

PLC CHASSIS 2: HORIZONTAL BENDER

PLC CHASSIS 2: HORIZONTAL BENDER												Communication
Chassis 2: 1756-A10	PLC Channels	Slot 0	Slot 1	Slot 2	Slot 3	Slot 4	Slot 5	Slot 6	Slot 7	Slot 8	Slot 9	
1756-PA72		1756-CN2/B ControlNet	1756-IV16/A Bender Input 1	1756-OF4/A Voltage CL HB	1756-OW16/A Bender Relay Output 1	1756-OW16/A Bender Relay Output 2	1756-IF16/A Bender Analog Input 1	1756-IF16/A Bender Analog Input 2	1756-IF16/A Bender Analog Input 3	1756-IF16/A Bender Analog Input 4	1756-IF16/A Bender Voltage Taps	Power Supply
		20.011	3.002	1.005	3.002	3.002	1.005	1.005	1.005	1.005	1.005	Firmware Version
	0		QD_U1	CL_L_set	v1_close	He_CC_enabled	PT_He_1	CC-1	SG-1	LVDT-1	CL_L	Spare
	1		QD_L1	CL_R_set	v1_open	Vacuum_enabled	PT_He_2	CC-2	SG-2	LVDT-2	Compute Dest LR	Not Used
	2		QD_U2	spare	v2_close	Keep_Alive_Control	PT_He_3	CC-3	SG-3	LVDT-3	Coil_2	
	3		QD_L2	spare	v2_open	Keep_Alive_Reset	PT_He_4	CC-4	SG-4	LVDT-4	Compute Dest V2_fast	
	4		QD_U3		v3_close	LL_enabled	T_N2_6	CC-5	SG-5	LVDT-5	lc_fast	
	5		QD_L3		v3_open	PLC_Fast_Relay	T_N2_7	CC-6	SG-6	LVDT-6	Compute Dest V1_fast	
	6		QD_U4		v4_close	PLC_Slow_Relay	T_N2_8	CC-7	SG-7	LVDT-7	CL_R	
	7		QD_L4		v4_open	Timer On Delay with MPS CPU reset	T_N2_9	CC-8	SG-8	Liquid_Level_Meter	V3_fast	
	8		QD_SUM		v5_close	MPS_Diodes_reset	T_N2_Sup	Vacuum gauge output	SG-9			
	9		He_LL_alarm		v5_open	Danfysik_QD_reset	T_N2_Ret	P_He	SG-10			
	10		N2_LL_alarm		v6_close	LL_select	T_N2_10	P_N2	SG-11			
	11		PLC_control		v6_open	He_Diodes_enabled	T_N2_11	m_flow_CL_L	SG-12			
	12		PSU_Control_Pwr		vWR_close	spare	V1	m_flow_CL_R	spare			
	13		PSU_Main_Pwr		vWR_open	spare	V2	I_coarse	spare			
	14		PSU_HW_Sum_ Interlock bit		spare	spare	V3	B-Field G	spare			
	15		PSU_Ready		spare	spare	V4	T_N2_12	spare			

PLC CHASSIS 3: QUADRUPOLE 1												
Chassis 3: 1756-A10	PLC Channels	Slot 0	Slot 1	Slot 2	Slot 3	Slot 4	Slot 5	Slot 6	Slot 7	Slot 8	Slot 9	Communication
1756-PA72		1756-EN2T/C Ethernet (129.57.165.17)	1756-IV16/A Q1 Input 1	1756-OF4/A Voltage CL Q1	1756-OW16/A Q1 Relay Output 1	1756-OW16/A Q1 Relay Output 2	1756-IF16/A Q1 Analog Input 1	1756-IF16/A Q1 Analog Input 2	1756-IF16/A Q1 Analog Input 3	1756-IF16/A Q1 Analog Input 4	1756-IF16/A Q1 Voltage Taps	Power Supply
		5.008	3.002	1.005	3.002	3.002	1.005	1.005	1.005	1.005	1.005	Firmware Version
	0		QD_U1	CL_L_set	v1_close	He_CC_enabled	T_Yoke_1	CC-1	SG-1	LVDT-1	CL_L	Spare
	1		QD_L1	CL_R_set	v1_open	Vacuum_enabled	T_Yoke_2	CC-2	SG-2	LVDT-2	Coil_1	Not Used
	2		QD_U2	spare	v2_close	Keep_Alive_Control	T_Yoke_3	CC-3	SG-3	LVDT-3	Coil_2	
	3		QD_L2	spare	v2_open	Keep_Alive_Reset	T_Yoke_4	CC-4	SG-4	LVDT-4	Coil_3	
	4		QD_U3		v3_close	LL_enabled	T_N2_OT	CC-5	SG-5	LVDT-5	Coil_4	
	5		QD_L3		v3_open	PLC_Fast_Relay	T_N2_OB	CC-6	SG-6	LVDT-6	CL_R	
	6		QD_U4		v4_close	PLC_Slow_Relay	T_N2_BT	CC-7	SG-7	vWR_LVDT	Coils_Left	
	7		QD_L4		v4_open	Timer On Delay with MPS CPU reset	T_N2_BB	spare	spare	Liquid_Level_Meter	Coils_Right	
	8		QD_SUM		v5_close	MPS_Diodes_reset	T_N2_Sup	Vacuum gauge output	spare			
	9		He_LL_alarm		v5_open	Danfysik_QD_reset	T_N2_Ret	P_He	spare			
	10		N2_LL_alarm		v6_close	LL_select	T_He_LCLW	P_N2	spare			
	11		PLC_control		v6_open	He_Diodes_enabled	T_He_RCLW	m_flow_CL_L	spare			
	12		PSU_Control_Pwr		vWR_close	spare	V1	m_flow_CL_R	spare			
	13		PSU_Main_Pwr		vWR_open	spare	V2	I_coarse	spare			
	14		PSU_HW_Sum_Interlock bit		spare	spare	V3	HP	spare			
	15		PSU_Ready		spare	spare	V4	spare	spare			

PLC CHASSIS 4: QUADRUPOLE 2												
Chassis 4: 1756-A10	PLC Channels	Slot 0	Slot 1	Slot 2	Slot 3	Slot 4	Slot 5	Slot 6	Slot 7	Slot 8	Slot 9	Communication
1756-PA72		1756CN2/B ControlNet	1756-IV16/A Q2 Input 1	1756-OF4 Voltage CL Q2	1756-OW16I Q2 Relay Ouput 1	1756-OW16I Q2 Relay Ouput 2	1756-IF16 Q2 Analog Input 1	1756-IF16 Q2 Analog Input 2	1756-IF16 Q2 Analog Input 3	1756-IF16 Q2 Analog Input 4	1756-IF16 Q2 Voltage Taps	Power Supply
		20.011	3.002	1.005	3.002	3.002	1.005	1.005	1.005	1.005	1.005	Firmware Version
	0		QD_U1	CL_L_set	v1_close	He_CC_enabled	T_Yoke_1	R1	S1	V1_LVDT_true	CL_L	Spare
	1		QD_L1	CL_R_set	v1_open	Vacuum_enabled	T_Yoke_2	R2	S2	V2_LVDT_true	Coil_1	Not Used
	2		QD_U2	spare	v2_close	Keep_Alive_Control	T_Yoke_3	R3	S3	V3_LVDT_true	Coil_2	Not Assigned
	3		QD_L2	spare	v2_open	Keep_Alive_Reset	T_Yoke_4	R4	S4	V4_LVDT_true	Coil_3	
	4		QD_U3		v3_close	LL_enabled	T_N2_OT	R5	S5	V5_LVDT_true	Coil_4	
	5		QD_L3		v3_open	PLC_Fast_Relay	T_N2_OB	R6	S6	V6_LVDT_true	CL_R	
	6		QD_U4		v4_close	PLC_Slow_Relay	T_N2_BT	R7	S7	vWR_LVDT_true	not assigned	
	7		QD_L4		v4_open	Timer On Delay with MPS CPU reset	T_N2_BB	spare	S8	Liquid_Level_Meter	not assigned	
	8		QD_SUM		v5_close	MPS_Diodes_reset	T_N2_Sup	Vacum Gauge Output	spare			
	9		He_LL_alarm		v5_open	Danfysik_QD_reset	T_N2_Ret	P_He	spare			
	10		N2_LL_alarm		v6_close	LL_select	T_He_LCLW	P_N2	spare			
	11		PLC_control		v7_open	He_Diodes_enabled	T_He_RCLW	m_flow_CL_L	spare			
	12		PSU_Control_Pwr		vWR_close	spare	V1	m_flow_CL_R	spare			
	13		PSU_Main_Pwr		vWR_open	spare	V2	I_course	spare			
	14		PSU_HW_Sum_Interlock		spare	spare	V3	HP	spare			
	15		PSU_Ready		spare	spare	V4	spare	spare			

PLC CHASSIS 5: QUADRUPOLE 3												Communication
Chassis 5: 1756-A10	PLC Channels	Slot 0	Slot 1	Slot 2	Slot 3	Slot 4	Slot 5	Slot 6	Slot 7	Slot 8	Slot 9	
1756-PA72		1756-CN2/B ControlNet	1756-IV16/A Q3 Input 1	1756-OF4 Voltage CL Q3	1756-OW16I Q3 Relay Output 1	1756-OW16I Q3 Relay Output 2	1756-IF16 Q3 Analog Input 1	1756-IF16 Q3 Analog Input 2	1756-IF16 Q3 Analog Input 3	1756-IF16 Q3 Analog Input 4	1756-IF16/A Q3 Voltage Taps	Power Supply
		20.011	3.002	1.005	3.002	3.002	1.005	1.005	1.005	1.005	1.005	Firmware Version
	0		QD_U1	CL_L_set	v1_close	He_CC_enabled	T_Yoke_1	R1	S1	V1_LVDT_true	CL_L	Spare
	1		QD_L1	CL_R_set	v1_open	Vacuum_enabled	T_Yoke_2	R2	S2	V2_LVDT_true	Coil_1	Not Used
	2		QD_U2	spare	v2_close	Keep_Alive_Control	T_Yoke_3	R3	S3	V3_LVDT_true	Coil_2	Not Assigned
	3		QD_L2	spare	v2_open	Keep_Alive_Reset	T_Yoke_4	R4	S4	V4_LVDT_true	Coil_3	
	4		QD_U3		v3_close	LL_enabled	T_N2_OT	R5	S5	V5_LVDT_true	Coil_4	
	5		QD_L3		v3_open	PLC_Fast_Relay	T_N2_OB	R6	S6	V6_LVDT_true	CL_R	
	6		QD_U4		v4_close	PLC_Slow_Relay	T_N2_BT	R7	S7	vWR_LVDT_true	not assigned	
	7		QD_L4		v4_open	Timer On Delay with MPS CPU reset	T_N2_BB	spare	S8	Liquid_Level_Meter	not assigned	
	8		QD_SUM		v5_close	MPS_Diodes_reset	T_N2_Sup	Vacuum gauge input voltage	spare			
	9		He_LL_alarm		v5_open	Danfysik_QD_reset	T_N2_Ret	P_He	spare			
	10		N2_LL_alarm		v6_close	LL_select	T_He_LCLW	P_N2	spare			
	11		PLC_control		v6_open	He_Diodes_enabled	T_He_RCLW	m_flow_CL_L	spare			
	12		PSU_Control_Pwr		vWR_close	spare	V1	m_flow_CL_R	spare			
	13		PSU_Main_Pwr		vWR_open	spare	V2	I_coarse	spare			
	14		PSU_Ready		spare	spare	V3	HP	spare			
	15		PSU_HW_Sum_Interlock		spare	spare	V4	spare	spare			

PLC CHASSIS 6: DIPOLE												Communication
Chassis 6: 1756-A10	PLC Channels	Slot 0	Slot 1	Slot 2	Slot 3	Slot 4	Slot 5	Slot 6	Slot 7	Slot 8	Slot 9	
1756-PA72		1756-CN2/B ControlNet	1756-IV16/A Dipole Input 1	1756-OF4 Voltage CL Dipole	1756-OW16I Dipole Relay Output 1	1756-OW16I Dipole Relay Output 2	1756-IF16 Dipole Analog Input 1	1756-IF16 Dipole Analog Input 2	1756-IF16 Dipole Analog Input 3	1756-IF16 Dipole Analog Input 4	1756-IF16 Dipole Volatage Taps	Power Supply
		20.011	3.002	1.005	2.001	2.001	1.005	1.005	1.005	1.005	1.005	Firmware Version
	0		QD_U1	CL_L_set	v1_close	He_CC_enabled	T_Yoke_1	R1	S1	V1_LVDT_true	CL_L	Spare
	1		QD_L1	CL_R_set	v1_open	Vacuum_enabled	T_Yoke_2	R2	S2	V2_LVDT_true	Pancake_1	Not Used
	2		QD_U2	TapsTestVolts	v2_close	Keep_Alive_Control	T_Yoke_3	R3	S3	V3_LVDT_true	Pancake_2	
	3		QD_L2	TapsTestVolt2	v2_open	Keep_Alive_Reset	T_Yoke_4	R4	S4	V4_LVDT_true	Pancake_3	
	4		QD_U3		v3_close	LL_enabled	T_N2_OT	R5	S5	V5LVDT_true	Pancake_4	
	5		QD_L3		v3_open	PLC_Fast_Relay	T_N2_OB	R6	S6	V6_LVDT_true	Pancake_5	
	6		QD_U4		v4_close	PLC_Slow_Relay	T_N2_BT	R7	S7	vWR_LVDT_true	Pancake_6	
	7		QD_L4		v4_open	MPS_CPU_reset	T_N2_BB	spare	S8	Liquid_Level_Meter	CL_R	
	8		QD_SUM		v5_close	MPS_Diodes_reset	T_N2_Sup	Vacuum	spare			
	9		He_LL_alarm		v5_open	Danfysik_QD_reset	T_N2_Ret	P_He	spare			
	10		N2_LL_alarm		v6_close	LL_select	T_He_LCLW	P_N2	spare			
	11		PLC_control		v6_open	He_Diodes_enabled	T_HE_RCLW	m_flow_CL_L	spare			
	12		PSU_Control_Pwr		vWR_close	spare	V1	m_flow_CL_R	spare			
	13		PSU_Main_Pwr		vWR_open	spare	V2	I_coarse	spare			
	14		PSU_Ready		spare	spare	V3	HP	spare			
	15		PSU_HW_Sum_Interlock		spare	spare	V4	spare	spare			

PLC CHASSIS 7: HEATER EXCHANGER (HX)

Chassis 7: 1756-A10	PLC Channels	Slot 0	Slot 1	Slot 2	Slot 3	Slot 4	Slot 5	Slot 6	Slot 7	Slot 8	Slot 9	Communication
HX Remote Chassis		1756-ENBT/A (129.57.165.18)	1756-OW16I HX_Relay	1756-IF16 HX_Analog_1	1756-IF16 HX_Analog_2	1756-IF16 HX_Analog_3	1756-OW16I AUX_RELAY					Power Supply
		6.006	3.002	1.005	1.005	1.005	3.002					Firmware Version
	0		v9_close	v9_LVDT_true	SHMS_vacuum_ voltage	V2	SHMS_VAc_enabled					Spare
	1		v9_open	v10_LVDT_true	spare	V1	spare					Not used
	2		v10_close	Vacuum_voitage	spare	V3	spare					Slot Fillers
	3		v10_open	spare	spare	V4	spare					
	4		Vacuum_enabled	Shutter_position	spare	V5	spare					
	5		Diodes_enabled	spare	spare	V6	spare					
	6		HB_MPS_comm_ enabled	spare	spare	V7	spare					
	7		Q1_MPS_comm_ enabled	spare	spare	V8	spare					
	8		Q2_MPS_comm_ enabled			spare	spare					
	9		Q3_MPS_comm_ enabled			spare	spare					
	10		D_MPS_comm_enabled			spare	spare					
	11		Vac_comm_enabled			spare	spare					
	12		Shutter_Open			spare	spare					
	13		spare			spare	spare					
	14		spare			spare	spare					
	15		spare			spare	spare					

