

Acromag Assignment				Channel Name (EPICS)	Device	Electrical Requirements		Bench Tested	Description	Notes
Unit	Signal	Return	Type			Voltage (DC)	Current (mA)			
1111a	I/O 00	RTN	bi	C1:Vac-VIPEE_open	VIPEE	≤50	≤100	✓	Relay connected when valve is fully open	
1111a	I/O 01	RTN	bi	C1:Vac-VIPEE_closed	VIPEE	≤50	≤100	✓	Relay connected when valve is fully closed	
1111a	I/O 02	RTN	bi	C1:Vac-VIPEV_open	VIPEV	≤50	≤100	✓	Relay connected when valve is fully open	
1111a	I/O 03	RTN	bi	C1:Vac-VIPEV_closed	VIPEV	≤50	≤100	✓	Relay connected when valve is fully closed	
1111a	I/O 04	RTN	bi	C1:Vac-VIPSV_open	VIPSV	≤50	≤100	✓	Relay connected when valve is fully open	
1111a	I/O 05	RTN	bi	C1:Vac-VIPSV_closed	VIPSV	≤50	≤100	✓	Relay connected when valve is fully closed	
1111a	I/O 06	RTN	bi	C1:Vac-VIPSE_open	VIPSE	≤50	≤100	✓	Relay connected when valve is fully open	
1111a	I/O 07	RTN	bi	C1:Vac-VIPSE_closed	VIPSE	≤50	≤100	✓	Relay connected when valve is fully closed	
1111a	I/O 08	RTN	bi	C1:Vac-V1_open	V1	≤50	≤100	✓	Relay connected when valve is fully open	
1111a	I/O 09	RTN	bi	C1:Vac-V1_closed	V1	≤50	≤100	✓	Relay connected when valve is fully closed	
1111a	I/O 10	RTN	bi	C1:Vac-V3_open	V3	≤50	≤100	✓	Relay connected when valve is fully open	
1111a	I/O 11	RTN	bi	C1:Vac-V3_closed	V3	≤50	≤100	✓	Relay connected when valve is fully closed	
1111a	I/O 12	RTN	bi	C1:Vac-V4_open	V4	≤50	≤100	✓	Relay connected when valve is fully open	
1111a	I/O 13	RTN	bi	C1:Vac-V4_closed	V4	≤50	≤100	✓	Relay connected when valve is fully closed	
1111a	I/O 14	RTN	bi	C1:Vac-V5_open	V5	≤50	≤100	✓	Relay connected when valve is fully open	
1111a	I/O 15	RTN	bi	C1:Vac-V5_closed	V5	≤50	≤100	✓	Relay connected when valve is fully closed	
1111b	I/O 00	RTN	bi	C1:Vac-V6_open	V6	≤50	≤100	✓	Relay connected when valve is fully open	
1111b	I/O 01	RTN	bi	C1:Vac-V6_closed	V6	≤50	≤100	✓	Relay connected when valve is fully closed	
1111b	I/O 02	RTN	bi	C1:Vac-V7_open	V7	≤50	≤100	✓	Relay connected when valve is fully open	
1111b	I/O 03	RTN	bi	C1:Vac-V7_closed	V7	≤50	≤100	✓	Relay connected when valve is fully closed	
1111b	I/O 04	RTN	bi	C1:Vac-VM1_open	VM1	≤50	≤100	✓	Relay connected when valve is fully open	
1111b	I/O 05	RTN	bi	C1:Vac-VM1_closed	VM1	≤50	≤100	✓	Relay connected when valve is fully closed	
1111b	I/O 06	RTN	bi	C1:Vac-VM2_open	VM2	≤50	≤100	✓	Relay connected when valve is fully open	
1111b	I/O 07	RTN	bi	C1:Vac-VM2_closed	VM2	≤50	≤100	✓	Relay connected when valve is fully closed	
1111b	I/O 08	RTN	bi	C1:Vac-VM3_open	VM3	≤50	≤100	✓	Relay connected when valve is fully open	
1111b	I/O 09	RTN	bi	C1:Vac-VM3_closed	VM3	≤50	≤100	✓	Relay connected when valve is fully closed	
1111b	I/O 10	RTN	bi	C1:Vac-VC1_open	VC1	≤50	≤100	✓	Relay connected when valve is fully open	
1111b	I/O 11	RTN	bi	C1:Vac-VC1_closed	VC1	≤50	≤100	✓	Relay connected when valve is fully closed	
1111b	I/O 12	RTN	bi	C1:Vac-VC2_open	VC2	≤50	≤100	✓	Relay connected when valve is fully open	
1111b	I/O 13	RTN	bi	C1:Vac-VC2_closed	VC2	≤50	≤100	✓	Relay connected when valve is fully closed	
1111b	I/O 14	RTN	bi	C1:Vac-VV1_open	VV1	≤50	≤100	✓	Relay connected when valve is fully open	
1111b	I/O 15	RTN	bi	C1:Vac-VV1_closed	VV1	≤50	≤100	✓	Relay connected when valve is fully closed	
1111c	I/O 00	RTN	bi	C1:Vac-VA6_open	VA6	≤50	≤100	✓	Relay connected when valve is fully open	
1111c	I/O 01	RTN	bi	C1:Vac-VA6_closed	VA6	≤50	≤100	✓	Relay connected when valve is fully closed	
1111c	I/O 02	RTN	bi	C1:Vac-VAVSE_open	VAVSE	≤50	≤100	✓	Relay connected when valve is fully open	
1111c	I/O 03	RTN	bi	C1:Vac-VAVSE_closed	VAVSE	≤50	≤100	✓	Relay connected when valve is fully closed	
1111c	I/O 04	RTN	bi	C1:Vac-VASE_open	VASE	≤50	≤100	✓	Relay connected when valve is fully open	
1111c	I/O 05	RTN	bi	C1:Vac-VASE_closed	VASE	≤50	≤100	✓	Relay connected when valve is fully closed	
1111c	I/O 06	RTN	bi	C1:Vac-VAVSV_open	VAVSV	≤50	≤100	✓	Relay connected when valve is fully open	
1111c	I/O 07	RTN	bi	C1:Vac-VAVSV_closed	VAVSV	≤50	≤100	✓	Relay connected when valve is fully closed	
1111c	I/O 08	RTN	bi	C1:Vac-VASV_open	VASV	≤50	≤100	✓	Relay connected when valve is fully open	
1111c	I/O 09	RTN	bi	C1:Vac-VASV_closed	VASV	≤50	≤100	✓	Relay connected when valve is fully closed	
1111c	I/O 10	RTN	bi	C1:Vac-VABSSCO_open	VABSSCO	≤50	≤100	✓	Relay connected when valve is fully open	
1111c	I/O 11	RTN	bi	C1:Vac-VABSSCO_closed	VABSSCO	≤50	≤100	✓	Relay connected when valve is fully closed	
1111c	I/O 12	RTN	bi	C1:Vac-VABSSCI_open	VABSSCI	≤50	≤100	✓	Relay connected when valve is fully open	
1111c	I/O 13	RTN	bi	C1:Vac-VABSSCI_closed	VABSSCI	≤50	≤100	✓	Relay connected when valve is fully closed	
1111c	I/O 14	RTN	bi	C1:Vac-VAVBS_open	VAVBS	≤50	≤100	✓	Relay connected when valve is fully open	
1111c	I/O 15	RTN	bi	C1:Vac-VAVBS_closed	VAVBS	≤50	≤100	✓	Relay connected when valve is fully closed	
1111d	I/O 00	RTN	bi	C1:Vac-VABS_open	VABS	≤50	≤100	✓	Relay connected when valve is fully open	
1111d	I/O 01	RTN	bi	C1:Vac-VABS_closed	VABS	≤50	≤100	✓	Relay connected when valve is fully closed	
1111d	I/O 02	RTN	bi	C1:Vac-VAEV_open	VAEV	≤50	≤100	✓	Relay connected when valve is fully open	
1111d	I/O 03	RTN	bi	C1:Vac-VAEV_closed	VAEV	≤50	≤100	✓	Relay connected when valve is fully closed	
1111d	I/O 04	RTN	bi	C1:Vac-VAEV_open	VAEV	≤50	≤100	✓	Relay connected when valve is fully open	
1111d	I/O 05	RTN	bi	C1:Vac-VAEV_closed	VAEV	≤50	≤100	✓	Relay connected when valve is fully closed	
1111d	I/O 06	RTN	bi	C1:Vac-VAVEE_open	VAVEE	≤50	≤100	✓	Relay connected when valve is fully open	
1111d	I/O 07	RTN	bi	C1:Vac-VAVEE_closed	VAVEE	≤50	≤100	✓	Relay connected when valve is fully closed	
1111d	I/O 08	RTN	bi	C1:Vac-VAEE_open	VAEE	≤50	≤100	✓	Relay connected when valve is fully open	
1111d	I/O 09	RTN	bi	C1:Vac-VAEE_closed	VAEE	≤50	≤100	✓	Relay connected when valve is fully closed	
1111d	I/O 10	RTN	bi	C1:Vac-RV1_open	RV1	≤50	≤100	✓	Relay connected when valve is fully open	
1111d	I/O 11	RTN	bi	C1:Vac-RV1_closed	RV1	≤50	≤100	✓	Relay connected when valve is fully closed	
1111d	I/O 12	RTN								
1111d	I/O 13	RTN								
1111d	I/O 14	RTN								
1111d	I/O 15	RTN								
1111e	I/O 00	RTN	bi	C1:Vac-TP1_acc	TP1	≤60		✓	Relay connected when pump rotation speed is accelerating	See Osaka manual for DB37 pin assignments
1111e	I/O 01	RTN	bi	C1:Vac-TP1_norm	TP1	≤60		✓	Relay connected when rotation speed is within 10% of setpoint	May need to adjust EPICS DB for overall TP1 status
1111e	I/O 02	RTN	bi	C1:Vac-TP1_fail	TP1	≤60		✓	Relay connected when protective mode is active	
1111e	I/O 03	RTN	bi	C1:Vac-TP1_ala	TP1	≤60		✓	Relay NOT connected when warning is active	
1111e	I/O 04	RTN	bi	C1:Vac-TP1_rot	TP1	≤60		✓	Relay NOT connected when pump motor is rotating	
1111e	I/O 05	RTN	bi	C1:Vac-CP1_off	CP1	≤50		✓	Relay connected when temperature is above set point	Need to find out whether these relays come from a temperature indicator
1111e	I/O 06	RTN	bi	C1:Vac-CP1_on	CP1	≤50		✓	Relay connected when temperature is below set point	
1111e	I/O 07	RTN	bi	C1:Vac-RP1_mon	RP1	≤50		✓		Need to find out if these are loopback monitors of the digital output switch
1111e	I/O 08	RTN	bi	C1:Vac-RP2_mon	RP2	≤50		✓	Relay connected when pump is powered on	
1111e	I/O 09	RTN	bi	C1:Vac-RP3_mon	RP3	≤50		✓	Relay connected when pump is powered on	
1111e	I/O 10	RTN								
1111e	I/O 11	RTN								
1111e	I/O 12	RTN								
1111e	I/O 13	RTN								
1111e	I/O 14	RTN								
1111e	I/O 15	RTN								
1121a	I/O 00	RTN	bo	C1:Vac-VIPEE_valve	VIPEE	24	21	✓	Open/Close switch for valve	
1121a	I/O 01	RTN	bo	C1:Vac-VIPEV_valve	VIPEV	24	21	✓	Open/Close switch for valve	
1121a	I/O 02	RTN	bo	C1:Vac-VIPSV_valve	VIPSV	24	21	✓	Open/Close switch for valve	
1121a	I/O 03	RTN	bo	C1:Vac-VIPSE_valve	VIPSE	24	21	✓	Open/Close switch for valve	
1121a	I/O 04	RTN	bo	C1:Vac-V1_valve	V1	24	21	✓	Open/Close switch for valve	
1121a	I/O 05	RTN	bo	C1:Vac-V3_valve	V3	24	21	✓	Open/Close switch for valve	
1121a	I/O 06	RTN	bo	C1:Vac-V4_valve	V4	24	21	✓	Open/Close switch for valve	
1121a	I/O 07	RTN	bo	C1:Vac-V5_valve	V5	24	21	✓	Open/Close switch for valve	
1121a	I/O 08	RTN	bo	C1:Vac-V6_valve	V6	24	21	✓	Open/Close switch for valve	
1121a	I/O 09	RTN	bo	C1:Vac-V7_valve	V7	24	21	✓	Open/Close switch for valve	
1121a	I/O 10	RTN	bo	C1:Vac-VM1_valve	VM1	24	21	✓	Open/Close switch for valve	
1121a	I/O 11	RTN	bo	C1:Vac-VM2_valve	VM2	24	21	✓	Open/Close switch for valve	
1121a	I/O 12	RTN	bo	C1:Vac-VM3_valve	VM3	24	21	✓	Open/Close switch for valve	
1121a	I/O 13	RTN	bo	C1:Vac-VC1_valve	VC1	24	21	✓	Open/Close switch for valve	
1121a	I/O 14	RTN	bo	C1:Vac-VC2_valve	VC2	24	21	✓	Open/Close switch for valve	
1121a	I/O 15	RTN	bo	C1:Vac-VA6_valve	VA6	24	21	✓	Open/Close switch for valve	
1121b	I/O 00	RTN	bo	C1:Vac-VAVSE_valve	VAVSE	24	21	✓	Open/Close switch for valve	
1121b	I/O 01	RTN	bo	C1:Vac-VASE_valve	VASE	24	21	✓	Open/Close switch for valve	
1121b	I/O 02	RTN	bo	C1:Vac-VAVSV_valve	VAVSV	24	21	✓	Open/Close switch for valve	
1121b	I/O 03	RTN	bo	C1:Vac-VASV_valve	VASV	24	21	✓	Open/Close switch for valve	
1121b	I/O 04	RTN	bo	C1:Vac-VABSSCO_valve	VABSSCO	24	21	✓	Open/Close switch for valve	
1121b	I/O 05	RTN	bo	C1:Vac-VABSSCI_valve	VABSSCI	24	21	✓	Open/Close switch for valve	
1121b	I/O 06	RTN	bo	C1:Vac-VAVBS_valve	VAVBS	24	21	✓	Open/Close switch for valve	
1121b	I/O 07	RTN	bo	C1:Vac-VABS_valve	VABS	24	21	✓	Open/Close switch for valve	
1121b	I/O 08	RTN	bo	C1:Vac-VAEV_valve	VAEV	24	21	✓	Open/Close switch for valve	
1121b	I/O 09	RTN	bo	C1:Vac-VAEV_valve	VAEV	24	21	✓	Open/Close switch for valve	
1121b	I/O 10	RTN	bo	C1:Vac-VAVEE_valve	VAVEE	24	21	✓	Open/Close switch for valve	
1121b	I/O 11	RTN	bo	C1:Vac-VAEE_valve	VAEE	24	21	✓	Open/Close switch for valve	
1121b	I/O 12	RTN	bo	C1:Vac-RP1_switch	RP1	24	21	✓	On/Off switch for pump	
1121b	I/O 13	RTN	bo	C1:Vac-RP2_switch	RP2	24	21	✓	On/Off switch for pump	
1121b	I/O 14	RTN	bo	C1:Vac-RP3_switch	RP3	24	21	✓	On/Off switch for pump	
1121b	I/O 15	RTN								