Cable extensions

Readers can be extended using Belden CR9540 10-core overall screened cable to a maximum of 100 metres.
WHITE labelled control units provide 5V at the Red terminal. The Red power wire for the reader should therefore be directly connected to the 12V supply terminal.
WARNING - Earlier versions of this product used a different wiring layout for the LED’s. If you are replacing a unit, you will need to check the reader wiring label and confirm the LED indications.
Suitability

- Mounted on metal surface
- Readers mounted together
- 300mm between readers
- Security-sensitive doors
- Wet environments

Fitting
Technical Help

Here is the list of topics about this product that receive the most technical support enquiries. We list them here to help you speed up the installation and trouble shooting process.

1 - Readers/Keypads not working.
- Software settings - Confirm that the settings of the reader or keypad are correct.
- Connections - Check the wiring and integrity of the connectors. If possible, test this reader on the other port.
- Extended cable - Belden 9540 should be used up to a maximum of 100 m. Twisted pair alarm cable should not be used. To confirm that an extended reader cable is not at fault, wire the reader directly to the port.
- Supply voltage - Confirm that the voltage is within specification. (see table)
- User token - Confirm that the user token used for testing is OK by presenting it to a known working reader.
- Interference - Confirm whether the reader works when tested 'in hand' and not mounted on the wall.
  PROXIMITY readers should not be mounted back to back or close to other RF devices.

2 - Readers / Keypads - Extending cable.
Only Belden CR9538 / 9540 can be used for cable extensions. CR9538 8 core up to 25 m, CR9540 10 core for 25-100 m (maximum). With CR9540, the two additional cores should be used to double up the power.
3 - Net2 - Using a door reader as a desktop reader.
It is possible to configure a door reader to operate as a desktop reader:
1 - Select the doors menu in the left hand Net2 pane.
2 - Click on the door you wish to change the reader to act as a desktop reader.
3 - Under the relevant reader tab, change the reader operating mode to 'Desktop Reader'.
4 - The PC displays 'Would you like to accept desktop reader events from this reader at the PC?' ; click 'Yes'
Now when you present a blank or existing token to that reader it will allow you
to add this new token or edit the existing one.

NOTE: Remember to return the operating mode to the original setting once the cards have been read
or users will not be able to gain access through the reader.
KP Reader - Ensure that Keypad type is set to 'None', otherwise the Desktop reader option will not be available.

4 - Net2. Two readers into one reader port.
Two readers can be wired in parallel. - Colour for Colour. This can be useful in situations such as a barrier where
dual height readers are required; one for cars, one for lorries.

5 - Net2. What to do if a user has no access - Check the reader LED's when a card is shown.
- No LED's - the reader has no power.
- No change in display - try the card on a known working reader. If there is still no response, replace the card.
- Green LED flashing when a card is presented; check relay 1 LED to check for activity and also the lock wiring.
- Red LED is flashing when a card is presented; check the validity of the user at the PC.
  Check user's access level and ensure they should have access by clicking on Current Validity.
  Check the 'Expires end' date and confirm this has not past.
- Reinstate the ACU from the doors screen. Select the ACU's you wish to reinstate and then click OK.
### Specifications

<table>
<thead>
<tr>
<th><strong>Electrical</strong></th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage</td>
<td>10V DC</td>
<td>14V DC</td>
</tr>
<tr>
<td>Current</td>
<td>140 mA</td>
<td></td>
</tr>
<tr>
<td>Carrier frequency</td>
<td>125 kHz</td>
<td></td>
</tr>
<tr>
<td>Clock and data bit period</td>
<td>600 µs</td>
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</table>

<table>
<thead>
<tr>
<th><strong>Environment</strong></th>
<th>Min</th>
<th>Max</th>
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</thead>
<tbody>
<tr>
<td>Operating temperature</td>
<td>- 20 °C</td>
<td>+ 55 °C</td>
</tr>
<tr>
<td>Waterproof</td>
<td>No</td>
<td></td>
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<tr>
<td>Cable length</td>
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<table>
<thead>
<tr>
<th><strong>Dimensions</strong></th>
<th>Width</th>
<th>Height</th>
<th>Depth</th>
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<tbody>
<tr>
<td></td>
<td>86 mm</td>
<td>86 mm</td>
<td>16 mm</td>
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<table>
<thead>
<tr>
<th><strong>Read Range</strong></th>
<th>Token</th>
<th>Keyfob</th>
<th>Hands free token</th>
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<tbody>
<tr>
<td></td>
<td>100 mm</td>
<td>60 mm</td>
<td>Not Compatible</td>
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### Contents in box

<table>
<thead>
<tr>
<th><strong>Option</strong></th>
<th><strong>Qty</strong></th>
<th><strong>Description</strong></th>
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<tbody>
<tr>
<td>Black</td>
<td>f1-054</td>
<td>M3.5 Electrical socket machine screws (black)</td>
</tr>
<tr>
<td>White</td>
<td>f1-055</td>
<td>M3.5 Electrical socket machine screws</td>
</tr>
</tbody>
</table>

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This product is not suitable for retail sale. All warranties are invalid if this product is not installed by a competent person.

Paxton Access Ltd hereby declares that this product is in conformity with all the essential requirements of the Directive 2014/53/EU. [http://paxton.info/3685](http://paxton.info/3685)

The full declaration of conformity is available on request. Contact details are provided at: [http://paxton.info/596](http://paxton.info/596)