Lightning / Surge Protectors Tutorial

What are Lightning and Surge Protectors?

Lightning and surge protectors are devices whose purpose is to eliminate transients on a conductor which are induced by nearby lightning activity. They are used to prevent damage to valuable electronic equipment from these high-voltage surges and spikes.

How are Lightning and Surge Protectors used?

A lightning and surge protector is used inline between devices such as antennas and amplifiers and radios or between connections on Ethernet switches and routers. They are connected via copper cabling (Coaxial, UTP etc.).

Where are Lightning and Surge Protectors used?

Lightning and surge protectors are used in many different applications including outdoor wireless networks, indoor Ethernet network installations and in any instance where the potential for a power surge could damage or destroy communications equipment.

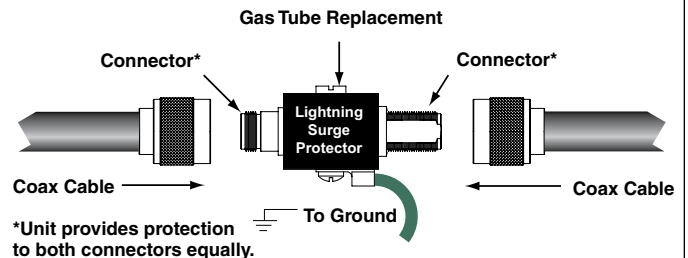## Don't let lightning destroy your network!

A single bolt of lightning carrying up to 100 million volts of electricity has the power to rip through roofs, explode brick walls and destroy electronic networking / communications equipment as well as industrial equipment. Don't be fooled into a false sense of security if you never receive direct strikes. Indirect lightning strikes on telephone and power lines can be just as catastrophic! Protect your valuable communications equipment with L-com's HyperLink® brand surge protectors.

Coaxial Lightning and Surge Protectors

L-com's HyperLink® coaxial lightning and surge protectors are available in two types, Quarter Wave and Gas Discharge models.

Quarter Wave coaxial protectors are designed to pass the desired frequency while suppressing lightning surges, much like a signal filter. Lightning strike electrical surges which operate at low frequencies are diverted through the protector's short-circuit to the ground.
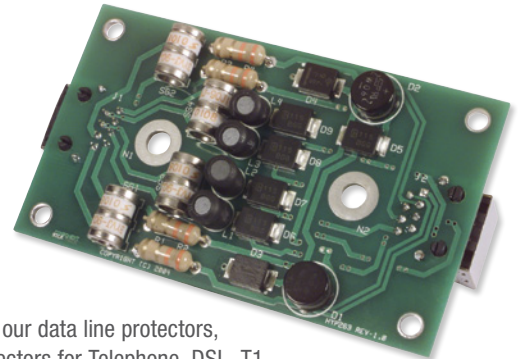
Gas Discharge coaxial protectors are a type of lightning arrestor which employs a replaceable gas discharge tube, which is a component

containing a small amount of gas. The gas tube dumps extremely high amounts of surge energy directly to the ground of the protector. HyperLink® coaxial lightning protectors are available for 0-3 GHz operation or 0-6 GHz operation.

Gas Tube Replacement
Connector*
Connector*
Lightning Surge Protector
Coax Cable
Coax Cable
To Ground
Unit provides protection to both connectors equally.

Data Line Lightning and Surge Protectors

The use of surge protectors to protect sensitive equipment from lightning strikes and surges on Ethernet data lines has become more important than ever with the advent of faster standards like 100 and 1000 Base-T Ethernet. The faster data speeds have required equipment manufacturers to use fragile high speed components.

Designed for Cat5, Cat5e and Cat6 applications, L-com's HyperLink® data line protectors are available in different power levels. From low power models for typical hub or client installations to high-power, 3-stage protectors designed for maximum surge protection.

Weatherproof Analog Pan-Tilt-Zoom (PTZ) Video Camera Lightning and Surge Protectors

Outdoor video security equipment is often mounted on top of buildings and light poles, areas more vulnerable to lightning strikes. This can damage not only the video cameras, but the controllers as well. The AL-VDP series is designed to provide lightning and surge protection for analog PTZ video cameras. These protectors incorporate individual protection circuits for the analog video line, RS485 control line and AC/DC power lines.
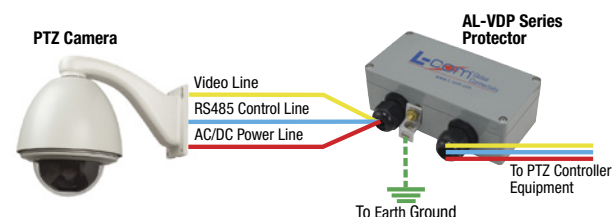
In addition to our data line protectors, we offer protectors for Telephone, DSL, T1, RS422/485, RS232, 4-20 mA Current Loop, AC/DC and Video applications.

Three Stage Data Line Protector

PTZ Camera
AL-VDP Series Protector
Video Line
RS485 Control Line
AC/DC Power Line
To PTZ Controller Equipment
To Earth Ground

Grounding Note:

Proper grounding of lightning and surge protectors is required to ensure proper operation. Connecting the ground lug on the protectors to an earth ground is the recommended method. Please refer to the National Electric Code (or your local codes) for additional information or contact a licensed electrician for assistance.

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Item #	Power Rating	Description	1-9	10-24	25-99	100+

HyperLink® Data Line Lightning and Surge Protectors

L-com's HyperLink® Cat5/5e/6 lightning protectors are designed to protect expensive wired and wireless 10/100 and 10/100/1000 Base-T Ethernet systems. These robust lightning protectors are also great to use in Power over Ethernet (PoE) camera installations.

Category 5 Data Line 10/100 Base-T Protectors

Item #	Power Rating	Description	1-9	10-24	25-99	100+
HGLN-CAT5-2	◢	Indoor, Shielded RJ45	44.13	41.48	38.83	CALL
AL-CAT5VW-1	◢	Weather Resistant, RJ45	43.05	40.47	37.89	CALL
HGLN-CAT5J	◢◢◢	Indoor, Shielded RJ45	43.05	40.47	37.89	CALL
HGLND-CAT5J	◢◢◢	Indoor DIN Mount, Shielded RJ45	48.44	45.53	42.63	CALL
CMSP-CAT5-2	◢◢◢	Indoor Wall Mount, 2-Port, Shielded RJ45	53.83	49.52	45.22	CALL
CMSP-CAT5-4	◢◢◢	Indoor Wall Mount, 4-Port, Shielded RJ45	96.93	89.18	81.42	CALL
CMSP-CAT5-8	◢◢◢	Indoor Wall Mount, 8-Port, Shielded RJ45	161.59	155.13	148.67	CALL
AL-CAT5JW	◢◢◢	Weather Resistant, RJ45	37.66	35.40	33.14	CALL
AL-CAT5SJW	◢◢◢	Weather Resistant, Shielded RJ45	39.82	37.43	35.04	CALL
AL-CAT5PW	◢◢◢	Weather Resistant, Punch Down Terminal Block	37.66	35.40	33.14	CALL
AL-CAT5SW	◢◢◢	Weather Resistant, Screw Terminal Block	37.66	35.40	33.14	CALL
AL-CAT5W	◢◢◢	Weatherproof, RJ45/Screw Terminal Block	53.83	50.60	47.37	CALL
ALS-CAT5W	◢◢◢	Compact Weatherproof, Shielded RJ45	53.83	50.60	47.37	CALL
AL-CAT5W-4	◢◢◢	Weatherproof, 4-Port, Shielded RJ45	134.65	126.57	118.49	CALL
HGLN-CAT5-HP	◢◢◢◢◢	Indoor, High Power, Shielded RJ45	69.99	65.79	61.59	CALL
HGLND-CAT5-HP	◢◢◢◢◢	Indoor DIN Mount, High Power, Shielded RJ45	77.54	72.88	68.23	CALL
AL-CAT5HPJW	◢◢◢◢◢	Weather Resistant, High Power, Shielded RJ45	59.22	55.66	52.11	CALL
AL-CAT5SHPW	◢◢◢◢◢	Weatherproof, High Power, Shielded RJ45	75.38	70.86	66.34	CALL
ALW-CAT5HPJ	◢◢◢◢◢	Weatherproof Metal Enclosure, High Power, Shielded RJ45	82.92	76.29	69.66	CALL
AL-CAT5HPW-4	◢◢◢◢◢	Weatherproof, 4-Port, High Power, Screw Terminal Block	215.48	202.55	189.62	CALL

Category 5e Data Line 10/100 Base-T Protectors

Item #	Power Rating	Description	1-9	10-24	25-99	100+
AL-CAT5EW	◢◢	Weatherproof, Screw Terminal Block	48.44	45.53	42.63	CALL
HGLN-CAT5EJW	◢◢◢	Indoor, Shielded RJ45	53.83	50.60	47.37	CALL
HGLND-CAT5EJW	◢◢◢	Indoor DIN Mount, Shielded RJ45	59.22	55.66	52.11	CALL
AL-CAT5EPW	◢◢◢	Weather Resistant, Punch Down Terminals	48.44	45.53	42.63	CALL
AL-CAT5EJW	◢◢◢	Weather Resistant, Shielded RJ45	48.44	45.53	42.63	CALL
ALS-CAT5EJWP	◢◢◢	Compact Weatherproof, Shielded RJ45	67.84	63.77	59.70	CALL
ALW-CAT5EJ	◢◢◢	Weatherproof Metal Enclosure, Shielded RJ45	75.38	69.35	63.32	CALL
ALW-CAT5EP	◢◢◢	Weatherproof Metal Enclosure, Punch Down Terminals	75.38	69.35	63.32	CALL
AL-CAT5EHPW	◢◢◢◢◢	Weatherproof, High Power, Screw Terminal Block	74.30	69.85	65.39	CALL

Category 6 Data Line 10/100/1000 Base-T Protectors

Item #	Power Rating	Description	1-9	10-24	25-99	100+
HGLN-CAT6	◢	Indoor, Shielded RJ45	48.44	45.53	42.63	CALL
HGLN-CAT6J	◢◢	Indoor, Shielded RJ45, PoE Compatible	48.44	45.53	42.63	CALL
HGLND-CAT6J	◢◢	Indoor DIN Mount, Shielded RJ45	53.83	50.60	47.37	CALL
CMSP-CAT6-2	◢◢	Indoor Wall Mount, 2-Port, Shielded RJ45	75.38	69.35	63.32	CALL
CMSP-CAT6-4	◢◢	Indoor, 4-Port, Shielded RJ45	107.71	99.09	90.48	CALL
AL-CAT6JW	◢◢	Weather Resistant, RJ45	39.82	37.43	35.04	CALL
AL-CAT6PW	◢◢	Weather Resistant, Punch Down Terminal Block	39.82	37.43	35.04	CALL
AL-CAT6W	◢◢	Weatherproof, Screw Terminal Block	59.22	55.66	52.11	CALL
HGLND-CAT6-HP	◢◢◢◢	Indoor DIN Mount, High Power, Shielded RJ45	79.69	74.91	70.13	CALL
HGLN-CAT6-HP	◢◢◢◢	Indoor, High Power, Shielded RJ45	74.30	69.85	65.39	CALL
AL-CAT6HPJW	◢◢◢◢	Weather Resistant, High Power, Shielded RJ45	62.45	58.70	54.96	CALL
ALS-CAT6HPW	◢◢◢◢	Compact Weatherproof, High Power, Shielded RJ45	75.38	70.86	66.34	CALL
ALW-CAT6HPJ	◢◢◢◢	Weatherproof Metal Enclosure, High Power, Shielded RJ45	82.92	76.29	69.66	CALL
HGLN-CAT6JT	◢◢◢◢◢	Indoor, Differential Gas Tube, Shielded RJ45	57.06	53.64	50.21	CALL
ALS-CAT6JT	◢◢◢◢◢	Compact Weatherproof, Differential Gas Tube, Shielded RJ45	64.61	60.73	56.85	CALL
CMSP-CAT6T-2	◢◢◢◢◢	Indoor Wall Mount, 2-Port Differential Gas Tube, Shielded RJ45	80.77	74.31	67.85	CALL
CMSP-CAT6T-4	◢◢◢◢◢	Indoor, 4-Port, Differential Gas Tube, Shielded RJ45	140.04	128.84	117.63	CALL

Category 6a Data Line 10/100/1000/10G Base-T Protectors

L-com's HyperLink CAT6a lightning and surge protectors provide superior protection with improved frequency response for 10/100/1000/10000 (10G) Base-T Ethernet networks. They are designed for use with CAT6a Ethernet cabling, but can also be used with CAT5, CAT5e and CAT6 cabling.

Item #	Power Rating	Description	1-9	10-24	25-99	100+
AL-CAT6AJW	◢◢	Weather Resistant, RJ45 (CAT6a)	51.76	48.65	45.55	CALL

15V and 24V PoE Compatible Data Line Lightning and Surge Protectors

The lightning protectors in this section are designed to be compatible with PoE equipment requiring 15V and 24V. Note, these protectors are not intended for use with standard 48V PoE equipment.

Item #	Power Rating	Description	1-9	10-24	25-99	100+
HGLN-CAT5J24	◢◢◢	Indoor, Cat5, 15V/24V PoE, Shielded RJ45	45.21	42.49	39.78	CALL
AL-CAT5SJW24	◢◢◢	Weather Resistant, Cat5, 15V/24V PoE, Shielded RJ45	43.05	40.47	37.89	CALL
AL-CAT5W-4-24	◢◢◢◢	Weatherproof, 4-Port, Cat5, 15V/24V PoE, Shielded RJ45	140.04	131.64	123.24	CALL
HGLN-CAT5EJW24	◢◢◢◢	Indoor, Cat5e, 15V/24V PoE, Shielded RJ45	57.06	53.64	50.21	CALL
AL-CAT5EJW24	◢◢◢◢	Weather Resistant, Cat5e, 15V/24V PoE, Shielded RJ45	51.67	48.57	45.47	CALL
ALW-CAT5EJ24	◢◢◢◢	Weatherproof Metal Enclosure, Cat5e 15V/24V PoE, Shielded RJ45	75.38	69.35	63.32	CALL

Rack Mount Ethernet and Telephone/DSL Protectors

The RMSP series lightning and surge protectors provides multiple line protection in a standard 19" rack panel. Available in 4/12/24 port versions, the RMSP series mounts into any standard 19" (48.3cm) rack system and may be installed in the rear of the rack where they are normally required for line in and out.

Item #	Power Rating	Description	1-9	10-24	25-99	100+
RMSP-CAT5S-4	◢◢◢	Category 5 10/100 Base-T, 19in (48.3cm) 1U Panel, 4-Port	86.00	82.56	79.12	CALL
RMSP-CAT5S-12	◢◢◢	Category 5 10/100 Base-T, 19in (48.3cm) 2U Panel, 12-Port	195.00	187.20	179.40	CALL
RMSP-CAT5-24	◢◢◢	Category 5 10/100 Base-T, 19in (48.3cm) 1U Panel, 24-Port	420.23	403.42	386.61	CALL
RMSP-CAT6-4	◢◢◢	Category 6 10/100/1000 Base-T, 19in (48.3cm) 1U Panel, 4-Port	103.00	98.88	94.76	CALL
RMSP-CAT6-12	◢◢◢	Category 6 10/100/1000 Base-T, 19in (48.3cm) 2U Panel, 12-Port	260.00	249.60	239.20	CALL
RMSP-CAT6T-4	◢◢◢◢◢	Category 6 10/100/1000 Base-T, 19in (48.3cm) 1U Panel, High Power, 4-Port	137.00	131.52	126.04	CALL
RMSP-CAT6T-12	◢◢◢◢◢	Category 6 10/100/1000 Base-T, 19in (48.3cm) 2U Panel, High Power, 12-Port	270.00	259.20	248.40	CALL
RMSP-DT-4	◢◢◢◢◢	Telephone/DSL, 19in (48.3cm) 1U Panel, High Power, 4-Port	161.59	155.13	148.67	CALL
RMSP-DT-12	◢◢◢◢◢	Telephone/DSL, 19in (48.3cm) 2U Panel, High Power, 12-Port	484.89	465.49	446.10	CALL

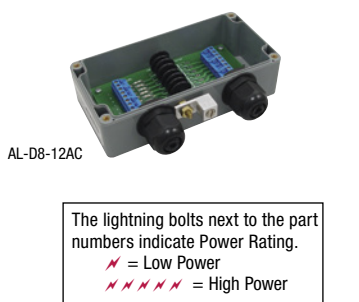### Wall Plate Series Lightning and Surge Protectors

The WP series lightning protectors feature stainless steel wall plates designed to mount to standard in-wall conduit boxes. These units are ideal for providing lightning and surge protection in homes and offices with existing in-wall telephone and network wiring.

Item #	Power Rating	Description	1-9	10-24	25-99	100+
WPCAT5	◢◢◢	Wall Plate, Cat5, Shielded RJ45/RJ45	30.12	28.92	27.71	CALL
WPCAT6	◢◢	Wall Plate, Cat6, Shielded RJ45/RJ45	30.12	28.92	27.71	CALL
WPDTJ	◢◢◢◢◢	Wall Plate, Telephone/DSL, RJ11/RJ11	30.12	28.92	27.71	CALL
WPDTP	◢◢◢◢◢	Wall Plate, Telephone/DSL, RJ11/Punch Terminal	30.12	28.92	27.71	CALL

CMSP-CAT5-8

ALS-CAT5W

AL-CAT5W-4

AL-CAT5SHPW

HGLND-CAT6-HP

CMSP-CAT6T-2

AL-CAT6AJW

RMSP-CAT6-4

Rear view detail

RMSP-DT-12

WPCAT5

WPDTJ

The lightning bolts next to the part numbers indicate Power Rating.
◢ = Low Power
◢◢◢◢◢ = High Power

L-com® Global Connectivity

HGLND-D1-DT

RMSP-DT-4

Rear view detail

ALW-DSLS

HGLND-D1-05

AL-D15P1228AW

ALS-D25P12DW

AL-CL2-12

HGLN-AISG1

AL-D8-12AC

The lightning bolts next to the part numbers indicate Power Rating.
⚡ = Low Power
⚡⚡⚡⚡ = High Power

Item #	Power Rating	Description	1-9	10-24	25-99	100+

Telephone / DSL / T1 Protectors

L-com's HyperLink® Telephone, DSL and T1 lightning and surge protectors are perfect for indoor and outdoor installations. There are multiple styles to choose from including screw terminal, punch down and RJ11.

Item #	Power Rating	Description	1-9	10-24	25-99	100+
AL-D4W-DT	⚡⚡⚡	Weather Resistant, Phone / DSL, T1 / E1 / J1, Screw Terminal	48.44	45.53	42.63	CALL
AL-D4W-DP	⚡⚡⚡	Weather Resistant, Phone / DSL, T1 / E1 / J1, Punch Down Terminal	48.44	45.53	42.63	CALL
HGLN-D1-DT	⚡⚡⚡	Indoor, High Power Single Line Phone / DSL, Screw Terminal	48.44	45.53	42.63	CALL
HGLND-D1-DT	⚡⚡⚡	Indoor DIN Mount, High Power Single Line Phone / DSL, Screw Terminal	53.83	50.60	47.37	CALL
HGLN-DT	⚡⚡⚡	Indoor, High Power Single Line Phone / DSL, RJ11	48.44	45.53	42.63	CALL
HGLN-D2T	⚡⚡⚡	Indoor, High Power Dual Line Phone / DSL, RJ11	48.44	45.53	42.63	CALL
CMSP-DT-4	⚡⚡⚡	Indoor, 4-Port High Power Phone / DSL, RJ11	140.04	128.84	117.63	CALL
RMSP-DT-59	⚡⚡⚡	19 inch (48.3cm) Rack Panel, 4-Port High Power Phone / DSL, RJ11	161.59	155.13	148.67	CALL
HGLN-DSL	⚡⚡⚡⚡⚡	Indoor, Phone / DSL, 3-Stage, RJ11	59.22	55.66	52.11	CALL
AL-DSLJW	⚡⚡⚡⚡⚡	Weather Resistant, Phone / DSL, 3-Stage, RJ11	59.22	55.66	52.11	CALL
ALW-DSLJ	⚡⚡⚡⚡⚡	Weatherproof Metal Enclosure, Phone / DSL, 3-Stage, RJ11	78.61	72.33	66.04	CALL
HGLN-D2-DT	⚡⚡⚡⚡⚡	Indoor, Phone / DSL, 3-Stage, Screw Terminal	59.22	55.66	52.11	CALL
HGLND-D2-DT	⚡⚡⚡⚡⚡	Indoor DIN Mount, Phone / DSL, 3-Stage, Screw Terminal	64.61	60.73	56.85	CALL
AL-DSLSW	⚡⚡⚡⚡⚡	Weather Resistant, Phone / DSL, 3-Stage, Screw Terminal	59.22	55.66	52.11	CALL
ALW-DSLS	⚡⚡⚡⚡⚡	Weatherproof Metal Enclosure, Phone / DSL, 3-Stage, Screw Terminal	78.61	72.33	66.04	CALL
AL-D3W-DT	⚡⚡⚡⚡⚡	Weather Resistant, Phone / DSL, 3-Stage, Screw Terminal	66.76	62.75	58.75	CALL

RS422 / RS485 / RS232 Protectors

L-com's HyperLink® lightning and surge protectors in this section are ideal for RS422, RS485, RS232 lines as well as providing protection for sensors and control lines. All protectors in this section feature screw terminals.

Item #	Power Rating	Description	1-9	10-24	25-99	100+
AL-D4W-05	⚡⚡⚡	Weather Resistant, 4-Line RS422 / 485	48.44	45.53	42.63	CALL
AL-D8W-12	⚡⚡⚡	Weather Resistant, 8-Line RS232	48.44	45.53	42.63	CALL
HGLN-D1-05	⚡⚡⚡	Indoor, 1-Line RS485, 3-Stage	43.05	40.47	37.89	CALL
HGLND-D1-05	⚡⚡⚡	Indoor DIN Mount, RS485, 3-Stage	48.44	45.53	42.63	CALL
HGLN-D2-05	⚡⚡⚡⚡⚡	Indoor, RS422 / 485, RTDs, T1 / E1 / J1, 3-Stage	59.22	55.66	52.11	CALL
HGLND-D2-05	⚡⚡⚡⚡⚡	Indoor DIN Mount, RS422 / 485, RTDs, T1 / E1 / J1, 3-Stage	64.61	60.73	56.85	CALL
AL-D2W-05	⚡⚡⚡⚡⚡	Weather Resistant, RS422 / 485, RTDs, T1 / E1 / J1, 3-Stage	59.22	55.66	52.11	CALL
ALW-D2-05	⚡⚡⚡⚡⚡	Weatherproof Metal Enclosure, RS422 / 485, 3-Stage	75.38	69.35	63.32	CALL
AL-D3W-05	⚡⚡⚡⚡⚡	Weather Resistant, RS485	66.76	62.75	58.75	CALL
HGLN-D2-12	⚡⚡⚡⚡⚡	Indoor, 2-Line RS232, 3-Stage	59.22	55.66	52.11	CALL
AL-D2W-12	⚡⚡⚡⚡⚡	Weather Resistant, 2-Line RS232, 3-Stage	59.22	55.66	52.11	CALL
ALW-D2-12	⚡⚡⚡⚡⚡	Weatherproof Metal Enclosure, 2-Line RS232, 3-Stage	75.38	69.35	63.32	CALL
AL-D4-05W	⚡⚡⚡⚡	Weatherproof, 4-Line RS422 / 485	66.76	62.75	58.75	CALL

RS422 / RS485 Control Lines with AC / DC Supply Voltage Protectors

L-com's HyperLink® AL-D15P and ALS-D25P protectors incorporate individual protection circuits for RS422 / 485 control lines and AC / DC power lines. These protectors are ideal for RS422 / 485 lines with AC / DC supply voltage, analog or IP video surveillance cameras, pool / spa controllers and Pan-Tilt-Zoom (PTZ) camera controllers.

Item #	Power Rating	Description	1-9	10-24	25-99	100+
AL-D15P05DW	⚡⚡⚡⚡	5VDC, RS485, Weather Resistant, Screw Terminal	37.66	35.40	33.14	CALL
AL-D15P12DW	⚡⚡⚡⚡	12VDC, RS485, Weather Resistant, Screw Terminal	37.66	35.40	33.14	CALL
AL-D15P15DW	⚡⚡⚡⚡	15VDC, RS485, Weather Resistant, Screw Terminal	37.66	35.40	33.14	CALL
AL-D15P24DW	⚡⚡⚡⚡	24VDC, RS485, Weather Resistant, Screw Terminal	37.66	35.40	33.14	CALL
AL-D15P1228AW	⚡⚡⚡⚡	12-28VAC, RS485, Weather Resistant, Screw Terminal	37.66	35.40	33.14	CALL
ALS-D25P12DW	⚡⚡⚡⚡	12VDC, RS422 / RS485, Weatherproof, Screw Terminal	59.22	55.66	52.11	CALL
ALS-D25P15DW	⚡⚡⚡⚡	15VDC, RS422 / RS485, Weatherproof, Screw Terminal	59.22	55.66	52.11	CALL
ALS-D25P24DW	⚡⚡⚡⚡	24VDC, RS422 / RS485, Weatherproof, Screw Terminal	59.22	55.66	52.11	CALL
ALS-D25P1228AW	⚡⚡⚡⚡	12-28VAC, RS422 / RS485, Weatherproof, Screw Terminal	59.22	55.66	52.11	CALL

4-20 mA Current Loop Protectors

L-com's HyperLink® brand 4-20 mA protectors are ideal for sensors and controllers as well as industrial control lines, HART street light controllers, toll booths, drawbridges, railroad crossing gates and signals. Available in three voltages; 12V, 15V and 24V.

Item #	Power Rating	Description	1-9	10-24	25-99	100+
AL-CL4-12	⚡⚡⚡	12V Weather Resistant, 4-Channel, Screw Terminal	48.44	45.53	42.63	CALL
HGLN-CL1-12	⚡⚡⚡	12V Indoor, 1-Channel, Screw Terminal	51.67	48.57	45.47	CALL
HGLND-CL1-12	⚡⚡⚡	12V Indoor DIN Mount, 1-Channel, Screw Terminal	58.14	54.65	51.16	CALL
HGLN-CL2-12	⚡⚡⚡	12V Indoor, 2-Channel, Screw Terminal	53.83	50.60	47.37	CALL
HGLND-CL2-12	⚡⚡⚡⚡	12V Indoor DIN Mount, 2-Channel, Screw Terminal	59.22	55.66	52.11	CALL
AL-CL2-12	⚡⚡⚡⚡	12V Weather Resistant, 2-Channel, Screw Terminal	48.44	45.53	42.63	CALL
AL-CL3W-12	⚡⚡⚡⚡	12V Weatherproof, 3-Channel, Screw Terminal	67.84	63.77	59.70	CALL
AL-CL4W-12	⚡⚡⚡⚡	12V Weatherproof, 4-Channel, Screw Terminal	69.99	65.79	61.59	CALL

See web site for 15V and 24V models.

Remote Electrical Tilt (RET) / AISG Protector

L-com's HyperLink® RET / AISG protector is compatible with AISG 5, 6 and 8-conductor control lines and provides individual protection of the power and RS485 lines within the control cable.

Item #	Power Rating	Description	1-9	10-24	25-99	100+
HGLN-AISG1	⚡⚡⚡	Weatherproof, RET / AISG Compatible, 8-Pin	107.71	101.25	94.79	CALL

AC and DC Control Line Protectors

L-com offers a full line of AC and DC Control Line lightning and surge protectors. Available in 12V, 24V and 48V in either AC or DC models.

Item #	Power Rating	Description	1-9	10-24	25-99	100+
AL-D8-12ACW	⚡⚡⚡⚡	Weather Resistant, Single Stage, 12VAC, 8-Wire, Screw Terminal	59.22	55.66	52.11	CALL
AL-D8-24ACW	⚡⚡⚡⚡	Weather Resistant, Single Stage, 24VAC, 8-Wire, Screw Terminal	59.22	55.66	52.11	CALL
AL-D8-48ACW	⚡⚡⚡⚡	Weather Resistant, Single Stage, 48VAC, 8-Wire, Screw Terminal	59.22	55.66	52.11	CALL
AL-D8-12AC	⚡⚡⚡⚡	Weatherproof, 12VAC, 8-Wire, Screw Terminal	71.07	66.81	62.54	CALL
AL-D8-24AC	⚡⚡⚡⚡	Weatherproof, 24VAC, 8-Wire, Screw Terminal	71.07	66.81	62.54	CALL
AL-D8-48AC	⚡⚡⚡⚡	Weatherproof, 48VAC, 8-Wire, Screw Terminal	71.07	66.81	62.54	CALL
AL-D8-05DCW	⚡⚡⚡	Weather Resistant, Single Stage, 5VDC, 8-Wire, Screw Terminal	59.22	55.66	52.11	CALL
AL-D8-12DCW	⚡⚡⚡	Weather Resistant, Single Stage, 12VDC, 8-Wire, Screw Terminal	59.22	55.66	52.11	CALL
AL-D8-24DCW	⚡⚡⚡⚡	Weather Resistant, Single Stage, 24VDC, 8-Wire, Screw Terminal	59.22	55.66	52.11	CALL
AL-D8-48DCW	⚡⚡⚡⚡	Weather Resistant, Single Stage, 48VDC, 8-Wire, Screw Terminal	59.22	55.66	52.11	CALL
AL-D8-12DC	⚡⚡⚡⚡	Weatherproof, 12VDC, 8-Wire, Screw Terminal	71.07	66.81	62.54	CALL
AL-D8-24DC	⚡⚡⚡⚡	Weatherproof, 24VDC, 8-Wire, Screw Terminal	71.07	66.81	62.54	CALL
AL-D8-48DC	⚡⚡⚡⚡	Weatherproof, 48VDC, 8-Wire, Screw Terminal	71.07	66.81	62.54	CALL
HGLN-DC-12	⚡⚡⚡⚡	Indoor, 12VDC, 1-Line, Screw Terminal	45.21	42.49	39.78	CALL

Item #	Power Rating	Description	1-9	10-24	25-99	100+

Load Cell / RTD / Strain Gauge Sensor Protectors

The AL-LC series lightning and surge protectors that provide superior protection for devices such as load cells, weighbridges, resistance temperature detectors (RTD) and strain gauge sensors.

AL-LC-30	⚡⚡⚡⚡	Weatherproof 3-Stage Load Cell / RTD Lightning Surge Protector	71.07	66.81	62.54	CALL
AL-LC	⚡⚡⚡⚡	Weatherproof Single Stage Load Cell / RTD Lightning Surge Protector	48.44	45.53	42.63	CALL

Audio System Protectors

L-com's HyperLink® outdoor speaker and public address system lightning protectors offer protection of valuable PA equipment at an affordable price.

AL-D2-AW	⚡⚡⚡⚡	Weatherproof, 4 / 8 Ohm Audio Systems, Screw Terminal	59.22	55.66	52.11	CALL
AL-D2-PAW	⚡⚡⚡⚡	Weatherproof, 70.7 / 100V Public Address Systems, Screw Terminals	59.22	55.66	52.11	CALL

Coaxial Video Protectors

L-com's HyperLink® Coaxial Video protectors are ideal for protecting surveillance and CCTV cameras, DVRs, surveillance PCs and video monitors.

CMSP-VIDEO-2	⚡⚡⚡	Indoor, 2-Port Video, BNC Connectors	53.83	49.52	45.22	CALL
CMSP-VIDEO-2I	⚡⚡⚡	Indoor, 2-Port Video, Isolated BNC Connectors	53.83	49.52	45.22	CALL
CMSP-VIDEO-4	⚡⚡⚡	Indoor, 4-Port Video, BNC Connectors	96.93	89.18	81.42	CALL
CMSP-VIDEO-4I	⚡⚡⚡	Indoor, 4-Port Video, Isolated BNC Connectors	96.93	89.18	81.42	CALL

Analog Pan-Tilt-Zoom (PTZ) Video Camera Surge Protectors

The L-com's HyperLink® AL-VDP series are designed to provide superior lightning and surge protection for analog PTZ video cameras. These protectors incorporate individual protection circuits for the analog video line, RS485 control line and AC / DC power lines.

AL-VDP012DW	⚡⚡⚡⚡	12VDC Weatherproof, Grounded BNC Connectors	134.65	123.88	113.11	CALL
AL-VDP112DW	⚡⚡⚡⚡	12VDC Weatherproof, Isolated BNC Connectors	134.65	123.88	113.11	CALL
AL-VDP024DW	⚡⚡⚡⚡	24VDC Weatherproof, Grounded BNC Connectors	134.65	123.88	113.11	CALL
AL-VDP124DW	⚡⚡⚡⚡	24VDC Weatherproof, Isolated BNC Connectors	134.65	123.88	113.11	CALL
AL-VDP01228AW	⚡⚡⚡⚡	12-28VAC Weatherproof, Grounded BNC Connectors	134.65	123.88	113.11	CALL
AL-VDP11228AW	⚡⚡⚡⚡	12-28VAC Weatherproof, Isolated BNC Connectors	134.65	123.88	113.11	CALL

USB Lightning and Surge Protectors, Panel Mountable

The L-com AL-ECF504 series USB surge protectors are commercial quality devices designed to protect a computer's sensitive USB ports from surges and spikes from attached devices. To ensure USB 2.0 speeds, the device uses ultra-low capacitance diodes to protect the data lines. In addition, a protection device clamps the power lines to safe levels. These panel mount protectors are available with or without a pigtail cable.

AL-ECF504-AB		USB Type A Female Bulkhead / Type B Female	19.39	18.22	17.06	CALL
AL-ECF504-AA12		USB Type A Female Bulkhead / Type A Male, 12in (30.5cm) Pigtail*	21.54	20.25	18.96	CALL
AL-ECF504-AB12		USB Type A Female Bulkhead / Type B Male, 12in (30.5cm) Pigtail*	21.54	20.25	18.96	CALL

*Also available in lengths of 24in (61.0cm), 36in (91.4cm), 48in (121.9cm) and 72in (182.9cm). See web site for details.

HyperLink® Coaxial Lightning and Surge Protectors

L-com's HyperLink® coaxial lightning and surge protectors feature replaceable gas tubes (except for 1/4 wave models), multi-strike capability and bi-directional protection.

0-3 GHz Coaxial Protectors

AL-NFNFB-9		Type N Female to Type N Female Bulkhead, 90V	22.58	20.77	18.96	CALL
AL-NFNFBHP-9		Type N Female to Type N Female Bulkhead, Indoor, High Power, 90V	30.12	27.71	25.30	CALL
AL-NMNFB-9		Type N Male to Type N Female Bulkhead, 90V	22.58	20.77	18.96	CALL
AL-BMBFB-9		BNC Male to BNC Female Bulkhead, 90V	18.27	16.80	15.34	CALL
AL-TMTFB-9		TNC Male to TNC Female Bulkhead, 90V	29.04	26.72	24.40	CALL
AL-UFUFB-6		UHF Female to UHF Female Bulkhead, 600V	18.27	16.80	15.34	CALL
AL-RBPRBJB-9		RP-BNC Plug to RP-BNC Jack Bulkhead, 90V	18.27	16.80	15.34	CALL
AL-RTPRTJB-9		RP-TNC Plug to RP-TNC Jack Bulkhead, 90V	29.04	26.72	24.40	CALL
AL-FFFF-9		Type F Female to Type F Female, 90V	29.04	26.72	24.40	CALL

0-6 GHz Coaxial Protectors

AL6-NFNFBW-9		Type N Female to Type N Female Bulkhead, 90V	43.05	39.61	36.16	CALL
AL6-NMNFBW-9		Type N Male to Type N Female Bulkhead, 90V	43.05	39.61	36.16	CALL
AL6-RSPRSJBW-9		RP-SMA Plug to RP-SMA Jack Bulkhead, 90V	37.66	34.65	31.64	CALL

0-6 GHz In-line Crimp Type Coaxial Protectors

L-com's crimp type coaxial protectors are designed to be attached directly onto a 400-series low-loss coax cable via the solderless crimp end of the protector. This helps improve insertion loss since a cable connector is eliminated. These protectors are also available on pre-made 400-series cable assemblies. See for details.

AL6-NF-14-9		Type N Female Bulkhead to Crimp End, 90V	36.59	33.66	30.73	CALL
AL6-NM-14-9		Type N Male to Crimp End, 90V	36.59	33.66	30.73	CALL

Quarter Wave Coaxial Protectors

ALQ2-NMNFB		2300-2700 MHz Type N Male to Type N Female Bulkhead	43.05	39.61	36.16	CALL
ALQ2-DMDFB		800-2250 MHz 7/16 DIN Male to 7/16 DIN Female Bulkhead	96.93	89.18	81.42	CALL
ALQ2-DFDFB		800-2250 MHz 7/16 DIN Female to 7/16 DIN Female Bulkhead	96.93	89.18	81.42	CALL

Low PIM Quarter Wave Coaxial Protectors

ALQP-DFDFB		800-2250 MHz 7/16 DIN Female to 7/16 DIN Female Bulkhead, Low PIM	103.62	97.40	91.19	CALL
ALQP-DMDFB		800-2250 MHz 7/16 DIN Male to 7/16 DIN Female Bulkhead, Low PIM	103.62	97.40	91.19	CALL
ALQP-NFNFB		800-2250 MHz Type N Female to Type N Female Bulkhead, Low PIM	82.90	77.92	72.95	CALL
ALQP-NMNFB		800-2250 MHz Type N Male to Type N Female Bulkhead, Low PIM	82.90	77.92	72.95	CALL

Replacement Gas Tubes

LPX090G		0-6 GHz, 90V, Replacement Gas Tube	12.88	11.59	10.30	CALL
LPX090-6		0-6 GHz, 90V, Replacement Gas Tube For AL-NMNFBW-9	7.49	6.74	5.99	CALL
LPX090		0-3 GHz, 90V, Replacement Gas Tube	6.41	5.77	5.13	CALL
LPX230		0-3 GHz, 230V, Replacement Gas Tube	6.41	5.77	5.13	CALL
LPX350		0-3 GHz, 350V, Replacement Gas Tube	6.41	5.77	5.13	CALL
LPX600		0-3 GHz, 600V, Replacement Gas Tube	6.41	5.77	5.13	CALL

Accessories

HGX-LPMOUNT01		ALQ2 Mounting Bracket	6.25	5.75	5.25	CALL

Grounding Kits and Clamps

L-com's coax cable grounding kits are designed to withstand the damaging effects of lightning currents in excess of 200kA as well as meet the MIL-STD-188-124A protection requirements. Our grounding pipe clamp fits around existing conduit pipes or water pipes for a secure ground.

HT-GK400		Grounding Kit for LMR400 Series Cable	20.67	19.85	19.02	CALL
HT-GK600		Grounding Kit for LMR600 Series Cable	20.67	19.85	19.02	CALL

The lightning bolts next to the part numbers indicate Power Rating.

⚡ = Low Power
⚡⚡⚡⚡⚡ = High Power

AL-LC-30

CMSP-VIDEO-2

AL-VDP124DW

AL-ECF504-AA12

Best Seller

AL-NFNFB-9

Best Seller

AL6-NMNFBW-9

AL6-RSPRSJBW-9

AL6-NF-14-9

ALQ2-DFDFB

ALQP-DFDFB

L-com Global Connectivity

PS2424-POE

PS4834GB-POE-2

Best Seller

BT-CAT5-P1

BT-CAT5-P1-56118

BT-CAT5E-P1-HP

BTDCAT5EP1HP48W

BT-CAT5E-P1HPW56118

BTD-CAT6-P1-4870

BT-CAT6-P4-56118

BT-CAT6-P4
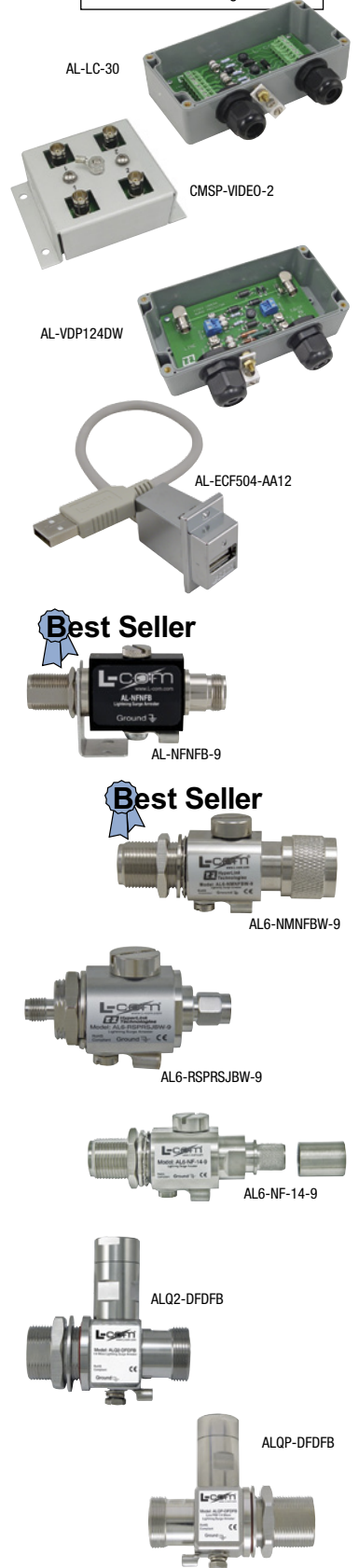
Item #	Description	1-9	10-24	25-99	100+
Power over Ethernet (PoE) Midspan/Injectors					
L-com offers a wide range of PoE Midspan/Injectors styles including reverse polarity and 4-port models. These PoE Midspan/Injectors can be used to supply power as well as data to PoE compliant devices such as access points, CPEs, IP phone and wireless routers over a single Ethernet cable.					
All-In-One Midspan/Injector with Integral Power Supply					
PSW1212-POE	12 VDC, 12W, Wall Mount, RJ45	18.00	16.92	15.84	CALL
PS1212-POE	12 VDC, 12W, Desktop, RJ45, Requires PSCORD2 Power Cord	26.00	24.44	22.88	CALL
PSW2424-POE	24 VDC, 24W, Wall Mount, RJ45	18.00	16.92	15.84	CALL
PS2424-POE	24 VDC, 24W, Desktop, RJ45, Requires PSCORD3 Power Cord	26.00	24.44	22.88	CALL
PSW4824-POE	48 VDC, 24W, Wall Mount, RJ45	18.00	16.92	15.84	CALL
PS4820-POE-1	48 VDC, 20W, Dual RJ45	26.00	24.44	22.88	CALL
PS4834GB-POE-2	48 VDC, 34W, Gigabit, 2-Port RJ45	57.00	53.58	50.16	CALL
Cat5 Midspan/Injectors					
BT-CAT5-E1	Compact Single Port, 5-48 VDC	7.00	6.58	6.16	CALL
BT-CAT5-E1-4848	BT-CAT5-E1 with 48VDC/48W Power Supply	28.00	26.32	24.64	CALL
BT-CAT5-E1-4870	BT-CAT5-E1 with 48VDC/70W Power Supply	51.00	47.94	44.88	CALL
BT-CAT5-P1	Single Port, 5-48 VDC	26.00	24.44	22.88	CALL
BT-CAT5-P1-4848	BT-CAT5-P1 with 48VDC/48W Power Supply	43.00	40.42	37.84	CALL
BT-CAT5-P1-4870	BT-CAT5-P1 with 48VDC/70W Power Supply	66.00	62.04	58.08	CALL
BT-CAT5-P1-56118	BT-CAT5-P1 with 56VDC/117.6W Power Supply	73.00	68.62	64.24	CALL
BTD-CAT5-P1	DIN Mount Single Port, 5-48 VDC	31.00	29.14	27.28	CALL
BTD-CAT5-P14848	BTD-CAT5-P1 with 48VDC/48W Power Supply	48.00	45.12	42.24	CALL
BTD-CAT5-P14870	BTD-CAT5-P1 with 48VDC/70W Power Supply	71.00	66.74	62.48	CALL
BT-CAT5-P1J	Single Port, 5-48 VDC with Cat5 Surge Protection	40.00	37.60	35.20	CALL
BT-CAT5-P1J-4848	BT-CAT5-P1J with 48VDC/48W Power Supply	56.00	52.64	49.28	CALL
BT-CAT5-P1J-4870	BT-CAT5-P1J with 48VDC/70W Power Supply	78.00	73.32	68.64	CALL
BT-CAT5-P1J-56118	BT-CAT5-P1J with 56VDC/117.6W Power Supply	86.00	80.84	75.68	CALL
BTD-CAT5-P1J	DIN Mount Single Port, 5-48 VDC w/Cat5 Surge Protection	45.00	42.30	39.60	CALL
BTD-CAT5P1J4848	BTD-CAT5-P1J with 48VDC/48W Power Supply	61.00	57.34	53.68	CALL
BTD-CAT5P1J4870	BTD-CAT5-P1J with 48VDC/70W Power Supply	83.00	78.02	73.04	CALL
BT-CAT5-P1R	Single Port, 5-48 VDC, Reverse Polarity	35.00	32.90	30.80	CALL
BT-CAT5-P1R4848	BT-CAT5-P1R with 48VDC/48W Power Supply	51.00	47.94	44.88	CALL
BT-CAT5-P1R4870	BT-CAT5-P1R with 48VDC/70W Power Supply	73.00	68.62	64.24	CALL
BT-CAT5-P1R-56118	BT-CAT5-P1R with 56VDC/117.6W Power Supply	81.00	76.14	71.28	CALL
BTD-CAT5-P1R	DIN Mount Single Port, 5-48 VDC, Reverse Polarity	40.00	37.60	35.20	CALL
BTD-CAT5P1R4848	BTD-CAT5-P1R with 48VDC/48W Power Supply	56.00	52.64	49.28	CALL
BTD-CAT5P1R4870	BTD-CAT5-P1R with 48VDC/70W Power Supply	78.00	73.32	68.64	CALL
BT-CAT5-P4	Four Port, 5-48 VDC	56.00	52.64	49.28	CALL
BT-CAT5-P4-4848	BT-CAT5-P4 with 48VDC/48W Power Supply	73.00	68.62	64.24	CALL
BT-CAT5-P4-4870	BT-CAT5-P4 with 48VDC/70W Power Supply	96.00	90.24	84.48	CALL
BT-CAT5-P4-56118	BT-CAT5-P4 with 56VDC/117.6W Power Supply	103.00	96.82	90.64	CALL
BTD-CAT5-P4	DIN Mount Four Port, 5-48 VDC	61.00	57.34	53.68	CALL
BTD-CAT5-P44848	BTD-CAT5-P4 with 48VDC/48W Power Supply	78.00	73.32	68.64	CALL
BTD-CAT5-P44870	BTD-CAT5-P4 with 48VDC/70W Power Supply	100.00	94.00	88.00	CALL
BT-CAT5-P4J	Four Port, 5-48 VDC with Cat5 Surge Protection	63.00	59.22	55.44	CALL
BT-CAT5-P4J-4848	BT-CAT5-P4J with 48VDC/48W Power Supply	78.00	73.32	68.64	CALL
BT-CAT5-P4J-4870	BT-CAT5-P4J with 48VDC/70W Power Supply	100.00	94.00	88.00	CALL
BT-CAT5-P4J-56118	BT-CAT5-P4J with 56VDC/117.6W Power Supply	109.00	102.46	95.92	CALL
BTD-CAT5-P4J	DIN Mount Four Port, 5-48 VDC w/Cat5 Surge Protection	70.00	65.80	61.60	CALL
BTD-CAT5P4J4848	BTD-CAT5-P4J with 48VDC/48W Power Supply	85.00	79.90	74.80	CALL
BTD-CAT5P4J4870	BTD-CAT5-P4J with 48VDC/70W Power Supply	108.00	101.52	95.04	CALL
Cat5e Midspan/Injectors					
BT-CAT5E-P1-HP	Single Port, 5-60 VAC/DC with High Power Cat5e Surge Protection	52.00	48.88	45.76	CALL
BT-CAT5E-P1-HP-4848	BT-CAT5E-P1-HP with 48VDC/48W Power Supply	68.00	63.92	59.84	CALL
BT-CAT5E-P1-HP-4870	BT-CAT5E-P1-HP with 48VDC/70W Power Supply	89.00	83.66	78.32	CALL
BT-CAT5E-P1-HP56118	BT-CAT5E-P1 with 56VDC/117.6W Power Supply	99.00	93.06	87.12	CALL
BTD-CAT5E-P1-HP	DIN Mount Single Port, 5-60 VAC/DC w/High Power Cat5e Surge Protection	57.00	53.58	50.16	CALL
BTDCAT5EP1HP48W	BT-CAT5E-P1-HP with 48VDC/48W Power Supply	73.00	68.62	64.24	CALL
BTDCAT5EP1HP70W	BT-CAT5E-P1-HP with 48VDC/70W Power Supply	94.00	88.36	82.72	CALL
BT-CAT5E-P1-HPW	Single Port, Weather Resistant, 5-60 VAC/DC with High Power Cat5e Surge Protection	51.00	47.94	44.88	CALL
BT-CAT5E-P1-HPW4848	BT-CAT5E-P1-HPW with 48VDC/48W Power Supply	68.00	63.92	59.84	CALL
BT-CAT5E-P1-HPW4870	BT-CAT5E-P1-HPW with 48VDC/70W Power Supply	90.00	84.60	79.20	CALL
BT-CAT5E-P1HPW56118	BT-CAT5E-P1-HPW with 56VDC/117.6W Power Supply	98.00	92.12	86.24	CALL
Cat6 Gigabit Midspan/Injectors					
BT-CAT6-P1	Single Port, 5-60 VAC/DC	45.00	42.30	39.60	CALL
BT-CAT6-P1-4848	BT-CAT6-P1 with 48VDC/48W Power Supply	62.00	58.28	54.56	CALL
BT-CAT6-P1-4870	BT-CAT6-P1 with 48VDC/70W Power Supply	84.00	78.96	73.92	CALL
BT-CAT6-P1-56118	BT-CAT6-P1 with 56VDC/117.6W Power Supply	91.00	85.54	80.08	CALL
BTD-CAT6-P1	DIN Mount Single Port, 5-60 VAC/DC	50.00	47.00	44.00	CALL
BTD-CAT6-P14848	BTD-CAT6-P1 with 48VDC/48W Power Supply	68.00	63.92	59.84	CALL
BTD-CAT6-P14870	BTD-CAT6-P1 with 48VDC/70W Power Supply	89.00	83.66	78.32	CALL
BT-CAT6-P1-HP	Single Port, 5-60 VAC/DC with High Power Cat6 Surge Protection	68.00	63.92	59.84	CALL
BT-CAT6P1HP-48W	BT-CAT6-P1-HP with 48VDC/48W Power Supply	84.00	78.96	73.92	CALL
BT-CAT6P1HP-70W	BT-CAT6-P1-HPW with 48VDC/70W Power Supply	104.00	97.76	91.52	CALL
BT-CAT6-P1-HP-56118	BT-CAT6-P1-HP with 56VDC/117.6W Power Supply	114.00	107.16	100.32	CALL
BT-CAT6-P1-HPW	Single Port, Weather Resistant, 5-60 VAC/DC with High Power Cat6 Surge Protection	68.00	63.92	59.84	CALL
BT-CAT6P1HPW48W	BT-CAT6-P1-HPW with 48VDC/48W Power Supply	84.00	78.96	73.92	CALL
BT-CAT6P1HPW70W	BT-CAT6-P1-HPW with 48VDC/70W Power Supply	104.00	97.76	91.52	CALL
BTD-CAT6-P1-HP	DIN Mount Single Port, 5-60 VAC/DC w/High Power Cat6 Surge Protection	68.00	65.28	62.56	CALL
BTD-CAT6P1HP48W	BTD-CAT6-P1-HP with 48VDC/48W Power Supply	89.00	85.44	81.88	CALL
BTD-CAT6P1HP70W	BTD-CAT6-P1-HPW with 48VDC/70W Power Supply	112.00	107.52	103.04	CALL
BT-CAT6-P1-HPW56118	BT-CAT6-P1-HPW with 56VDC/117.6W Power Supply	114.00	107.16	100.32	CALL
BT-CAT6-P4	Four Port, 5-60 VAC/DC	78.00	73.32	68.64	CALL
BT-CAT6-P4-4848	BT-CAT6-P4 with 48VDC/48W Power Supply	93.00	87.42	81.84	CALL
BT-CAT6-P4-4870	BT-CAT6-P4 with 48VDC/70W Power Supply	117.00	109.98	102.96	CALL
BT-CAT6-P4-56118	BT-CAT6-P4 with 56VDC/117.6W Power Supply	124.00	116.56	109.12	CALL

Item #	Description	1-9	10-24	25-99	100+

Cat5 Splitter/Tap with Adjustable DC Output

The BT-CAT5-R0512 PoE Splitter/Tap delivers both data and DC power to non-PoE equipped Ethernet devices using a single Cat5 cable. It features a user adjustable output voltage selector which can be set for 5VDC, 7.5VDC, 9VDC or 12VDC allowing it to be used with a wide range of non-PoE devices.

Item #	Description	1-9	10-24	25-99	100+
BT-CAT5-R0512	100/1000 Base-T PoE Splitter/Tap with Adjustable DC Output	33.00	31.02	29.04	CALL

Switching Power Supplies

PS909-21R	9 VDC @ 1A (9W), 2.1mm DC Plug	10.67	10.25	9.82	CALL
PS1212-21R	12 VDC @ 1A (12W), 2.1mm Right Angle DC Plug	13.89	13.33	12.77	CALL
PS1224-21R	12 VDC @ 2A (24W), 2.1mm Right Angle DC Plug	15.54	14.92	14.30	CALL
PS1240-21R	12 VDC @ 3.33A (40W), 2.1mm Right Angle DC Plug	22.80	21.88	20.97	CALL
PS1566	15 VDC @ 4.4A (66W), 2.1mm DC Plug	93.26	89.53	85.80	CALL
PS4848-25R	48 VDC @ 1A (48W), 2.5mm Right Angle DC Plug	25.85	25.34	24.82	CALL
PS4870-25R	48 VDC @ 1.5A (70W), 2.5mm Right Angle DC Plug	63.00	60.48	57.96	CALL

Lighter Plug to 2.1mm Right Angle DC Plug, 3A Fuse

PS-LIGHTER-06	Cigarette Plug to 2.1mm Right Angle DC Plug, 3A Fuse, 6ft (1.8m)	10.36	9.95	9.53	CALL

Accessories

PSX-EU1	US Flat or Euro Round to Euro 4.8mm Round A/C Adapter	4.14	3.73	3.32	CALL
PSX-EU2	EU 4/4.8mm Round to US NEMA 6-15R Flat A/C Adapter	4.14	3.73	3.32	CALL
PSCORD2	2 Conductor Plug, USA/AC Power Cord, 1.0ft (0.3m)	4.14	3.98	3.81	CALL
PSCORD3	3 Conductor Plug, USA/AC Power Cord, 1.0ft (0.3m)	3.61	3.46	3.32	CALL

Includes Power Cable

BT-CAT5-R0512

PS1240-21R

PS-LIGHTER-06

Item #	Description	List Price

PLANET 802.3at/af PoE Extenders

PLANET's PoE Extenders are simple devices designed to extend both the reach of Ethernet Data and IEEE 802.3at/802.3af PoE over the standard 100m (328ft.) CAT5e/6 UTP cable to 200m, 300m or more.

POE-PTE101	PLANET POE-E101 802.3af PoE Extender	52.00
POE-PTE201	PLANET POE-E201 802.3at/af Gigabit PoE Extender	73.00
PT-LRP-101U-KIT	PLANET LRP-101U-KIT 802.3at/af 1-Port Long Reach PoE over UTP Extender	300.00
PT-LRP-101C-KIT	PLANET LRP-101U-KIT 802.3at/af 1-Port Long Reach PoE over Coax Extender	300.00
PT-IPOE-E202	PLANET IPOE-E202 Industrial 1-Port 802.3at PoE+ to 2-Port 802.3af Extender	305.00
PT-IPOE-E174	PLANET IPOE-E174 802.3at/af 1-Port Ultra PoE to 4-Port Gigabit PoE Extender	185.00

POE-PTE201

PT-LRP-101C-KIT

PLANET 15x & 17x Series PoE Injector and Splitters

POE-PT151	PLANET POE-151 48 VDC, 802.3af PoE Injector, Included Power Supply	33.00
POE-PT152S	PLANET POE-152S 5/12 VDC, 802.3at PoE Splitter, Included Power Supply	33.00
PT-POE-171	PLANET POE-171 60W, Single Port, Gigabit Ultra PoE Injector, Includes Power Supply	99.00
PT-POE-171S	PLANET POE-171S 12/19/24 VDC, Gigabit Ultra PoE Splitter, Includes Power Cables	88.00

PT-IPOE-E202

PLANET PoE Injector Hubs

POE-PT1200	PLANET POE-1200 48 VDC, 12-Port 802.3af PoE Injector Hub	290.14
POE-PT1200G	PLANET POE-1200G 48 VDC, 12-Port 802.3af Gigabit PoE Injector Hub	322.00
POE-PT2400G	PLANET POE-2400G 48 VDC, 24-Port 802.3af Gigabit PoE Injector Hub	494.00

POE-PT152S

PLANET PoE Ethernet Switches

PLANET's PoE Ethernet switches are designed to provide data and power to a wide range PoE compatible devices. These feature packed switches are available in wall mount, rack mount and industrial IP67 rated versions.

PT-GSD-604HP	PLANET GSD-604HP 4-Port 10/100/1000T 802.3at PoE+ Desktop Gigabit Ethernet Switch	89.00
PT-GSW-2620HP	PLANET GSW-2620HP 24-Port 10/100/1000T 802.3at PoE+ SFP Gigabit Ethernet Switch	411.00
PT-FGSD-1022VHP	PLANET FGSD-1022VHP 8-Port 10/100TX 802.3at PoE+ with 2-Port Gigabit TP/SFP Combo Ethernet Switch	185.00
PT-FGSW-1822VHP	PLANET FGSW-1822VHP 16-Port 10/100TX 802.3at PoE+ with 2-Port Gigabit TP/SFP Combo Ethernet Switch	328.00
PT-FGSW-2622VHP	PLANET FGSW-2622VHP 24-Port 10/100TX 802.3at PoE+ with 2-Port Gigabit TP/SFP Combo Ethernet Switch	392.00
PT-ISW-804PT-M12	PLANET ISW-804PT-M12 Industrial IP67 Rated 8-Port 10/100Mbps M12 Fast Ethernet PoE Switch	410.00
PT-WGS-804HP	PLANET WGS-804HP 8-Port 10/100/1000T Wall Mounted Gigabit Ethernet Switch with 4-Port PoE+	220.00

POE-PT2400G

PT-GSW-2620HP

New — PT-FGSW-1822VHP

New — PT-ISW-804PT-M12

Typical PoE Midspan/Injector and Splitter Applications

Ethernet Cable — Data + Power
PoE Network Switch — PoE Device (Wireless AP, CPE, Router, etc.)

Power Supply
Ethernet Cable — Data Only — PoE Injector — Ethernet Cable — Data + Power — PoE Device (Wireless AP, CPE, Router, etc.)
Non-PoE Network Switch

Ethernet Cable — Data + Power — PoE Network Switch — PoE Splitter — Power Cable / Ethernet Cable — Data Only — Non-PoE Device (Wireless AP, CPE, Router, etc.)

Power Supply
Ethernet Cable — Data Only — PoE Injector — Ethernet Cable — Data + Power — PoE Splitter — Power Cable / Ethernet Cable — Data Only — Non-PoE Device (Wireless AP, CPE, Router, etc.)
Non-PoE Network Switch

L-com Global Connectivity