

# AMG INDUSTRIAL HARDENED UNMANAGED SWITCHES WITH POE+



## Ruggedised Industrial Ethernet Solutions

Available with 4, 6, 8, 12 and 16 Ethernet ports, AMG's Unmanaged switches provide a 100Mbps or Gigabit Ethernet uplink across Multimode or Singlemode fibre via the SFP port.



[ AMG9HMU-8GH-2S ]

10/100 up to x16	100 up to x4	Gigabit up to x16	Gigabit up to x4	Temp -40°C~+75°C	Mounting DIN/Surface

### 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 30W 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 separately.

**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
- Gigabit or 100M 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+

Jumbo Frames	10Kbytes
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## 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, 6, 8, 12 or 16x 10/100Tx or 10/100/1000TX RJ45 with Auto MDI/MDI-X
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SFP Slot Power	2, 3 or 4x 100M or 1000M 1x 6 pin removable terminal block
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Note: Redundant PSUs are supported with fault alarm

## Power.

### Input and Consumption

PoE:	46-56V <sub>DC</sub>	5W + 15W
PoE+:	52-56V <sub>DC</sub>	5W + 30W
PSE Modes Protection	Mode A, Mode B	Reverse Polarity, Overload Current

## Mechanical.

Casing Dimensions	Anodised Aluminium
2 SFP ports	67.7 × 87.5 × 120.4 mm
3 SFP ports	135.4 × 87.5 × 120.4 mm
4 SFP ports	203.1 × 87.5 × 120.4 mm
IP Rating	IP30
Installation	Wall Mount or DIN-Rail
Weight	0.3kg

## Packaging.

Shipping Weight	0.52kg
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 (Hours)*	
Without power adaptor	609,000
With power adaptor	337,000

## Regulatory.

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

### Environmental

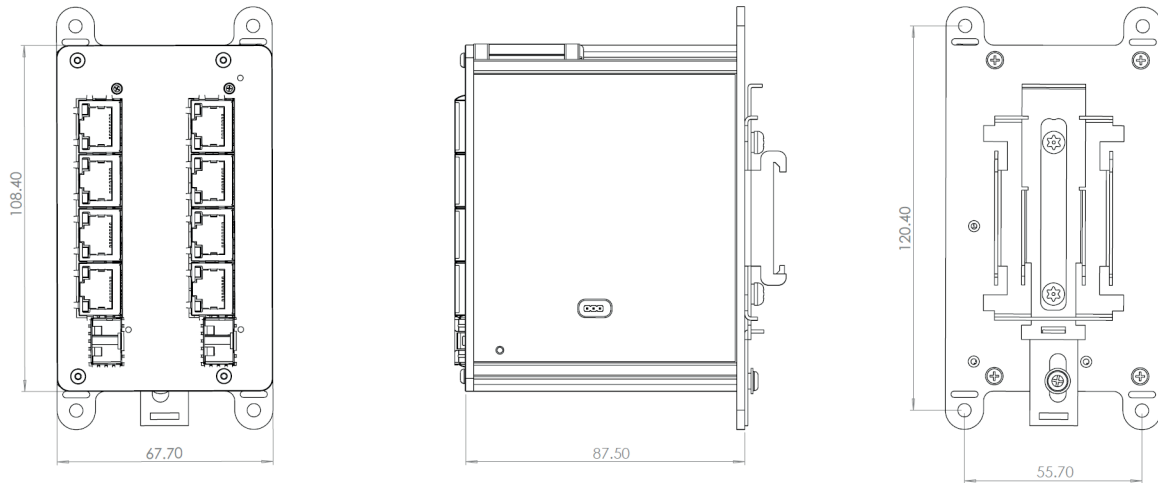
Cold:	EN 60068-2-1 Test Ab/Ad to -40°C
Hot:	EN 60068-2-2 Test Bb/Bd to +75°C
Change in temp:	EN 60068-2-14 Test Nb
Humidity:	EN 60068-2-56 Test Cb +55°C/95%RH
Condensation:	EN 60068-2-30 Test Db RH30°C, 90-100% RH

### 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-4FH-2S	4 × 10/100Base PoE+ Ethernet & 2 × 100Base SFP, -40°C to +75°C. 46-56V <sub>DC</sub> Power Input
AMG9HMU-6FH-2S	6 × 10/100Base PoE+ Ethernet & 2 × 100Base SFP, -40°C to +75°C. 46-56V <sub>DC</sub> Power Input
AMG9HMU-8FH-2S	8 × 10/100Base PoE+ Ethernet & 2 × 100Base SFP, -40°C to +75°C. 46-56V <sub>DC</sub> Power Input
AMG9HMU-12FH-2S	12 × 10/100Base PoE+ Ethernet & 2 × 100Base SFP, -40°C to +75°C. 46-56V <sub>DC</sub> Power Input
AMG9HMU-16FH-4S	16 × 10/100Base PoE+ Ethernet & 4 × 100Base SFP, -40°C to +75°C. 46-56V <sub>DC</sub> Power Input
AMG9HMU-4GH-2S	4 × 10/100/1000Base PoE+ Ethernet & 2 × 1000Base SFP, -40°C to +75°C. 46-56V <sub>DC</sub> Power Input
AMG9HMU-6GH-2S	6 × 10/100/1000Base PoE+ Ethernet & 2 × 1000Base SFP, -40°C to +75°C. 46-56V <sub>DC</sub> Power Input
AMG9HMU-8GH-2S	8 × 10/100/1000Base PoE+ Ethernet & 2 × 1000Base SFP, -40°C to +75°C. 46-56V <sub>DC</sub> Power Input
AMG9HMU-12GH-2S	12 × 10/100/1000Base PoE+ Ethernet & 2 × 1000Base SFP, -40°C to +75°C. 46-56V <sub>DC</sub> Power Input
AMG9HMU-16GH-4S	16 × 10/100/1000Base PoE+ Ethernet & 4 × 1000Base SFP, -40°C to +75°C. 46-56V <sub>DC</sub> Power Input

## Recommended PSUs.

AMG2016	48-56VDC 1.25A, 60W PSU, DIN rail mount (suitable for 4 × 15W PoE or 2 × 30W PoE+)
AMG2019	48-56VDC 2.5A, 120W PSU, DIN rail mount (suitable for 4 × 30W PoE+)

## Notes.

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

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Manufacturer 