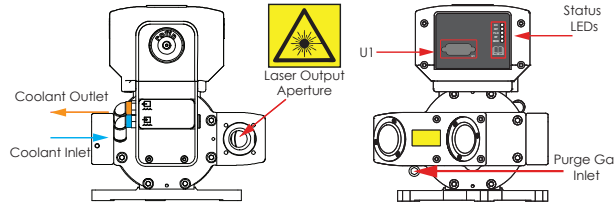


## Interface Details

### U1

| Pin | Function                        | I/O Type          | Voltage Range              |
|-----|---------------------------------|-------------------|----------------------------|
| 1   | VSWR Status -                   | RS422 Output (-)  | 3.5V > 0.5V                |
| 2   | VSWR Status +                   | RS422 Output (+)  | 0.5V > 3.5V                |
| 3   | Over Modulation Output          | Output            | 0V / 5V                    |
| 4   | Modulation Input -              | RS422 Input (-)   | 5V > 0V                    |
| 5   | Modulation Input +              | RS422 Input (+)   | 0V > 5V                    |
| 6   | RF Enable Input                 | Input             | 0V / 5 > 24V               |
| 7   | FWD VSWR Output                 | Output            | 0 > 3V Analogue            |
| 8   | REF VSWR Output                 | Output            | 0 > 3V Analogue            |
| 9   | RF Fault Output Open Drain      | Output Open Drain | 5 > 24V 50mA               |
| 10  | DC Fault Output Open Drain      | Output Open Drain | 5 > 24V 50mA               |
| 11  | Coolant Fault Output Open Drain | Output Open Drain | 5 > 24V 50mA               |
| 12  | Laser Ready Output Open Drain   | Output Open Drain | 5 > 24V 50mA               |
| 13  | Interlock Input                 | Input             | (Return connect to ground) |
| 14  | Not Used                        |                   |                            |
| 15  | Signal Ground 0V                |                   |                            |

## Laser Assembly & LED Display



|  | DC | INT | FLO | RF | MOD |
|--|----|-----|-----|----|-----|
| Correct operation  | ●  | ●   | ●   | ●  | ●   |
| Flow level 4-5 litres/minute   | ●  | ●   | ●   | ●  | ●   |
| No RF Enable signal  | ●  | ●   | ●   | ●  | ●   |
| Modulation input not within specified limits                         | ●  | ●   | ●   | ●  | ●   |
| Modulation not present   | ●  | ●   | ●   | ●  | ●   |
| VSWR Error   | ●  | ●   | ●   | ●  | ●   |
| RF PSU Error   | ●  | ●   | ●   | ●  | ●   |
| Flow level fault   | ●  | ●   | ●   | ●  | ●   |
| External Interlock fault   | ●  | ●   | ●   | ●  | ●   |
| External Interlock fault & Flow level fault                          | ●  | ●   | ●   | ●  | ●   |
| DC Voltage level fault   | ●  | ●   | ●   | ●  | ●   |
| DC Voltage level fault & External interlock fault                    | ●  | ●   | ●   | ●  | ●   |
| DC Voltage level fault & External interlock fault & Flow level fault | ●  | ●   | ●   | ●  | ●   |
| DC voltage not present   | ●  | ●   | ●   | ●  | ●   |

DC ●  
INT ●  
FLO ●  
RF ●  
MOD ●

DC PSU Status  
Interlock Status  
Coolant Flow Status  
RF Status  
Modulation Status



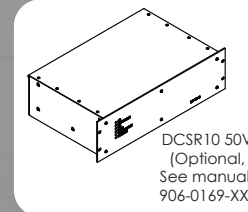
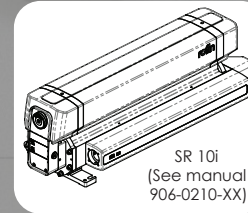
To operate the system

- Remove the protective cover from the laser output aperture
- Provide coolant flow of >4 litres/minute (>5 recommended) (See: Cooling and Electrical Connections)
- Connect the 50V DC Supply. (See: Cooling and Electrical Connections)
- Purge beam delivery system.
- Interlock U1.13 to Ground.
- Enable RF by providing 5-24V on U1. 6
- Provide a modulation input (RS422) on U1. 4 & U1. 5



Refer to Operators Manual for Full Connection Details

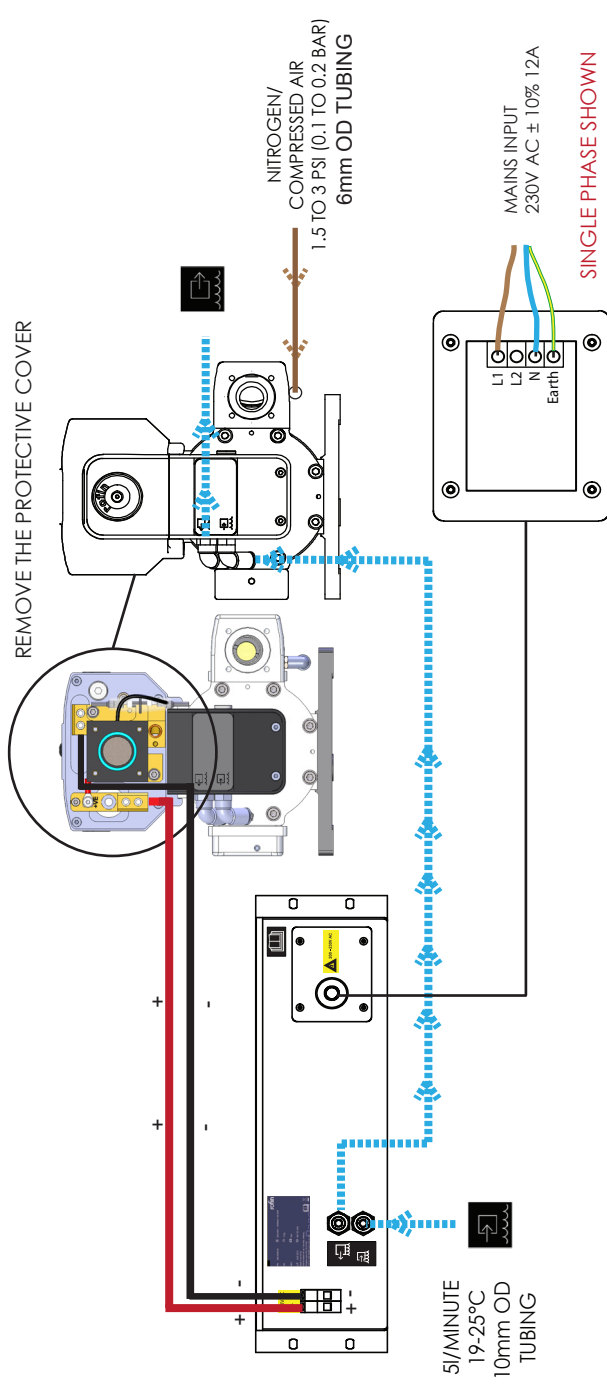
906-0157-00 Rev 8  
Rofin-Sinar UK Ltd. Meadow Road  
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Kingston upon Hull  
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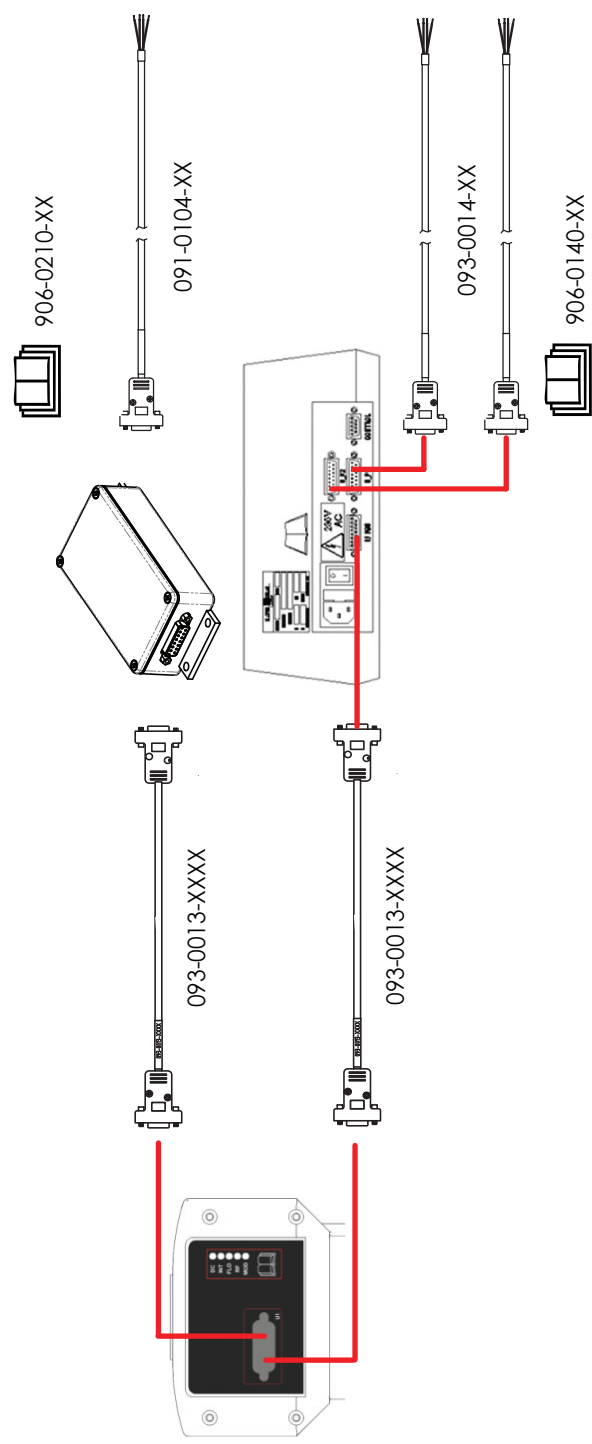
Quick Start Guide  
**SR 10i**



## Cooling and Electrical Connections



## TTL / Control Connections



## Minimum Connections

