

OWNER



**BUSHEHR PETROCHEMICAL COMPANY  
MEG PLANT**

EPC CONTRACTOR:



MC :



شرکت سبت و سولی  
توسعه ایرانیان




**Modbus list for reciprocating compressor**



Owner Document Number: 17811-56	Project	Area	Phase	Unit	Dis.	Doc.	Seq.	Contract No : 52-98/445	
	BU	20	VD	303	IN	LST	0057	Rev.:	Page
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**Modbus list  
for reciprocating compressor**

00	16/04/2021	For approval	TJ	KP	JR		
Rev.	Date	Purpose of Issue	Prepared	Checked	Approved	AC Code	
							Class: 1 Phase: P

OWNER  شرکت پتروشیمی بوته‌ر	<b>BUSHEHR PETROCHEMICAL COMPANY MEG PLANT</b>						EPC CONTRACTOR:  <b>LOGO CES</b>		
	<b>Modbus list for reciprocating compressor</b>							Contract No : 52-98/445	
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(17811-56)- 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-101	PLC condition healthy	40001	0	BOOL	3	-	-	-	-	-	-	-	-	Unhealthy	Healthy	-
2	XA-102	Common Alarm	40001	1	BOOL	3	-	-	-	-	-	-	-	-	-	Alarm	-
3	XA-103	Common Trip	40001	2	BOOL	3	-	-	-	-	-	-	-	-	-	Trip	-
4	XA-104	Compressor Operational	40001	3	BOOL	3	-	-	-	-	-	-	-	-	Stopped	Running	-
5	XA-105	Compressor Running	40001	4	BOOL	3	-	-	-	-	-	-	-	-	Stopped	Running	-
6	-	Spare	40001	5	BOOL	3	-	-	-	-	-	-	-	-	Remote	Local	-
7	-	Spare	40001	6	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
8	-	Spare	40001	7	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
9	-	Spare	40001	8	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
10	-	Spare	40001	9	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
11	-	Spare	40001	10	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
12	-	Spare	40001	11	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
13	-	Spare	40001	12	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
14	-	Spare	40001	13	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
15	-	Spare	40001	14	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
16	-	Spare	40001	15	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
17	XS-201	Accept alarms / trips (from DCS)	40002	0	BOOL	6	-	-	-	-	-	-	-	-	-	Accept	-
18	XS-202	Reset alarms / trips (from DCS)	40002	1	BOOL	6	-	-	-	-	-	-	-	-	-	Reset	-
19	XS-203	Start Compressor (from DCS)	40002	2	BOOL	6	-	-	-	-	-	-	-	-	-	Start	-
20	XS-204	Stop Compressor (from DCS)	40002	3	BOOL	6	-	-	-	-	-	-	-	-	-	Stop	-
21	-	Spare	40002	4	BOOL	6	-	-	-	-	-	-	-	-	-	-	-
22	-	Spare	40002	5	BOOL	6	-	-	-	-	-	-	-	-	-	-	-
23	-	Spare	40002	6	BOOL	6	-	-	-	-	-	-	-	-	-	-	-
24	-	Spare	40002	7	BOOL	6	-	-	-	-	-	-	-	-	-	-	-
25	-	Spare	40002	8	BOOL	6	-	-	-	-	-	-	-	-	-	-	-
26	-	Spare	40002	9	BOOL	6	-	-	-	-	-	-	-	-	-	-	-
27	-	Spare	40002	10	BOOL	6	-	-	-	-	-	-	-	-	-	-	-
28	-	Spare	40002	11	BOOL	6	-	-	-	-	-	-	-	-	-	-	-
29	-	Spare	40002	12	BOOL	6	-	-	-	-	-	-	-	-	-	-	-
30	-	Spare	40002	13	BOOL	6	-	-	-	-	-	-	-	-	-	-	-
31	-	Spare	40002	14	BOOL	6	-	-	-	-	-	-	-	-	-	-	-
32	-	Spare	40002	15	BOOL	6	-	-	-	-	-	-	-	-	-	-	-
33	XA-301	Emergency shutdown relay	40003	0	BOOL	3	-	-	-	-	-	-	-	-	-	Trip	-
34	XA-302	Main motor fault	40003	1	BOOL	3	-	-	-	-	-	-	-	-	-	Trip	-
35	XA-303	PID controller alarm	40003	2	BOOL	3	-	-	-	-	-	-	-	-	-	Alarm	-
36	-	Spare	40003	3	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
37	-	Spare	40003	4	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
38	-	Spare	40003	5	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
39	-	Spare	40003	6	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
40	-	Spare	40003	7	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
41	-	Spare	40003	8	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
42	-	Spare	40003	9	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
43	-	Spare	40003	10	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
44	-	Spare	40003	11	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
45	-	Spare	40003	12	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
46	-	Spare	40003	13	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
47	-	Spare	40003	14	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
48	-	Spare	40003	15	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
49	TAH-10001	TIT-10001 High Alarm	40004	0	BOOL	3	-	-	-	-	-	-	-	-	-	Alarm	-
50	TAHH-10002	TIT-10002 High Trip	40004	1	BOOL	3	-	-	-	-	-	-	-	-	-	Trip	-
51	PALL-10003	PIT-10003 Low Trip	40004	2	BOOL	3	-	-	-	-	-	-	-	-	-	Trip	-
52	PAHH-10003	PIT-10003 High Trip	40004	3	BOOL	3	-	-	-	-	-	-	-	-	-	Trip	-
53	PALL-10004	PIT-10004 Low Trip	40004	4	BOOL	3	-	-	-	-	-	-	-	-	-	Trip	-
54	PALL-10007	PIT-10007 Low Trip	40004	5	BOOL	3	-	-	-	-	-	-	-	-	-	Trip	-
55	PAHH-10007	PIT-10007 High Trip	40004	6	BOOL	3	-	-	-	-	-	-	-	-	-	Trip	-
56	VAHH-10001	VT-10001 High Trip	40004	7	BOOL	3	-	-	-	-	-	-	-	-	-	Trip	-
57	FAL-10001	FT-10001 Low Alarm	40004	8	BOOL	3	-	-	-	-	-	-	-	-	-	Alarm	-
58	-	Spare	40004	9	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
59	-	Spare	40004	10	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
60	-	Spare	40004	11	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
61	-	Spare	40004	12	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
62	-	Spare	40004	13	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
63	-	Spare	40004	14	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
64	-	Spare	40004	15	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
65	XY-10001	Compressor inlet solenoid valve	40010	0	BOOL	3	-	-	-	-	-	-	-	-	Close	Open	-
66	XY-10002	Compressor cooling water inlet solenoid valve	40010	1	BOOL	3	-	-	-	-	-	-	-	-	Close	Open	-
67	-	Spare	40010	2	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
68	-	Spare	40010	3	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
69	19K4	Compressor main motor start	40010	4	BOOL	3	-	-	-	-	-	-	-	-	-	Start	-
70	19K6	Compressor main motor stop	40010	5	BOOL	3	-	-	-	-	-	-	-	-	-	Stop	-
71	19K12	Compressor PID control active	40010	6	BOOL	3	-	-	-	-	-	-	-	-	Deactivate	Activate	-
72	-	Spare	40010	7	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
73	-	Spare	40010	8	BOOL	3	-	-	-	-	-	-	-	-	-	-	-

(17811-56)- 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%								
74	-	Spare	40010	9	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
75	-	Spare	40010	10	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
76	-	Spare	40010	11	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
77	-	Spare	40010	12	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
78	-	Spare	40010	13	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
79	-	Spare	40010	14	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
80	-	Spare	40010	15	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
81	TIT-10001	Compressor Inlet Nitrogen Temperature	40020	-	32Bit-floating	3	°C	0	80	L: 56	-	0	80	HIGH	-	-	-
82	TIT-10002	Compressor Downstream Nitrogen Temperature	40022	-	32Bit-floating	3	°C	0	200	-	HH: 195	0	200	HIGH	-	-	-
83	PIT-10003	Compressor Inlet Pressure	40024	-	32Bit-floating	3	°C	-1	13,5	-	LL: 6,9 HH: 9,1	-1	13,5	OW & HIGH	-	-	-
84	PIT-10004	Compressor Oil Pressure	40026	-	32Bit-floating	3	bar(a)	-1	5	-	LL: 1,5	-1	5	LOW	-	-	-
85	PIT-10007	Compressor Outlet Pressure	40040	-	32Bit-floating	3	bar(a)	0	36	-	LL: 21 HH: 23,5	0	36	OW & HIGH	-	-	-
86	VT-10001	Compressor Vibration Transmitter	40042	-	32Bit-floating	3	mm/s	0	??	-	HH: 8	0	??	HIGH	-	-	-
87	FT-10001	Cooling Water Outlet Flow	40044	-	32Bit-floating	3	m3/hr	0	??	-	LL: 2,3	0	??	LOW	-	-	-
88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
89	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

(17811-56)- 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-101	PLC condition healthy	40001	0	BOOL	3	-	-	-	-	-	-	-	-	Unhealthy	Healthy	-
2	XA-102	Common Alarm	40001	1	BOOL	3	-	-	-	-	-	-	-	-	-	Alarm	-
3	XA-103	Common Trip	40001	2	BOOL	3	-	-	-	-	-	-	-	-	-	Trip	-
4	XA-104	Compressor Operational	40001	3	BOOL	3	-	-	-	-	-	-	-	-	Stopped	Running	-
5	XA-105	Compressor Running	40001	4	BOOL	3	-	-	-	-	-	-	-	-	Stopped	Running	-
6	-	Spare	40001	5	BOOL	3	-	-	-	-	-	-	-	-	Remote	Local	-
7	-	Spare	40001	6	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
8	-	Spare	40001	7	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
9	-	Spare	40001	8	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
10	-	Spare	40001	9	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
11	-	Spare	40001	10	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
12	-	Spare	40001	11	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
13	-	Spare	40001	12	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
14	-	Spare	40001	13	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
15	-	Spare	40001	14	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
16	-	Spare	40001	15	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
17	XS-201	Accept alarms / trips (from DCS)	40002	0	BOOL	6	-	-	-	-	-	-	-	-	-	Accept	-
18	XS-202	Reset alarms / trips (from DCS)	40002	1	BOOL	6	-	-	-	-	-	-	-	-	-	Reset	-
19	XS-203	Start Compressor (from DCS)	40002	2	BOOL	6	-	-	-	-	-	-	-	-	-	Start	-
20	XS-204	Stop Compressor (from DCS)	40002	3	BOOL	6	-	-	-	-	-	-	-	-	-	Stop	-
21	-	Spare	40002	4	BOOL	6	-	-	-	-	-	-	-	-	-	-	-
22	-	Spare	40002	5	BOOL	6	-	-	-	-	-	-	-	-	-	-	-
23	-	Spare	40002	6	BOOL	6	-	-	-	-	-	-	-	-	-	-	-
24	-	Spare	40002	7	BOOL	6	-	-	-	-	-	-	-	-	-	-	-
25	-	Spare	40002	8	BOOL	6	-	-	-	-	-	-	-	-	-	-	-
26	-	Spare	40002	9	BOOL	6	-	-	-	-	-	-	-	-	-	-	-
27	-	Spare	40002	10	BOOL	6	-	-	-	-	-	-	-	-	-	-	-
28	-	Spare	40002	11	BOOL	6	-	-	-	-	-	-	-	-	-	-	-
29	-	Spare	40002	12	BOOL	6	-	-	-	-	-	-	-	-	-	-	-
30	-	Spare	40002	13	BOOL	6	-	-	-	-	-	-	-	-	-	-	-
31	-	Spare	40002	14	BOOL	6	-	-	-	-	-	-	-	-	-	-	-
32	-	Spare	40002	15	BOOL	6	-	-	-	-	-	-	-	-	-	-	-
33	XA-301	Emergency shutdown relay	40003	0	BOOL	3	-	-	-	-	-	-	-	-	-	Trip	-
34	XA-302	Main motor fault	40003	1	BOOL	3	-	-	-	-	-	-	-	-	-	Trip	-
35	XA-303	PID controller alarm	40003	2	BOOL	3	-	-	-	-	-	-	-	-	-	Alarm	-
36	-	Spare	40003	3	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
37	-	Spare	40003	4	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
38	-	Spare	40003	5	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
39	-	Spare	40003	6	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
40	-	Spare	40003	7	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
41	-	Spare	40003	8	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
42	-	Spare	40003	9	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
43	-	Spare	40003	10	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
44	-	Spare	40003	11	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
45	-	Spare	40003	12	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
46	-	Spare	40003	13	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
47	-	Spare	40003	14	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
48	-	Spare	40003	15	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
49	TAH-70001	TIT-70001 High Alarm	40004	0	BOOL	3	-	-	-	-	-	-	-	-	-	Alarm	-
50	TAHH-70002	TIT-70002 High Trip	40004	1	BOOL	3	-	-	-	-	-	-	-	-	-	Trip	-
51	PALL-70003	PIT-70003 Low Trip	40004	2	BOOL	3	-	-	-	-	-	-	-	-	-	Trip	-
52	PAHH-70003	PIT-70003 High Trip	40004	3	BOOL	3	-	-	-	-	-	-	-	-	-	Trip	-
53	PALL-70004	PIT-70004 Low Trip	40004	4	BOOL	3	-	-	-	-	-	-	-	-	-	Trip	-
54	PALL-70007	PIT-70007 Low Trip	40004	5	BOOL	3	-	-	-	-	-	-	-	-	-	Trip	-
55	PAHH-70007	PIT-70007 High Trip	40004	6	BOOL	3	-	-	-	-	-	-	-	-	-	Trip	-
56	VAHH-70001	VT-70001 High Trip	40004	7	BOOL	3	-	-	-	-	-	-	-	-	-	Trip	-
57	FAL-70001	FT-70001 Low Alarm	40004	8	BOOL	3	-	-	-	-	-	-	-	-	-	Alarm	-
58	-	Spare	40004	9	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
59	-	Spare	40004	10	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
60	-	Spare	40004	11	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
61	-	Spare	40004	12	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
62	-	Spare	40004	13	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
63	-	Spare	40004	14	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
64	-	Spare	40004	15	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
65	XY-70001	Compressor inlet solenoid valve	40010	0	BOOL	3	-	-	-	-	-	-	-	-	Close	Open	-
66	XY-70002	Compressor cooling water inlet solenoid valve	40010	1	BOOL	3	-	-	-	-	-	-	-	-	Close	Open	-
67	-	Spare	40010	2	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
68	-	Spare	40010	3	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
69	19K4	Compressor main motor start	40010	4	BOOL	3	-	-	-	-	-	-	-	-	-	Start	-
70	19K6	Compressor main motor stop	40010	5	BOOL	3	-	-	-	-	-	-	-	-	-	Stop	-
71	19K12	Compressor PID control active	40010	6	BOOL	3	-	-	-	-	-	-	-	-	Deactivate	Activate	-
72	-	Spare	40010	7	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
73	-	Spare	40010	8	BOOL	3	-	-	-	-	-	-	-	-	-	-	-

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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%								
74	-	Spare	40010	9	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
75	-	Spare	40010	10	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
76	-	Spare	40010	11	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
77	-	Spare	40010	12	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
78	-	Spare	40010	13	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
79	-	Spare	40010	14	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
80	-	Spare	40010	15	BOOL	3	-	-	-	-	-	-	-	-	-	-	-
81	TIT-70001	Compressor Inlet Air Temperature	40020	-	32Bit-floating	3	°C	0	80	H: 56	-	0	80	HIGH	-	-	-
82	TIT-70002	Compressor Downstream Air Temperature	40022	-	32Bit-floating	3	°C	0	200	-	HH: 195	0	200	HIGH	-	-	-
83	PIT-70003	Compressor Inlet Pressure	40024	-	32Bit-floating	3	°C	-1	13,5	-	LL: 6,9 HH: 9,1	-1	13,5	OW & HIGH	-	-	-
84	PIT-70004	Compressor Oil Pressure	40026	-	32Bit-floating	3	bar(a)	-1	5	-	LL: 1,5	-1	5	LOW	-	-	-
85	PIT-70007	Compressor Outlet Pressure	40040	-	32Bit-floating	3	bar(a)	0	36	-	LL: 20 HH: 21	0	36	OW & HIGH	-	-	-
86	VT-70001	Compressor Vibration Transmitter	40042	-	32Bit-floating	3	mm/s	0	??	-	HH: 8	0	??	HIGH	-	-	-
87	FI-70001	Cooling Water Outlet Flow	40044	-	32Bit-floating	3	m3/hr	0	??	-	LL: 2,3	0	??	LOW	-	-	-
88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-