







OWNER:  شرکت ست و سوبی توسعه ایران (سهامی خاص)	BUSHEHR PETROCHEMICAL COMPANY MEG PLANT						EPC CONTRACTOR:  Chagalesh-Enerchimi-Steam Joint Venture BUPC-MEG PLANT PROJECT		
MC :  شرکت ست و سوبی توسعه ایران (سهامی خاص)	MODBUS LIST FOR EMERGENCY INSTRUMENT AIR COMPRESSOR								
Owner Document Number: 17811-56B							Project	Area	Phase
	BU	20	VD	303	IN	LST	0102	Rev.: 02	Page 1 of 4

## MODBUS LIST FOR EMERGENCY INSTRUMENT AIR COMPRESSOR

 شرکت ست و سوبی توسعه ایران (سهامی خاص)	 Chagalesh-Enerchimi-Steam Joint Venture BUPC-MEG PLANT PROJECT	BUSHEHR PETROCHEMICAL COMPANY MEG PLANT
<b>Document Review</b>		
Issue Purpose:	AFC	
Result Code: AP,AN,CM,RE,NC	AP	
Next Status : IFC,IFA,IFI,AFC,AB	-	
Responsible Department	MECHANICAL	
Commented Date	Jul /06/2022	
<b>Approval or review hereunder shall not be construed to relieve Vendor / Subcontractor of his responsibilities and liability under the contract.</b>		

02	30/06/2022	Approved for Construction	MG	RB	KP	
01	19/10/2021	For approval	WZ	RB	KP	
00	16/04/2021	For approval	TJ	RB	KP	
<b>Rev.</b>	<b>Date</b>	<b>Purpose of Issue</b>	<b>Prepared</b>	<b>Checked</b>	<b>Approved</b>	<b>AC Code</b>
					<b>Class: 1</b>	<b>Phase: P</b>

OWNER:



شرکت سست و سویی آتوموبیل ایران  
(سهامی خاص)

**BUSHEHR PETROCHEMICAL COMPANY  
MEG PLANT**

EPC CONTRACTOR:



Chagalesh-Enerchimi-Steam  
Joint Venture  
BUPC-MEG PLANT PROJECT

MC :



شرکت سست و سویی آتوموبیل ایران  
(سهامی خاص)

**MODBUS LIST FOR EMERGENCY  
INSTRUMENT AIR COMPRESSOR**



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	Project	Area	Phase	Unit	Dis.	Doc.	Seq.	Contract No : 52-98/445	
Owner Document Number: 17811-56B	BU	20	VD	303	IN	LST	0102	Rev.:	Page
								02	2 of 4

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**1 GENERAL**

This section defines the signals to be made available by the LCP for transmission over the Modbus to the FCS

The LCP will be acting as the Slave node and the FCS as the Master node.

**2 Modbus communication settings (configuration parameters)**

**2.1. LCP to/from FCS**

<b>General Data</b>	
Protocol:	Modbus TCP/IP
Baud Rate	<i>Not Applicable</i>
<b>Primary Master Parameters</b>	
Master Id No.	<i>By Customer</i>
Interface	<i>By Customer</i>
IP-Address	<i>By Customer</i>
Subnet Mask	<i>By Customer</i>
Gateway	<i>By Customer</i>
<b>Primary Slave Parameters</b>	
Slave Id No.	20
Interface	CP-443-1
IP-Address	192.168.10.30
Subnet Mask	255.255.255.0
Gateway	192.168.10.254
<b>Secondary Master Parameters</b>	
Master Id No.	<i>By Customer</i>
Interface	<i>By Customer</i>
IP-Address	<i>By Customer</i>
Subnet Mask	<i>By Customer</i>
Gateway	<i>By Customer</i>
<b>Secondary Slave Parameters</b>	
Slave Id No.	20
Interface	CP-443-1
IP-Address	192.168.10.40
Subnet Mask	255.255.255.0
Gateway	192.168.10.254

## (17811-56B)- Modbus List



NO.	AIRPACK TAG NUMBER	SERVICE	HOLDING REGISTER	BIT NO.	SIGNAL TYPE	FUNCTION CODE	UNIT	SCALE		ALARM VALUE(S)	TRIP VALUE(S)	RAW LOW COUNT	RAW HIGH COUNT	ALARM / TRIP TYPE	STATE 0	STATE 1	REMARKS
								0%	100%								
1	XA-400	Watchdog Bit From FCS	4001	0	BOOL	3 [Read]	-	-	-	-	-	-	-	-	-	-	Common for the system
2	PB-71101	Compressor B - Start pushbutton [LP]	40010	0	BOOL	3 [Read]	-	-	-	-	-	-	-	-	Start	-	-
3	PB-71102	Compressor B - Stop pushbutton [LP]	40010	1	BOOL	3 [Read]	-	-	-	-	-	-	-	Stop	-	-	-
4	PB-71104	Compressor B - lamptest button [LP]	40010	3	BOOL	3 [Read]	-	-	-	-	-	-	-	Off	LampTest	-	-
5	PB-71106	Compressor B - Start pushbutton [UCP]	40010	4	BOOL	3 [Read]	-	-	-	-	-	-	-	-	Start	-	-
6	PB-71106	Compressor B - Stop pushbutton [UCP]	40010	5	BOOL	3 [Read]	-	-	-	-	-	-	-	-	Stop	-	-
7	PB-71108	Compressor B - lamptest button [UCP]	40010	6	BOOL	3 [Read]	-	-	-	-	-	-	-	Off	LampTest	-	-
8	PB-71109	Compressor B - Accept pushbutton [UCP]	40010	7	BOOL	3 [Read]	-	-	-	-	-	-	-	Not Accept!	Accept	-	-
9	PB-71110	Compressor B - Reset pushbutton [UCP]	40010	8	BOOL	3 [Read]	-	-	-	-	-	-	-	Not Reset	Reset	-	-
10	HS-71101	Compressor B - Local/off/Remote Switch [LP]	40010	9	BOOL	3 [Read]	-	-	-	-	-	-	-	Local	Remote	-	-
11	XL-71101	Compressor B - Operational Lamp [LP]	40011	0	BOOL	3 [Read]	-	-	-	-	-	-	-	off	Operational	-	-
12	XL-71102	Compressor B - Running lamp [LP]	40011	1	BOOL	3 [Read]	-	-	-	-	-	-	-	off	Running	-	-
13	XL-71103	Compressor B - Common Alarm lamp [LP]	40011	2	BOOL	3 [Read]	-	-	-	-	-	-	-	off	Common Alarm	-	-
14	XL-71104	Compressor B - Common Trip Lamp [LP]	40011	3	BOOL	3 [Read]	-	-	-	-	-	-	-	off	Common Trip	-	-
15	XL-71106	Compressor B - Operational Lamp [UCP]	40011	4	BOOL	3 [Read]	-	-	-	-	-	-	-	off	Operational	-	-
16	XL-71107	Compressor B - Running lamp [UCP]	40011	5	BOOL	3 [Read]	-	-	-	-	-	-	-	off	Running	-	-
17	XL-71108	Compressor B - Common Alarm lamp [UCP]	40011	6	BOOL	3 [Read]	-	-	-	-	-	-	-	off	Common Alarm	-	-
18	XL-71109	Compressor B - Common Trip lamp [UCP]	40011	7	BOOL	3 [Read]	-	-	-	-	-	-	-	off	Common Alarm	-	-
19	HM-71101	Compressor B - Hourmeter	40011	8	BOOL	3 [Read]	-	-	-	-	-	-	-	off	Hourmeter	-	-
20	XY-71101	Compressor B - Inlet Solenoid Valve	40012	0	BOOL	3 [Read]	-	-	-	-	-	-	-	Closed	Open	-	-
21	XY-71102	Compressor B - Cooling water inlet solenoid valve	40012	1	BOOL	3 [Read]	-	-	-	-	-	-	-	Closed	Open	-	-
22	XS-71122-#f#p	Compressor B Main Motor Start/stop	40013	0	BOOL	3 [Read]	-	-	-	-	-	-	-	Stop	Start	-	-
23	XL-71124	Compressor B Main Motor Running	40013	1	BOOL	3 [Read]	-	-	-	-	-	-	-	Not Running	Running	-	-
24	YAL-71125	Compressor B Main Motor Fault	40013	2	BOOL	3 [Read]	-	-	-	-	-	-	-	Fault	Healthy	-	-
25	XS-71123-#f#p	Compressor B Oilheater Start/Stop	40013	3	BOOL	3 [Read]	-	-	-	-	-	-	-	Stop	Start	-	-
26	XL-71126	Compressor B Oilheater running	40013	4	BOOL	3 [Read]	-	-	-	-	-	-	-	Not Running	Running	-	-
27	YAL-71127	Compressor B Oilheater fault	40013	5	BOOL	3 [Read]	-	-	-	-	-	-	-	Fault	Healthy	-	-
28	XA-300	Compressor B PID control valve fault	40013	6	BOOL	3 [Read]	-	-	-	-	-	-	-	Fault	Healthy	-	-
29	XA-301	Compressor B PID control active [an/off]	40013	7	BOOL	3 [Read]	-	-	-	-	-	-	-	Stop	Start	-	-
30	XA-310	Compressor B PID oilheater fault	40013	8	BOOL	3 [Read]	-	-	-	-	-	-	-	Fault	Healthy	-	-
31	XA-311	Compressor B PID oilheater Active [an/off]	40013	9	BOOL	3 [Read]	-	-	-	-	-	-	-	Stop	Start	-	-
32	XA-410	Compressor B common Trip	40014	0	BOOL	3 [Read]	-	-	-	-	-	-	-	HIGH	Trip	Healthy	-
33	XA-411	Compressor B common Alarm	40014	1	BOOL	3 [Read]	-	-	-	-	-	-	-	HIGH	Alarm	Healthy	-
34	TAH-71101	Compressor B - T1F71101 - High Alarm	40014	2	BOOL	3 [Read]	-	-	-	-	-	-	-	HIGH	Alarm	Healthy	-
35	TAHH-71102	Compressor B - T1F71102 - High Trip	40014	3	BOOL	3 [Read]	-	-	-	-	-	-	-	HIGH	Trip	Healthy	-
36	PALL-71103	Compressor B - P1F71103 - Low Trip	40014	4	BOOL	3 [Read]	-	-	-	-	-	-	-	LOW	Trip	Healthy	-
37	PAHH-71103	Compressor B - P1F71103 - High Trip	40014	5	BOOL	3 [Read]	-	-	-	-	-	-	-	HIGH	Trip	Healthy	-
38	PALL-71104	Compressor B - P1F71104 - Low Trip	40014	6	BOOL	3 [Read]	-	-	-	-	-	-	-	LOW	Trip	Healthy	-
39	PAL-71107	Compressor B - P1F71107 - Low Alarm	40014	7	BOOL	3 [Read]	-	-	-	-	-	-	-	LOW	Alarm	Healthy	-
40	PAH-71107	Compressor B - P1F71107 - High Alarm	40014	8	BOOL	3 [Read]	-	-	-	-	-	-	-	HIGH	Alarm	Healthy	-
41	PALL-71107	Compressor B - P1F71107 - Low Trip	40014	9	BOOL	3 [Read]	-	-	-	-	-	-	-	LOW	Trip	Healthy	-
42	PAHH-71107	Compressor B - P1F71107 - High Trip	40014	10	BOOL	3 [Read]	-	-	-	-	-	-	-	HIGH	Trip	Healthy	-
43	FAL-71101	Compressor B - F1F71101 - Low Alarm	40014	11	BOOL	3 [Read]	-	-	-	-	-	-	-	LOW	Alarm	Healthy	-
44	VAHH-71101	Compressor B - V1F71101 - High Trip	40014	12	BOOL	3 [Read]	-	-	-	-	-	-	-	HIGH	Trip	Healthy	-
45	HS-715-SD-1	Emergency Shutdown Command	40016	0	BOOL	3 [Read]	-	-	-	-	-	-	-	HIGH	ESD	Healthy	-
46	XAL-715-2	Compressor 3/rd Status	40016	1	BOOL	3 [Read]	-	-	-	-	-	-	-	HIGH	Alarm	Healthy	-
47	XCS-715	Time Synchronisation	40016	2	BOOL	3 [Read]	-	-	-	-	-	-	-	-	Standby	Sync Time	-
48	HS-71121-SD	Compressor B Forced Shutdown	40016	3	BOOL	3 [Read]	-	-	-	-	-	-	-	HIGH	Normal	Forced Shutdown	-
49	XS-715	Interlock switch stop compressor	40016	4	BOOL	3 [Read]	-	-	-	-	-	-	-	-	No Interlock	Interlock active	-
50	XA-510	Emergency circuit 1 Status [ESD circuit]	40016	5	BOOL	3 [Read]	-	-	-	-	-	-	-	HIGH	Not Healthy	Healthy	Circuit one (1)
51	XA-511	Emergency circuit 2 Status [ESD circuit]	40016	6	BOOL	3 [Read]	-	-	-	-	-	-	-	HIGH	Not Healthy	Healthy	Circuit two (2)
52	XA-401	Watchdog Bit to FCS	40020	0	BOOL	6 [Write]	-	-	-	-	-	-	-	-	-	-	Watchdog bit to FCS
53	XA-402	Time Synchronisation - Year	40021	-	INT	6 [Write]	-	-	-	-	-	-	-	-	-	-	Year [YYYY]
54	XA-403	Time Synchronisation - Month	40022	-	INT	6 [Write]	-	-	-	-	-	-	-	-	-	-	Month [MM]
55	XA-404	Time Synchronisation - Day	40023	-	INT	6 [Write]	-	-	-	-	-	-	-	-	-	-	Day [dd]
56	XA-405	Time Synchronisation - Week Day	40024	-	INT	6 [Write]	-	-	-	-	-	-	-	-	-	-	Day [dd]
57	XA-406	Time Synchronisation - Hour	40025	-	INT	6 [Write]	-	-	-	-	-	-	-	-	-	-	Hour [HH]
58	XA-407	Time Synchronisation - Minute	40026	-	INT	6 [Write]	-	-	-	-	-	-	-	-	-	-	Minute [mm]
59	XA-408	Time Synchronisation - Second	40027	-	INT	6 [Write]	-	-	-	-	-	-	-	-	-	-	Second [ss]
60	XA-500	Compressor B - Remote Start FCS	40028	0	BOOL	6 [Write]	-	-	-	-	-	-	-	-	-	-	Remote start signal from FCS
61	XA-501	Compressor B - Remote Stop FCS	40028	1	BOOL	6 [Write]	-	-	-	-	-	-	-	-	-	-	Remote stop signal from FCS
62	PIF-71103	Compressor B - Inlet Air Pressure Transmitter	40030/40031	-	32Bit-floating	3 [Read]	Bar(a)	0	13.5	-	6.9 LL   8.6 HH	-	-	Trip	-	-	-
63	PIF-71104	Compressor B - Oil System Oil Pressure Transmitter	40032/40033	-	32Bit-floating	3 [Read]	Bar(a)	-1	5	-	1.5 LL	-	-	Trip	-	-	-
64	PIF-71107	Compressor B - Outlet Air Pressure Transmitter	40034/40035	-	32Bit-floating	3 [Read]	Bar(a)	1	36	19 L   21 H	18.5 LL   21.5 HH	-	-	Alarm   Trip	-	-	19 bar(a) is Load/Start   21 bar(a) Unload/Stop
65	TI-71101	Compressor B - Inlet Air Temperature Transmitter	40036/40037	-	32Bit-floating	3 [Read]	°C	0	80	56 H	-	-	-	Alarm	-	-	-
66	TI-71102	Compressor B - Upstream After-Cooler Air Temperature Transmitter	40038/40039	-	32Bit-floating	3 [Read]	°C	0	200	-	195 HH	-	-	Trip	-	-	-
67	FI-71101	Compressor B - Cooling water Outlet Water Flow Transmitter	40040/40041	-	32Bit-floating	3 [Read]	m³/hr	0	5	2.3 L	-	-	-	Alarm	-	-	-
68	VI-71101	Compressor B - Vibration Level Transmitter	40042/40043	-	32Bit-floating	3 [Read]	mm/s	0	25	-	8 HH	-	-	Trip	-	-	-