

REVISIONS				
REV.	REVISIONS	DRWN	DATE	APPROVED

FOR PREVIOUS REVISION HISTORY SEE EECAD DEPARTMENT OR DOCUMENT CONTROL GROUP

CR5395-EH-24D-110-X-CD-ELR-I CURRENT SENSING RELAY FROM CR MAGNETICS INC.

THIS DEVICE IS PART OF THE HARDWARE MACHINE PROTECTION. NOT FSD SYSTEM.

SINGLE PASS THROUGH

FEED WIRE FROM CURRENT DRIVE CARD TO THE 15 DEGREE DIPOLE MAGNET.

ADJUST FOR TRIP WHEN CURRENT LESS THAN 2.5 AMPS

DRY RELAY CONTACT TO GLASSMAN INTERLOCK ENSURES GLASSMAN CANNOT START OR RUN UNLESS DIPOLE IS SET ABOVE 2.5 AMPS TO BEND BEAM AWAY FROM LASER ENTRY WINDOW.

GLASSMAN INTERLOCK RELAY CHASSIS IN RACK ITF27 See Schematic "Glassman interlock relay chassis 2018"

[https://wiki.jlab.org/ciswiki/images/3/37/Glassman\\_interlock\\_relay\\_chassis\\_2018.pdf](https://wiki.jlab.org/ciswiki/images/3/37/Glassman_interlock_relay_chassis_2018.pdf)  
J6 Hardware interlocks connection (Souriau UTSO-12E8S)

- A: Black 24V
- B: Brown Dipole magnet relay
- C: Red 24V
- D: Orange Global intlk relay
- E: Yellow 24V
- F: Green LV Bias relay
- G:
- H:

24VDC (RED) ON TERMINAL 50A  
RETURN (BLACK) ON TERMINAL 66A  
RACK ITF27 WAGO CROSS CONNECT # ITF21-1

CR5211-20 DC CURRENT TRANSDUCER FROM CR MAGNETICS INC.


FOUR PASS THROUGH TO MULTIPLY SIGNAL TIMES FOUR. TRANSDUCER IS DESIGNED FOR 0-20 AMPS FOR 0-10V OUTPUT. WITH FOUR PASSES, THIS BECOMES 0-5 AMPS FOR 0-10V OUTPUT.

TO THE 15 DEGREE DIPOLE MAGNET.

ANALOG VOLTAGE SIGNAL (0-10vdc) TO ANALOG FSD CARD IN RACK ITF 12

THE FSD SYSTEM IS USED ONLY TO SHUT OFF THE LASER WHEN AN FSD OCCURS.

0-10V (RED) ON TERMINAL 2  
RETURN (BLACK) ON TERMINAL 15  
RACK ITF12 ANALOG FSD CARD INPUT BLOCK

DRWN HANSKNECHT	DATE 5/17/19	 Thomas Jefferson National Accelerator Facility <small>www.jlab.org</small>									
CHKD	DATE	TITLE UITF 15 DEGREE DIPOLE INTERLOCK WIRING SCHEMATIC									
APP/ORGANIZATION	DATE	<table border="1"> <tr> <td>REV.</td> <td>REV. BY</td> <td>REV. DATE</td> <td>REV. DESCRIPTION</td> </tr> <tr> <td>1</td> <td>F</td> <td></td> <td></td> </tr> </table>		REV.	REV. BY	REV. DATE	REV. DESCRIPTION	1	F		
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