PTZ Camera Remote Controller

**KEY FEATURES**

- KBD-1010-R
- KBD-1010-RN
- KBD-1010-RNV

**FUNCTIONALITY**

- Easy, ergonomic PTZ control of multiple remote cameras for live event production and content creation. Applications: Education, Broadcast, Video Conferencing, House of Worship etc.
- This compact remote controller features a high-quality joystick that allows effortless one-handed pan, tilt and zoom adjustments. Zoom can also be controlled via the joystick or a supplementary seesaw lever; dedicated knobs and control buttons simplify direct access to frequently-needed camera functions without needing to use the camera menus.
- Quick Access features include the control of Exposure, Shutter Speed, Iris, Compensation, White Balance, Focus, PT Speed, Zoom Speed.
- The controller supports serial RS232/RS422 and IP mix-control. It allows you to use RS232/RS422/IP control on one controller to control cameras in a single system.
- With IP control, automatically search available IP cameras in the network and assign IP addresses easily. IP control supports Visca Over IP, Onvif IP, CGI*.
- Supports 2 groups of 7 cameras per group (2x7) via Visca RS422 daisy chain control. Up to unlimited controllers can operate on a single network to control up to total 255 analog/IP cameras.
- Multi-color Key/Button illumination indicates the status of the camera and control functions.
- Provides PTZ camera configuration file export/import via IP interface capability to duplicate the keyboard setting to multiple keyboards.
- Up to 255 camera presets with memory of image parameters and 8 patterns/cruises to recall camera moves. (Requires camera support)
- Up to 6 selectable ASSIGN function key, additional functions can be assigned to ASSIGN buttons.
- Full compatibility is provided with all Bolin PTZ cameras and Sony BRC, SRG series PTZ cameras and most PTZ cameras in the market that support RS232/RS422/RS485/IP control.
- Compatible with Black Magic SDI video router, to switch camera on the router with PTZ camera control.
- Control firmware upgrade is available via USB and IP to keep the performance of the controller up to date.
- Tally Indicator: Includes Normal Tally/On-Air Tally/Contact Modes
- Available both 12VDC and POE power input. Power over control using the Junction Box included. Wide range power voltage tolerance: 5V – 48V, provides longer distance power run and suitable for vehicle use.

*Up to 255 camera presets with memory of image parameters and 8 patterns/cruises to recall camera moves. (Requires camera support)*

*Features to be supported on future firmware release.*
PTZ Camera Remote Controller

Dimensions Unit:mm

Cross Protocol Mix-control with RS232/RS422 and IP in one single system.

Visca RS422 Group A: 7 cameras
Visca RS232: 7 cameras
Visca RS422 Group B: 7 cameras
Pelco RS485: 255 cameras

Up to Unlimited Controllers, total 255 cameras in a single network.

Power: 12VDC, Independent power over control, POE.
Wide range power voltage tolerance: 5V – 48V, provides longer distance power run and suitable for vehicle use.

All models and specifications are subject to change without notice.

www.bolintechnology.com
# Product Specification

## Model No.

<table>
<thead>
<tr>
<th>KBD-1010-R</th>
<th>KBD-1010-RN</th>
<th>KBD-1010-RNV</th>
</tr>
</thead>
</table>

### Input/Output Connectors

<table>
<thead>
<tr>
<th>Control Input/Output</th>
<th>KBD-1010-R</th>
<th>KBD-1010-RN</th>
<th>KBD-1010-RNV</th>
</tr>
</thead>
<tbody>
<tr>
<td>RS232: RJ45 x1</td>
<td>RS232: RJ45 x1</td>
<td>RS232: RJ45 x1</td>
<td>RS232: RJ45 x1</td>
</tr>
<tr>
<td>RS422: RJ45 x2</td>
<td>RS422: RJ45 x2</td>
<td>RS422: RJ45 x2</td>
<td>RS422: RJ45 x2</td>
</tr>
<tr>
<td>LAN: RJ-45 x 1 Not Activated</td>
<td>LAN: RJ-45 x 1, 10BASE-T/100BASE-TX automatically detected</td>
<td>LAN: RJ-45 x 1, 10BASE-T/100BASE-TX automatically detected</td>
<td>LAN: RJ-45 x 1, 10BASE-T/100BASE-TX automatically detected</td>
</tr>
<tr>
<td>Tally In/Contact Out: 9pin x1</td>
<td>Tally In/Contact Out: 9pin x1</td>
<td>Tally In/Contact Out: 9pin x1</td>
<td>Tally In/Contact Out: 9pin x1</td>
</tr>
<tr>
<td>USB2.0*: Type A x1</td>
<td>USB2.0*: Type A x1</td>
<td>USB2.0*: Type A x1</td>
<td>USB2.0*: Type A x1</td>
</tr>
</tbody>
</table>

### Control Signal Format

- Baud Rate: 2400/4800/9600/19200/38400 (For RS232, RS422) VISC over IP communication

### Power Connector

- JEITA type 4 (12VDC), RJ45x1 for POE (IEEE 802.3af), RJ45x3 for Power Over Control

### Firmware Upgrade

- USB2.0 for FW Upgrade Only

### User Interface

<table>
<thead>
<tr>
<th>Display</th>
<th>KBD-1010-R</th>
<th>KBD-1010-RN</th>
<th>KBD-1010-RNV</th>
</tr>
</thead>
<tbody>
<tr>
<td>LED</td>
<td>Yes, 2 Knobs (Pan/Tilt, Zoom)</td>
<td>Yes, multi-color LED indicators</td>
<td>Yes, Button + Knob, Full Auto, Iris Priority, Shutter Priority, Manual Iris Gain, Manual Shutter Gain, Black Level.</td>
</tr>
</tbody>
</table>

### Camera Control

<table>
<thead>
<tr>
<th>Maximum Camera Control</th>
<th>KBD-1010-R</th>
<th>KBD-1010-RN</th>
<th>KBD-1010-RNV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allow to control up to total 255 cameras with combining multiple protocols use in a single system.</td>
<td>Yes, multi-color LED indicators</td>
<td>Yes, Button + Knob, Full Auto, Iris Priority, Shutter Priority, Manual Iris Gain, Manual Shutter Gain, Black Level.</td>
<td>Yes, multi-color LED indicators</td>
</tr>
</tbody>
</table>

### Control Protocol

- Pelco P/D over RS485, VISCA over IP communication

### Max Controller Qty/System

- Unlimited

### Key/Button Illumination

- Yes, multi-color LED indicators

### Third-Party Device Support

- Black Magic SDI router/switch, Control type: RS422, Control Method: Camera switching with PTZ control

### Configuration File

- File of PTZ camera configuration and keyboard setting Export/Import via IP

### Direction Function of Buttons/Knobs (Limited for Pelco Control)

<table>
<thead>
<tr>
<th>Expose Model Selection</th>
<th>KBD-1010-R</th>
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</tr>
</thead>
</table>

### General

<table>
<thead>
<tr>
<th>Power Input &amp; Voltage</th>
<th>Independent power input 12VDC voltage tolerance 5V ~ 48V, POE(IP), Power using RS422/232 port via Junction Box included. Power transmit up to 80-100 meters, 48VDC for vehicle use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Consumption</td>
<td>5W</td>
</tr>
<tr>
<td>Operation Temperature</td>
<td>0°C ~ 40°C, (32°F to 104°F )</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>-20°C ~ 60°C, (-4°F to 140°F )</td>
</tr>
<tr>
<td>Dimensions</td>
<td>278 mm x 132 mm x 99.5 mm (Without Base Bracket)</td>
</tr>
<tr>
<td>Weight</td>
<td>1kg (Without Base Bracket)</td>
</tr>
<tr>
<td>Supplied accessories</td>
<td>Power Adapter and power core (110VAC~220VAC to 12VDC/24A) x1, Junction Box and Control Cable x 1, Magnetic Base Bracket x1, Tally Phoenix connector X1</td>
</tr>
</tbody>
</table>

### Optional accessories

- RJ45 Adapter for RS232 + RJ45 Coupler, RJ45 Adapter for RS422 + RJ45 Coupler

### Notes

- Available functions/specifications depend on camera specification
- Functions may differ based on different version of the firmware.

### ORDER INFORMATION

- KBD-1010-R RS232/RS422/RS485
- KBD-1010-RN RS232/RS422/RS485, IP-Onvif
- KBD-1010-RNV RS232/RS422/RS485, IP-Onvif, Visca-Over-IP

- KBD-K422 (RS232 Cable Adapter+RJ45 Coupler)
- KBD-K232 (RS422 Cable Adapter+RJ45 Coupler)
- KBD-JB01 (Junction Box)

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