

RICH anode current monitor HVampslow

Features: - Fast monitoring of RICH photodetector anode currents
- RS232 command interface
- CANbus interface

Connectors: a, μ C (front):

CAN: (RJ14) 1-Gnd
2-CAN-H
3-CAN-L
4-Gnd

COM: (RJ12) 1-NC
2-Gnd
3-RS232-TxD
4-RS232-RxD
5-Gnd
1-NC

LAN (RJ45) not used

COM command monitor (9600,8,N,1 on RS232 interface)

Available commands (a=address, b=byte, w=word, p=port s=string):

RdMemB <a>, WrMemB <a> , DumpMem <a>
RdMemW <a>, WrMemW <a> <w>
RdPort <p>, WrPort <p> <w>, SetDP <p> <w>, SetODP <p> <w>
RdADC , RdEEP <a>, WrEEP <a> <w>
RxCAN , TxCOM <s>, SetCOMBaud <Baud>
RxCAN <nr>, TxCAN <nr> .., DefCANmo <nr> <xtid> <id> <tx>
InitCAN, ResetCAN, SetCANKbaud <kbaud>, SetCANmonID <xtid> <id>
Download <a> <w>, Upload <a> <w>, Call <a>, ResetEPC
Ver, Help, ?

HVamp <ch>, HVSetCANID <xtid> <id>
HVSetCal <val>, HVsetOff <ch> <val>

To monitor the low detector currents only the user command HVamp is needed. HVSetCal allows the setting of a calibration factor for each channel, HVsetOff allows the setting of a zero offset for each current sensor. All other commands are used for debugging only. The parameter <ch> ist a channel is a number between 0 and 5 indicating the selected channel.

CAN messages

The baudrate of the CAN interface is set using the SetCANKbaud command on the serial command monitor. The default value is 250kbaud. The HVampSlow module uses 8 CAN message IDs. The range can be selected by setting the base ID using the HVsetCANid command on the serial command monitor.

Used CANbus IDs in the HADES slow control system

ID	Usage	Dir	Byte1	Byte2
0x04A	current HV1	Rmt	LSB	MSB
0x04B	current HV2	Rmt	LSB	MSB
0x04C	current HV3	Rmt	LSB	MSB
0x04D	current HV4	Rmt	LSB	MSB
0x04E	current HV5	Rmt	LSB	MSB
0x04F	current HV6	Rmt	LSB	MSB
0x7FC	monitor	Tx		
0x7FD	monitor	Rx		