

Item #	Description	Color	1-9	10-24	25-99	100-249	250-499
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### USB Type A and B Female Field Termination Connector

The USB field termination female connectors provide an easy and convenient way to perform field termination for USB applications. USB 2.0 standard A and B connector styles are available. Separate connection points are provided for all 4 positions of the connector plus the ground. Terminal block design with set screws provides reliable electrical connections utilizing no special tools. The terminal block area is clearly marked making proper termination virtually foolproof. Panel mountable using 4-40 screws provided.

USBAFT	USB Field Termination Connector, Type A Female		6.25	5.88	5.50	5.13	4.75
USBBFT	USB Field Termination Connector, Type B Female		6.25	5.88	5.50	5.13	4.75

### USB Keystone Feed Through Coupler – Type A/B Connectors, Fully Shielded

Our new shielded USB keystone coupler can be easily installed into typical panels, wall plate openings and enclosures. Connectors are USB A female on the front and USB B female on the back. The stamped metal shell and one piece design provides maximum protection from EMI/RFI. Contact us for aggressive pricing for your larger projects.

UADKEY-AB	USB Keystone Coupler, Type A Female / Type B Female	Silver	8.95	8.23	7.52	6.80	6.09
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### Flanged Panel Mounted USB 2.0 Coupler - Type A/B Connectors, Fully Shielded

This unique product combines L-com's fully shielded keystone coupler, UADKEY-AB, with a solid die-cast metal mounting frame allowing for mounting in virtually any panel thickness. 4-40 machine screws are provided.

ECF504-AB	USB Keystone Flanged Coupler, Type A Female / Type B Female	Silver	9.95	9.15	8.36	7.56	6.77
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### USB Surge/Lightning Protector – Type A/B Connectors, Panel Mountable

The L-com AL-ECF504-AB USB surge protector is a commercial quality device designed to protect a computer's sensitive USB port 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. It can be mounted on an enclosure, panel mounted or used in-line as a stand alone product.

AL-ECF504-AB	USB Surge / Lightning Protector, Type A/B	Silver	15.95	14.99	14.04	13.08	12.12
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### USB 2.0 Manual Switch Box - (1) Type B and (2) Type A Ports

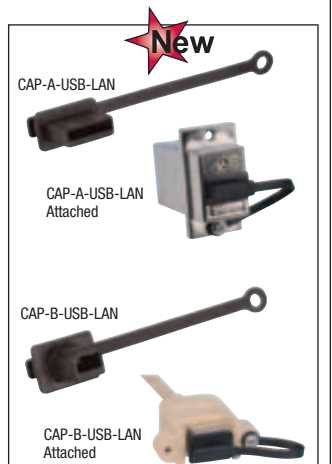
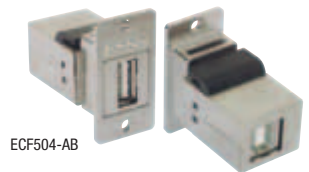
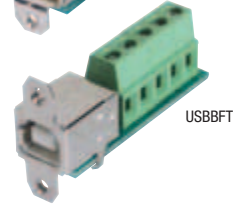
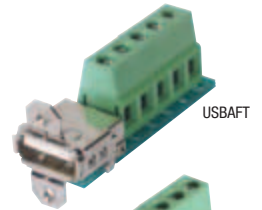
This handy switch box allows the user to share two USB devices with one computer. Equipped with one Type B I/O port and two type A ports. Lightweight design and all metal case provides easy set up and durability.

SWIT-USB2-BAA	USB Manual Switch Box		11.75	11.52	11.28	11.04	10.81
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### USB Protective Covers with Lanyard – for Type A and B Jacks - Pkg/10

These new covers add a lanyard feature to enhance our existing USB cover product line. They are perfect for protecting unused USB female ports in our panel mount couplers or any expensive equipment from physical damage, dirt and dust. The lanyard is perfectly sized to fit the 4-40 screws used in our ECF and UPM panel mount products. Made from soft polyethylene, these covers attach easily and stay in place with a snug friction fit. Color is black.

CAP-A-USB-LAN	USB Protective Cover with Lanyard for USB Type A Jacks, Pkg/10	Black	6.75	6.21	5.67	5.13	4.59
CAP-B-USB-LAN	USB Protective Cover with Lanyard for USB Type B Jacks, Pkg/10	Black	6.75	6.21	5.67	5.13	4.59



### Waterproof Connectors - Where are they used and how are they rated?

#### Where are they used?

Applications for these connectors are numerous and include automotive, communication, industrial and medical instruments. Dust and moisture are the two most common contaminants that enter through exposed data ports, damaging or destroying electronic equipment. Fortunately, specially sealed cables and connectors are available from L-com to protect these ports from dust and moisture.

L-com offers a number of protected interface types including:

**D-subminiature** for many serial and parallel devices



**RJ45** for industrial Ethernet applications



**USB** for device interconnection and data transfer



**Fiber Optic** for industrial networks/harsh environments



#### How are they rated?

The most popular system to rate the environmental protection of a particular connector is the Ingress Protection Rating (commonly known as IP Rating).

The IP Rating is a number ranging from 1 to 3 digits.

- The first digit rates protection against ingress of solid objects
- The second digit rates protection against ingress of liquids
- The third digit rates protection against impact damage

The chart at right details the first two digit ratings:

**Note:** Many products, including L-com products, are not rated for impact. Larger value digits indicate greater protection against that substance/force.

IP		Solids		Liquids	
0	Non-Protected	0	Non-Protected	0	Non-Protected
1	≥ 50mm diameter	1	Vertical Dripping	1	Vertical Dripping
2	≥ 12.5mm diameter	2	Dripping (15° tilted)	2	Dripping (15° tilted)
3	≥ 2.5mm diameter	3	Spraying (up to 60°)	3	Spraying (up to 60°)
4	≥ 1.0mm diameter	4	Splashing (from any direction)	4	Splashing (from any direction)
5	Dust-protected	5	Jetting (from any direction)	5	Jetting (from any direction)
6	Dust-tight	6	Powerful Jetting (from any direction)	6	Powerful Jetting (from any direction)
		7	Temporary Immersion (30 min., 1m)	7	Temporary Immersion (30 min., 1m)
		8	Continuous Immersion (user defined)	8	Continuous Immersion (user defined)

**Dust Protected** - Dust may not be totally prevented, however, it must not interfere with the operation of the device or impair safety.  
**Dust Tight** - No ingress of dust allowed.



### Same day shipping

Orders placed before 4:00 EST ship the same day.