

Vi20101

1G Ethernet and PoE Surge protector

Features

- Innovative direct in line port plug in module saving valuable equipment space
- Able to be installed only those ports that require extra protection
- Ideal protection for standard and extended Ethernet runs
- Provides port protection for cameras and network equipment
- Compatible with 10/100/1000 Base-T ports
- Does not require extra ground cable
- Compatible with 802.3af, 802.3at and 802.3bt PoE standards
- Tested and certified to EN61000-4-5 and EN55024 surge standards



Applications

- Ethernet cable runs subject to exposed elements or operating close to power line and other electrically powered equipment
- Extended distance Ethernet cable runs
- Ethernet Networks in industrial environment
- IP cameras and other network equipment installed

Vigatron's Vi20101 is an industrial-grade PoE surge protector designed to safeguard 1G high-speed Ethernet networks from damaging voltage spikes and power surges. Engineered for mission-critical applications, it offers seamless compatibility with IEEE 802.3af/at/bt PoE standards and supports up to 95W of power. Its ultra-compact design allows for DIN-Rail or wall mounting, making it ideal for tight installations such as camera housings, roadside cabinets, and industrial enclosures.

The Vi20101 can be grounded using a built-in ground screw or a shielded RJ45 cable connected to a grounded Ethernet port or a grounded DIN Rail connection.

It is built for rugged environments and operates within a wide temperature range of -40°C to +85°C, and meets IEC/EN 61643-21 and EN 61000-4-5 Class 4 surge protection standards. With three mounting options; DIN-rail, wall, and direct port connection, the Vi20101 is designed for quick and easy installation in virtually any environment.

Vigatron's advanced surge suppression technology provides reliable protection, reducing downtime and extending network infrastructure longevity.

Technical Specifications

Electrical

Ethernet Interface	IEEE802.3i 10Base-T, IEEE802.3u 100Base-TX IEEE802.3ab 1000Base-T
PoE Standards	IEEE802.3af (15W), IEEE802.3at (30W) , IEEE802.3bt (90W)
Surge Current Rating	20kA / Pair
Nominal Line Voltage	44-57V
DC Voltage (Max)	90V (@ 100V/s)
Impulse (Max)	Spark-Over Voltage 500V (C3 Category 1KV/ μ s)
DC Holdover	60V (<150ms)
Nominal Current	1A on 2 pairs, 2A on 4 pairs
PoE Surge Protection	Common Mode Protection :(10/700us):10KV Differential Mode Protection :(10/700us):1.5KV
Leakage Current	<1 μ A
Capacitance	<1.5pF
Impulse Current	2kA (D1 Category 10/350 μ s x 1)
Line/Line Nominal	Discharge Current 1.25kA (C2 Category)
Line/Earth Nominal	Discharge Current 10kA (C2 Category 8/20 μ s x 5)
Maximum Discharge	Current 20kA (8/20 μ s x 1)
Protected Pairs	1-2, 3-6, 4-5, 7-8
Failsafe Mode	Short-Circuit / Cut-Off
Response Time	<200ns
Ethernet Cable	Category 5, 5e, 6, 6a
Connectors	2 x Male RJ-45
MTBF	>500,000 hours
MTBF Standard	Telcordia SR-332 GF 30°C

Compliances

Tested and Certified for	IEC 61000-4-2: ESD @ 15Kv (air), 8Kv (contact) IEC 6100-4-5: Lightning @ 8/20us IEC 61000-4-2: 2006 EN 55024:
Compliance	Category B
Let through Voltage	15Kv (air) 8Kv (contact)

Regulatory

EMI	EN 55032 Class B, CISPR 32
FCC	Part 15B Class B
EMS	EN 55035 Class B
Surge	IEC/EN 61643-21, EN 61000-4-5 (Class 4)
Shock	IEC 60068-2-27
Free Fall	IEC 60068-2-32
Vibration	IEC 60068-2-6
Safety	CE
Environmental	RoHS, WEEE

Regulatory (continued)

Designed to meet	NEMA TS2 & UL497B
Supply Chain	NDAA Compliant

Environmental

Humidity	0 to 95%, non-condensing
Temperature	Operating: -40°C to +85°C Storage: -40°C to +85°C
Operating Altitude	Up to 5000 meters
IP Rating	IP40

Mechanical

Dimensions	1.23x1x3.5 in., 31x25x88 mm (HxWxL)
Weight	0.172 lb, 79 g
Material	Extruded Aluminum
Ground Connection	1x M3 Earth Stud or Shielded cable to a grounded RJ45 port or DIN Rail Adapter when the Rail is grounded

Included Accessories

Mounting options (Included)	35 mm DIN Rail Adapter (0.14kg / 0.31lb) Wall Mount Adapter
--------------------------------	--

*Specifications subject to change without notice.

Ordering Information

Part No. Description

Vi20101	1G Ethernet and 90W PoE Surge Protector
----------------	---

Related Products

Part No. Description

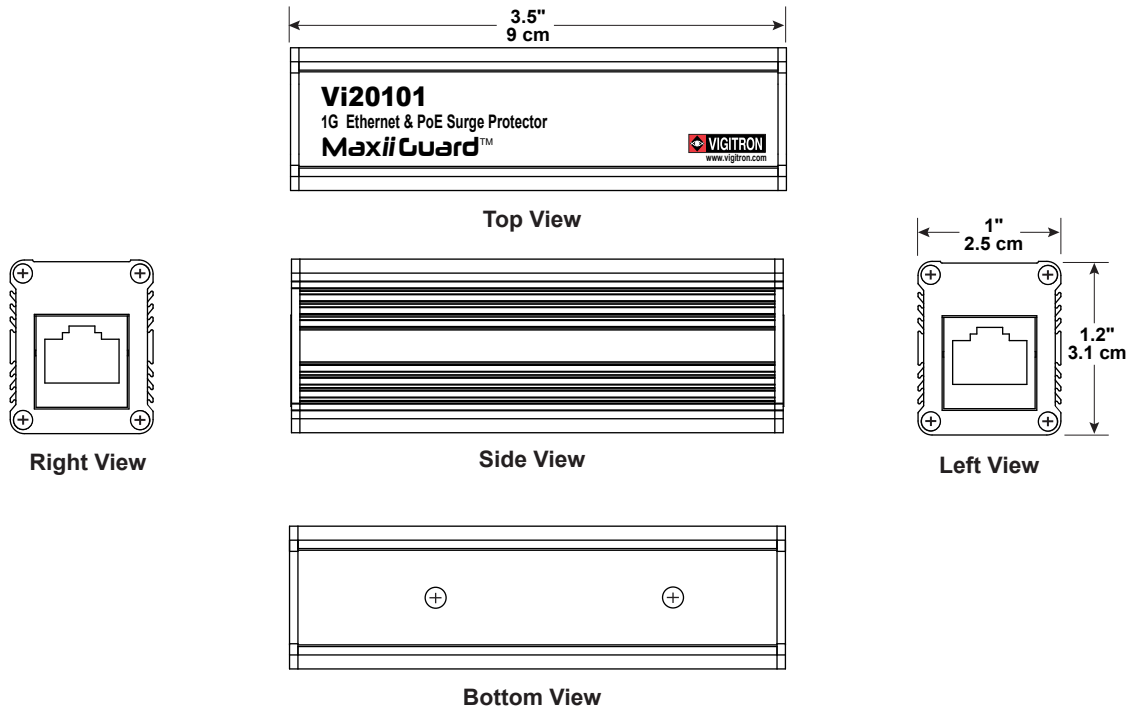
Vi20201	10G Ethernet and 90W PoE Surge Protector
Vi2001	1G Ethernet and PoE Surge Protector



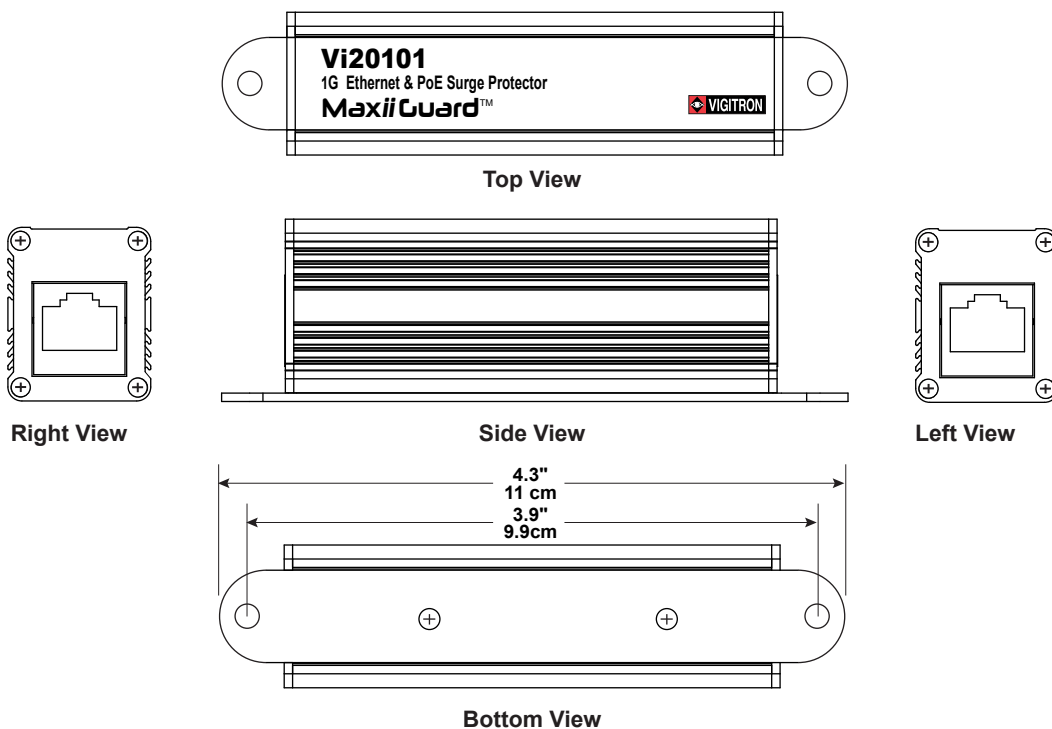
TEL (+1) 858-484-5209 • FAX (+1) 858-484-1205
7810 Trade Street, Suite 100, San Diego, CA 92121, USA • support@vigatron.com • www.vigatron.com

Mechanical Drawings

Inline Configuration

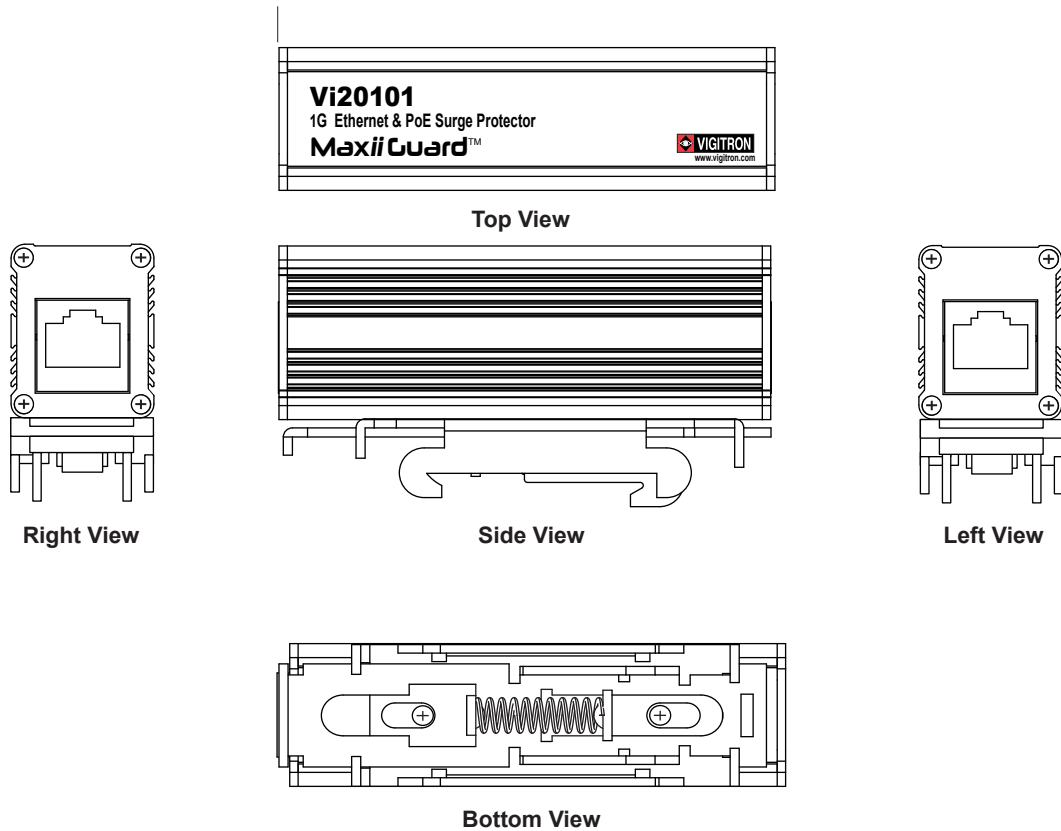


Wall Mount Configuration



Mechanical Drawings

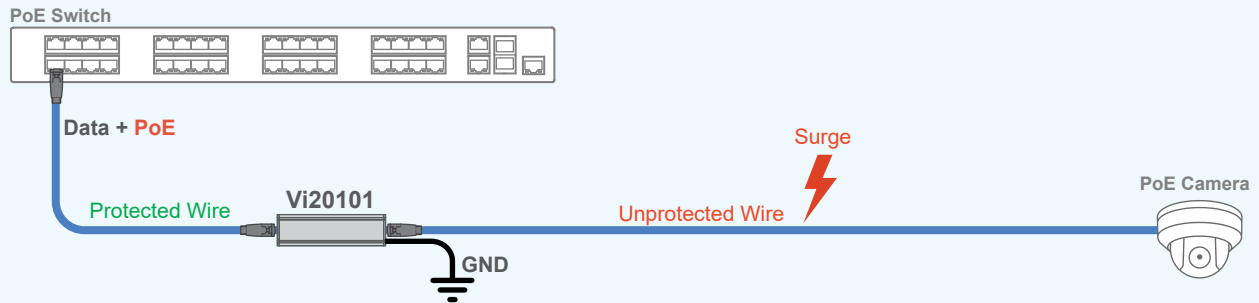
DIN Rail Configuration



Application Drawings

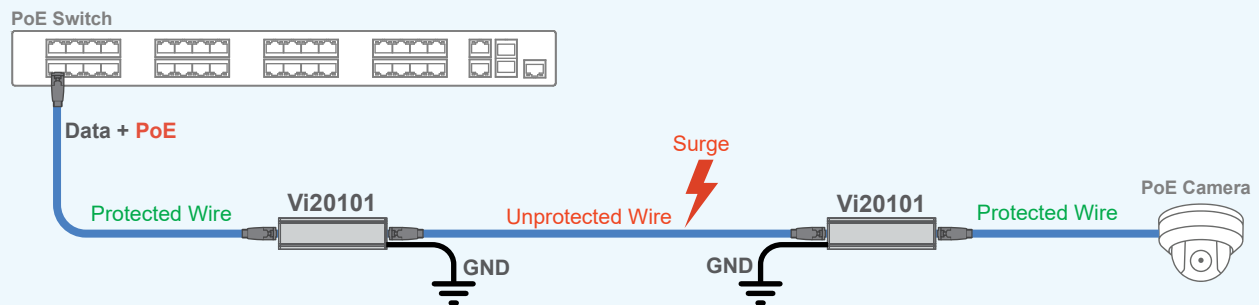
— Cat 5/6

Protecting 100/1000 Base-T Ethernet and 90W PoE Source



The Vi20101 can protect networking source equipment against damaging voltage surges.

Protecting 100/1000 Base-T Ethernet and 90W PoE Source and Camera



The Vi20101 can protect networking source equipment and Cameras against damaging voltage surges.