MODBUS tables supplement COI/FPD580/MOD–EN

StackFlowMaster FPD581, FPD583 and FPD585
Stack gas metering systems

Measurement made easy

Introduction

StackFlowMaster FPD580 is designed for the monitoring of flow in ducts or stacks and uses a TORBAR (a multi-port, self-averaging pitot tube) as the primary measuring element. A differential pressure (DP) is created between the high pressure created when the flow impacts the upstream holes and the low (or static) pressure measured at the single downstream hole.

This MODBUS® tables supplement contains MODBUS Protocol implementation information and MODBUS Protocol Register Allocation tables for the StackFlowMaster FPD580.

For more information

Further publications for the StackFlowMaster FPD580 are available for free download from www.abb.com (see links and reference numbers below) or by scanning this code:

	search for or click on:
StackFlowMaster FPD580 TORBAR probe Commissioning instructions	CI/FPD580/A–EN
StackFlowMaster FPD580 transmitter and interface unit A Commissioning instructions	CI/FPD580/B-EN
StackFlowMaster FPD580 transmitter and interface unit B / C / D Commissioning instructions	CI/FPD580/C-EN
2600T Series Pressure Transmitters Operating instructions	IM/267C/269C

Power and productivity for a better world™

Contents

1 Register tables

1.1 Coils

Address	Object	Type	Enum values	Enum names
0	Differential pressure status	TUSIGN8	—	—
1	Static pressure status	TUSIGN8	—	—
2	Volume flow rate status	TUSIGN8	—	—
3	Volume flow total status	TUSIGN8	—	—
4	Mass flow rate status	TUSIGN8	—	—
5	Stack temperature status	TUSIGN8	—	—
6	Gas density status	TUSIGN8	—	—
7	Stack velocity status	TUSIGN8	—	—
8	Relative humidity status	TUSIGN8	—	—
9	alarm_1_output status	TUSIGN8	0 1	Alarm inactive Alarm active
10	alarm_1_output acknowledgement	TUSIGN8	0 1	Alarm acknowledged Alarm not acknowledged
11	alarm_2_output status	TUSIGN8	0 1	Alarm inactive Alarm active
12	alarm_2_output acknowledgement	TUSIGN8	0 1	Alarm acknowledged Alarm not acknowledged
13	alarm_3_output status	TUSIGN8	0 1	Alarm inactive Alarm active
14	alarm_3_output acknowledgement	TUSIGN8	0 1	Alarm acknowledged Alarm not acknowledged
15	alarm_4_output status	TUSIGN8	0 1	Alarm inactive Alarm active
16	alarm_4_output acknowledgement	TUSIGN8	0 1	Alarm acknowledged Alarm not acknowledged
17	TransmitterIsolationMode	TUSIGN8	0 1 2 3	TRANSMITTER_ISOLATION_MODE_ISOLATE_TRANSMITTER TRANSMITTER_ISOLATION_MODE_TRANSMITTER_OPERATIONAL TRANSMITTER_ISOLATION_MODE_TRANSMITTER_ISOLATED TRANSMITTER_ISOLATION_MODE_INTEGRATE_TRANSMITTER
18	TransmitterCalibrationMode	TUSIGN8	0 1 2 3 4 5	TRANSMITTER_CALIBRATION_MODE_TRANSMITTER_OPERATIONAL TRANSMITTER_CALIBRATION_MODE_OPERATE_TRANSMITTER TRANSMITTER_CALIBRATION_MODE_TRANSMITTER_AT_ZERO TRANSMITTER_CALIBRATION_MODE_ACTIVATE_ZERO TRANSMITTER_CALIBRATION_MODE_TRANSMITTER_AT_SPAN TRANSMITTER_CALIBRATION_MODE_ACTIVATE_SPAN
19	diagnosisAlarms	SIMPLE_U8	—	—
20	diagnosisAlarms	SIMPLE_U8	—	—
21	diagnosisAlarms	SIMPLE_U8	—	—
22	diagnosisAlarms	SIMPLE_U8	—	—
23	diagnosisAlarms	SIMPLE_U8	—	—
24	diagnosisAlarms	SIMPLE_U8	—	—
25	diagnosisAlarms	SIMPLE_U8	—	—
26	diagnosisAlarms	SIMPLE_U8	—	—
27	diagnosisAlarms	SIMPLE_U8	—	—
28	diagnosisAlarms	SIMPLE_U8	—	—
29	diagnosisAlarms	SIMPLE_U8	—	—
30	diagnosisAlarms	SIMPLE_U8	—	—
31	diagnosisAlarms	SIMPLE_U8	—	—

Table 1.1 Input coils (Sheet 1 of 2)

Address	Object	Type	Enum values	Enum names
32	diagnosisAlarms	SIMPLE_U8	—	—
33	diagnosisAlarms	SIMPLE_U8	—	—
34	diagnosisAlarms	SIMPLE_U8	—	—
35	diagnosisAlarms	SIMPLE_U8	—	—
36	diagnosisAlarms	SIMPLE_U8	—	—
37	diagnosisAlarms	SIMPLE_U8	—	—
38	diagnosisAlarms	SIMPLE_U8	—	—
39	diagnosisAlarms	SIMPLE_U8	—	—
40	diagnosisAlarms	SIMPLE_U8	—	—
41	diagnosisAlarms	SIMPLE_U8	—	—
42	diagnosisAlarms	SIMPLE_U8	—	—
43	diagnosisAlarms	SIMPLE_U8	—	—
44	diagnosisAlarms	SIMPLE_U8	—	—
45	diagnosisAlarms	SIMPLE_U8	—	—
46	diagnosisAlarms	SIMPLE_U8	—	—

Table 1.1 Input coils (Sheet 2 of 2)

Address	Object	Enum values	Enum names
0	diagnosticsViewEnable	0 1	Disabled Enabled
1	signalsViewEnable	0 1	Disabled Enabled
2	chartViewEnable	0 1	Disabled Enabled
3	alarmViewEnable	0 1	Disabled Enabled
4	anlgOPviewEnable	0 1	Disabled Enabled
5	calLogEnable	0 1	Disabled Enabled
6	alarmLogEnable	0 1	Disabled Enabled
7	auditLogEnable	0 1	Disabled Enabled
8	diagLogEnable	0 1	Disabled Enabled
9	Assignment of Alarm1 to digital o/p 1	0 1	Not Assigned to Digital Output Assigned to Digital Output
10	Assignment of Alarm2 to digital o/p 1	0 1	Not Assigned to Digital Output Assigned to Digital Output
11	Assignment of Alarm3 to digital o/p 1	0 1	Not Assigned to Digital Output Assigned to Digital Output
12	Assignment of Alarm4 to digital o/p 1	0 1	Not Assigned to Digital Output Assigned to Digital Output
13	Assignment of AccChkActive to digital o/p 1	0 1	Not Assigned to Digital Output Assigned to Digital Output
14	Assignment of AccChkFail to digital o/p 1	0 1	Not Assigned to Digital Output Assigned to Digital Output
15	Assignment of PurgeActive to digital o/p 1	0 1	Not Assigned to Digital Output Assigned to Digital Output

Table 1.2 Output coils (Sheet 1 of 4)

Address	Object	Enum values	Enum names
16	Assignment of DiagnosisFail to digital o/p 1	0 1	Not Assigned to Digital Output Assigned to Digital Output
17	Assignment of DiagnosisOffSpec to digital o/p 1	0 1	Not Assigned to Digital Output Assigned to Digital Output
18	Assignment of DiagnosisMaintReq to digital o/p 1	0 1	Not Assigned to Digital Output Assigned to Digital Output
19	Assignment of DiagnosisCheckFunction to digital o/p 1	0 1	Not Assigned to Digital Output Assigned to Digital Output
20	Assignment of Alarm1 to digital o/p 2	0 1	Not Assigned to Digital Output Assigned to Digital Output
21	Assignment of Alarm2 to digital o/p 2	0 1	Not Assigned to Digital Output Assigned to Digital Output
22	Assignment of Alarm3 to digital o/p 2	0 1	Not Assigned to Digital Output Assigned to Digital Output
23	Assignment of Alarm4 to digital o/p 2	0 1	Not Assigned to Digital Output Assigned to Digital Output
24	Assignment of AccChkActive to digital o/p 2	0 1	Not Assigned to Digital Output Assigned to Digital Output
25	Assignment of AccChkFail to digital o/p 2	0 1	Not Assigned to Digital Output Assigned to Digital Output
26	Assignment of PurgeActive to digital o/p 2	0 1	Not Assigned to Digital Output Assigned to Digital Output
27	Assignment of DiagnosisFail to digital o/p 2	0 1	Not Assigned to Digital Output Assigned to Digital Output
28	Assignment of DiagnosisOffSpec to digital o/p 2	0 1	Not Assigned to Digital Output Assigned to Digital Output
29	Assignment of DiagnosisMaintReq to digital o/p 2	0 1	Not Assigned to Digital Output Assigned to Digital Output
30	Assignment of DiagnosisCheckFunction to digital o/p 2	0 1	Not Assigned to Digital Output Assigned to Digital Output
31	Assignment of Alarm1 to digital o/p 3	0 1	Not Assigned to Digital Output Assigned to Digital Output
32	Assignment of Alarm2 to digital o/p 3	0 1	Not Assigned to Digital Output Assigned to Digital Output
33	Assignment of Alarm3 to digital o/p 3	0 1	Not Assigned to Digital Output Assigned to Digital Output
34	Assignment of Alarm4 to digital o/p 3	0 1	Not Assigned to Digital Output Assigned to Digital Output
35	Assignment of AccChkActive to digital o/p 3	0 1	Not Assigned to Digital Output Assigned to Digital Output
36	Assignment of AccChkFail to digital o/p 3	0 1	Not Assigned to Digital Output Assigned to Digital Output
37	Assignment of PurgeActive to digital o/p 3	0 1	Not Assigned to Digital Output Assigned to Digital Output
38	Assignment of DiagnosisFail to digital o/p 3	0 1	Not Assigned to Digital Output Assigned to Digital Output
39	Assignment of DiagnosisOffSpec to digital o/p 3	0 1	Not Assigned to Digital Output Assigned to Digital Output
40	Assignment of DiagnosisMaintReq to digital o/p 3	0 1	Not Assigned to Digital Output Assigned to Digital Output
41	Assignment of DiagnosisCheckFunction to digital o/p 3	0 1	Not Assigned to Digital Output Assigned to Digital Output
42	Assignment of Alarm1 to digital o/p 4	0 1	Not Assigned to Digital Output Assigned to Digital Output

Table 1.2 Output coils (Sheet 2 of 4)

Address	Object	Enum values	Enum names
43	Assignment of Alarm2 to digital o/p 4	0 1	Not Assigned to Digital Output Assigned to Digital Output
44	Assignment of Alarm3 to digital o/p 4	0 1	Not Assigned to Digital Output Assigned to Digital Output
45	Assignment of Alarm4 to digital o/p 4	0 1	Not Assigned to Digital Output Assigned to Digital Output
46	Assignment of AccChkActive to digital o/p 4	0 1	Not Assigned to Digital Output Assigned to Digital Output
47	Assignment of AccChkFail to digital o/p 4	0 1	Not Assigned to Digital Output Assigned to Digital Output
48	Assignment of PurgeActive to digital o/p 4	0 1	Not Assigned to Digital Output Assigned to Digital Output
49	Assignment of DiagnosisFail to digital o/p 4	0 1	Not Assigned to Digital Output Assigned to Digital Output
50	Assignment of DiagnosisOffSpec to digital o/p 4	0 1	Not Assigned to Digital Output Assigned to Digital Output
51	Assignment of DiagnosisMaintReq to digital o/p 4	0 1	Not Assigned to Digital Output Assigned to Digital Output
52	Assignment of DiagnosisCheckFunction to digital o/p 4	0 1	Not Assigned to Digital Output Assigned to Digital Output
53	Digital o/p 1 Polarity	0 1	Inverted (Active Low) Non Inverted (Active High)
54	Digital o/p 2 Polarity	0 1	Inverted (Active Low) Non Inverted (Active High)
55	Digital o/p 3 Polarity	0 1	Inverted (Active Low) Non Inverted (Active High)
56	Digital o/p 4 Polarity	0 1	Inverted (Active Low) Non Inverted (Active High)
57	Assignment of Alarm1 to Relay 1	0 1	Not Assigned to Relay Assigned to Relay
58	Assignment of Alarm2 to Relay 1	0 1	Not Assigned to Relay Assigned to Relay
59	Assignment of Alarm3 to Relay 1	0 1	Not Assigned to Relay Assigned to Relay
60	Assignment of Alarm4 to Relay 1	0 1	Not Assigned to Relay Assigned to Relay
61	Assignment of AccChkActive to Relay 1	0 1	Not Assigned to Relay Assigned to Relay
62	Assignment of AccChkFail to Relay 1	0 1	Not Assigned to Relay Assigned to Relay
63	Assignment of PurgeActive to Relay 1	0 1	Not Assigned to Relay Assigned to Relay
64	Assignment of DiagnosisFail to Relay 1	0 1	Not Assigned to Relay Assigned to Relay
65	Assignment of DiagnosisOffSpec to Relay 1	0 1	Not Assigned to Relay Assigned to Relay
66	Assignment of DiagnosisMaintReq to Relay 1	0 1	Not Assigned to Relay Assigned to Relay
67	Assignment of DiagnosisCheckFunction to Relay 1	0 1	Not Assigned to Relay Assigned to Relay
68	Assignment of Alarm1 to Relay 2	0 1	Not Assigned to Relay Assigned to Relay
69	Assignment of Alarm2 to Relay 2	0 1	Not Assigned to Relay Assigned to Relay

Table 1.2 Output coils (Sheet 3 of 4)

Address	Object	Enum values	Enum names
70	Assignment of Alarm3 to Relay 2	0 1	Not Assigned to Relay Assigned to Relay
71	Assignment of Alarm4 to Relay 2	0 1	Not Assigned to Relay Assigned to Relay
72	Assignment of AccChkActive to Relay 2	0 1	Not Assigned to Relay Assigned to Relay
73	Assignment of AccChkFail to Relay 2	0 1	Not Assigned to Relay Assigned to Relay
74	Assignment of PurgeActive to Relay 2	0 1	Not Assigned to Relay Assigned to Relay
75	Assignment of DiagnosisFail to Relay 2	0 1	Not Assigned to Relay Assigned to Relay
76	Assignment of DiagnosisOffSpec to Relay 2	0 1	Not Assigned to Relay Assigned to Relay
77	Assignment of DiagnosisMaintReq to Relay 2	0 1	Not Assigned to Relay Assigned to Relay
78	Assignment of DiagnosisCheckFunction to Relay 2	0 1	Not Assigned to Relay Assigned to Relay
79	Relay 1 Polarity	0 1	Inverted Non Inverted
80	Relay 2 Polarity	0 1	Inverted Non Inverted
81	Totalizer Type	0 1	TOTALIZER OFF TOTALIZER TYPE = VOLUME_FLOW

Table 1.2 Output coils (Sheet 4 of 4)

Address	Brief description
100	Service performed
101	Stop totalizer
102	Start totalizer
103	Reset totalizer
104	Reset configuration to factory defaults

Table 1.3 Action coils

1.2 Input registers

Address	Object
30000	Differential pressure
30002	Static pressure
30004	Volume flow rate
30006	Volume flow total
30008	Mass flow rate
30010	Stack temperature
30012	Gas density
30014	Stack velocity
30016	Relative humidity
30018	Zero accuracy check result
30020	Span accuracy check result
30022	Differential pressure range low
30024	Differential pressure range high
30026	Static pressure range low
30028	Static pressure range high
30030	Stack temperature range low
30032	Stack temperature range high
30034	Mass flow rate range low
30036	Mass flow rate range high
30038	Volume flow rate range low
30040	Volume flow rate range high
30042	Flow total range low
30044	Flow totalizer range high
30046	Stack velocity range low
30048	Stack velocity range high
30050	Gas density range low
30052	Gas density range high
30054	Relative humidity range low
30056	Relative humidity range high
30058	Analog output 1 (%)
30060	Analog output 1 (mA)
30062	Analog output 2 (%)
30064	Analog output 2 (mA)
30066	Analog output 3 (%)
30068	Analog output 3 (mA)
30070	Analog output 4 (%)
30072	Analog output 4 (mA)

Table 1.4 Read only, single precision float

Address	Object	Brief description
31000	Timed totalizer time remaining (seconds)	
31002	Date and time	Stored as a number of seconds since 00:00 on 1st January 2000

Table 1.5 Read only, 32 bits

Address	Object	Brief description
32000	Timed totalizer time remaining (days)	
32001	Service Maintenance Days To Next Service	

Table 1.6 Read only, 16 bits

Address	Object	Values	Brief description
33000	Language	—	—
33001	Transmitter Hardware Revision	—	
33002	Interface Unit Option	0 1 2	Option B: Zero & Span Acc. Check option fitted Option C: Zero & Span Acc. Check and Purge options fitted Option D: Purge option fitted
33003	Heater InInterface Unit	0 1	Option ---: Heater not fitted Option HC2: Heater fitted
33004	Span Check Regulator	0 1	Option ---: Span check regulator not fitted Option PC1: Span check regulator fitted
33005	TemperatureElement	0 1	Option ---: Temperature Element not fitted Option ---: Temperature Element fitted
33006	total Analog Outputs Available	—	Total number of analog outputs available
33007	total Relays Available	—	Total number of relays available
33008	Service Maintenance Interval	0 1 2 3 4 5 6	Off 30 days 60 days 90 days 180 days 360 days 365 days

Table 1.7 Read only, 8 bits

Address	Brief description
34000 to 34015	Transmitter software revision (16 characters)

Table 1.8 Read only strings

1.3 Holding registers

Address	Object	Min.	Max.	Brief description
40000	Span Check Pressure	0.001	6000	
40002	Diff. Pressure Ref.	0.001	6000	
40004	Mass Flow Ref.	0	200000000	
40006	Temperature Ref.	0	2700	
40008	Stack Temperature	0.00	2700.00	User-entered stack temperature (when temperature element not fitted)
40010	Molecular Weight	0.00	100.00	
40012	Compressibility Ref.	0.00	2.00	
40014	Stack Diameter	0.001	33	
40016	Relative Humidity Value	0	100	
40018	Accuracy Check Zero Limit	1	50	
40020	Accuracy Check Span Limit	1	50	
40022	Do Not Use			
40024	Do Not Use			
40026	Do Not Use			
40028	Do Not Use			
40030	Do Not Use			
40032	Do Not Use			
40034	Do Not Use			
40036	Do Not Use			
40038	Alarm 1 trip	–9999.0	99999.0	
40040	Alarm 1 hysteresis	0.0	99999.0	
40042	Alarm 2 trip	–9999.0	99999.0	
40044	Alarm 2 hysteresis	0.0	99999.0	
40046	Alarm 3 trip	–9999.0	99999.0	
40048	Alarm 3 hysteresis	0.0	99999.0	
40050	Alarm 4 trip	–9999.0	99999.0	
40052	Alarm 4 hysteresis	0.0	99999.0	
40054	Analog o/p 1 Elec Range High	0.0	22.0	
40056	Analog o/p 1 Elec Range Low	0.0	22.0	
40058	Analog o/p 1 Eng Range High	–9999	99999	
40060	Analog o/p 1 Eng Range Low	–9999	99999	
40062	Analog o/p 2 Elec Range High	0.0	22.0	
40064	Analog o/p 2 Elec Range Low	0.0	22.0	
40066	Analog o/p 2 Eng Range High	–9999	99999	
40068	Analog o/p 2 Eng Range Low	–9999	99999	
40070	Analog o/p 3 Elec Range High	0.0	22.0	
40072	Analog o/p 3 Elec Range Low	0.0	22.0	
40074	Analog o/p 3 Eng Range High	–9999	99999	
40076	Analog o/p 3 Eng Range Low	–9999	99999	
40078	Analog o/p 4 Elec Range High	0.0	22.0	
40080	Analog o/p 4 Elec Range Low	0.0	22.0	
40082	Analog o/p 4 Eng Range High	–9999	99999	
40084	Analog o/p 4 Eng Range Low	–9999	99999	

Table 1.9 Holding registers (Sheet 1 of 2)

Address	Object	Min.	Max.	Brief description
40086	Analog o/p 1 Failure Current	0.0	22.0	
40088	Analog o/p 2 Failure Current	0.0	22.0	
40090	Analog o/p 3 Failure Current	0.0	22.0	
40092	Analog o/p 4 Failure Current	0.0	22.0	

Table 1.9 Holding registers (Sheet 2 of 2)

Address	Object	Brief description
41000	Time / Date of next scheduled accuracy check	Stored as a number of seconds elapsed since 00:00 on 1st January 2000
41002	Time / Date of next scheduled purge	Stored as a number of seconds elapsed since 00:00 on 1st January 2000

Table 1.10 Writable, 32 bits

Address	Object	Min.	Max.	Brief description
42000	Purge Duration (seconds)	10	300	
42001	Alarm 1 Time Hysteresis	0.0	9999	
42002	Alarm 2 Time Hysteresis	0.0	9999	
42003	Alarm 3 Time Hysteresis	0.0	9999	
42004	Alarm 4 Time Hysteresis	0.0	9999	
42005	Timed Totalizer Run Period (Days)	0	366	

Table 1.11 Writable, 16 bits

Address	Object	Min.	Max.	Enum values	Brief description
43000	Diff. Pressure Units			1 4 6 7 8 10 11 12 14 173 210	in wg mm wg psi bar mbar kgf/cm^2 Pa kPa atm lb/ft^2 N/m^2
43001	Static Pressure Units			1 4 6 7 8 10 11 12 14 173 210	in wg mm wg psi bar mbar kgf/cm2 Pa kPa atm lb/ft2 N/m2

Table 1.12 Writable, 8 bits (Sheet 1 of 8)

Address	Object	Min.	Max.	Enum values	Brief description
43002	Volume Flow Rate Units			15 17 19 24 26 27 28 29 121 123 130 131 138 201 202 203 204 205 206 208 209 211 212 213 214 215 216 217	cubic feet per minute liters per minute cubic meters per hour liters per second cubic feet per second cubic feet per day cubic meters per second cubic meters per day normal cubic meters per hour standard cubic feet per minute cubic feet per hour cubic meters per minute liters per hour standard cubic meters per second normal cubic meters per second standard cubic feet per second normal cubic feet per second standard cubic meters per minute normal cubic meters per minute normal cubic feet per minute standard cubic meters per hour standard cubic feet per hour normal cubic feet per hour liters per day standard cubic meters per day normal cubic meters per day standard cubic feet per day normal cubic feet per day
43003	Volume Flow Total units			41 43 112 166 168 218 219	litres m^3 ft^3 Nm^3 Sft^3 Sm^3 Nft^3
43004	Mass Flow Rate units			73 74 75 76 77 78 79 80 81 82 83 207	kg/sec kg/min kg/hr kg/day t/min t/hr t/day lb/sec lb/min lb/hr lb/day t/sec
43005	Stack Temperature units			32 33 34 35	°C °F °R K
43006	Gas Density units			92 94	kg/m3 lb/ft3
43007	Stack Velocity units			20 21	ft/sec m/sec

Table 1.12 Writable, 8 bits (Sheet 2 of 8)

Address	Object	Min.	Max.	Enum values	Brief description
43008	Accuracy Check Interval			0 1 2 3 4 5 6 7 8 9 10 11 12 13	OFF 1 DAY 2 DAYS 3 DAYS 4 DAYS 5 DAYS 6 DAYS 7 DAYS 14 DAYS 21 DAYS 28 DAYS 3 MONTHS 6 MONTHS 12 MONTHS
43009	Accuracy Check - Auto Scheduler			0 1 2 3	Disabled Zero Check Span Check Two Point Check
43010	Purge Interval			0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	OFF 10 MIN 15 MIN 20 MIN 30 MIN 60 MIN 2 HOURS 3 HOURS 4 HOURS 6 HOURS 8 HOURS 12 HOURS 24 HOURS 2 DAYS 3 DAYS 4 DAYS 5 DAYS 6 DAYS 7 DAYS
43011	Purge - Auto Scheduler			0 1	Disabled Enabled
43012	Accuracy Check - Automatic Hold			0 1	Disabled Enabled
43013	Date Format			0 1 2	DD-MM-YYYY MM-DD-YYYY YYYY-MM-DD
43014	Service Maintenance Interval			0 1 2 3 4 5 6	OFF 30 DAYS 60 DAYS 90 DAYS 180 DAYS 360 DAYS 365 DAYS
43015	Daylight Saving Region			0 1 2 3	Daylight Saving OFF EUROPE USA CUSTOM
43016	Daylight Saving Start Hour	0	23		
43017	Daylight Saving Start Occurance			1 2 3 4 5	FIRST SECOND THIRD FOURTH LAST

Table 1.12 Writable, 8 bits (Sheet 3 of 8)

Address	Object	Min.	Max.	Enum values	Brief description
43018	Daylight Saving Start Day			1 2 3 4 5 6 7	SUNDAY MONDAY TUESDAY WEDNESDAY THURSDAY FRIDAY SATURDAY
43019	Daylight Saving Start Month			1 2 3 4 5 6 7 8 9 10 11 12	JANUARY FEBRUARY MARCH APRIL MAY JUNE JULY AUGUST SEPTEMBER OCTOBER NOVEMBER DECEMBER
43020	Daylight Saving End Hour	0	23		
43021	Daylight Saving Start Occurance			1 2 3 4 5	FIRST SECOND THIRD FOURTH LAST
43022	Daylight Saving End Day			1 2 3 4 5 6 7	SUNDAY MONDAY TUESDAY WEDNESDAY THURSDAY FRIDAY SATURDAY
43023	Daylight Saving End Month			1 2 3 4 5 6 7 8 9 10 11 12	JANUARY FEBRUARY MARCH APRIL MAY JUNE JULY AUGUST SEPTEMBER OCTOBER NOVEMBER DECEMBER
43024	Operator Page 1 Template			0 1 2 3 4 5 6 7 8 9	OFF Qv, V, T, DP Qv, T V, T Qm, Σ SP, T, V, DP T, V, SP, DP Qm, p, T, SP SP, T, DP, RH
43025	Operator Page 2 Template			0 1 2 3 4 5 6 7 8 9	OFF Qv, V, T, DP Qv, T V, T Qm, Σ SP, T, V, DP T, V, SP, DP Qm, p,T, SP SP, T, DP, RH

Table 1.12 Writable, 8 bits (Sheet 4 of 8)

Address	Object	Min.	Max.	Enum values	Brief description
43026	Operator Page 3 Template			0 1 2 3 4 5 6 7 8 9	OFF Qv, V, T, DP Qv, T V, T Qm, Σ SP, T, V, DP T, V, SP, DP Qm, p, T, SP SP, T, DP, RH
43027	Operator Page 4 Template			0 1 2 3 4 5 6 7 8 9	OFF Qv, V, T, DP Qv, T V, T Qm, Σ SP, T, V, DP T, V, SP, DP Qm, p, T, SP SP, T, DP, RH
43028	Operator Page 5 Template			0 1 2 3 4 5 6 7 8 9	OFF Qv, V, T, DP Qv, T V, T Qm, Σ SP, T, V, DP T, V, SP, DP Qm, p, T, SP SP, T, DP, RH
43029	Chart View - Channel 1 Source			0 1 2 3 4 5 6 7 8 9	SIGNAL_none Differential Pressure Static Pressure Stack Temperature Mass Flow Rate Volume Flow Rate Volume Flow Total Stack Velocity Gas density Relative Humidity
43030	Chart View - Channel 2 Source			0 1 2 3 4 5 6 7 8 9	SIGNAL_none Differential Pressure Static Pressure Stack Temperature Mass Flow Rate Volume Flow Rate Volume Flow Total Stack Velocity Gas density Relative Humidity
43031	Chart View - Channel 3 Source			0 1 2 3 4 5 6 7 8 9	SIGNAL_none Differential Pressure Static Pressure Stack Temperature Mass Flow Rate Volume Flow Rate Volume Flow Total Stack Velocity Gas density Relative Humidity

Table 1.12 Writable, 8 bits (Sheet 5 of 8)

Address	Object	Min.	Max.	Enum values	Brief description
43032	Chart View - Channel 4 Source			0 1 2 3 4 5 6 7 8 9	SIGNAL_none Differential Pressure Static Pressure Stack Temperature Mass Flow Rate Volume Flow Rate Volume Flow Total Stack Velocity Gas density Relative Humidity
43033	Chart Duration			15 30 60 120 180 240 254 255	1 Hour 2 Hours 4 Hours 8 Hours 12 Hours 16 Hours 20 Hours 24 Hours
43034	Alarm 1 Source			0 1 2 3 4 5 6 7 8 9	SIGNAL_none Differential Pressure Static Pressure Stack Temperature Mass Flow Rate Volume Flow Rate Volume Flow Total Stack Velocity Gas density Relative Humidity
43035	Alarm 1 Type			0 1 2 3 4	OFF HIGH_PROCESS LOW_PROCESS HIGH_LATCH LOW_LATCH
43036	Alarm 2 Source			0 1 2 3 4 5 6 7 8 9	SIGNAL_none Differential Pressure Static Pressure Stack Temperature Mass Flow Rate Volume Flow Rate Volume Flow Total Stack Velocity Gas density Relative Humidity
43037	Alarm 2 Type			0 1 2 3 4	OFF HIGH_PROCESS LOW_PROCESS HIGH_LATCH LOW_LATCH
43038	Alarm 3 Source			0 1 2 3 4 5 6 7 8 9	SIGNAL_none Differential Pressure Static Pressure Stack Temperature Mass Flow Rate Volume Flow Rate Volume Flow Total Stack Velocity Gas density Relative Humidity
43039	Alarm 3 Type			0 1 2 3 4	OFF HIGH_PROCESS LOW_PROCESS HIGH_LATCH LOW_LATCH

Table 1.12 Writable, 8 bits (Sheet 6 of 8)

Address	Object	Min.	Max.	Enum values	Brief description
43040	Alarm 4 Source			0 1 2 3 4 5 6 7 8 9	SIGNAL_none Differential Pressure Static Pressure Stack Temperature Mass Flow Rate Volume Flow Rate Volume Flow Total Stack Velocity Gas density Relative Humidity
43041	Alarm 4 Type			0 1 2 3 4	OFF HIGH_PROCESS LOW_PROCESS HIGH_LATCH LOW_LATCH
43042	Analog o/p 1 Source			0 1 2 3 4 5 6 7 8 9	SIGNAL_none Differential Pressure Static Pressure Stack Temperature Mass Flow Rate Volume Flow Rate Volume Flow Total Stack Velocity Gas density Relative Humidity
43043	Analog o/p 2 Source			0 1 2 3 4 5 6 7 8 9	SIGNAL_none Differential Pressure Static Pressure Stack Temperature Mass Flow Rate Volume Flow Rate Volume Flow Total Stack Velocity Gas density Relative Humidity
43044	Analog o/p 3 Source			0 1 2 3 4 5 6 7 8 9	SIGNAL_none Differential Pressure Static Pressure Stack Temperature Mass Flow Rate Volume Flow Rate Volume Flow Total Stack Velocity Gas density Relative Humidity
43045	Analog o/p 4 Source			0 1 2 3 4 5 6 7 8 9	SIGNAL_none Differential Pressure Static Pressure Stack Temperature Mass Flow Rate Volume Flow Rate Volume Flow Total Stack Velocity Gas density Relative Humidity
43046	Analog o/p 1 Output Failure			0 1	Disabled Enabled
43047	Analog o/p 2 Output Failure			0 1	Disabled Enabled
43048	Analog o/p 3 Output Failure			0 1	Disabled Enabled
43049	Analog o/p 4 Output Failure			0 1	Disabled Enabled

Table 1.12 Writable, 8 bits (Sheet 7 of 8)

Address	Object	Min.	Max.	Enum values	Brief description
43050	Digital i/p 1 Function			0 1	NOT_AVAILABLE START_ZERO_CHECK
43051	Digital i/p 2 Function			0 1	NOT_AVAILABLE START_PURGE
43052	Totalizer Enable			0 1	Disabled Enabled
43053	Totalizer Type			0 1	CONTINUOUS TIMED
43054	Timed Totalizer Period (Hours)	0	23		
43055	Timed Totalizer Period (Minutes)	0	59		
43056	Timed Totalizer Period (Seconds)	0	59		
43057	Display Brightness	0	100		
43058	Display Contrast	20	100		

Table 1.12 Writable, 8 bits (Sheet 8 of 8)

Address	Brief description
44000 to 44015	Instrument Tag (16 characters)
44016 to 44018	Chart View - Channel 1 Tag (3 characters)
44019 to 44021	Chart View - Channel 2 Tag (3 characters)
44022 to 44024	Chart View - Channel 3 Tag (3 characters)
44025 to 44027	Chart View - Channel 4 Tag (3 characters)
44028 to 44043	Alarm 1 Tag (16 characters)
44044 to 44049	Alarm 2 Tag (16 characters)
44060 to 44075	Alarm 3 Tag (16 characters)
44076 to 44091	Alarm 4 Tag (16 characters)

Table 1.13 Writable strings

Acknowledgements

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the Modbus-IDA organization.

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