AMG160 SERIES INDUSTRIAL ETHERNET EXTENDERS OVER UTP WITH 30/60/90W POE



Industrial Ethernet Solutions

AMG's Extend-Net™ industrial Ethernet extenders provide 10/100Mb Ethernet over long distances of UTP cable with support for pass-through 30W or 60/90W PoE. These single channel models feature dual RJ45 ports and support distances up to 1km.















[AMG160-1F-1EU]

/ OVERVIEW

Designed in a compact tube style housing that can be DIN rail or wall mounted using the included accessory brackets, the AMG160 Extend-Net™ series industrial Ethernet Extenders are ideally suited for connecting equipment to Ethernet networks over long distances using standard UTP cables such as Cat5/6.

Distances up to 610m @ 100Mb speed and 1000m @ 10Mb speed are possible over standard UTP cables.

The AMG160 UTP series support IEEE802.3at 30W and IEEE802.3bt 60/90W PoE pass-through and are suitable for powering the latest high powered PoE devices over a wide industrial operating temperature range at extended distances.

A 48-56V_{DC} local power input is provided for instances where local power is available and the maximum possible PoE level is required at the remote device but this is not required for operation when used with a PoE enabled edge device such as an IP camera as the units also support pass-through PoE powering.

PSUs need to be ordered seperately.

/ FEATURES

- Compact size ideal for confined spaces, including conduit, camera poles and roadside cabinets
- -40°C to +75°C temperature maintains performance in extreme conditions
- DIP switches for Local/Remote & 10/100Mb modes
- Automatic 1-pair or 4-pair cable selection
- Standalone, DIN rail or wall mountable flexible mounting options are included with every unit
- Extends Ethernet up to 610m (2,000 ft) at 100Mbps
- Extends Ethernet up to 1000m (3,280 ft) at 10Mbps
- Supports 15W, 30W, 60W & 90W PoE Pass-Through
- Unicast, Multicast & Jumbo Frames are supported along with full symetrical bandwidth performance
- Manufactured in the United Kingdom
- AMG Lifetime Support Warranty



Specifications.

Standards.

 IEEE802.3i
 10Base-T

 IEEE802.3u
 100Base-TX

 IEEE802.3af
 15W PoE

 IEEE802.3at
 30W PoE+

 IEEE802.3bt
 60 & 90W PoE

Jumbo Frames 10Kbytes

Interface.

LED Indicators 1x Power

Ethernet Link/Activity
Ethernet 100Mb Speed
Extend-Net™ Link/Activity
Extend-Net™ 100Mb Speed

Ethernet Port 1x 10/100TX RJ45

with Auto MDI/MDI-X and 1.5 kV Isolation Protection

Extend-Net™ Port

Power

1x RJ45 with Surge Protection 1x 2 pin removable terminal

block

DIP Switch.

Switch Type 2 Position

Functions 10Mb or 100Mb Mode

Remote or Local Operation

Power.

Power Inputs

Operating Voltage 48-56V_{DC} or

PoE Pass-Through

Power Consumption 1.5W Max

Protection Overload Current

Extend-Net™.

Maximum Distance:

100Mb 610m (2,000 ft)* 10Mb 1000m (3,280 ft)*

*Refer to Distance Chart

Cable Pairs:

No PoE Requires 1 or 4 Pair Cable
PoE Requires 4 Pair Cable

Cable Types Cat 3/5/5e/6/7

Packaging.

Shipping Weight 0.4 Dimensions (W

0.42kg / 0.93lb (W x D x H)

130 × 100 × 50 mm 5.12 × 3.94 × 1.97 in

Mechanical.

Housing Anodised Aluminium

 $\begin{array}{ll} \mbox{Dimensions:} & (\mbox{W} \times \mbox{D} \times \mbox{H}) \\ \mbox{Excluding Wall Bracket} & 89 \times 35 \times 32 \mbox{ mm} \\ \mbox{3.50} \times 1.38 \times 1.26 \mbox{ in} \\ \mbox{Including Wall Bracket} & 113 \times 35 \times 35 \mbox{ mm} \end{array}$

4.45 × 1.38 × 1.38 in

IP Rating IP40

Installation Wall Mount or DIN-Rail

Weight 0.3kg / 0.66lb

Environmental.

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

Humidity 5% to 95% (non-condensing)

MTBF >1,000,000 hours

MTBF Standard Telcordia SR-332 GF 30°C

Heat Dissipation 5 BTU/h (No POE) 107 BTU/h (30W POE)

312 BTU/h (90W PoE)
Passive Cooling

Cooling Passive (
Noise Level 0 dBA

Regulatory.

Safety IEC/EN 62368-1 EMI EN 55032 Class A

CISPR 32

FCC Part 15B Class A

EMS EN 61000-4-2 (ESD)

EN 61000-4-3 (RS) EN 61000-4-4 (EFT) EN 61000-4-5 (Surge) EN 61000-4-6 (CS) EN 61000-4-8 (PFMF)

 Shock
 IEC 60068-2-27

 Free Fall
 IEC 60068-2-32

 Vibration
 IEC 60068-2-6

 Reach, RoHS, WEEE

Designed to meet NEMA TS2 & EN 50121-4



Part Numbers.

Extend-Net™ Single Channel Industrial Ethernet Extenders over UTP

AMG160-1F-1EU

1 × 10/100BaseT(x) RJ45, 1 x Extend-Net™ UTP Ethernet Extender RJ45

Included Accessories.

DIN Rail Adapter Wall Mount Adapter Rear Mounted Plastic DIN Rail Clip & Screws For DIN Rail Mounting AMG160 Series Products (Black)
Rear Mounted Aluminium Wall Mounting Plate & Screws For Wall / Surface Mounting AMG160 Series Products (Silver)





Recommended PSUs.

AMGPSU-I48-P60

DIN-Rail Mounting Industrial Grade PSU, 48-56VDC, 60W

Notes.

Distance figures are based on a 50V PSE PoE power source, and external power supplies for the extenders. Distance figures are obtained using in-house testing mirroring installations. Factors such as copper cable quality, the number of connectors and joints in the cable run, the use of PoE, and environmental conditions encountered within the installation might affect the actual transmission distance and should be taken into consideration. Pass-Through PoE is only possible in 4-pair mode.

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In a continuing effort to improve and advance technology, product specifications are subject to change without notice. Please visit www.amgsystems.com for the latest product specifications.



Manufacturer