# AMG INDUSTRIAL HARDENED UNMANAGED SWITCHES WITH 90W POE



# Ruggedised Industrial Ethernet Solutions

Available with 4 and 8 Ethernet ports, AMG's Unmanaged switches provide a 100Mbps or Gigabit Ethernet uplink across Multimode or Single-mode fibre via the SFP port.













[AMG9HMU-8G4H4N-2S-P480]

#### / OVERVIEW

Every port can automatically sense your type of cable so there is no need for crossover cables whether you are connecting the switch to another switch or a computer and can also automatically sense if the connected network devices are running at 10Mbps, 100Mbps or 1000Mbps and half/full-duplex mode, and adjust accordingly.

With 90W PoE on each Ethernet port and housed in a compact chassis, these DIN rail mountable devices are ideally suited for connecting and powering field based equipment such as IP CCTV cameras and industrial controllers to Ethernet networks over long distances using all types of fibre. Fibre connectivity is determined by separate SFP device selection, providing application and site flexibility.

SFPs and PSUs need to be ordered seperately.

NB These products are not user programmable.

#### / FEATURES

- Compact size ideal for confined spaces, including camera poles and roadside cabinets
- -40°C to 75°C temperature maintains performance in extreme conditions
- Non-programmable no need for any user configuration or computer setup
- DIN rail mountable quick to install and remove for maintenance
- Dual Speed SFP port supports single and multimode, single or dual fibre options up to 120Km
- Gigabit or 10/100M Ethernet copper ports high bandwidth support
- Auto MDI or MDI-X config eliminates the need for crossover cables
- Auto-Negotiation (802.3u) automatically determines the best connection speed
- Automatic Link Restoration restores operation when recovering from a temporary fault



# Specifications.

# Standards.

 IEEE802.3
 10BaseT

 IEEE802.3u
 100BaseTX

 IEEE802.3ab
 1000BaseT

 IEEE802.3z
 1000BaseSX/LX

 IEEE802.3af
 15W PoE

IEEE802.3at 30W PoE+ & 60/90W

#### Interface.

**LED Indicators** 

Power: ON = Link; Flashing = Activity
Fiber Link/Act: ON = Link; Flashing = Activity
Copper Link/Act: ON = Link; Flashing = Activity

PoE ON = Active

**RJ45 Ports** 

4-port 2x 10/100M or 10/100/1000M

RJ45 PoE 90W

& 2x 10/100M or 10/100/1000M

RJ45 PoE+

8-port 4x 10/100M or 10/100/1000M

RJ45 PoE 90W

& 4x 10/100M or 10/100/1000M

RJ45 PoE+

SFP Slot 1 or 2 100/1000M Power 1x 6 pin removable

terminal block

Note: Redundant PSUs not supported

### Power.

Input and Consumption

PoE: 46-56V<sub>DC</sub> 5W + 15W PoE+/PoE 90W: 52-56V<sub>DC</sub> 5W + 30W/90W PSE Modes Mode A, Mode B

PSE Modes Mode A, Mode B Protection Reverse Polarity, Overload Current

#### Mechanical.

Casing IP 30 Protection Metal case

Dimensions W x D x H

1 SFP ports  $35.2 \times 121 \times 95.5$  mm 2 SFP ports  $70.8 \times 121 \times 95.5$  mm Note: Depth 95.5mm includes 8mm DIN-Rail

bracket.

Weight up to 1kg

Installation Wall Mount or DIN-Rail

# Packaging.

Shipping Weight up to 1.5kg
Dimensions 250 × 200 × 65 mm

# Environmental.

Operating Temp. -40°C to 75°C Storage Temp. -40°C to 85°C

Humidity 5% to 90% (non-condensing)
Compliances Reach, RoHS and WEEE

MTBF >310,000 hrs

# Regulatory.

Electrical Safety CE/EN60950-1 Immunity EN55022 Emissions EN61000-3-2

Environmental

Cold: EN 60068-2-1

Test Ab/Ad to -40°C

Hot: EN 60068-2-2

Test Bb/Bd to +75°C

Change in temp: EN 60068-2-14 Test Nb

Humidity: EN 60068-2-56

Test Cb +55°C/95%RH
Condensation: EN 60068-2-30 Test Db

RH30°C, 90-100% RH

#### **Shock and Vibration**

Vibration

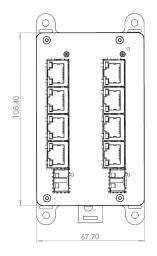
(swept sinewave): EN 60068-2-6 - Test Fc Vibration (random): EN 60068-2-64 - Test Fh Shock: EN 60068-2-27 - Test Ea

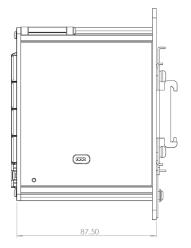
Altitude test: to 5,000m Free Fall: IEC 60068-2-32

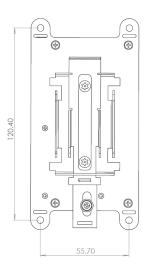
\*Calculation model based on PoE version at 30 °C



# Specifications.







# Part Numbers.

AMG9HMU-4F2H2N-1S-P240	2× 10/100TX with 802.3at PoE 90W, 2x 10/100TX with 802.3at PoE+, 2× 100/1000M SFP, -40°C to +75°C, 48-56V <sub>DC</sub>
AMG9HMU-8F4H4N-2S-P480	4× 10/100TX with 802.3at PoE 90W, 4× 10/100TX with 802.3at PoE+, 2× 100/1000M SFP, -40°C to +75°C, 48-56V <sub>DC</sub>
AMG9HMU-4G2H2N-1S-P240	$2\times$ 10/100/1000TX with 802.3at PoE 90W, 2x 10/100/1000TX with 802.3at PoE+, $2\times100/1000M$ SFP, -40°C to +75°C, 48-56Vpc
AMG9HMU-8G4H4N-2S-P480	4× 10/100/1000TX with 802.3at PoE 90W, 4× 10/100/1000TX with 802.3at PoE+, 2× 100/1000M SFP, -40°C to +75°C, 48-56V <sub>DC</sub>

# Recommended PSUs.

AMG2012 48-56VDC 5.0A 240W PSU, DIN rail mount AMG2013 48-56VDC 10.0A 480W PSU, DIN rail mount

# Notes.

Other port and PoE options are also available.

For models 4+1 and 8+2 is available expansion SFP card with additional 1 to 3 SFPs.

Optional Accessories: SFP modules - Optical/Copper see separate list, need to be ordered separately

AMG is in the process of ensuring our devices comply with the new 802.3bt 60W and 90W PoE standard. Until such time as all Manufacturers of PSE's and PD's comply with the new standard, we recommend that our Customers test compatibility of their 60W and 90W PD's with AMG PSE's.



