

## PRODUCT DIMENSIONS

## MOUNTING

## POWER RANGE

## POE OVER COAX DEVICE

### This device complies with Part 15 of the FCC Rules.

Operation is subject to the following two conditions:  
 (1) this device may not cause harmful interference, and  
 (2) this device must accept any interference received,  
 including interference that may cause undesired operation.

*NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at their own expense.*

### Surge Protection

All Veracity products have been independently tested to verify their resilience to the stringent immunity levels of international standards. Users should note that no electronic equipment can be guaranteed to be completely protected at levels beyond the defined standard; therefore product warranty cannot include damage to products which has been caused by surges exceeding those of the standards specified, for example lightning strike activity.

It is the user's responsibility to implement relevant surge protection measures, as appropriate to the installation. This may include the fitting of additional surge protection devices where required.

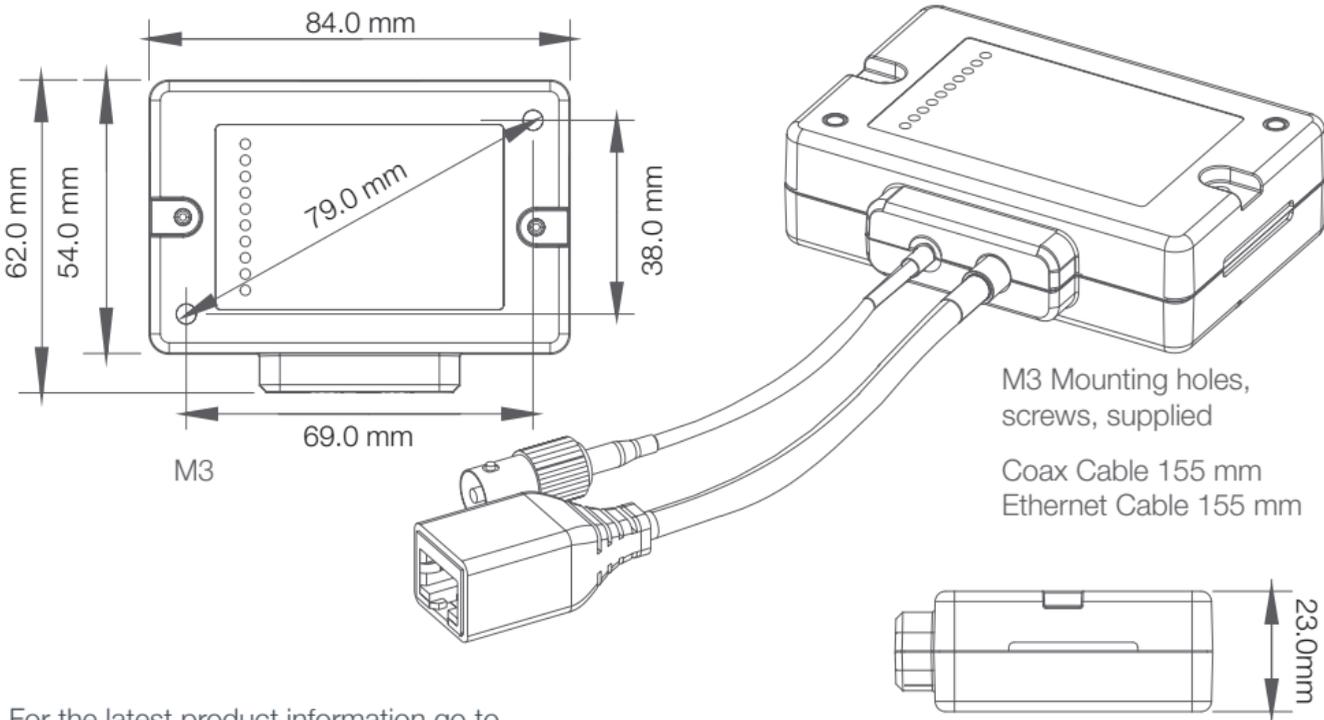
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VHW-HWPS-CBB

## QUICKSTART GUIDE

COMPACT ETHERNET OVER COAX  
**HIGHWIRE®**  
 POWERSTAR  
 BACKBOX



For typical copper-core video coax, a full-rate network connection can be established over:

RG59 24AWG	max	300m [1000ft]
RG11 14AWG	max	500m [1600ft]

POE power availability at full range depends on the power source connected to the BASE device:

POE switch	max	12 watts
POE Plus switch	max	20 watts
57V power supply	max	25 watts

See HIGHWIRE Powerstar Backbox datasheet for other cable types, distances & power levels.

HIGHWIRE Powerstar's power delivery is exceptionally efficient over low-quality cable, but range can still be restricted by light-gauge or steel-core Coax cable types that are often found in legacy installations.

Available power is specific to the cable length, type, and power source used, and is calculated automatically on connection.

HIGHWIRE Powerstar devices provide full-duplex 100Base-TX connections across a whole range of coaxial cable types.

POE over Coax™ is enabled automatically between Base and Backbox devices. Maximum range and power are listed in this guide.

Network communication over coax is also established automatically. The HIGHWIRE connection is unrestricted and transparent to all Ethernet network traffic.

HIGHWIRE Powerstar is not compatible with legacy equipment eg. analogue video amplifiers.

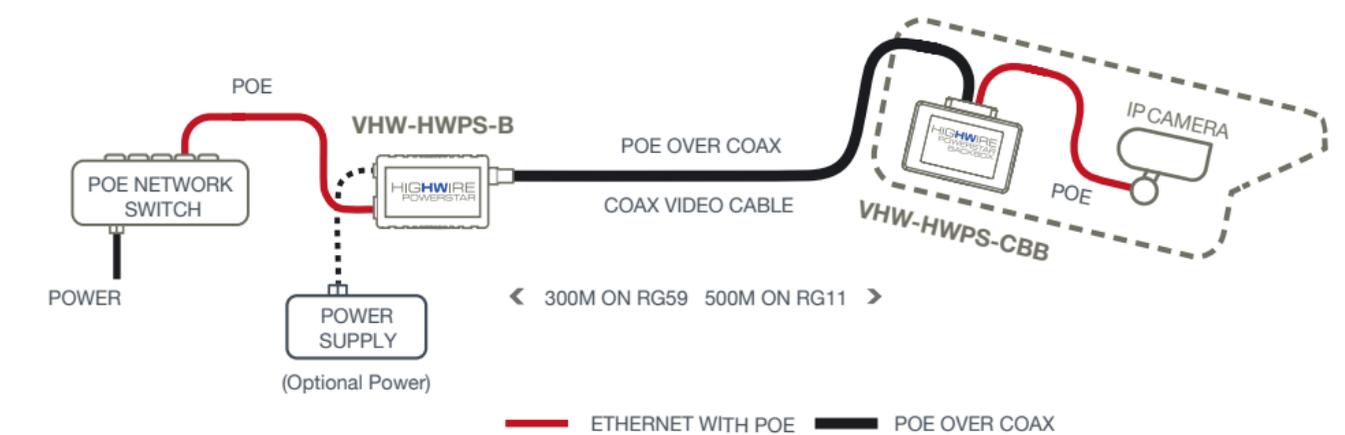
Auto-crossover means either patch or crossover cables can be used, up to 100m [328ft] Cat5e/Cat6 at either/both ends.



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 HIGHWIRE Powerstar Backbox is a trademark of Veracity UK Ltd.

For the latest product information go to  
[www.veracityglobal.com](http://www.veracityglobal.com)

## APPLICATION DIAGRAM POE OVER COAX



- Connect the Ethernet cable on the HIGHWIRE Powerstar Backbox to the camera or device.
  - Connect the BNC on the HIGHWIRE Powerstar Backbox to the BNC on the coax cable at the camera end.
  - Connect the BNC on the HIGHWIRE Powerstar Base device to the BNC on the coax cable at the network switch end.
  - Connect the HIGHWIRE Powerstar Base device to a POE network switch. OR use an external Veracity power supply (see next step below).
  - For maximum POE power delivery connect the HIGHWIRE Powerstar Base device to a Veracity 57V Power Supply then connect the HIGHWIRE to the network switch.
- The installation is complete.

## SAFEVIEW™ LED DISPLAY

To eliminate any risk, always check the SAFEVIEW™ power gauge on installation.

LED	FUNCTION	GREEN ● Normal Operation	ORANGE ● Warning	RED ● Warning
<b>COAX LINK</b>	Coax data connection	Off = No power Blink = HIGHWIRE not detected On = 100Mbps established	On = Loss of data Data rate < 100%	On = Severe loss of data. May be seen when coax connection is at limit of power and range. Consider reducing the cable distance or try replacing the BNCs
<b>ETHERNET LINK/ACTIVITY</b>	Base side network connection	Off = No Link Blink = Activity On = Link	n/a	On = 10Base-T (insufficient) HIGHWIRE must be connected to 100Base-TX (full-duplex) compatible equipment for effective operation
<b>POE OVER COAX (POC)</b>	POE over coax status	Off = HIGHWIRE Powerstar not detected On = POE over coax enabled	n/a	1 Blink = Low voltage. Check power supply type/polarity 2 Blinks = Short circuit. Check for cable faults Remove legacy equipment 3 Blinks = Power disconnected due to overload
<b>POE TO CAMERA</b>	Total camera power budget	Off = No POE compliant device On = POE enabled to IP camera	On = Low voltage, POE device may not function	Blink = Low voltage, POE not available On = POE disconnected due to overload
<b>POE POWER BUDGET TO CAMERA (W)</b>	Maximum POE power available for camera	On = Maximum POE power from 5 to 25 watts that can be reliably delivered Blink = < 5W POE available	Flashing = Approaching power limit	Flashing = Power limit reached

## SAFEVIEW™

- A brief check of the SAFEVIEW™ display lets you confirm the status of all connections, including those at the far end of the cable.
- This displays the power available for the camera, measured for the actual cable length, type and power source used. If any LED does not light green as expected, please refer to the SAFEVIEW LED Display table.
- If installing a PTZ camera, or any device whose power requirement can change, these LEDs can be checked while the device is drawing peak power, eg. while the PTZ camera is moving.
- The Camera device will only deliver POE if connected to a compatible IP camera or other POE-powered device.
- All HIGHWIRE Powerstar devices are compatible with standard POE (IEEE 802.3af), and POE Plus (802.3at), up to 25W.
- Grounding of the coax cable at the BNC is not required for operation.