Fuji Electric
Innovating Energy Technology

OPC-F1-BAC I/O Map

BACnet Object_Name	BACnet Object Type	Object Instance	Active Text	Inactive Text	R/W	Modbus Address	Linked to	Offset
Forward_Command	BV	0	Forward	Inactive	R/W	1	S06	0
Reverse_Command	BV	1	Reverse	Inactive	R/W	2	S06	1
Alarm_Reset	BV	2	Reset	Inactive	R/W	16	S06	15
Forward_Rotation	BV	3	Forward	Inactive	R	17	M14	0
Reverse_Command	BV	4	Reverse	Inactive	R	18	M14	1
DC_Braking/Pre_exiting	BV	5	Braking	Inactive	R	19	M14	2
Inverter_Shut_Down	BV	6	Shutdown	Inactive	R	20	M14	3
Braking	BV	7	Braking	Inactive	R	21	M14	4
DC_Voltage_Est	BV	8	Established	Inactive	R	22	M14	5
Voltage_Limiting	BV	9	Limiting	Inactive	R	24	M14	7
Current_Limiting	BV	10	Limiting	Inactive	R	25	M14	8
Acceleration	BV	11	Accelerating	Inactive	R	26	M14	9
Deceleration	BV	12	Decelerating	Inactive	R	27	M14	10
Alarm_Relay	BV	13	Alarm	Inactive	R	28	M14	11
Communications_Act	BV	14	Effective	Inactive	R	29	M14	12
Busy	BV	15	Busy	Inactive	R	32	M14	15
X1_Communications	BV	16	Active	Inactive	R/W	3	S06	2
X2_Communications	BV	17	Active	Inactive	R/W	4	S06	3
X3_Communications	BV	18	Active	Inactive	R/W	5	S06	4
X4_Communications	BV	19	Active	Inactive	R/W	6	S06	5
X5_Communications	BV	20	Active	Inactive	R/W	7	S06	6
XF_Communications	BV	21	Active	Inactive	R/W	14	S06	13
XR_Communications	BV	22	Active	Inactive	R/W	15	S06	14
X1_Final	BI	0	Active	Inactive	R		M13	2
X2_Final	BI	1	Active	Inactive	R		M13	3
X3_Final	BI	2	Active	Inactive	R		M13	4
X4_Final	BI	3	Active	Inactive	R		M13	5
X5_Final	BI	4	Active	Inactive	R		M13	6
XF_Final	BI	5	Active	Inactive	R		M13	13
XR_Final	BI	6	Active	Inactive	R		M13	14
Y1_Communications	BO	0	Active	Inactive	R/W		S07	0
Y2_Communications	BO	1	Active	Inactive	R/W		S07	1
Y3_Communications	BO	2	Active	Inactive	R/W		S07	2
Y5_Communications	BO	3	Active	Inactive	R/W		S07	4
30_Communications	BO	4	Active	Inactive	R/W		S07	8

BV 16-22 is the state of the X1-XR in the communications register(S06) where BI 0-6 contains the state of X1-XR as sent to the drive. To change the value sent to the drive by communications, the new value must be written to the communications registers (BV 16-22)

Typically either BV14 OR BI6 will be used, they won't both be used at the same time. BV14 will be used in case X1 needs to be controlled through communications or BI0 will be used to monitor the value of the terminal.

Complete Start Up Guide, FECA-IN-112, and related documentation can be downloaded from Fuji's website at:
www.americas.fujielectric.com/components/drives-inverters/frenic-eco

BACnet Object Name	BACnet Obect Type	Object Instance	Units	Modbus Address	Parameter	R/W
Frequency_Command_Setpt	AV	0	Hz	0x0705	S05	R/W
PID_cmd	AV	1	%	0x070D	S13	R/W
Frequency_Command	AV	2	Hz	0x805	M05	R
Output_Torque	AV	3	%	0x807	M07	R
Input_Power	AV	4	%	0x80A	M10	R
Output_Current	AV	5	%	0x80B	M11	R
Output_Voltage	AV	6	V	0x80C	M12	R
Latest_Alarm	AV	7		0x810	M16	R
Operation_Time	AV	8	h	0x814	M20	R
DC_Link_Voltage	AV	9	V	0x815	M21	R
Inverter_Air_Temp	AV	10	˚C	0x83D	M61	R
Inverter_Heat_Sink_Temp	AV	11	˚C	0x83E	M62	R
PID_Feedback	AV	12		0x848	M72	R
PID_Output	AV	13		0x849	M73	R
S_Parameter_Select	AV	14				R/W
S_Parameter_Value	AV	15		0x7XX	SXX	R/W
M_Parameter_Select	AV	16				R/W
M_Parameter_Value	AV	17		0x8XX	MXX	R
F_Parameter_Select	AV	18				R/W
F_Parameter_Value	AV	19		0x0XX	FXX	R/W
E_Parameter_Select	AV	20				R/W
E_Parameter_Value	AV	21		0x1XX	EXX	R/W
C_Parameter_Select	AV	22				R/W
C_Parameter_Value	AV	23		0x2XX	CXX	R/W
P_Parameter_Select	AV	24				R/W
P_Parameter_Value	AV	25		0x3XX	PXX	R/W
H_Parameter_Select	AV	26				R/W
H_Parameter_Value	AV	27		0x4XX	HXX	R/W
J_Parameter_Select	AV	28				R/W
J_Parameter_Value	AV	29		0xDXX	JXX	R/W
Output_Current_Real	AV	30	A	0xF05	W05	R
Y_Parameter_Select	AV	31				R/W
Y_Parameter_Value	AV	32		0xEXX	YXX	R/W
W_Parameter_Select	AV	33				R/W
W_Parameter_Value	AV	34		0xFXX	WXX	R/W
X_Parameter_Select	AV	35				R/W
X_Parameter_Value	AV	36		0x10XX	xXX	R/W
Z_Parameter_Select	AV	37				R/W
Z_Parameter_Value	AV	38		0x11XX	ZXX	R/W
Capacitor_Life	AV	39	%	0xF4B	W75	R
Cooling_Fan_Time	AV	40	h	0xF4D	W77	R
Motor_Run_Time	AV	41	h	0xF4F	W79	R
Energy_Usage	AV	42		0xF51	W81	R
Latest_Fault	AV	43		0x811	M17	R
Second_Fault	AV	44		0x812	M18	R
Third_Fault	AV	45		0x813	M19	R
Universal_AO	AO	0		0x70C	S12	R/W

The Parameter_Select AV's are used to enter the number of the parameter required from the specific function group, ex. AV14 set to 5 to read S05.

The Parameter_Value AV's are used to read/write the value of the parameter specified by the Parameter_Select AV, ex. if AV14 is set to 5, AV15 will contain the value of S05. Writing to AV15 will set a new value for S05.

If a requested parameter is not supported by the Eco, ex AV14 is set to 4 to read S04, AV15's reliability will be set to fault and a value of zero will be returned.

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