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To whom it may concern:

Re: CLS Connector Options

Blackhawk Enterprises Inc. is the manufacturer's representative for CLS camera lowering systems in the U.S. for ITS applications.

Several people question the use of molded connectors with wire leads molded into the connector, versus non-molded connectors where the composite cable is wired directly to the connector and then potted using thermal setting polymers. Blackhawk Enterprises deems no tangible benefit of using molded connectors over connectors that utilize thermal setting polymer potting. On the flip-side, there are several benefits of using a non-molded connector. CLS offers several different styles of connectors to accommodate each customer's requirements.

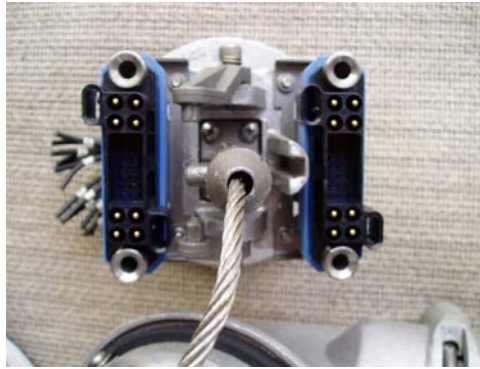
The standard CLS connector offers up to 29 pins, and is typically only used in applications using non-dome cameras, that require a lot of connections. This connector does use smaller, data grade pins – however, despite here-say rumors from competitors, CLS has never had a pin bend on one of these devices, and there are several hundred installed and operational in the U.S. today.



Standard CLS connector

To undo the fears of smaller pins that were propagated without reason through the industry in an effort to eliminate competition, CLS introduced a new connector style using larger pins (12ga = 1/10.6" dia.). This connector, which utilizes gold plated copper pins that provide much more conductivity, resilience and corrosion protection over brass pins, was met by the industry with great enthusiasm. Specifications around the country were opened to this new connector, fostering competition in what had previously been a captive market.

By using a thermo-setting polymer to seal the pins in the connector, the system is able to have a straight run of the composite cable directly to the connector, eliminating the need for a pole top junction of wires. The cable assembly comes pre-wired and potted direct from the factory, ready to install. I have personally seen several installations using non-CLS molded connectors where wire nuts were used to connect video shield and video center conductors to 18ga. wires on molded connectors. Such problems inherent with these installations are avoided with the non-molded connector.



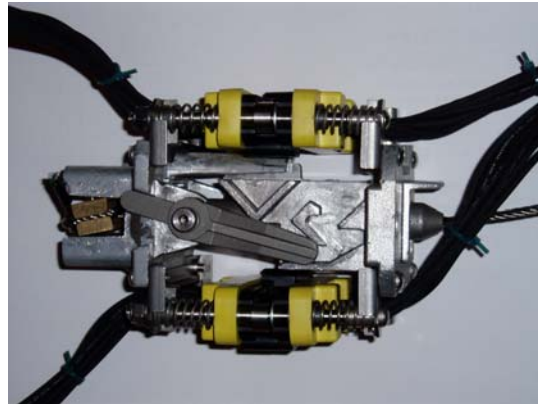
HD-16 Connector from CLS

To further improve the product line, CLS designed and fabricated a connector system that uses the HD-16 on one side, and a bulk-head BNC connector on the other side. This allows the video cable to be run directly to the connection with no breaks and no un-shielded wires present. This design was required by the Indiana DOT since they mount antennae on their lowering device junction boxes and will not allow any unshielded coax cable (not even 2"). This requirement cannot be met with a molded connector. Due to its ease of installation for CCTV contractors, where a standard BNC connector can be properly crimped on the coaxial cable for installation, this too has been a very popular design option. The BNC option can be used with a standard connector, HD-16 connector or HD-16-HYP connector on the other side.



Standard Connector with Bulkhead BNC

We have introduced another new model connector to the product line, which is an HD-16 connector, with a molded Hypalon boot, and 18ga. Hypalon coated wires coming from the boot. While I personally prefer the benefits of the potted style connector, this connector is similar to that offered by competitors, and meets the molded wire and Hypalon coated wire specifications. This product was introduced strictly because of specification concerns, and requires pole top wire junctions to the composite cable.



HD-16 with Hypalon boot and Hypalon coated wires

So, to compare CLS with legacy specifications, here are the points which CLS does not “explicitly” meet, although any of the CLS connector models fully meets the intent of the specification.

1. Connector Block made of Hypalon. Thermosetting polymer used instead
2. Sockets are not brass. They are gold plated copper which is more conductive and more corrosive resistant.
3. Contacts 1/8” diameter. Contacts are 1/10.6”
4. There are no cored holes in the connector body. The connector bodies are chamfered, high tolerance, water-tight connectors designed for this application.

The differences outlined above are not functionally relevant, and serve no purpose other than to sole source a vendor for the lowering device.

CLS has a very good reputation nationwide, and has increased market share exponentially over the past 4 years. CLS has been accepted by virtually all DOT’s and municipal agencies and continues to design and deliver high quality products at reasonable prices. There is no price difference between any of the aforementioned models. All models are priced extremely competitively.

Competition is good and needed in any market. We welcome the opportunity to compete, and look forward to working with you on your projects.

Sincerely,

Jim LaBatt
President
Blackhawk Enterprises Inc.