMPACT POE OVER COAX (CAMERA)



#### **HIGHWIRE BACKBOX**

- Upgrade analogue to IP cameras no re-cabling.
- Compact device for inside cameras housings.
- Flexible leads easy connection in small space.
- Reliably power POE Plus cameras up to 25W.
- SAFEVIEW™ checks connection + power status.
- Compatible with VHW-HWPS Base devices.
- Full 100Base-TX Ethernet performance. Device Size L:84mm W:62mm H:23mm Lead Length: 150mm

#### COAX TO 500M | ETHERNET OVER COAX



POWER SOURCE | POE POWERED

#### 1 PORT ETHERNET & POE EXTENDER



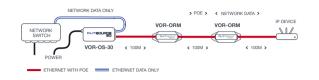
PRODUCT CODE VOR-ORM

#### **OUTREACH MAX**

- Extends Cat5e/6 Ethernet by 100 metres.
- Powered by POE.
- Daisy-chain devices for multiples of 100 metres.
- Easy to install, no set-up required.
- POE compatible. (802.3af, 802.3at, 802.3bt).
- Handles up to 90W high power.
- | Full POE delivery at 200/300m (1device/2devices).

Device Size L:105mm W:40mm H:22mm

#### CAT5e/6 | 100M EXTENSION PER DEVICE | LAN & POE



POWER SOURCE | POE POWERED

#### 1 PORT ETHERNET EXTENDER





VOR-ORI

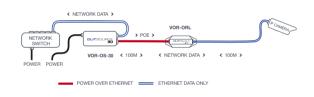
PRODUCT CODE

#### **OUTREACH LITE**

- Universal Ethernet network range extender.
- Double your network range without having to install switch power cables.
- POE powered. No local power required.
- Full unrestricted network bandwidth 10/100.
- LAN extender for non-POE devices.
- Integrated mounting holes.
- | Easy to install, no set-up required.

Device Size L:105mm W:40mm H:22mm

#### CAT5e/6 | 100M EXTENSION PER DEVICE | LAN



POWER SOURCE | POE POWERED

## 1 PORT GIGABIT ETHERNET & POE EXTENDER



PRODUCT CODE VOR-ORM-G

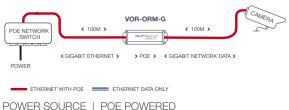
10

#### **OUTREACH MAX G**

- Instantly doubles Gigabit Ethernet range to 200m.
- Full unrestricted Gigabit Ethernet.
- I Powered by POE. No local power required.
- Easy to install, no set-up required.
- POE and POE Plus compliant (IEEE 802.3af and 802.3at and higher power 802.3bt).
- Extends POE and POE Plus up to 90W.
- Universal 10/100/1000 compatibility.

  Device Size L:119mm, W:36mm, H:24.5mm

#### CAT5e/6 | 100M EXTENSION PER DEVICE | LAN & POE



POWER SOURCE | PUE POWEREL

#### 1 PORT GIGABIT ETHERNET EXTENDER





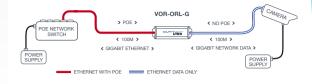
PRODUCT CODE VOR-ORL-G

#### **OUTREACH LITE G**

- Instantly doubles Gigabit Ethernet range to 200m.
- Full unrestricted Gigabit Ethernet.
- No local power required. POE powered.
- Can be daisy-chained for distances further than 200m.
- I LAN extender for non-POE devices.
- Universal 10/100/1000 compatibility.
- Easy to install, no set-up. Auto configuring.

  Device Size L:119mm W:36mm H:24.5mm

#### CAT5e/6 | 100M EXTENSION PER DEVICE | LAN



POWER SOURCE | POE POWERED

# 1 PORT EXTERIOR ETHERNET & POE EXTENDER



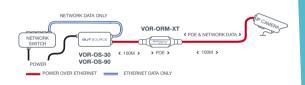
PRODUCT CODE VOR-ORM-XT

#### **OUTREACH MAX XT**

- External version of OUTREACH Max.
- Instantly doubles cable range to 200 metres.
- Tough IP66/67 Nema 4X/6P rated enclosure for external installation. Easy to fit cable seals.
- Rated -40°C to 70°C for external use.
- Compatible with POE, POE Plus and custom POE to 90 watts.
- Powered by POE.

Device Size L:183mm W:50mm H:30mm

#### CAT5e/6 | 100M EXTENSION PER DEVICE | LAN & POE



POWER SOURCE | POE POWERED

## 1 PORT EXTERIOR ETHERNET EXTENDER



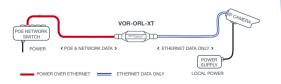
PRODUCT CODES VOR-ORL-XT

#### **OUTREACH LITE XT**

- External version of OUTREACH Lite.
- Instantly doubles cable range to 200 metres.
- Tough IP66/67 Nema 4X/6P rated enclosure for external installation. Easy to fit cable seals.
- Rated -40°C to 70°C for external use.
- Extends LAN to non-POE devices.
- POE powered, but does not forward POE.

Device Size L:183mm W:50mm H:30mm

#### CAT5e/6 | 100M EXTENSION PER DEVICE | LAN



POWER SOURCE | POE POWERED

### 1 PORT EXTERIOR GIGABIT & POE EXTENDER



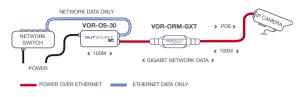
PRODUCT CODE VOR-ORM-GXT

#### **OUTREACH MAX GXT**

- External Gigabit version of OUTREACH Max.
- Instantly doubles cable range to 200 metres.
- Unrestricted 10Base-T, 100Base-TX,1000Base-T.
- Tough IP66/67 Nema 4X/6P rated enclosure for external installation. Easy to fit cable seals.
- Rated -40°C to 70°C for external use.
- Compatible with POE, POE Plus and custom POE to 90 watts.

Device Size L:183mm W:50mm H:30mm

#### CAT5e/6 | 100M EXTENSION PER DEVICE | LAN & POE



POWER SOURCE | POE POWERED

# 1 PORT EXTERIOR GIGABIT ETHERNET EXTENDER

#### OUTREACH® LITEGXT



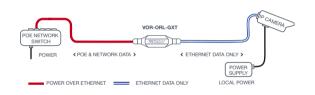
PRODUCT CODE VOR-ORL-GXT

#### **OUTREACH LITE GXT**

- | External Gigabit version of OUTREACH Lite.
- Instantly doubles cable range to 200 metres.
- Tough IP66/67 Nema 4X/6P rated enclosure for external installation. Easy to fit cable seals.
- Rated -40°C to 70°C for external use.
- Extends Gigabit LAN to non-POE devices.
- POE powered, but does not forward POE.

Device Size L:183mm W:50mm H:30mm

#### CAT5e/6 | 100M EXTENSION PER DEVICE | LAN



POWER SOURCE | POE POWERED

#### **POE SPLITTER**

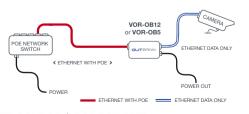


PRODUCT CODES VOR-OB5
VOR-OB12

#### **OUTBREAK**

- POE splitter with 5V or 12V DC output.
- Splits a POE connection into data-only Ethernet and separate 5V or 12V DC connection.
- Powers non-POE devices over a POE network.
- Useful for access control, alarm interfaces, sensors, etc.
- | IEEE 802.3af compliant, with 10W output. Device Size L:124mm W:55mm H:30mm Plus Flying DC Lead 150mm

#### CAT5e/6 | POE TO DC SPLITTER



POWER SOURCE | POE POWERED

#### 1 PORT LONG RANGE ETHERNET & POE



Base VLS-1P-B
Camera VLS-1P-C

#### OE LONGSPAN

- Long range, ruggedised, point-to-point Ethernet over Cat5e/Cat6 adaptor.
- Unrestricted 100Base-TX with POE.
- Smart power and diagnostic display for reliable and quick installation.
- 600m on Cat6 @100Mbit/s full 25W POE Plus.
- 820m on Cat6 @100Mbit/s -15W POE delivery.
- BS EN 50121-4 (rail and metro compliant).

  Device Size L:120mm W:36mm H:23mm

#### ETHERNET TO 820M | ETHERNET WITH POE



POWER SOURCES • OR POE POWERED

#### 1 PORT LONG RANGE ETHERNET

#### LONGSPAN® LITE



PRODUCT CODE VLS-1N-L

#### LONGSPAN LITE

- Same features as LONGSPAN without POE transmission.
- Long range, ruggedised point-to-point Ethernet over Cat5e/Cat6 adaptor.
- Back-to-back pairs of LONGSPAN devices can be used to increase the maximum distance.
- High performance over extreme temperatures.
- Fully automatic, easy to install, maintenance-free.

Device Size L:120mm W:36mm H:23mm

#### ETHERNET TO 820M | ETHERNET DATA ONLY



POWER SOURCES

#### 8 PORT HI-POE ETHERNET (BASE)



PRODUCT CODE VLS-LS-B8

#### **LONGSPAN BASE 8**

- | Eight-channel LONGSPAN Base rack-mountable device (32ch in 1U).
- Four x 70W ports plus four x 30W ports.
- Long range 100-Base-TX Ethernet with POE to 820 metres.
- Integrated network switch saves on main switch ports.
- Gigabit uplink port plus SFP socket for fibre option.

  Device Size L:154mm W:110mm H:40mm

# ETHERNET TO 820M | ETHERNET INC. HI-POE (BOM ON COTE) (BOM ON COTE)



1 PORT 90W LONG RANGE ETHERNET (BASE)

LONGSPAN® MAX

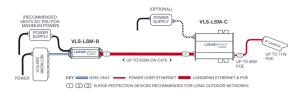
PRODUCT CODE VLS-LSM-B

#### LONGSPAN MAX - BASE

- LONGSPAN enhanced with 90W POE (802.3bt).
- Long range point-to-point Ethernet over Cat5e or Cat6 cable.
- Unrestricted 100Base-TX with POE over 820m.
- Can deliver 60W at 200m, 40W at 350m.
- Ruggedised high performance over wide temperature range.
- Smart POE power, diagnostic display.

  Device Size L:120mm W:36mm H:23mm

#### ETHERNET TO 820M | ETHERNET WITH 90W POE



POWER SOURCES •• • • OR POE POWERED

### 1 PORT 90W LONG RANGE ETHERNET (CAMERA)

LONGSPAN®



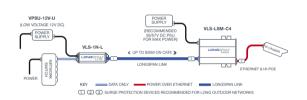
PRODUCT CODE VLS-LSM-C

#### LONGSPAN MAX - CAMERA

- LONGSPAN enhanced with 90W POE (802.3bt).
- Long range point-to-point Ethernet over Cat5e or Cat6 cable.
- Unrestricted 100Base-TX with POE over 820m.
- Can deliver 60W at 200m, 40W at 350m.
- Ruggedised high performance over wide temperature range.
- Smart POE power, diagnostic display.
- Fully automatic, simple to install, maintenance-free.

  Device Size L:113mm W:75mm H:22mm

#### ETHERNET TO 820M | ETHERNET WITH 90W POE



POWER SOURCES OR POE POWERED

# 4 PORT 90W LONG RANGE ETHERNET (QUAD CAMERA)

LONGSPAN® MAX QUAD



PRODUCT CODE VLS-LSM-C4

#### **LONGSPAN MAX QUAD - CAMERA**

- | Quad LONGSPAN device with 802.3bt POE.
- Long range point-to-point Ethernet over Cat5e or Cat6 cable.
- Unrestricted 100Base-TX with POE at over 820m.
- Delivers power for 4 x 13W IP cameras up to 330m from Base device.
- With local power, can deliver POE for 4 x 71W IP cameras at 820 metres.

Device Size L:113mm W:75mm H:22mm

#### ETHERNET TO 820M | ETHERNET WITH 90W POE



POWER SOURCES • • • • OR POE POWERED

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#### 90W LONG RANGE ETHERNET

#### LONGSPAN® $X\Delta N$

The LONGSPAN Max variants are high power versions of the LONGSPAN family, with the same extreme 820m network data range. The Max devices are IEEE 802.3bt compliant, which is the highest POE power standard of 90W.

Please see the POE Reference Table on Page 4. POF levels are set for the standard Ethernet distance of 90m.

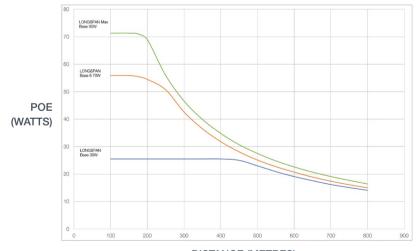
Veracity products such as OUTREACH and LONGSPAN overcome distance limitations. but are still subject to normal power losses in the cabling.

While LONGSPAN Max can output 90W, the POE delivered to the PD drops quickly with distance, as shown in the comparison graph. LONGSPAN (30W) and LONGSPAN Base 8

Hi-Power (70W). Note: At 450m - 500m, the power curves converge and so the higher power delivery advantage of LONGSPAN Max is minimised at longer distances.

For maximum power delivery at very long distances, a local PSU for LONGSPAN Max or Max Quad at the camera end is recommended. See product datasheets for full and detailed information.

#### LONGSPAN MAX POE V DISTANCE GRAPH



#### **LONGSPAN Max POE Range Table**

POE DEVICE POWER	Cat6	Cat5e
71 WATTS	180m (590ft)	140m (459ft)
62 WATTS	200m (656ft)	155m (508ft)
51 WATTS	250m (825ft)	200m (656ft)
40 WATTS	350m (1,148ft)	280m (919ft)
25 WATTS	570m (1,870ft)	450m (1,476ft)

#### **DISTANCE (METRES)**

#### POWER SUPPLY KEY

POWER SOURCES

57V 800mA

57V 1500mA

57V 100W POE

56V 240W POF

57V 1U RACK 8800mA

12V UNIVERSAL PSU

24V RMPSU

#### 1 PORT ETHERNET - FIBRE MEDIA CONVERTER

LIGHTSPAN™ SC100



PRODUCT CODE VLT-SC100

#### **LIGHTSPAN SC100**

- Long distance, up to 2000m on Fibre.
- Slimline, ruggedised 100Base-FX media converter.
- Fast Ethernet speeds with fibre SC connection.
- Railway EMC compliance for harsh environments with extended temperature range.
- | Fully automatic, easy to install, maintenance-free.
- Versatile power input supports legacy 12V DC / 24V AC supplies.

Device Size L:123mm (inc brackets) W:36mm H:23mm

#### FIBRE | 100BASE-FX AT 2000M



POWER SOURCES

#### NTP MASTER TIME SERVER

#### TIME**N**ET® PRO



PRODUCT CODE V

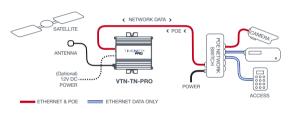
VTN-TN-PRO

#### TIMENET PRO

- Accurate time for network device synchronisation.
- Master Network Time Protocol (NTP) clock.
- Worldwide GPS-based time reference.
- Supports Windows, Linux, macOS and most embedded systems.
- Avoids use of internet time network ports.
- Compact, wall mountable.
- Simple browser interface.
- Also perfect for mobile/vehicle applications.

  Device Size L:87mm W:75mm H:22mm

#### NTP GPS | MASTER NTP TIME SERVER



POWER SOURCE OR POE POWERED

#### TIME SERVER CABLE EXTENSION

#### TIME**N**ET® PRO EXTEND



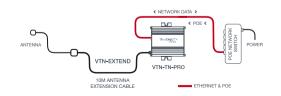
PRODUCT CODE VTN-EXTEND

#### TIMENET PRO GPS EXTENSION CABLE

- 10m extension cable for GPS antenna connection for TIMENET Pro.
- Adds 10m to standard 5m cable on GPS antenna.
- Up to 25m using two extension cables.
- TIMENET Pro (above) includes GPS antenna.
- Enables additional flexibility in siting TIMENET Pro.

Device Size L:10000mm

#### NTP GPS | ANTENNA EXTENSION CABLE



#### THE IMPORTANCE OF ACCURATE TIME

# Time Synchronisation and NTP explained

"All CCTV and video management system installations require accurate reference time signals for synchronisation of system clocks to ensure that they are always set at precisely the correct time and recorded evidence is accurately time-stamped"

Video surveillance systems can ultimately prove what happened, where it happened, exactly when it happened, and nowadays is usually able to provide information to help identify the persons and/or vehicles involved. Thus such recordings must be evidentially robust. The requirements for evidentially robust recordings include verifiable time stamps. However, sometimes even the most sophisticated, high-end CCTV and VMS installations can be let down by something as simple as having the clocks set at the incorrect time. All VMS systems run on NVRs or servers with internal clocks which drift out of sync over time. It is also a fact that the evidential value of CCTV recordings is severely reduced if the recorded time stamps are not correct.

The traditional solution to providing an accurate reference time has been to use an atomic clock radio receiver or GPS sensor linked to an expensive rack-mounted master clock server, separately powered and

sometimes only with a serial output to a separate server for NTP transmission. Consequently smaller VMS installations tend not to have a reference time server at all or are insecurely linked to the internet to get a time signal, leaving the systems open to cyberattack.

TIMENET Pro integrates the GPS receiver and master NTP time server into a single POE-powered cyber-secure device which is directly connected to the network and can be used as a closed system. TIMENET Pro is extremely compact, can be wall-mounted, uses very little power, is very reliable over many years and is less than half the cost of competing solutions.

#### **About NTP**

NTP stands for Network Time Protocol and is a universal standard for time synchronisation of computers or other devices on a network. TIMENET Pro is NTP-compatible and acts as a time server for any NTP-enabled client.

#### **About UTC Time**

Universal co-ordinated time is an official worldwide atomic clock standard for time, agreed by national standards around the world.

#### **About GPS**

GPS is a global satellite system used primarily for position location, using very accurate atomic clock references. GPS signals are far less prone to interference than traditional national radio clock signals. Thus TIMENET Pro is a universal solution which can be used anywhere in the world.

#### **About Time Zone**

UTC is effectively a GMT reference time and TIMENET Pro provides this via NTP as a universal reference. All data is recorded with a UTC time reference. It's the task of the network device (server or PC) to define the local time zone setting for the country or zone location, including local or national variations to daylight savings time or equivalent.

#### 4 + 1 PORTS POE PLUS **NETWORK SWITCH**

CAMSWITCH® 4 PLUS

PRODUCT CODE VCS-4P1

#### **CAMSWITCH 4 PLUS**

- POE powered network switch with POE+ out.
- Compact, rugged, versatile inc. wall brackets.
- 802.3af and 802.3at compliant output.
- 57V DC input option for maximum efficiency.
- 4 + 1 ports inc. 1 x POE input port (90W).
- 4 POE output ports, up to 30W per port.
- If locally powered (power budget up to 120W).
- Ideal for small IP camera installations. Device Size L:110mm W:64mm H:22mm

#### CAT5e/6 | ETHERNET & POE OUT



POWER SOURCES •••••

#### 4 + 1 PORTS 12V-24V POE PLUS **NETWORK SWITCH**



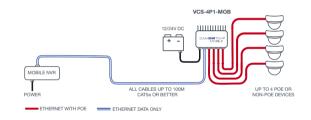
PRODUCT CODE VCS-4P1-MOB

#### **CAMSWITCH 4 MOBILE**

- Low voltage POE Plus switch for 12/24V applications.
- Install IP cameras, POE and network devices in transport, battery/solar powered, and other low voltage applications.
- 4+1, 10/100 Ethernet network switch with flexible 8.5V to 40V DC supply input (min start-up is 10.5V).
- 4 x POE+ 802.3af/at compliant output (POE power budget 80W).

Device Size L:110mm W:100mm H:40mm

#### CAT5e/6 | ETHERNET & POE OUT from 12/24V



POWER SOURCE | DC FROM VEHICLE

#### 8 + 2 PORTS 12V-24V POE PLUS **NETWORK SWITCH**

CAMSWITCH® 8 MOBILE



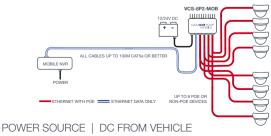
PRODUCT CODE VCS-8P2-MOB

#### **CAMSWITCH 8 MOBILE**

- Low voltage POE Plus switch for 12/24V applications.
- Install IP cameras, POE and network devices in transport, battery/solar powered, and other low voltage applications.
- 8 + 2 10/100 Ethernet network switch with flexible 8.5V to 40V DC supply input (min start-up is 10.5V).
- 8 x POE+ 802.3af/at compliant output (POE power budget 80W).

Device Size L:110mm W:100mm H:40mm

#### CAT5e/6 | ETHERNET & POE OUT from 12/24V



#### PORTABLE POE INSTALLATION TOOL

POINTSOURCE WIRELESS™



PRODUCT CODES VAD-PSW VAD-PS-BM

#### POINTSOURCE WIRELESS

- I Allows rapid adjustment, alignment, focus and field of view of IP camera, wirelessly on smart devices close to camera. Supports all classes of 802.3af and 802.3at POF devices.
- I Removable, rechargeable battery with sufficient power for a day's installation work.
- I Spare batteries available for rapid swap over.
- USB charging point for tablets/smartphones. Device Size L:205mm W:100mm H:150mm

BATTERY POWERED POF INJECTOR AND WAP



#### PORTABLE POE INSTALLATION TOOL

#### POINTSOURCE PIUS™



PRODUCT CODES VAD-PSP VAD-PS-BM

#### POINTSOURCE PLUS

- I Allows rapid adjustment, alignment, focus and field of view of IP camera, on devices close to camera.
- I Removable, rechargeable battery with sufficient power for a day's installation work.
- Portable POE source for field use.
- Locally view IP camera on your laptop.
- Tool for installation, testing, surveys, inspections.

Device Size L:205mm W:100mm H:150mm

#### BATTERY POWERED POE INJECTOR



POWER SOURCE | RECHARGEABLE BATTERY

#### WIRELESS INSTALLATION TOOL

#### PINIPOINITM WIRELESS

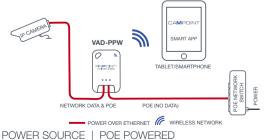


PRODUCT CODE

#### PINPOINT WIRELESS

- I Allows local viewing, with wireless link of IP camera images on smartphone, tablet or laptop close to camera.
- I Enables rapid, precise adjustment of lens focus and viewing angle.
- I Uses Power over Ethernet from the network no local power is required. Uses only 2W.
- Installs in seconds removes in seconds.
- CAMPOINT Installation App for iOS & Android. Device Size L:128mm W:82mm H:28mm

#### CAT5e/6 | WAP POWERED BY POE PASS THROUGH



#### CAMERA INSTALLATION TOOL

PINPOINTM



PRODUCT CODE VAD-PP

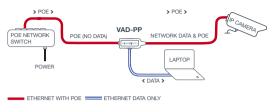
#### **PINPOINT**

- Allows local viewing of IP camera images on laptop close to camera.
- I Enables rapid, precise adjustment of lens focus and viewing angle. Low cost reuseable device.
- | Uses POE from network, no local power needed.
- Increases installation speed, less time on site.
- Installs in seconds removes in seconds.

  Device Size L:65mm W:32mm H:20mm

  Plus 1000mm Flying Lead

#### CAT5e/6 | POWERED BY POE PASS THROUGH



POWER SOURCE | POE POWERED

#### **POE INJECTOR**



PRODUCT CODE VOR-OS-30

#### **OUTSOURCE 30**

- Delivers enhanced 30W POE to all 802.3af, 802.3at standard POE and POE Plus devices.
- Gigabit Ethernet compatible and automatically detects compatible devices.
- Delivers reliable remote power to IP cameras and POE devices. 30W Power output.
- Safety assured, POE only enabled to compliant devices. Integrated overload protection.
- Compact, wall-mountable device.

  Device Size L:161mm W:52mm H:35mm

#### CAT5e/6 | 30W POE SOURCE MIDSPAN INJECTOR



POWER SOURCE | MAINS POWER

#### **POE INJECTOR**



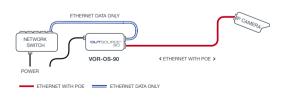
PRODUCT CODES VOR-OS-90

#### **OUTSOURCE 90**

- Delivers highest power allowed by the POE standard (802.3bt), used for external PTZ IP cameras and high power applications.
- 802.3bt compliant and GigE compatible 90W Power output.
- Safety assured as POE is only enabled to compliant devices. Integrated overload protection.
- Compact, wall-mountable device. Sealed, fanless design for reliability.

  Device Size L:167mm W:89mm H:44mm

#### CAT5e/6 | 90W POE SOURCE MIDSPAN INJECTOR



POWER SOURCE | MAINS POWER

#### **POWER SUPPLY FOR POE**

#### **57V 800MA** POWER SUPPLY



PRODUCT CODE VPSU-

VPSU-57V-800

#### 57V 800mA POWER SUPPLY

57V DC Power Supply, (40W total budget).

Input Connector, 2-PIN IEC320, C8 Type Accepts C7 Type "figure of 8" Power Cord).

Output Cable, 1.0m, stripped and tinned.

Needs 2-PIN Power Cord (C7) (buy separately).

(Power Cord supplied in USA).

Device Size L:114.5mm W:50mm H:30.5mm

#### 57V 800mA POWER SUPPLY CAN BE USED WITH:

HIGHWIRE Powerstar Base and Camera

HIGHWIRE Powerstar Base 4 and Base 4 Linklock

HIGHWIRE Powerstar Base 8 and Base 8 Linklock

HIGHWIRE Powerstar Duo and Quad

HIGHWIRE Longstar Base and Camera

LONGSPAN Base

CAMSWITCH 4 Plus

#### **POWER SUPPLY FOR POE**

# **57V 1500MA**POWER SUPPLY



PRODUCT CODE VPSU-57V-1500

#### 57V 1500mA POWER SUPPLY

57V DC Power Supply, (78W total budget).

Input Connector, 2-PIN IEC320, C8 Type (Accepts C7 Type "figure of 8" Power Cord).

Output Cable, 1.0m, stripped and tinned.

Needs 2-PIN Power Cord (C7) (buy separately).

(Power Cord supplied in USA).

#### 57V 1500mA POWER SUPPLY CAN BE USED WITH:

HIGHWIRE Powerstar Base 4 and Base 4 Linklock

HIGHWIRE Powerstar Base 8 and Base 8 Linklock

HIGHWIRE Powerstar Duo and Quad

HIGHWIRE Longstar Base and Camera

LONGSPAN Base 8

LONGSPAN Max Base and Camera

LONGSPAN Max Quad

CAMSWITCH 4 Plus

### POWER SUPPLY FOR POE

#### POE 100W POWER SUPPLY



PRODUCT CODE

VPSU-POE-100

#### 57V 100W POE POWER SUPPLY

100W PSU designed for POE applications.

Device Size L:143mm W:64mm H:36mm

57V DC, 1.75A output.

Wide voltage range input.

Short circuit protection.

Overcurrent and overvoltage protection.

Auto-reset on all fault conditions.

Compact and fanless for high reliability.

Wide operating temperature range.

Device Size L:150mm W:65mm H:35.5mm

#### 57V 100W POE POWER SUPPLY CAN BE USED WITH:

HIGHWIRE Powerstar Base 4 and Base 4 Linklock

HIGHWIRE Powerstar Base 8 and Base 8 Linklock

HIGHWIRE Powerstar Duo and Quad

LONGSPAN Base 8

LONGSPAN Max Base and Camera

LONGSPAN Max Quad

CAMSWITCH 4 Plus

#### **POWER SUPPLY FOR POE**

#### POE 240W POWER SUPPLY



PRODUCT CODE VPSU-POE-240

#### 56V 240W POE POWER SUPPLY

- 240W PSU designed for HI-POE applications.
- 56V DC, 4.48A output.
- Wide voltage range input.
- Short circuit protection.
- Overcurrent and overvoltage protection.
- Auto-reset on all fault conditions.
- Compact and fanless for high reliability.
- Wide operating temperature range.

  Device Size L:150mm W:65mm H:35.5mm

#### 56V 240W POE POWER SUPPLY CAN BE USED WITH:

- HIGHWIRE Powerstar Base 8
- HIGHWIRE Powerstar Base 8 Linklock
- LONGSPAN Base 8
- LONGSPAN Max Quad
- CAMSWITCH 4 Plus

#### **1U RACKMOUNT POWER SUPPLY**

#### 1U **RACK**MOUNT POWER SUPPLY



PRODUCT CODES VPSU-57V-1U-UK
VPSU-57V-1U-US
VPSU-57V-1U-EU

#### ● 57V 1U RACK 8800mA POWER SUPPLY

- Rackmount POE power source in 1U format.
- Mounts with Base devices in 1U for max density, includes microfit cables to Base devices.
- Maximum 57V POE voltage for optimum power and distance.
- Integrated overload protection, UL certification.
- Dual devices can provide fully redundant power.
- Supplied with UK, EU or US 3-PIN Power Cord.

Device Size L:442mm W:130mm H:44.5mm

#### 57V 1U RACK 8800mA POWER SUPPLY CAN BE USED WITH:

- HIGHWIRE Powerstar Base (multiple)
  - HIGHWIRE Powerstar Base 8
- HIGHWIRE Powerstar Base 8 Linklock
- HIGHWIRE Longstar Base (multiple)
- LONGSPAN Base (multiple)
- LONGSPAN Base 8
- LONGSPAN Max Base (multiple)

#### **UNIVERSAL POWER SUPPLY**

#### 12V UNIVERSAL POWER SUPPLY



PRODUCT CODE VPSU-12V-U

#### 12V DC UNIVERSAL POWER SUPPLY

- 12V DC plug (Universal) PSU for HIGHWIRE, LONGSPAN Lite & HIGHWIRE Longstar Lite.
- Output Cable, 1.0m, stripped and tinned.
- Adaptors for UK, EU and USA can be fitted to main power device.
- Photo shows each country adapter connected, to the main device. Box contains one main device and 3 country specific adaptors.

  Device Size L:90mm W:42mm H:35mm

#### 12V UNIVERSAL POWER SUPPLY CAN BE USED WITH:

- HIGHWIRE
- HIGHWIRE Longstar Lite
- LONGSPAN Lite
- LIGHTSPAN SC100

#### VHW RMPSU POWER SUPPLY



PRODUCT CODE VHW-RMPSU

#### VHW RMPSU 24V POWER SUPPLY

- 24V DC Power Supply.
- Comes with 8-Way linking cable. (for 8x HIGHWIRE, LONGSPAN Lite and HIGHWIRE Longstar Lite devices).
- Needs a 2-PIN Power Cord (C7) (please purchase the Power Cord separately).
- | (Power Cord supplied in USA).

  Device Size L:114mm W:53mm H:38mm

#### VHW RMPSU POWER SUPPLY CAN BE USED WITH:

- HIGHWIRE
- HIGHWIRE Longstar Lite
- LONGSPAN Lite
- LIGHTSPAN SC100

#### **ACCESSORIES**

#### RMPSU-4W RMPSU-8W LINKING CABLE



PRODUCT CODES RMPSU-4W, RMPSU-8W

#### **4W LINKING CABLE**

- 4-Way linking cable for use with VPSU-57V-1500 to allow up to 4 devices to be powered from one Power Supply.
- Can be used with the 1U Rackmount Power Supply to power multiple single channel base devices - HIGHWIRE Powerstar, HIGHWIRE Longstar, LONGSPAN and LONGSPAN Max.

Device Size L:100mm From Microfit to Phoenix

#### **8W LINKING CABLE**

- 8-Way linking cable for use with VPSU-57V-1500 to allow up to 8 devices to be powered from one Power Supply.
- Can be used with the 1U Rackmount Power Supply to power multiple single channel base devices - HIGHWIRE Powerstar, HIGHWIRE Longstar, LONGSPAN and LONGSPAN Max.

Device Size L:100mm From Microfit to Phoenix

#### 2-PIN POWER CORDS

#### **2 PIN** POWER CORDS



PRODUCT CODES

2-PIN-UK, 2-PIN-US, 2-PIN-EU

#### POWER CORDS

- 2-PIN C7 Power Cord with UK, US, or EU connector, (1.8 metre Cord).
- Moulded Power Cord to meet all safety standards.

THE 2-PIN POWER CORDS CAN BE USED WITH:

- VHW-RMPSU POWER SUPPLY
- 57V 800mA POWER SUPPLY
- 57V 1500mA POWER SUPPLY

Device Size L:1800mm Note: 800mA, 1500mA - Power Cord is supplied in the USA



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