Modbus Register Description

Pipeline Master xx0 (i)

Software version 2.17

Version 5.0

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Attention!

Important!

These instructions should be used in conjunction with the standard installation and operating instructions for the Batching Master and Pipeline Master.

Table of Contents

1. Register description....4
1.1. Example Terminal Mode....4
1.1.1. Control the display....4
1.1.2. Readout keyboard buffer....5
2. Coil data (basis 0xxxx)....6
3. Input status (basis 1xxxx)....6
4. Holding Register (Basis 4xxxx)....7
4.1. Working variables....7
4.2. Parameter variables....10
4.3. Running counter data....18
4.3.1. Current data counter A....18
4.3.2. Current date counter B....19
4.3.3. Current data counter C....19
4.3.4. Current data counter D....19
4.3.5. Current data counter E....19
4.3.6. Current data counter F....19
4.4. Raw data from Promass 84F/Promass 300....20
4.5. Printout blocks....20
4.5.1. Print out block counter A....20
4.5.2. Print out block counter B....22
4.5.3. Printout block counter C....23
4.5.4. Printout block counter D....23
4.5.5. Printout block counter E....23
4.5.6. Printout block counter F....23
4.5.7. Printout block counter G (Promass #1)....23
4.5.8. Printout block counter H (Promass #2)....24
4.5.9. Printout block counter I (Promass #3)....24
4.6. Interim printout block A....25
4.6.1. Interim print out block counter A....25
4.6.2. Interim print out block counter B....26
4.6.3. Counter C....27
4.6.4. Interim print out block counter D....27
4.6.5. Interim print out block counter E....27
4.6.6. Interim print out block counter F....27

1. Register description

This chapter lists all the registers that can be addressed via the Modbus interface.

1.1. Example Terminal Mode

This is the description how to use the option terminal mode with Modbus protocol. If the option terminal mode is not available, only the second part is valid.

With this function a supervisor system can bring out up to two text lines with 16 characters. The keyboard can be polled.

1.1.1. Control the display

An order number should be entered by the user and send to the higher level system. The upper line from display shall display “ENTER ORDER-NO.:”. The input over keypad is displayed in the second line.

Write 1 into holding register 86. Then the terminal mode is active.

The holding register 87 – 102 actuate the upper line from display. Two ASCII-Codes are saved in one register (16 bit). The text is displayed directly. The value in the register is valid until there is a new value set by interface. Calculate the values for the text (see table) and write this to the registers:

Holding Register	***text to write:***	***swap the characters:***	***ASCII Hex***	***together as decimal value***
87	EN	NE	4E 45	20037
88	TE	ET	45 54	17748
89	R(blank)	(blank)R	20 52	8274
90	OR	RO	52 4F	21071
91	DE	ED	45 44	17732
92	R-	-R	2D 52	11602
93	NO	NO	4F 4E	20302
94	.:	:.	3A 2E	14894

1.1.2. Readout keyboard buffer

Up to 16 pressed numeric keys 0 to 9 are stored in the keyboard buffer from holding register 106 to 113. To clear the key buffer, set 1 into holding register 103. In holding register 105 is shown where the last pressed key is stored.

Pressed the user e. g. 4 7 1 1, you can read in register 106 the value 14132 and in register 107 the value 12593.

To display this value in the lower line write following values to the register:

Holding Register	***Value***	***Text***
106 (Read)	14132	47 (Key input)
107 (Read)	12593	11 (Key input)
95 (Write)	14132	47 (Text output)
96 (Write)	12593	11 (Text output)

To get back to pipeline mode write 0 into register 86.

2. Coil data (basis 0xxxx)

All coil data can be read and written. If a function is assigned to digital outputs 1 to 5 and the LEDs, the data can only be read.

Coil no.	Register name	Description	Data type	Access	Modbus func.
1	Digital output 1		Bit	R/W	01, 05
2	Digital output 2		Bit	R/W	01, 05
3	Digital output 3		Bit	R/W	01, 05
4	Digital output 4		Bit	R/W	01, 05
5	Digital output 5		Bit	R/W	01, 05
6	LED F1		Bit	R/W	01, 05
7	LED F2		Bit	R/W	01, 05
8	LED F3		Bit	R/W	01, 05

3. Input status (basis 1xxxx)

Input no.	Register name	Description	Data type	Access	Modbus func.
1	Digital input 1		Bit	R/O	02
2	Digital input 2		Bit	R/O	02
3	Digital input 3		Bit	R/O	02
4	Digital input 4		Bit	R/O	02
5	Digital input 5		Bit	R/O	02

4. Holding Register (Basis 4xxxx)

4.1. Working variables

Reg. no.	Description	Data type	Access	Modbus function
1	Device identification, Value ´51´ for Pipeline Master is read	16 Bit Int	R/O	03
2	Version number e. g. 105 for version 1.05	16 Bit Int	R/O	03
3	Device no. LSW	32 Bit Int	R/O	03
4	Device no. MSW		R/O	03
5	Error (32bit) – one bit is one failure b0-EEPROM failure b1-Sensor break NK1 b2-Sensor break NK2 b3-Sensor break mA1 b4-Sensor break mA2 b5-Sensor break mA3 b6-Overrange mA1 b7-Overrange mA2 b8-Overrange mA3 b9-FRAM error status/counter b10-min. flowrate b11-not used b12-not used b13-not used b14-not used b15-not used	16 Bit	R/O	03
6	Error – bits 16-31 b16-Printer Err b17-not used b18-not used b19-impulse failure (double pulse contact) b20-not used b21-Printer-communication Err b22-Printer Busy b23-Printer - Paper Out b24-not used b25-extended area crc bad b26-API calculation error b27-external sensor error	16 Bit Int	R/O	03
7	parameter checksum	32 Bit Int	R/O	03
9	FRAM error b0, b1 – parameter b2, b3 – extra space b4, b5 – status b6, b7 – counter A b8, b9 – counter B b10, b11 – counter C b12, b13 – counter D b14, b15 – counter E b16, b17 – counter F b18, b19 – printer block A b20, b21 – printer block B b22, b23 – printer block C b24, b25 – printer block D b26, b27 – printer block E b28, b29 – printer block F	32 Bit Int	R/O	03
11	b0..b4 digital outputs	16 Bit Int	R/O	03
12	analogue to digital converter: input 1 (raw value)	16 Bit Int	R/O	03
13	analogue to digital converter: input 2 (raw value)	16 Bit Int	R/O	03
14	analogue to digital converter: input 3 (raw value)	16 Bit Int	R/O	03
15	analogue input 1 – calibrated value (0-10000 is 0%-100%)	16 Bit Int	R/O	03
16	analogue input 2 – calibrated value (0-10000 is 0%-100%)	16 Bit Int	R/O	03
17	analogue input 3 – calibrated value (0-10000 is 0%-100%)	16 Bit Int	R/O	03
18	flow rate normalized (0-10000 is 0%-100%)	16 Bit Int	R/O	03
19	pulse input 1 - frequency	32 Bit Int	R/O	03
21	pulse input 2 - frequency	32 Bit Int	R/O	03
23	flow alarm	Flag	R/O	03

Reg. no.	Description	Data type	Access	Modbus function
24	sensor break flag	Flag	R/O	03
25	current raw flux (internal variable)	32 Bit Int	R/O	--
27	mass flow	32 Bit Int	R/O	03
29	volume flow	32 Bit Int	R/O	03
31	standard volume flow	32 Bit Int	R/O	03
33	reversed flow flag (reversed counter activated)	Flag	R/O	03
34	error flow flag (error counter activated)	Flag	R/O	03
35	reserve	16 Bit Int	R/W	03, 06, 16
36	reference density	32 Bit Int	R/O	03
38	current density	32 Bit Int	R/O	03
40	current temperature	16 Bit Int	R/O	03
41	current pressure	16 Bit Int	R/O	03
42	iteration maximum for diagnostic purpose	16 Bit Int	R/O	03
43	reserve	16 Bit Int		
44	reserve			
45	reserve			
46	external printer errors 0 OK 1 printer error 2 printer busy 3 paper out			03, 06, 16
47	pressure simulation	16 Bit Int	R/W	03, 06, 16
48	flow simulation	16 Bit Int	R/W	03, 06, 16
49	density simulation	32 Bit Int	R/W	03, 06, 16
51	temperature simulation	16 Bit Int	R/W	03, 06, 16
52	counter A print block ready (set to 1 by Pipeline Master, reset by PCC)	16 Bit Int	R/W	03, 06, 16
53	counter B print block ready	16 Bit Int	R/W	03, 06, 16
54	counter C print block ready	16 Bit Int	R/W	03, 06, 16
55	counter D print block ready	16 Bit Int	R/W	03, 06, 16
56	counter E print block ready	16 Bit Int	R/W	03, 06, 16
57	counter F print block ready	16 Bit Int	R/W	03, 06, 16
58	counter A interim print block ready (set by Pipeline Master, reset by PCC)	16 Bit Int	R/W	03, 06, 16
59	counter B interim print block ready	16 Bit Int	R/W	03, 06, 16
60	counter C interim print block ready	16 Bit Int	R/W	03, 06, 16
61	counter D interim print block ready	16 Bit Int	R/W	03, 06, 16
62	counter E interim print block ready	16 Bit Int	R/W	03, 06, 16
63	counter F interim print block ready	16 Bit Int	R/W	03, 06, 16
64	remote print request counter A (set by PC, reset by Pipeline Master)	16 Bit int	R/W	03, 06, 16
65	Remote print request counter B	16 Bit int	R/W	03, 06, 16
66	Remote print request counter C	16 Bit int	R/W	03, 06, 16
67	Remote print request counter D	16 Bit int	R/W	03, 06, 16
68	Remote print request counter E	16 Bit int	R/W	03, 06, 16
69	Remote print request counter F	16 Bit int	R/W	03, 06, 16
70	terminal request from keyboard (RC-key pressed - set by Pipeline Master, reset by PCC)	16 Bit Int	R/W	03, 06, 16
71	Counter G print block ready (set 1 by Pipeline Master, reset by PCC)	16 Bit Int	R/W	03, 06, 16
72	Counter H print block ready	16 Bit Int	R/W	03, 06, 16

Reg. no.	Description	Data type	Access	Modbus function
73	Counter I print block ready	16 Bit Int	R/W	03, 06, 16
74	Remote print request counter G	16 Bit Int	R/W	03, 06, 16
75	Remote print request counter H	16 Bit Int	R/W	03, 06, 16
76	Remote print request counter I	16 Bit Int	R/W	03, 06, 16
77	save extra-space registers (set by PC, reset by Pipeline Master)	Flag	R/W	03, 06, 16
78	save changed parameters (set by PC, reset by Pipeline Master)	Flag	R/W	03, 06, 16
79	set Pipeline Master time to time in register 80 to 85	Flag	R/W	03, 06, 16
80	time – seconds	16 Bit Int	R/W	03, 06, 16
81	time – minutes	16 Bit Int	R/W	03, 06, 16
82	time – hours	16 Bit Int	R/W	03, 06, 16
83	time – day	16 Bit Int	R/W	03, 06, 16
84	time – month	16 Bit Int	R/W	03, 06, 16
85	time – year	16 Bit Int	R/W	03, 06, 16
86	terminal flag - 1 enabled terminal function (set / reset by PC)	Flag	R/W	03, 06, 16
87 ... 102	display output in terminal mode characters	string 16 char.	R/W	03, 06, 16
103	reset key buffer register 104 to	Flag	R/W	03, 06, 16
104	function key bitmap in terminal mode b0 - SET b1 - START b2 - STOP b3 - F1 b4 - F2 b5 - F3 b6 – arrow up b7 – arrow down b8 – arrow left b9 – arrow right b10 - RESET b11 - RC b12 - # b13 - MENU	Bits	R/W	03, 06, 16
105	pointer for current key buffer position	16 Bit Int	R/W	03, 06, 16
106 ... 113	key buffer (ASCII '0' .. ASCII '9')	string 16 char.	R/W	03, 06, 16
114 ... 119	reserve	16 Bit Int	RO	03
120	current time - seconds	16 Bit Int	RO	03
121	current time - minutes	16 Bit Int	RO	03
122	current time - hours	16 Bit Int	RO	03
123	current time - day	16 Bit Int	RO	03
124	current time - month	16 Bit Int	RO	03
125	current time - year	16 Bit Int	RO	03
126	Remote interface status	16 Bit Int	RO	03
127		16 Bit Int	RO	03
128	remote instrument - flow	32 Bit Int	RO	03
130	remote instrument - density	32 Bit Int	RO	03
132	remote instrument - temperature	16 Bit Int	RO	03
133	remote instrument - pressure	16 Bit Int	RO	03
134	remote instrument - error (float type) Emerson	Float	RO	03
136	remote instrument - error (Int64 type) Krohne	64Bit Int	RO	03
140	remote instrument - error (Int type) E&H	16 Bit Int	RO	03
141	error marker flag (error in register 134 to 140)	16 Bit Int	RO	03
142	request flag (internal use)	16 Bit Int	RO	03
143	com_status (internal use)	16 Bit Int	RO	03

Reg. no.	Description	Data type	Access	Modbus function
144	fault_counter (internal use)	16 Bit Int	RO	03
145	rem_reverse (internal use)	16 Bit Int	RO	03
146 ... 150	reserve	16 Bit Int	RO	03
151	curr_tm_long (internal use)	32 Bit Int	RO	03
501 ... 600	extra space	16 Bit Int	R/W	03, 06, 16

4.2. Parameter variables

If custody transfer switch is set, all parameters are read only.

Reg. no.	Description	Data type	Access	Modbus function
1001	language	16 Bit Int	R/W	03, 06, 16
1002	sensor break: b0-sensor break pulse 1,b1-sensor break pulse 2, b2-sensor break mA 1, b3-over range mA 1, b4-sensor break mA 2, b5-over range mA 2 b6-sensor break mA 3, b7-over range mA 3	16 Bit Int	R/W	03, 06, 16
1003	status digital input 1 b13 - action: 0-level, 1-flank b14 – direction of action 0-direct,1-inverted	16 Bit Int	R/W	03, 06, 16
1004	status digital input 2 see 1003	16 Bit Int	R/W	03, 06, 16
1005	status digital input 3 see 1003	16 Bit Int	R/W	03, 06, 16
1006	status digital input 4 see 1003	16 Bit Int	R/W	03, 06, 16
1007	status digital input 5 see 1003	16 Bit Int	R/W	03, 06, 16
1008	status digital output 1 2 – flow alarm b0-b4 function: 3 – error 0 – no function 4 – flow direction 1 – pulse output b14 – direction of action: 0 - direct, 1- invert	16 Bit Int	R/W	03, 06, 16
1009	status digital output 2 see 1008	16 Bit Int	R/W	03, 06, 16
1010	status digital output 3 see 1008	16 Bit Int	R/W	03, 06, 16
1011	status digital output 4 see 1008	16 Bit Int	R/W	03, 06, 16
1012	status digital output 5 see 1008	16 Bit Int	R/W	03, 06, 16
1013	reserve	16 Bit Int	R/W	03, 06, 16
1014	Modbus status interface 1 b0 ... b7 address, b8 … b10 baud rate, b14 protocol	16 Bit Int	R/W	03, 06, 16
1015	reserve	16 Bit Int	R/W	03, 06, 16
1016	Modbus status interface 2 b0 ... b7 address, b8 … b10 baud rate, b12 ASCII/RTU (as slave only), b13 ..15 mode	16 Bit Int	R/W	03, 06, 16
1017	input type	16 Bit Int	R/W	03, 06, 16
1018	unit	16 Bit Int	R/W	03, 06, 16
1019	decimal point	16 Bit Int	R/W	03, 06, 16
1020	measuring range	32 Bit Int	R/W	03, 06, 16
1022	pulse per unit	32 Bit Int	R/W	03, 06, 16
1024	status pulse output: bit2..bit0 – pulse output: 0: 1 pulse/unit, 1: 10 pulse/unit, 2: 100 pulse/unit , 3: 1000 pulse/unit bit 8 – 0: pulse output 1: frequency output	16 Bit Int	R/W	03, 06, 16
1025	full scale output frequency: 1..10000 is 0.01Hz bis 100.00 Hz	16 Bit Int	R/W	03, 06, 16
1026	linearisation 0 – no linearisation, 1 – pulse, 2 – mA1, 3 – mA2, 4 – mA3	16 Bit Int	R/W	03, 06, 16
1027	minimum flowrate	32 Bit Int	R/W	03, 06, 16
1029	time for minimum flowrate	32 Bit Int	R/W	03, 06, 16
1031	number of pulses per error pulse	32 Bit Int	R/W	03, 06, 16

Reg. no.	Description	Data type	Access	Modbus function
1033	direction: 0 - always positive, 1 – automatic, 2..6 - digital input 1..5	16 Bit Int	R/W	03, 06, 16
1034	external error: 0 - off, 1..5 - din1..din5	16 Bit Int	R/W	03, 06, 16
1035	totalizer reset 0 - off, 1..5 - din1..din5	16 Bit Int	R/W	03, 06, 16
1036	maximal flow	32 Bit Int	R/W	03, 06, 16
1038	print on error: 0 - no print, 1 - on error, 2 - on error change	16 Bit Int	R/W	03, 06, 16
1039	alarm on printer error	16 Bit Int	R/W	03, 06, 16
1040	remote sensor error delay	16 Bit Int	R/W	03, 06, 16
1041	current output flow rate 100% (menu 2.9.2)	32 Bit Int	R/W	03, 06, 16
1043	current output filter (menu 2.9.3, value in 0,1 s)	16 Bit Int	R/W	03, 06, 16
1044	current output function (menu 2.9.1)	16 Bit Int	R/W	03, 06, 16
1045	pressure compensation - calculation mode	16 Bit Int	R/W	03, 06, 16
1046	pressure compensation - base pressure	32 Bit Int	R/W	03, 06, 16
1048	pressure compensation - B-factor	32 Bit Int	R/W	03, 06, 16
1050	pressure compensation - manual cplm	32 Bit Int	R/W	03, 06, 16
1052	temperature input mode: 0 - none, 1 - ain1, 2 – ain2, 3 - ain3, 4 - modbus	16 Bit Int	R/W	03, 06, 16
1053	density input: 0 - none, 1 - ain1, 2 – ain2, 3 – ain3, 4 - modbus, 5 - pulse 2	16 Bit Int	R/W	03, 06, 16
1054	pressure input: 0 - none, 1 - ain1, 2 – ain2, 3 – ain3, 4 - modbus	16 Bit Int	R/W	03, 06, 16
1055	temperature input - range begin	16 Bit Int	R/W	03, 06, 16
1056	temperature input - range end	16 Bit Int	R/W	03, 06, 16
1057	density input - range begin	32 Bit Int	R/W	03, 06, 16
1059	density input - range end	32 Bit Int	R/W	03, 06, 16
1061	pressure input - range begin	16 Bit Int	R/W	03, 06, 16
1062	pressure input - range end	16 Bit Int	R/W	03, 06, 16
1063	density calculation mode: 0 - Parameter, 1 - External input (analogue/Freq/MODBUS), 2 - Calculated	16 Bit Int	R/W	03, 06, 16
1064	density calculation method: 0 - linear, 1 - API, 2 - Biodiesel	16 Bit Int	R/W	03, 06, 16
1065	reference density - LSW	32 Bit Int	R/W	03, 06, 16
1067	factor for Biodiesel calculation	32 Bit Int	R/W	03, 06, 16
1069	reference temperature	16 Bit Int	R/W	03, 06, 16
1070	Alpha 0 factor LSW	32 Bit Int	R/W	03, 06, 16
1072	K0	32 Bit Int	R/W	03, 06, 16
1074	K1	32 Bit Int	R/W	03, 06, 16
1076	K2	32 Bit Int	R/W	03, 06, 16
1078	density value - used when register 1065 = 0	32 Bit Int	R/W	03, 06, 16
1080	error mode for temperature sensor error 0 - parameter, 1 - average	16 Bit Int	R/W	03, 06, 16
1081	error mode for pressure sensor error 0 - parameter, 1 - average	16 Bit Int	R/W	03, 06, 16
1082	error mode for density sensor error 0 - parameter, 1 - average	16 Bit Int	R/W	03, 06, 16
1083	temperature error value	16 Bit Int	R/W	03, 06, 16

Reg. no.	Description	Data type	Access	Modbus function
1084	pressure error value	16 Bit Int	R/W	03, 06, 16
1085	density error value	32 Bit Int	R/W	03, 06, 16
1087	calibration pressure- used for flow pressure correction	16 Bit Int	R/W	03, 06, 16
1088	compensation factor	32 Bit Int	R/W	03, 06, 16
1090.. 1099	reserve	16 Bit Int	R/W	03, 06, 16
1100	code for custody transfer key	16 Bit Int	R/W	03, 06, 16
1101	code – display settings (1.x)	32 Bit Int	R/W	03, 06, 16
1103	code – structure (2.x)	32 Bit Int	R/W	03, 06, 16
1105	code – install (3.x)	32 Bit Int	R/W	03, 06, 16
1107	code – calibration (4.x)	32 Bit Int	R/W	03, 06, 16
1109	code – linearisation (5.x)	32 Bit Int	R/W	03, 06, 16
1111	code – printout interim	32 Bit Int	R/W	03, 06, 16
1113	code – printout	32 Bit Int	R/W	03, 06, 16
1115... 1118	reserve	16 Bit Int	R/W	03, 06, 16
1119	calibration mA1 4 mA	16 Bit Int	R/W	03, 06, 16
1120	calibration mA1 20 mA	16 Bit Int	R/W	03, 06, 16
1121	calibration mA2 4 mA	16 Bit Int	R/W	03, 06, 16
1122	calibration mA2 20 mA	16 Bit Int	R/W	03, 06, 16
1123	calibration mA3 4 mA	16 Bit Int	R/W	03, 06, 16
1124	calibration mA3 20 mA	16 Bit Int	R/W	03, 06, 16
1125	calibration mA out 0%	16 Bit Int	R/W	03, 06, 16
1126	calibration mA out 100%	16 Bit Int	R/W	03, 06, 16
1127	linearisation -10% 10000 = meter factor 1,0000	16 Bit Int	R/W	03, 06, 16
1128	linearisation -5%	16 Bit Int	R/W	03, 06, 16
1129	linearisation 0%	16 Bit Int	R/W	03, 06, 16
1130	linearisation 5%	16 Bit Int	R/W	03, 06, 16
1131	linearisation 10%	16 Bit Int	R/W	03, 06, 16
1132	linearisation 15%	16 Bit Int	R/W	03, 06, 16
1133	linearisation 20%	16 Bit Int	R/W	03, 06, 16
1134	linearisation 25%	16 Bit Int	R/W	03, 06, 16
1135	linearisation 30%	16 Bit Int	R/W	03, 06, 16
1136	linearisation 35%	16 Bit Int	R/W	03, 06, 16
1137	linearisation 40%	16 Bit Int	R/W	03, 06, 16
1138	linearisation 45%	16 Bit Int	R/W	03, 06, 16
1139	linearisation 50%	16 Bit Int	R/W	03, 06, 16
1140	linearisation 55%	16 Bit Int	R/W	03, 06, 16
1141	linearisation 60%	16 Bit Int	R/W	03, 06, 16
1142	linearisation 65%	16 Bit Int	R/W	03, 06, 16
1143	linearisation 70%	16 Bit Int	R/W	03, 06, 16
1144	linearisation 75%	16 Bit Int	R/W	03, 06, 16
1145	linearisation 80%	16 Bit Int	R/W	03, 06, 16
1146	linearisation 85%	16 Bit Int	R/W	03, 06, 16
1147	linearisation 90%	16 Bit Int	R/W	03, 06, 16
1148	linearisation 95%	16 Bit Int	R/W	03, 06, 16
1149	linearisation 100%	16 Bit Int	R/W	03, 06, 16
1150	linearisation 105%	16 Bit Int	R/W	03, 06, 16
1151	linearisation 110%	16 Bit Int	R/W	03, 06, 16
1152	Meter Factor 10000 = meter factor 1,0000	16 Bit Int	R/W	03, 06, 16

Reg. no.	Description	Data type	Access	Modbus function
1153...1171	reserve	16 Bit Int	R/W	03, 06, 16
1172	device number	32 Bit Int	R/W	03, 06, 16
1174	block display mask: b0 - display block A, b1 - display block B, b2 - display block C...	16 Bit Int	R/W	03, 06, 16
1175	auxiliary blocks display		R/W	03, 06, 16
1176	Counter block A, activated counter indications: b0 - mass counter, b1 – volume counter, b2 - base volume counter...	16 Bit Int	R/W	03, 06, 16
1177	Counter block B, activated counter indications:	16 Bit Int	R/W	03, 06, 16
1178	Counter block C, activated counter indications:	16 Bit Int	R/W	03, 06, 16
1179	Counter block D, activated counter indications:	16 Bit Int	R/W	03, 06, 16
1180	Counter block E, activated counter indications:	16 Bit Int	R/W	03, 06, 16
1181	Counter block F, activated counter indications:	16 Bit Int	R/W	03, 06, 16
1182	Counter block G, activated counter indications: b0 - counter value, b1 - overflow value, b2 - process value, b3 - counter mode	16 Bit Int	R/W	03, 06, 16
1183	Counter block H, activated counter indications:	16 Bit Int	R/W	03, 06, 16
1184	Counter block I, activated counter indications:	16 Bit Int	R/W	03, 06, 16

1185	Counter A status: // b0 - batch mode
	// b1 - reset key function
	// b2 - set key function
	// b3 - modbus print activated
	// b4 - display mode standard / user
		16 Bit Int	R/W	03, 06, 16

1186	Counter B status	16 Bit Int	R/W	03, 06, 16
1187	Counter C status	16 Bit Int	R/W	03, 06, 16
1188	Counter D status	16 Bit Int	R/W	03, 06, 16
1189	Counter E status	16 Bit Int	R/W	03, 06, 16
1190	Counter F status	16 Bit Int	R/W	03, 06, 16
1191	Counter G status	16 Bit Int	R/W	03, 06, 16
1192	Counter H status	16 Bit Int	R/W	03, 06, 16
1193	Counter I status	16 Bit Int	R/W	03, 06, 16
1194..1199	Reserve	16 Bit Int	R/W	03, 06, 16
1200	Print interval counter A: 0 – continuous. (print on request), 1 – monthly, 2 – weekly, 3 – daily, 4 – 12h, ...	16 Bit Int	R/W	03, 06, 16
1201	Print interval counter B	16 Bit Int	R/W	03, 06, 16
1202	Print interval counter C	16 Bit Int	R/W	03, 06, 16
1203	Print interval counter D	16 Bit Int	R/W	03, 06, 16
1204	Print interval counter E	16 Bit Int	R/W	03, 06, 16
1205	Print interval counter F	16 Bit Int	R/W	03, 06, 16
1206	Print interval counter G	16 Bit Int	R/W	03, 06, 16
1207	Print interval counter H	16 Bit Int	R/W	03, 06, 16
1208	Print interval counter F	16 Bit Int	R/W	03, 06, 16
1209	Printout time counter A	16 Bit Int	R/W	03, 06, 16
1210	Printout time counter B	16 Bit Int	R/W	03, 06, 16
1211	Printout time counter C	16 Bit Int	R/W	03, 06, 16
1212	Printout time counter D	16 Bit Int	R/W	03, 06, 16
1213	Printout time counter E	16 Bit Int	R/W	03, 06, 16

Reg. no.	Description	Data type	Access	Modbus function
1214	Printout time counter F	16 Bit Int	R/W	03, 06, 16
1215	Printout time counter G	16 Bit Int	R/W	03, 06, 16
1216	Printout time counter H	16 Bit Int	R/W	03, 06, 16
1217	Printout time counter I	16 Bit Int	R/W	03, 06, 16
1218	Print-out request by digital input for counter A: 0 - off, 1 - din1, 2 - din2, 3 - din3, 4 - din4, 5 - din5	16 Bit Int	R/W	03, 06, 16
1219	Print-out request by digital input for counter B	16 Bit Int	R/W	03, 06, 16
1220	Print-out request by digital input for counter C	16 Bit Int	R/W	03, 06, 16
1221	Print-out request by digital input for counter D	16 Bit Int	R/W	03, 06, 16
1222	Print-out request by digital input for counter E	16 Bit Int	R/W	03, 06, 16
1223	Print-out request by digital input for counter F	16 Bit Int	R/W	03, 06, 16
1224	Print-out request by digital input for counter G	16 Bit Int	R/W	03, 06, 16
1225	Print-out request by digital input for counter H	16 Bit Int	R/W	03, 06, 16
1226	Print-out request by digital input for counter I	16 Bit Int	R/W	03, 06, 16
1227	Reserve			
1228	Batch control mode counter B: 0 - keys SET / RESET, 1 - digital input / level, 3 - digital input/edge, 4 - modbus flag	16 Bit Int	R/W	03, 06, 16
1229	Batch control mode counter C	16 Bit Int	R/W	03, 06, 16
1230	Batch control mode counter D	16 Bit Int	R/W	03, 06, 16
1231	Batch control mode counter E	16 Bit Int	R/W	03, 06, 16
1232	Batch control mode counter F	16 Bit Int	R/W	03, 06, 16
1233	Batch control mode counter G	16 Bit Int	R/W	03, 06, 16
1234	Batch control mode counter H	16 Bit Int	R/W	03, 06, 16
1235	Batch control mode counter I	16 Bit Int	R/W	03, 06, 16
1236	Reserve			
1237	Batch start source for counter B: bit 0-4 = Di1 - Di5 (level or edge)	16 Bit Int	R/W	03, 06, 16
1238	Batch start source for counter C	16 Bit Int	R/W	03, 06, 16
1239	Batch start source for counter D	16 Bit Int	R/W	03, 06, 16
1240	Batch start source for counter E	16 Bit Int	R/W	03, 06, 16
1241	Batch start source for counter F	16 Bit Int	R/W	03, 06, 16
1242	Batch start source for counter G	16 Bit Int	R/W	03, 06, 16
1243	Batch start source for counter H	16 Bit Int	R/W	03, 06, 16
1244	Batch start source for counter I	16 Bit Int	R/W	03, 06, 16
1245	Reserve			
1246	Batch end source for counter B: bit 0-4 = Di1 – Di5 (only edge)	16 Bit Int	R/W	03, 06, 16
1247	Batch end source for counter C	16 Bit Int	R/W	03, 06, 16
1248	Batch end source for counter D	16 Bit Int	R/W	03, 06, 16
1249	Batch end source for counter E	16 Bit Int	R/W	03, 06, 16
1250	Batch end source for counter F	16 Bit Int	R/W	03, 06, 16
1251	Batch end source for counter G	16 Bit Int	R/W	03, 06, 16
1252	Batch end source for counter H	16 Bit Int	R/W	03, 06, 16
1253	Batch end source for counter I	16 Bit Int	R/W	03, 06, 16
1254	Day of week for printout 1x week counter A	16 Bit Int	R/W	03, 06, 16
1255	Day of week for printout 1x week counter B	16 Bit Int	R/W	03, 06, 16
1256	Day of week for printout 1x week counter C	16 Bit Int	R/W	03, 06, 16
1257	Day of week for printout 1x week counter D	16 Bit Int	R/W	03, 06, 16
1258	Day of week for printout 1x week counter E	16 Bit Int	R/W	03, 06, 16
1259	Day of week for printout 1x week counter F	16 Bit Int	R/W	03, 06, 16

Reg. no.	Description	Data type	Access	Modbus function
1260	Day of week for printout 1x week counter G	16 Bit Int	R/W	03, 06, 16
1261	Day of week for printout 1x week counter H	16 Bit Int	R/W	03, 06, 16
1262	Day of week for printout 1x week counter I	16 Bit Int	R/W	03, 06, 16
1263	Day of month for printout 1x month counter A	16 Bit Int	R/W	03, 06, 16
1264	Day of month for printout 1x month counter B	16 Bit Int	R/W	03, 06, 16
1265	Day of month for printout 1x month counter C	16 Bit Int	R/W	03, 06, 16
1266	Day of month for printout 1x month counter D	16 Bit Int	R/W	03, 06, 16
1267	Day of month for printout 1x month counter E	16 Bit Int	R/W	03, 06, 16
1268	Day of month for printout 1x month counter F	16 Bit Int	R/W	03, 06, 16
1269	Day of month for printout 1x month counter G	16 Bit Int	R/W	03, 06, 16
1270	Day of month for printout 1x month counter H	16 Bit Int	R/W	03, 06, 16
1271	Day of month for printout 1x month counter I	16 Bit Int	R/W	03, 06, 16
1272	Description for mass flow	string 32 char.	R/W	03, 06, 16
1288	Description for volume flow	string 32 char.	R/W	03, 06, 16
1304	Description for base volume flow	string 32 char.	R/W	03, 06, 16
1320	Description for pressure	string 32 char.	R/W	03, 06, 16
1336	Description for temperature	string 32 char.	R/W	03, 06, 16
1352	Description for density	string 32 char.	R/W	03, 06, 16
1368	Description for standard density	string 32 char.	R/W	03, 06, 16
1384	Reserve	string 32 char.	R/W	03, 06, 16
1400	Description counter A	string 32 char.	R/W	03, 06, 16
1416	Description counter B	string 32 char.	R/W	03, 06, 16
1432	Description counter C	string 32 char.	R/W	03, 06, 16
1448	Description counter D	string 32 char.	R/W	03, 06, 16
1464	Description counter E	string 32 char.	R/W	03, 06, 16
1480	Description counter F	string 32 char.	R/W	03, 06, 16
1496	Counter A, description mass	string 32 char.	R/W	03, 06, 16
1512	Counter A, description volume	string 32 char.	R/W	03, 06, 16
1528	Counter A, description standard volume	string 32 char.	R/W	03, 06, 16
1544	Counter A, description mass error	string 32 char.	R/W	03, 06, 16
1560	Counter A, description volume error	string 32 char.	R/W	03, 06, 16

Reg. no.	Description	Data type	Access	Modbus function
1576	Counter A, description standard volume error	string 32 char.	R/W	03, 06, 16
1592	Counter A, description mass reverse	string 32 char.	R/W	03, 06, 16
1608	Counter A, description volume reverse	string 32 char.	R/W	03, 06, 16
1624	Counter A, description standard volume reverse	string 32 char.	R/W	03, 06, 16
1640	Counter A, description mass reverse error	string 32 char.	R/W	03, 06, 16
1656	Counter A, description volume reverse error	string 32 char.	R/W	03, 06, 16
1672	Counter A, description standard volume reverse error	string 32 char.	R/W	03, 06, 16
1688	Counter A, description average temperature	string 32 char.	R/W	03, 06, 16
1704	Counter A, description average density	string 32 char.	R/W	03, 06, 16
1720	Counter A, description base density	string 32 char.	R/W	03, 06, 16
1736	Counter A, description average pressure	string 32 char.	R/W	03, 06, 16
1752	Counter A, description reserve	string 32 char.	R/W	03, 06, 16
1768	Counter A, description reserve	string 32 char.	R/W	03, 06, 16
1769 .. 1783	Counter A reserve	string 32 char.	R/W	03, 06, 16
1784 .. 2071	Counter B description see counter A register 1496...	string 32 char.	R/W	03, 06, 16
2072 .. 2359	Counter C description see counter A register 1496...	string 32 char.	R/W	03, 06, 16
2360 .. 2647	Counter D description see counter A register 1496...	string 32 char.	R/W	03, 06, 16
2648 .. 2935	counter E description see counter A register 1496...	string 32 char.	R/W	03, 06, 16
2936 .. 3223	Counter F description see counter A register 1496...	string 32 char.	R/W	03, 06, 16
3224	Reserve	16 bit Int	R/W	03, 06, 16

4.3. Running counter data

4.3.1. Current data counter A

Reg. no.	Description	Data type	Access	Modbus function
5001	Print number	32 Bit Int	RO	03
5003	Print flag	16 Bit Int	RO	03
5004	Start time	32 Bit Int	RO	03
5006	Status	16 Bit Int	RO	03
5007.. 5016	Reserve	16 Bit Int	RO	03
5017	A1 – Mass counter	32 Bit Int	RO	03
5019	Mass counter overflow	32 Bit Int	RO	03
5021	A2 – Volume counter	32 Bit Int	RO	03
5023	Volume counter overflow	32 Bit Int	RO	03
5025	A3 – Standard volume counter	32 Bit Int	RO	03
5027	Standard volume counter overflow	32 Bit Int	RO	03
5029	A4 – Error mass counter	32 Bit Int	RO	03
5031	Error mass counter overflow	32 Bit Int	RO	03
5033	A5 – Error volume	32 Bit Int	RO	03
5035	Error volume overflow	32 Bit Int	RO	03
5037	A6 – Error standard volume	32 Bit Int	RO	03
5039	Error standard volume overflow	32 Bit Int	RO	03
5041	A7 – Reverse mass counter	32 Bit Int	RO	03
5043	Reverse mass counter overflow	32 Bit Int	RO	03
5045	A8 – Reverse volume counter	32 Bit Int	RO	03
5047	Reverse volume counter overflow	32 Bit Int	RO	03
5049	A9 – Reverse standard volume counter	32 Bit Int	RO	03
5051	Reverse standard volume counter overflow	32 Bit Int	RO	03
5053	A10 – Reverse error mass counter	32 Bit Int	RO	03
5057	Reverse error mass counter overflow	32 Bit Int	RO	03
5059	A11 – Reverse error volume counter	32 Bit Int	RO	03
5061	Reverse error volume counter overflow	32 Bit Int	RO	03
5063	A12 – Reverse error standard volume count	32 Bit Int	RO	03
5065	Reverse error standard volume count overflow	32 Bit Int	RO	03
5067	Internal used	64 Bit int	RO	03
5071	Internal used	64 Bit Int	RO	03
5075	Internal used	32 Bit Int	RO	03
5077	Internal used	64 Bit int	RO	03
5081	Internal used	64 Bit Int	RO	03
5085	Internal used	32 Bit Int	RO	03
5087	Last error code since last printout – 0: no error	16 Bit int	RO	03

4.3.2. Current date counter B

Reg. no.	Description	Data type	Access	Modbus function
5101	Print number	32 Bit Int	RO	03
5103	Print flag	16 Bit Int	RO	03
5104	Start time	32 Bit Int	RO	03
5106	Status	16 Bit Int	RO	03
5107.. 5116	Reserve	16 Bit Int	RO	03
5117	B1 – Mass counter	32 Bit Int	RO	03
5119	B2 – Volume counter	32 Bit Int	RO	03
5121	B3 – Standard volume counter	32 Bit Int	RO	03
5123	B4 – Error mass counter	32 Bit Int	RO	03
5125	B5 – Error volume	32 Bit Int	RO	03
5127	B6 – Error standard volume	32 Bit Int	RO	03
5129	B7 – Reverse mass counter	32 Bit Int	RO	03
5131	B8 – Reverse volume counter	32 Bit Int	RO	03
5133	B9 – Reverse standard volume counter	32 Bit Int	RO	03
5135	B10 – Reverse error mass counter	32 Bit Int	RO	03
5137	B11 – Reverse error volume counter	32 Bit Int	RO	03
5139	B12 – Reverse error standard volume count	32 Bit Int	RO	03
5141	Internal used	64 Bit int	RO	03
5145	Internal used	64 Bit Int	RO	03
5149	Internal used	32 Bit Int	RO	03
5151	Internal used	64 Bit int	RO	03
5155	Internal used	64 Bit Int	RO	03
5159	Internal used	32 Bit Int	RO	03
5161	Last error code since last printout – 0: no error	16 Bit int	RO	03

4.3.3. Current data counter C

Reg. no.	Description	Data type	Access	Modbus function
5201 .. 5259	Counter C data, see counter B	32 Bit Int	RO	03

4.3.4. Current data counter D

Reg. no.	Description	Data type	Access	Modbus function
5301 .. 5359	**Counter D** data, see counter B	32 Bit Int	RO	03

4.3.5. Current data counter E

Reg. no.	Description	Data type	Access	Modbus function
5401 .. 5459	**Counter E** data, see counter B	32 Bit Int	RO	03

4.3.6. Current data counter F

Reg. no.	Description	Data type	Access	Modbus function
5501 .. 5559	**Counter F** data, see counter B	32 Bit Int	RO	03

4.4. Raw data from Promass 84F/Promass 300

Reg. no.	Description	Data type	Access	Modbus function
5601	Counter G1 counter value	32 Bit float	RO	03
5603	Counter G2 overrun count. value	32 Bit float	RO	03
5605	Counter G unit	16 Bit Int	RO	03
5606	Counter G3 process variable	16 Bit Int	RO	03
5607	Counter G4 operation mode	16 Bit Int	RO	03
5608	Counter H1 counter value	32 Bit float	RO	03
5610	Counter H2 overrun count. value	32 Bit float	RO	03
5612	Counter H unit	16 Bit Int	RO	03
5613	Counter H3 process variable	16 Bit Int	RO	03
5614	Counter H4 operation mode	16 Bit Int	RO	03
5615	Counter I1 counter value	32 Bit float	RO	03
5617	Counter I2 overrun count. value	32 Bit float	RO	03
5619	Counter I unit	16 Bit Int	RO	03
5620	Counter I3 process variable	16 Bit Int	RO	03
5621	Counter I4 operation mode	16 Bit Int	RO	03
5622	Current mass flow rate	32 Bit float	RO	03
5624	Current volume flow rate	32 Bit float	RO	03
5626	Current norm volume flow rate	32 Bit float	RO	03
5628	Current density	32 Bit float	RO	03
5630	Current norm density	32 Bit float	RO	03
5632	Current temperature	32 Bit float	RO	03
5634	Current pressure	32 Bit float	RO	03
5636	Current dynamic viscosity	32 Bit float	RO	03
5638	Current kinematic viscosity	32 Bit float	RO	03
5640	Current temperature compensated dynamic viscosity	32 Bit float	RO	03
5642	Current temperature compensated kinematic viscosity	32 Bit float	RO	03
5644	Current concentration	32 Bit float	RO	03
5646	Current target mass flow rate	32 Bit float	RO	03
5648	Current carrier mass flow rate	32 Bit float	RO	03

4.5. Printout blocks

4.5.1. Print out block counter A

Reg. no.	Description	Data type	Access	Modbus function
6001	Counter description	string 32 characters	RO	03
6017	Start time seconds	16 Bit Int	RO	03
6018	Start time minutes	16 Bit Int	RO	03
6019	Start time hours	16 Bit Int	RO	03
6020	Start time day	16 Bit Int	RO	03
6021	Start time month	16 Bit Int	RO	03
6022	Start time year	16 Bit Int	RO	03
6023	End time seconds	16 Bit Int	RO	03
6024	End time minutes	16 Bit Int	RO	03
6025	End time hour	16 Bit Int	RO	03

Reg. no.	Description	Data type	Access	Modbus function
6026	End time day	16 Bit Int	RO	03
6027	End time month	16 Bit Int	RO	03
6028	End time year	16 Bit Int	RO	03
6029	Printout number	32 Bit Int	RO	03
6031	Unit and decimal point	16 Bit Int	RO	03
6032	Last error		RO	03
6033.. 6042	Reserve	16 Bit Int	RO	03
6043	Start value mass counter - A1	32 Bit Int	RO	03
6045	Start value mass counter overflow	32 Bit Int	RO	03
6047	Start value volume counter - A2	32 Bit Int	RO	03
6049	Start value volume counter overflow	32 Bit Int	RO	03
6051	Start value standard volume counter - A3	32 Bit Int	RO	03
6053	Start value standard volume counter overflow	32 Bit Int	RO	03
6055	Start value error mass counter - A4	32 Bit Int	RO	03
6057	Start value error mass counter overflow	32 Bit Int	RO	03
6059	Start value error volume - A5	32 Bit Int	RO	03
6061	Start value error volume overflow	32 Bit Int	RO	03
6063	Start value error standard volume - A6	32 Bit Int	RO	03
6065	Start value error standard volume overflow	32 Bit Int	RO	03
6067	Start value reverse mass counter - A7	32 Bit Int	RO	03
6069	Start value reverse mass counter overflow	32 Bit Int	RO	03
6071	Start value reverse volume counter - A8	32 Bit Int	RO	03
6073	Start value reverse volume counter overflow	32 Bit Int	RO	03
6075	Start value reverse std. volume counter - A9	32 Bit Int	RO	03
6077	Start value reverse st. volume counter overflow	32 Bit Int	RO	03
6079	Start value reverse error mass counter - A10	32 Bit Int	RO	03
6081	Start value reverse error mass counter overflow	32 Bit Int	RO	03
6083	Start value reverse error volume counter - A11	32 Bit Int	RO	03
6085	Start value reverse error volume counter overfl.	32 Bit Int	RO	03
6087	Start value reverse error std. volume count A12	32 Bit Int	RO	03
6089	Start value reverse error std. Vol. count overfl.	32 Bit Int	RO	03
6091	End value mass counter - A1	32 Bit Int	RO	03
6093	End value mass counter overflow	32 Bit Int	RO	03
6095	End value volume counter - A2	32 Bit Int	RO	03
6097	End value volume counter overflow	32 Bit Int	RO	03
6099	End value standard volume counter - A3	32 Bit Int	RO	03
6101	End value standard volume counter overflow	32 Bit Int	RO	03
6103	End value error mass counter - A4	32 Bit Int	RO	03
6105	End value error mass counter overflow	32 Bit Int	RO	03
6107	End value error volume - A5	32 Bit Int	RO	03
6109	End value error volume overflow	32 Bit Int	RO	03
6111	End value error standard volume - A6	32 Bit Int	RO	03
6113	End value error standard volume overflow	32 Bit Int	RO	03
6115	End value reverse mass counter - A7	32 Bit Int	RO	03
6117	End value reverse mass counter overflow	32 Bit Int	RO	03
6119	End value reverse volume counter - A8	32 Bit Int	RO	03
6121	End value reverse volume counter overflow	32 Bit Int	RO	03
6123	End value reverse std. volume counter - A9	32 Bit Int	RO	03
6125	End value reverse std. volume counter overflow	32 Bit Int	RO	03
6127	End value reverse error mass counter - A10	32 Bit Int	RO	03

Reg. no.	Description	Data type	Access	Modbus function
6129	End value reverse error mass counter overflow	32 Bit Int	RO	03
6131	End value reverse error volume counter - A11	32 Bit Int	RO	03
6133	End value reverse error volume counter overfl.	32 Bit Int	RO	03
6135	End value reverse error std. volume count A12	32 Bit Int	RO	03
6137	End value reverse error std vol. count overflow	32 Bit Int	RO	03
6139	Reference temperature	16 Bit Int	RO	03
6140	Reference density	32 Bit Int	RO	03
6142	Average temperature	16 Bit Int	RO	03
6143	Average pressure	16 Bit Int	RO	03
6144	Average density	32 Bit Int	RO	03
6146	Average temperature reverse	16 Bit Int	RO	03
6147	Average pressure reverse	16 Bit Int	RO	03
6148	Average density reverse	32 Bit Int	RO	03
6150	CRC checksum	16 Bit Int	RO	03

4.5.2. Print out block counter B

Reg. no.	Description	Data type	Access	Modbus function
6201	Counter description	string 32 characters	RO	03
6217	Start time seconds	16 Bit Int	RO	03
6218	Start time minutes	16 Bit Int	RO	03
6219	Start time hours	16 Bit Int	RO	03
6220	Start time day	16 Bit Int	RO	03
6221	Start time month	16 Bit Int	RO	03
6222	Start time year	16 Bit Int	RO	03
6223	End time seconds	16 Bit Int	RO	03
6224	End time minutes	16 Bit Int	RO	03
6225	End time hour	16 Bit Int	RO	03
6226	End time day	16 Bit Int	RO	03
6227	End time month	16 Bit Int	RO	03
6228	End time year	16 Bit Int	RO	03
6229	Printout number	32 Bit Int	RO	03
6231	Unit and decimal point	16 Bit Int	RO	03
6232	Last error		RO	03
6233.. 6242	Reserve	16 Bit Int	RO	03
6243	End value mass counter - B1	32 Bit Int	RO	03
6245	End value volume counter - B2	32 Bit Int	RO	03
6247	End value standard volume counter - B3	32 Bit Int	RO	03
6249	End value error mass counter - B4	32 Bit Int	RO	03
6251	End value error volume - B5	32 Bit Int	RO	03
6253	End value error standard volume - B6	32 Bit Int	RO	03
6255	End value reverse mass counter - B7	32 Bit Int	RO	03
6257	End value reverse volume counter - B8	32 Bit Int	RO	03
6259	End value reverse standard volume counter B9	32 Bit Int	RO	03
6261	End value reverse error mass counter - B10	32 Bit Int	RO	03
6263	End value reverse error volume counter - B11	32 Bit Int	RO	03
6265	End value reverse error std. volume count - B12	32 Bit Int	RO	03
6267	Reference temperature	16 Bit Int	RO	03

Reg. no.	Description	Data type	Access	Modbus function
6268	Reference density	32 Bit Int	RO	03
6270	Average temperature	16 Bit Int	RO	03
6271	Average pressure	16 Bit Int	RO	03
6272	Average density	32 Bit Int	RO	03
6274	Average temperature reverse	16 Bit Int	RO	03
6275	Average pressure reverse	16 Bit Int	RO	03
6276	Average density reverse	32 Bit Int	RO	03
6278	CRC checksum	16 Bit Int	RO	03

4.5.3. Printout block counter C

Reg. no.	Description	Data type	Access	Modbus function
6301 .. 6378	See counter B		RO	03

4.5.4. Printout block counter D

Reg. no.	Description	Data type	Access	Modbus function
6401 .. 6478	See counter B		RO	03

4.5.5. Printout block counter E

Reg. no.	Description	Data type	Access	Modbus function
6501 .. 6578	See counter B		RO	03

4.5.6. Printout block counter F

Reg. no.	Description	Data type	Access	Modbus function
6601 .. 6678	See counter B		RO	03

4.5.7. Printout block counter G (Promass #1)

Reg. no.	Description	Data type	Access	Modbus function
6701	Start time – second	16 Bit Int	RO	03
6702	Start time – minute	16 Bit Int	RO	03
6703	Start time – hour	16 Bit Int	RO	03
6704	Start time – day	16 Bit Int	RO	03
6705	Start time – month	16 Bit Int	RO	03
6706	Start time – year	16 Bit Int	RO	03
6707	End time – second	16 Bit Int	RO	03
6708	End time – minute	16 Bit Int	RO	03
6709	End time – hour	16 Bit Int	RO	03
6710	End time – day	16 Bit Int	RO	03
6711	End time – month	16 Bit Int	RO	03
6712	End time – year	16 Bit Int	RO	03
6713	printout count number	32 Bit Int	RO	03
6715	last error	16 Bit Int	RO	03
6716	G_1 counter value – start	32 Bit float	RO	03
6718	G_1 counter value – start	32 Bit float	RO	03
6720	G_1 counter value – end	32 Bit float	RO	03
6722	G_1 counter value – end	32 Bit float	RO	03
6724	unit	16 Bit Int	RO	03
6725	Measurement	16 Bit Int	RO	03
6726	Mode	16 Bit Int	RO	03
6727 … 6736		16 Bit Int	RO	03
6737	crc	16 Bit Int	RO	03

4.5.8. Printout block counter H (Promass #2)

Reg. no.	Description	Data type	Access	Modbus function
6801 … 6837	See counter G		RO	03

4.5.9. Printout block counter I (Promass #3)

Reg. no.	Description	Data type	Access	Modbus function
6801 … 6837	See counter G		RO	03

4.6. Interim printout block A

4.6.1. Interim print out block counter A

Reg. no.	Description	Data type	Access	Modbus function
7001	Counter description	string 32 characters	RO	03
7017	Start time seconds	16 Bit Int	RO	03
7018	Start time minutes	16 Bit Int	RO	03
7019	Start time hours	16 Bit Int	RO	03
7020	Start time day	16 Bit Int	RO	03
7021	Start time month	16 Bit Int	RO	03
7022	Start time year	16 Bit Int	RO	03
7023	End time seconds	16 Bit Int	RO	03
7024	End time minutes	16 Bit Int	RO	03
7025	End time hour	16 Bit Int	RO	03
7026	End time day	16 Bit Int	RO	03
7027	End time month	16 Bit Int	RO	03
7028	end time year	16 Bit Int	RO	03
7029	Printout number	32 Bit Int	RO	03
7031	Unit and decimal point	16 Bit Int	RO	03
7032	Last error		RO	03
7033.. 7042	Reserve	16 Bit Int	RO	03
7043	Start value mass counter - A1	32 Bit Int	RO	03
7045	Start value mass counter overflow	32 Bit Int	RO	03
7047	Start value volume counter - A2	32 Bit Int	RO	03
7049	Start value volume counter overflow	32 Bit Int	RO	03
7051	Start value standard volume counter - A3	32 Bit Int	RO	03
7053	Start value standard volume counter overflow	32 Bit Int	RO	03
7055	Start value error mass counter - A4	32 Bit Int	RO	03
7057	Start value error mass counter overflow	32 Bit Int	RO	03
7059	Start value error volume – A5	32 Bit Int	RO	03
7061	Start value error volume overflow	32 Bit Int	RO	03
7063	Start value error standard volume - A6	32 Bit Int	RO	03
7065	Start value error standard volume overflow	32 Bit Int	RO	03
7067	Start value reverse mass counter - A7	32 Bit Int	RO	03
7069	Start value reverse mass counter overflow	32 Bit Int	RO	03
7071	Start value reverse volume counter - A8	32 Bit Int	RO	03
7073	Start value reverse volume counter overflow	32 Bit Int	RO	03
7075	Start value reverse std. volume counter - A9	32 Bit Int	RO	03
7077	Start value reverse std volume counter overflow	32 Bit Int	RO	03
7079	Start value reverse error mass counter - A10	32 Bit Int	RO	03
7081	Start value reverse error mass counter overflow	32 Bit Int	RO	03
7083	Start value reverse error volume counter - A11	32 Bit Int	RO	03
7085	Start value reverse error volume counter overfl.	32 Bit Int	RO	03
7087	Start value reverse error std volume count A12	32 Bit Int	RO	03
7089	Start value reverse error standard volume count overflow	32 Bit Int	RO	03
7091	End value mass counter - A1	32 Bit Int	RO	03
7093	End value mass counter overflow	32 Bit Int	RO	03
7095	End value volume counter - A2	32 Bit Int	RO	03

Reg. no.	Description	Data type	Access	Modbus function
7097	End value volume counter overflow	32 Bit Int	RO	03
7099	End value standard volume counter - A3	32 Bit Int	RO	03
7101	End value standard volume counter overflow	32 Bit Int	RO	03
7103	End value error mass counter - A4	32 Bit Int	RO	03
7105	End value error mass counter overflow	32 Bit Int	RO	03
7107	End value error volume - A5	32 Bit Int	RO	03
7109	End value error volume overflow	32 Bit Int	RO	03
7111	End value error standard volume - A6	32 Bit Int	RO	03
7113	End value error standard volume overflow	32 Bit Int	RO	03
7115	End value reverse mass counter - A7	32 Bit Int	RO	03
7117	End value reverse mass counter overflow	32 Bit Int	RO	03
7119	End value reverse volume counter - A8	32 Bit Int	RO	03
7121	End value reverse volume counter overflow	32 Bit Int	RO	03
7123	End value reverse std volume counter - A9	32 Bit Int	RO	03
7125	End value reverse std. volume counter overflow	32 Bit Int	RO	03
7127	End value reverse error mass counter - A10	32 Bit Int	RO	03
7129	End value reverse error mass counter overflow	32 Bit Int	RO	03
7131	End value reverse error volume counter - A11	32 Bit Int	RO	03
7133	End value reverse error volume counter overfl.	32 Bit Int	RO	03
7135	End value reverse error std. volume count A12	32 Bit Int	RO	03
7137	End value reverse error std. Vol. count overfl.	32 Bit Int	RO	03
7139	Reference temperature	16 Bit Int	RO	03
7140	Reference density	32 Bit Int	RO	03
7142	Average temperature	16 Bit Int	RO	03
7143	Average pressure	16 Bit Int	RO	03
7144	Average density	32 Bit Int	RO	03
7146	Average temperature reverse	16 Bit Int	RO	03
7147	Average pressure reverse	16 Bit Int	RO	03
7148	Average density reverse	32 Bit Int	RO	03
7150	CRC checksum	16 Bit Int	RO	03

4.6.2. Interim print out block counter B

Reg. no.	Description	Data type	Access	Modbus function
7201	Counter description	string 32 characters	RO	03
7217	Start time seconds	16 Bit Int	RO	03
7218	Start time minutes	16 Bit Int	RO	03
7219	Start time hours	16 Bit Int	RO	03
7220	Start time day	16 Bit Int	RO	03
7221	Start time month	16 Bit Int	RO	03
7222	Start time year	16 Bit Int	RO	03
7223	End time seconds	16 Bit Int	RO	03
7224	End time minutes	16 Bit Int	RO	03
7225	End time hour	16 Bit Int	RO	03
7226	End time day	16 Bit Int	RO	03
7227	End time month	16 Bit Int	RO	03
7228	End time year	16 Bit Int	RO	03
7229	Printout number	32 Bit Int	RO	03
7231	Unit and decimal point	16 Bit Int	RO	03

Reg. no.	Description	Data type	Access	Modbus function
7232	Last error	16 Bit Int	RO	03
7233.. 7242	Reserve	16 Bit Int	RO	03
7243	End value mass counter - B1	32 Bit Int	RO	03
7245	End value volume counter - B2	32 Bit Int	RO	03
7247	End value standard volume counter - B3	32 Bit Int	RO	03
7249	End value error mass counter - B4	32 Bit Int	RO	03
7251	End value error volume - B5	32 Bit Int	RO	03
7253	End value error standard volume - B6	32 Bit Int	RO	03
7255	End value reverse mass counter - B7	32 Bit Int	RO	03
7257	End value reverse volume counter - B8	32 Bit Int	RO	03
7259	End value reverse std. volume counter - B9	32 Bit Int	RO	03
7261	End value reverse error mass counter - B10	32 Bit Int	RO	03
7263	End value reverse error volume counter - B11	32 Bit Int	RO	03
7265	End value reverse error std. volume count B12	32 Bit Int	RO	03
7267	Reference temperature	16 Bit Int	RO	03
7268	Reference density	32 Bit Int	RO	03
7270	Average temperature	16 Bit Int	RO	03
7271	Average pressure	16 Bit Int	RO	03
7272	Average density	32 Bit Int	RO	03
7274	Average temperature reverse	16 Bit Int	RO	03
7275	Average pressure reverse	16 Bit Int	RO	03
7276	Average density reverse	32 Bit Int	RO	03
7278	CRC checksum	16 Bit Int	RO	03

4.6.3. Counter C

Reg. no.	Description	Data type	Access	Modbus function
7301 .. 7378	See counter B		RO	03

4.6.4. Interim print out block counter D

Reg. no.	Description	Data type	Access	Modbus function
7401 .. 7478	See counter B		RO	03

4.6.5. Interim print out block counter E

Reg. no.	Description	Data type	Access	Modbus function
7501 .. 7578	See counter B		RO	03

4.6.6. Interim print out block counter F

Reg. no.	Description	Data type	Access	Modbus function
7601 .. 7678	See counter B		RO	03