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## SERIAL OUTPUT DATA PROTOCOL

# LL IN8-RS0v3 - Potential free contact module

## Rev. 0v3

**SERIAL FORMAT** - 9600 baud, 1 start bit, 8 data bits, 2 stop bits, no parity.

**CABLE MANAGEMENT** - For RS423 use two-core shielded cable.
Shielding=earthing - involved on both sides. RS232 for short distances - you can use a single core shielded cable.

**MAXIMUM CABLE LENGTH** - RS423 1200m, RS232 100m.

**TERMINATION** - is not required, but recommended the finish line impedance R = cca.120ohm / 0.6 W

**BRANCHING** - is not a problem.

HANDSHAKING - is not required - RTS (pin E or 5 on the BBC Micro, or pin 4 to 25 pin „D“) and CTS (pin D or 2 on the BBC Micro, or pin 5 to 25 pin „D“) must be mutually connected to the computer.

**NUMBER OF CHA**NNELS - according to protocol.

**TRANSFER PROTOCOL** ( label soft on LL IN8-RS: I8 0v3 ):

Input device (LL IN8-RS) scans eight inputs and sends the following data by ON, HOLDING and OFF the entry:

| | |
|---|---|
| Broadcast data by Switch ON: | I x x O N <CR> |
| Broadcast data by HOLD: | I x x H O <CR> |
| Broadcast data by Switch OFF: | I x x O F <CR> |
| | where: x x - is the number of input 01 – 08 |

**NOTE:**
Treatment of inputs is about. 60ms, the command is sent after holding approx.1, 2s.

*These informations are subject to change, updates are on: www.leaderlight.eu*



SERIAL OUTPUT DATA PROTOCOL

# LL IN8-RS0v4 - Potential free contact module

## Rev. 0v4

**SERIAL FORMAT** - 9600 baud, 1 start bit, 8 data bits, 2 stop bits, no parity.

**CABLE MANAGEMENT** - For RS423 use two-core shielded cable.
Shielding=earthing - involved on both sides. RS232 for short distances - you can use a single core shielded cable.

**MAXIMUM CABLE LENGTH** - RS423 1200m, RS232 100m.

**TERMINATION** - is not required, but recommended the finish line impedance R = cca.120ohm / 0.6 W

**BRANCHING** - is not a problem.

HANDSHAKING - is not required - RTS (pin E or 5 on the BBC Micro, or pin 4 to 25 pin „D“) and CTS (pin D or 2 on the BBC Micro, or pin 5 to 25 pin „D“) must be mutually connected to the computer.

**NUMBER OF CHA**NNELS - according to protocol.

**TRANSFER PROTOCOL** for E-Cue ( label soft on LL IN8-RS: I8 0v4 ):

Input device (LL IN8-RS) scans eight inputs and sends the following data by ON, HOLDING and OFF the entry:

| | |
|---|---|
| Broadcast data by Switch ON: | Z x x <CR> |
| Broadcast data by HOLD: | D x x <CR> |
| Broadcast data by Switch OFF: | V x x <CR> |
| | where: x x = 11 – 18 (number of input 1 – 8) |

**NOTE:**
Treatment of inputs is about. 60ms, the command is sent after holding approx.1, 2s.

*These informations are subject to change, updates are on: www.leaderlight.eu*

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SERIAL OUTPUT DATA PROTOCOL

# LL IN8-RS0v5 - Potential free contact module

## Rev. 0v5

**SERIAL FORMAT** - 9600 baud, 1 start bit, 8 data bits, 2 stop bits, no parity.

**CABLE MANAGEMENT** - For RS423 use two-core shielded cable.
Shielding=earthing - involved on both sides. RS232 for short distances - you can use a single core shielded cable.

**MAXIMUM CABLE LENGTH** - RS423 1200m, RS232 100m.

**TERMINATION** - is not required, but recommended the finish line impedance R = cca.120ohm / 0.6 W

**BRANCHING** - is not a problem.

**HANDSHAKING** - is not required - RTS (pin E or 5 on the BBC Micro, or pin 4 to 25 pin „D“) and CTS (pin D or 2 on the BBC Micro, or pin 5 to 25 pin „D“) must be mutually connected to the computer.

**NUMBER OF CHA**NNELS - according to protocol.

**TRANSFER PROTOCOL** for Creator ( label soft on LL IN8-RS: I8 0v5 ):

Input device (LL IN8-RS) scans eight inputs and sends the following data by ON, HOLDING and OFF the entry:

| | |
|---|---|
| Broadcast data by Switch ON: | I x x O N <CR> K 9 <CR> |
| Broadcast data by HOLD: | I x x H O <CR> K 9 <CR> |
| Broadcast data by Switch OFF: | I x x O F <CR> K 9 <CR> |
| | where: x x = 01 – 08 (number of input 1 – 8) |

**NOTE:**
Treatment of inputs is about. 60ms, the command is sent after holding approx.1, 2s.

*These informations are subject to change, updates are on: www.leaderlight.eu*