

AMG110M INDUSTRIAL ETHERNET SURGE PROTECTOR WITH 65W POE SUPPORT



Industrial Ethernet Solutions

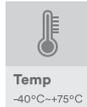
AMG's industrial Ethernet surge protectors provide protection for 10/100/1000Mb Ethernet equipment with support for pass-through PoE up to 65W. These single channel models are designed to plug into and protect existing RJ45 ports.



Gigabit
x1



Surge
Protection



Temp
-40°C~+75°C



NDAA
Compliant

[AMG110M-1G-SP]

/ OVERVIEW

Designed in a compact in-line RJ45 housing the AMG110M surge protector provides easy to install surge & ESD protection for Ethernet based equipment that may be susceptible to damage from surge or voltage transient events.

The RJ45 male connector simply plugs into an existing RJ45 port on a correctly grounded Ethernet device and provides a protected female RJ45 connection for the cable to connect to, protecting the port from external surge or voltage transients that may damage the port or Ethernet device.

Industry leading protection is provided to EN 61000-4-2, EN61000-4-5 and IEC 61643-11 standards.

To ensure the correct protection the device that the AMG110M is being inserted into must be correctly grounded to ensure any surge or transient voltage has an obstruction free path to ground which then protects the equipment from damage.

For installation examples refer to the product application diagrams and installation manual.

/ FEATURES

- Ultra compact size – can be connected in-line with standard RJ45 ports on correctly grounded equipment
- -40°C to +75°C temperature maintains performance in extreme conditions
- Supports Ethernet speeds of 10/100/1000Mb
- No additional ground cables required
- Certified to multiple ESD and surge protection standards including EN 61000-4-2, EN 61000-4-5 and IEC 61643-11
- Simple and quick installation process
- Supports PoE Pass-Through up to 65W
- Transparent to all types of traffic and protocols including VLAN's, Jumbo Frames, Multicast etc.
- AMG Lifetime Support Warranty

Specifications.

Standards.

IEEE802.3i	10Base-T
IEEE802.3u	100Base-TX
IEEE802.3ab	1000Base-T
IEEE802.3af	15W PoE
IEEE802.3at	30W PoE+
IEEE802.3bt	65W Max PoE

Jumbo Frames	Transparent to Jumbo Frames
VLAN Support	Transparent to VLAN Traffic
Multicast Support	Transparent to Multicast Traffic

Interface.

LED Indicators	2x Light Pipe (Pass-Through RJ45 LED's)
Ethernet Port	1x 10/100/1000T(X) RJ45
Bandwidth (2db) Pair	>250MHz
Insertion Loss	<0.2dB @ 100MHz
Ground Connection	1x Integrated Ground to RJ45 Port Shield*

*Unit Connected To Must Be Correctly Grounded

Surge Protection.

Pairs Protected	1-2, 3-6, 4-5, 7-8
Protection Type	GDT & TVS
Nominal Voltage	5V (U _n)
Max Continuous Operating Voltage	8V (U _c)
Discharge Current	0.3kA x 8 (Line to GND) (I _{max} @ 8/20µs)
Voltage Protection	45V @ 0.3kV (8/20) (U _p @ Line to GND)
SPD Class	Type 2
PoE Compatibility	65W Max
Response Time	<100ns (Line to GND/PE) <1ns (Line to Line)

Mechanical.

Housing	Plastic
Dimensions:	(W x D x H)
Complete Unit	16 x 34 x 16 mm 0.63 x 1.34 x 0.63 in
Protruding From RJ45 Port	16 x 19 x 16 mm 0.63 x 0.75 x 0.63 in
Installation	RJ45 Port In-Line
Weight	0.005kg / 0.011lb

Packaging.

Shipping Weight	0.02kg / 0.04lb
Dimensions	(W x D x H) 40 x 40 x 40 mm 1.57 x 1.57 x 1.57 in

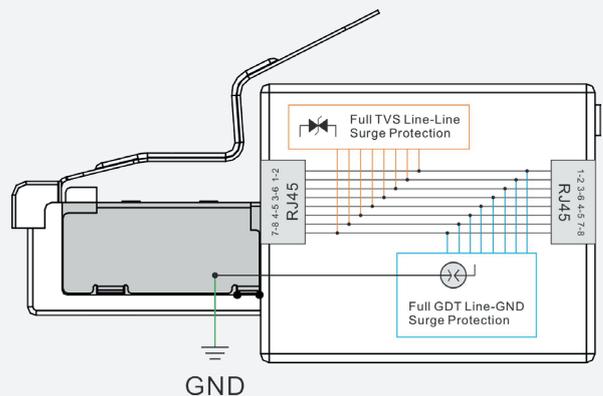
Environmental.

Operating Temp.	-40°C to +75°C
Storage Temp.	-40°C to +85°C
Humidity	0% to 95% (non-condensing)
MTBF	>250,000 hours
MTBF Standard	Telcordia SR-332 GF 30°C
Cooling	Passive Cooling
Noise Level	0 dBA

Regulatory.

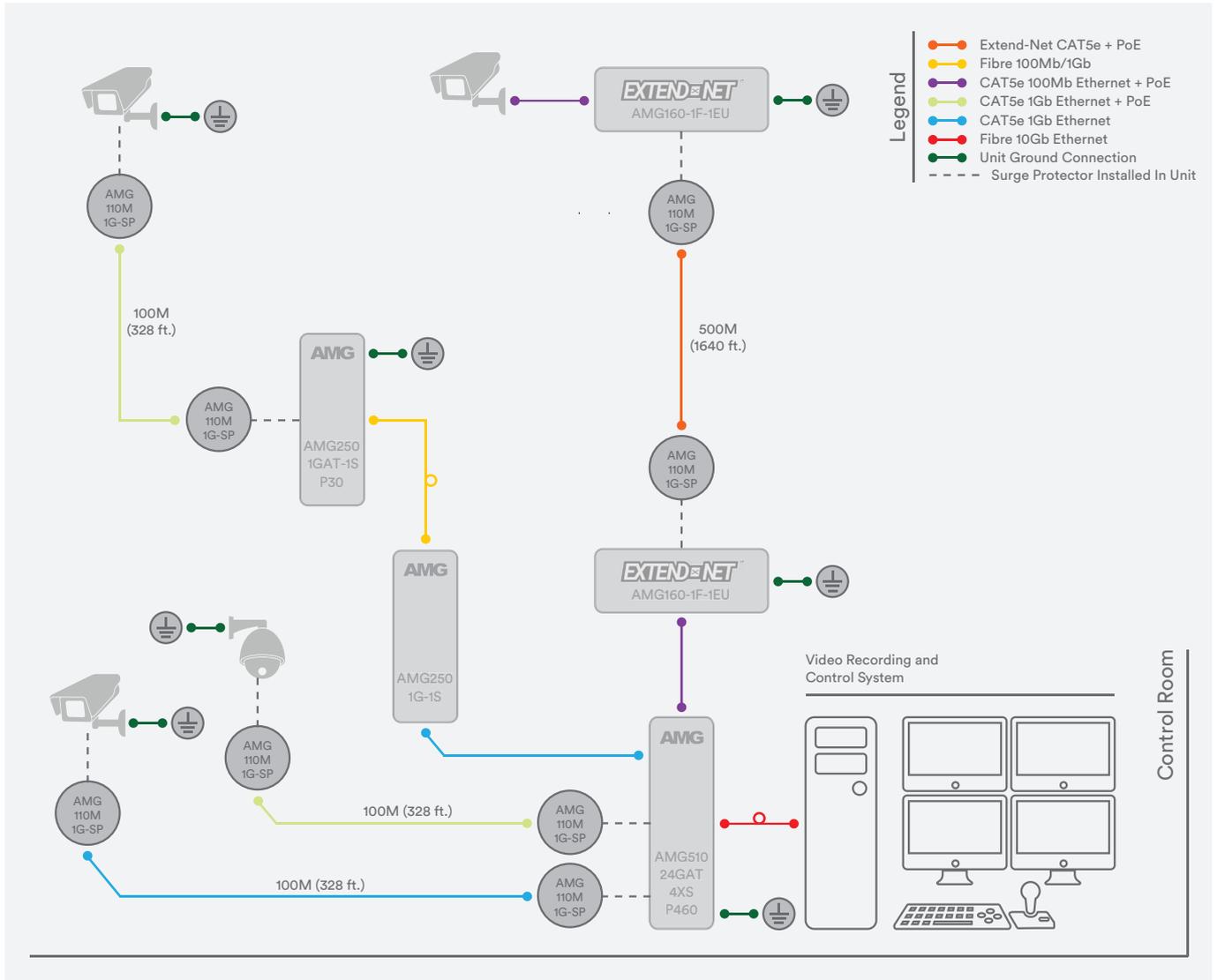
EMI	EN 55024
EMS	EN 61000-6-1 EN 61000-6-3 EN 61000-4-2 (ESD) EN 61000-4-5 (Surge) IEC 61643-11 (Surge)
Environmental	Reach RoHS WEEE
Traffic Supply Chain	NEMA TS2 NDAA Compliant

Internal Protection Diagram.



Note: The metal release tab does not provide a ground connection. Ground connection is made by connection with the metal sides as shown in grey in the diagram with green GND connection.

Application Diagram.



Part Numbers.

Industrial Ethernet Surge Protector

AMG110M-1G-SP 1 x 10/100/1000BaseT(x) RJ45 In-Line Ethernet Surge Protector, 65W PoE, -40°C to +75°C

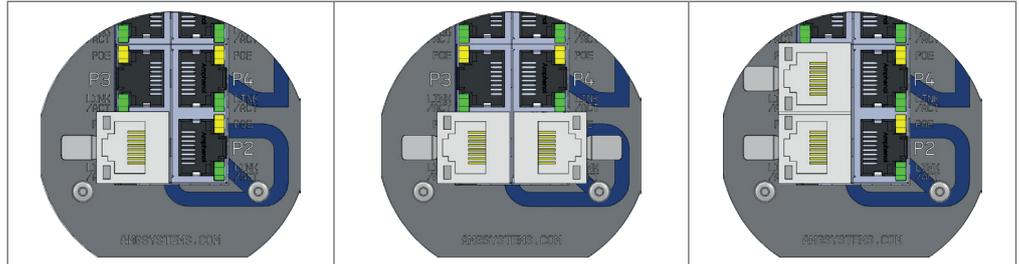
Notes.

To ensure the correct protection the device that the AMG110M is being inserted into must be correctly grounded to ensure any surge or transient voltage has an obstruction free path to ground which then protects the equipment from damage. This can be achieved in multiple ways but will normally consist of the RJ45 ports shield being connected to ground internally within the equipment and this ground then being connected to the earth ground either through the earth cable within the line cord (for mains powered devices) or by connection of a dedicated cable from an earth connection point on the equipment (such as with most AMG DIN rail products) or by direct connection of a conductive surface of the equipment housing to a metal back plate that is then connected to the earth ground.

Please ensure that your equipment is correctly grounded before using the AMG110M surge protector. For help and advice please contact the AMG technical support team.

Compatibility.

AMG110M Product Compatibility Guide



AMG Product	Single Ports	Back-to-Back Ports	Side-to-Side Ports
AMG150 Series	Yes	Yes	No
AMG155 Series	Yes	N/A	N/A
AMG156 Series	Yes	Yes	No
AMG160 Series	Yes	N/A	N/A
AMG172 Series	Yes	N/A	N/A
AMG210M Series	No	N/A	No
AMG250 Series	Yes	N/A	Yes
AMG255 Series	Yes	N/A	N/A
AMG260M Series	Yes	N/A	N/A
AMG350 Series	Yes	N/A	Yes
AMG510 Series	Yes	Yes	No
AMG560 Series	Yes	Yes	Yes (DIN Rail Units Only)
AMG570 Series	Yes	Yes	Yes
AMG750 Series	Yes	Yes	Yes
AMG9HMEC Series	Yes	N/A	N/A
AMG9HMU Series	Yes	N/A	Yes
AMG9HM2P Series	Yes	N/A	Yes
AMG8870F Series	No	N/A	N/A
AMGSFP-VDSL2 Series	Yes	Yes	No

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.

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