# MOD Cable designs

The serial cables used to connect the laboratory analysers to the ISIS pathology system are all made using modular RJ45 push fit connectors. These provide a means of converting standard Ethernet cable for use as serial cable by converting the RJ45 connector to one of the standard RS232 connector types. The serial convertors are configured as follows:

Standard D9 female convertor.  
(Serial convertor hub end)

|  |  |  |
| --- | --- | --- |
| Pin number | Wire colour | Designation |
| 1 | White | Data carrier detect |
| 2 | Red | Receive data |
| 3 | Blue | Transmit data |
| 4 | Brown | Data terminal ready |
| 5 | Green | Signal ground |
| 6 | Black | Data set ready |
| 7 | Yellow | Request to send |
| 8 | Orange | Clear to send |
| 9 |  | Ring indicator |

Standard crossover serial convertor.  
(D9 female – used at analyser end)

|  |  |  |
| --- | --- | --- |
| Pin number | Wire colour | Designation |
| 1 |  | Data carrier detect |
| 2 | Blue | Receive data |
| 3 | Red | Transmit data |
| 4 |  | Data terminal ready |
| 5 | Green | Signal ground |
| 6 |  | Data set ready |
| 7 |  | Request to send |
| 8 |  | Clear to send |
| 9 |  | Ring indicator |

This configuration is used on the following analysers:

Coulter, ACL Elite, iLab300

Null modem with full handshaking.  
(D9 female – used at analyser end)

|  |  |  |
| --- | --- | --- |
| Pin number | Wire colour | Designation |
| 1 |  | Data carrier detect |
| 2 | Blue | Receive data |
| 3 | Red | Transmit data |
| 4 | Black | Data terminal ready |
| 5 | Green | Signal ground |
| 6 | Brown | Data set ready |
| 7 | Orange | Request to send |
| 8 | Yellow | Clear to send |
| 9 |  | Ring indicator |

This configuration is used by the Sysmex CA50 analyser.

Null modem with full handshaking.  
(D25 male – used at analyser end)

|  |  |  |
| --- | --- | --- |
| Pin number | Wire colour | Designation |
| 1 |  | Protective ground |
| 2 | Blue | Transmit data |
| 3 | Red | Receive data |
| 4 | Yellow | Request to send |
| 5 | Orange | Clear to send |
| 6 | Black | Data set ready |
| 7 | Green | Signal ground |
| 8 | White | Data carrier detect |
| 20 | Brown | Data terminal ready |

This configuration is used by the Kodak Extachem analyser.

Null modem with no handshaking.  
(D25 male – used at analyser end)

|  |  |  |
| --- | --- | --- |
| Pin number | Wire colour | Designation |
| 1 |  | Protective ground |
| 2 | Red | Receive data |
| 3 | Blue | Transmit data |
| 4 | Orange | Request to send |
| 5 | Orange | Clear to send |
| 6 | Black | Data set ready |
| 7 | Green | Signal ground |
| 8 | White | Data carrier detect |
| 20 | Black | Data terminal ready |

Pins 4 and 5 jumpered at this end.

Pins 6 and 20 jumpered at this end.

This configuration is used by the Kodak Extachem analyser.