









OWNER:  شرکت سست و سویی تو سو ابراهیمیان (سهامی منتهی)	<b>BUSHEHR PETROCHEMICAL COMPANY MEG PLANT</b>						EPC CONTRACTOR:  Chagalesh-Enerchimi-Steam Joint Venture BUPC-MEG PLANT PROJECT		
	<b>MODBUS LIST FOR EMERGENCY INSTRUMENT AIR COMPRESSOR</b>						 Netherlands		
MC :  شرکت سست و سویی تو سو ابراهیمیان (سهامی منتهی)	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
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## MODBUS LIST FOR EMERGENCY INSTRUMENT AIR COMPRESSOR

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

<b>OWNER:</b>  شرکت ست و سوسپ تو سوا ارایان (سای فاس)	<b>BUSHEHR PETROCHEMICAL COMPANY MEG PLANT</b>						<b>EPC CONTRACTOR:</b>  Chagalesh-Enerchimi-Steam Joint Venture BUPC-MEG PLANT PROJECT		
	<b>MODBUS LIST FOR EMERGENCY INSTRUMENT AIR COMPRESSOR</b>						 Hebeland		
<b>MC :</b>  شرکت ست و سوسپ تو سوا ارایان (سای فاس)	<b>Project</b>	<b>Area</b>	<b>Phase</b>	<b>Unit</b>	<b>Dis.</b>	<b>Doc.</b>	<b>Seq.</b>	<b>Contract No : 52-98/445</b>	
<b>Owner Document Number:</b> 17811-56B	BU	20	VD	303	IN	LST	0102	<b>Rev.:</b>	<b>Page</b>
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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.	
Interface	
IP-Address	
Subnet Mask	255.255.255.0
Gateway	192.168.10.254
<b>Primary Slave Parameters</b>	
Slave Id No.	20
Interface	Rj45
IP-Address	192.168.10.20
Subnet Mask	255.255.255.0
Gateway	192.168.10.254
<b>Secondary Master Parameters</b>	
Master Id No.	
Interface	
IP-Address	
Subnet Mask	
Gateway	
<b>Secondary Slave Parameters</b>	
Slave Id No.	20
Interface	Rj45
IP-Address	192.168.10.20
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	40001	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 - lamp/est button [LP]	40010	3	BOOL	3 [Read]	-	-	-	-	-	-	-	Off	Lamp/est	-	-
5	PB-71105	Compressor B - Start pushbutton [UCP]	40010	4	BOOL	3 [Read]	-	-	-	-	-	-	-	Stop	Start	-	-
6	PB-71106	Compressor B - Stop pushbutton [UCP]	40010	5	BOOL	3 [Read]	-	-	-	-	-	-	-	Off	Lamp/est	-	-
7	PB-71108	Compressor B - lamp/est button [UCP]	40010	6	BOOL	3 [Read]	-	-	-	-	-	-	-	Not Accept	Accept	-	-
8	PB-71109	Compressor B - Accept pushbutton [UCP]	40010	7	BOOL	3 [Read]	-	-	-	-	-	-	-	Not Reset	Reset	-	-
9	PB-71110	Compressor B - Reset pushbutton [UCP]	40010	8	BOOL	3 [Read]	-	-	-	-	-	-	-	Local	Remote	-	-
10	HS-71101	Compressor B - Local/off/Remote Switch [LP]	40010	9	BOOL	3 [Read]	-	-	-	-	-	-	-	off	Operational	-	-
11	XL-71101	Compressor B - Operational Lamp [LP]	40011	0	BOOL	3 [Read]	-	-	-	-	-	-	-	off	Running	-	-
12	XL-71102	Compressor B - Running lamp [LP]	40011	1	BOOL	3 [Read]	-	-	-	-	-	-	-	off	Common Alarm	-	-
13	XL-71103	Compressor B - Common Alarm lamp [LP]	40011	2	BOOL	3 [Read]	-	-	-	-	-	-	-	off	Common Trip	-	-
14	XL-71104	Compressor B - Common Trip Lamp [LP]	40011	3	BOOL	3 [Read]	-	-	-	-	-	-	-	off	Operational	-	-
15	XL-71106	Compressor B - Operational Lamp [UCP]	40011	4	BOOL	3 [Read]	-	-	-	-	-	-	-	off	Running	-	-
16	XL-71107	Compressor B - Running lamp [UCP]	40011	5	BOOL	3 [Read]	-	-	-	-	-	-	-	off	Common Alarm	-	-
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-st/sp	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-st/sp	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 [on/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 [on/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 - TIT71101 - High Alarm	40014	2	BOOL	3 [Read]	-	-	-	-	-	-	-	HIGH	Alarm	Healthy	-
35	TAHH-71102	Compressor B - TIT71102 - High Trip	40014	3	BOOL	3 [Read]	-	-	-	-	-	-	-	HIGH	Trip	Healthy	-
36	PAL-71103	Compressor B - PIT71103 - Low Trip	40014	4	BOOL	3 [Read]	-	-	-	-	-	-	-	LOW	Trip	Healthy	-
37	PAHH-71103	Compressor B - PIT71103 - High Trip	40014	5	BOOL	3 [Read]	-	-	-	-	-	-	-	HIGH	Trip	Healthy	-
38	PAL-71104	Compressor B - PIT71104 - Low Trip	40014	6	BOOL	3 [Read]	-	-	-	-	-	-	-	LOW	Trip	Healthy	-
39	PAL-71107	Compressor B - PIT71107 - Low Alarm	40014	7	BOOL	3 [Read]	-	-	-	-	-	-	-	LOW	Alarm	Healthy	-
40	PAH-71107	Compressor B - PIT71107 - High Alarm	40014	8	BOOL	3 [Read]	-	-	-	-	-	-	-	HIGH	Alarm	Healthy	-
41	PAL-71107	Compressor B - PIT71107 - Low Trip	40014	9	BOOL	3 [Read]	-	-	-	-	-	-	-	LOW	Trip	Healthy	-
42	PAHH-71107	Compressor B - PIT71107 - High Trip	40014	10	BOOL	3 [Read]	-	-	-	-	-	-	-	HIGH	Trip	Healthy	-
43	FAL-71101	Compressor B - PIT71101 - Low Alarm	40014	11	BOOL	3 [Read]	-	-	-	-	-	-	-	LOW	Alarm	Healthy	-
44	VAHH-71101	Compressor B - PIT71101 - 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	Common Alarm	40016	1	BOOL	3 [Read]	-	-	-	-	-	-	-	HIGH	Alarm	Healthy	-
47	XCS-715	Time Synchronisation	40016	2	BOOL	3 [Read]	-	-	-	-	-	-	-	Standby	Sync Time	-	-
48		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]	-	-	-	-	-	-	-	-	-	-	-
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	PIT-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	PIT-71104	Compressor B - Oil System Oil Pressure Transmitter	40032/40033	-	32Bit-floating	3 [Read]	Bar[a]	-1	5	-	1.5 LL	-	-	Trip	-	-	-
64	PIT-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	TIT-71101	Compressor B - Inlet Air Temperature Transmitter	40036/40037	-	32Bit-floating	3 [Read]	°C	0	80	-	56 H	-	-	Alarm	-	-	-
66	TIT-71102	Compressor B - Upstream After-Cooler Air Temperature Transmitter	40038/40039	-	32Bit-floating	3 [Read]	°C	0	200	-	195 HH	-	-	Trip	-	-	-
67	FIT-71101	Compressor B - Cooling water Outlet Water Flow Transmitter	40040/40041	-	32Bit-floating	3 [Read]	m <sup>3</sup> /hr	0	5	2.3 L	-	-	-	Alarm	-	-	-
68	VT-71101	Compressor B - Vibration Level Transmitter	40042/40043	-	32Bit-floating	3 [Read]	mm/s	0	25	-	8 HH	-	-	Trip	-	-	-