



Modbus List

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## Compact Gas Volume Corrector EC 900

Status: February, 1<sup>st</sup> 2010

Firmware: 11.25

## Modbus Register List

For EC-900 program version MU 11.25 , Revision: 1, Status 01.02.2010  
and from CU program version 0.61

\* Changes in 11.25

### Legend:

CODE: C = read            Read access is always possible.  
           C = write        Write access via calibration code C1, C2 or C3.  
           U = read        Read access is always possible.  
           U = write        Write access via user code U1 or U2 or via one of the calibration codes.  
           N = read        Read access is always possible.  
           N = write        Write access is always possible, unless stated otherwise.  
           D = read only    Access is always possible.  
           T = read only    Access is always possible.

Code	Type	MBR	Designation	Min	Max	Default
E	C	7522	Calibration code 1 (to change sealed parameters)	11111111	99999998	11111111
E	C	7524	Calibration code 2 (to change sealed parameters)	11111111	99999998	22222222
E	C	7536	Calibration code 3 (to change sealed parameters)	11111111	99999998	33333333
B	C	7538	User code 1 (to change user code param.)	11111111	99999998	55555555
B	C	7540	User code 2 (to change user code param.)	11111111	99999998	66666666

Example: Changing a mode parameter (integer) which is protected with the calibration code.

Example: Send with register 7522 calibration code 1 (or with register 7524 calibr. code 2 ...)

Modbus Example: Send the code

Protocol: RTU, function: 16, adr: 01, MBR: 7522-1, type: unsigned long = 2 Reg., Wert: 11111111

Request: Send calibration code 1 to the EC900 -> 01101D6100020400A98AC757C9

EC900 query<- 01101D61000216A7

Modbus Example: Send the integer value

Protocol: RTU, function: 06, adr: 01, MBR: 4900-1, type: unsigned int = 1 Reg., Wert: 1

Request: Send Compressibility calculation according GERG88 to the EC900 -> 010613230001BD44

EC900 query<- 010613230001BD44

**Legend:**

CODE: E = read/write: Parameters protected with calibration code  
 B = read/write: Parameters protected with code  
 N = read/write: Parameters protected with code  
 A = read only: Measured values, calculation results, status information  
 Z = read only: Totalizers

TYPE: D = Double Format, 4 registers  
 F = Float Format, 2 registers  
 L = Unsigned long, 2 registers  
 U = Unsigned long, 2 registers (Unix time)  
 C = Unsigned long, 2 registers (code)  
 I = Unsigned integer, 1 register  
 M = Unsigned integer, 1 register (menu selection)  
 S = String, 8 registers (16 bytes from left to right including 0x00 as string terminator)  
 R = String, n registers (one record of an archive or logbook)

The Modbus register addresses (MBR) stated below are to be sent in the query to the EC900 as register address minus 1; for example, in the case of register 1020, 1019 is to be sent to the EC900.  
 See also: -Modicon Modbus Reference Guide Rev. J- (File: PI\_MBUS\_300.pdf).

The following Modbus functions have been implemented in the EC 900:

- 03 Read Holding Registers
- 06 Write Single Register
- 08 Diagnostic
- 16 Write Multiple Registers (only 1 parameter which used more registers: float for example)
- 52 Read Archive from Index to Index

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## CUSTOMIZED DISPLAY / BASIC CONFIGURATION

Code	Type	MBR	Designation	Min	Max	Default	Selection
C	M	6410	Mode digital input M input filter	0	2	0	0 = Low. 50Hz 1 = Low. 5kHz 2 = Hig. 5kHz
C	M	6411	Mode digital input R input filter	0	2	0	0 = Low. 50Hz 1 = Low. 5kHz 2 = Hig. 5kHz
C	M	6412	Mode digital input 3 input filter	0	1	1	0 = Off 1 = On
C	M	6413	Mode digital input 4 input filter	0	1	1	0 = Off 1 = On
C	M	6418	Mode digital input M signaltype	0	1	0	0 = Reed 1 = Namur
C	M	6419	Mode digital input R signaltype	0	1	0	0 = Reed 1 = Namur
C	M	6420	Mode digital input 3 signaltype	0	1	0	0 = Reed 1 = Namur
C	M	6421	Mode digital input 4 signaltype	0	1	0	0 = Reed 1 = Namur
C	M	4560	Mode of function input 1	0	1	1	0 = Off 1 = Totalizer
C	M	4561	Mode of function input 2	0	1	1	0 = Off 1 = Totalizer
C	M	4562	Mode of function input 3	0	6	0	0 = Off 1 = Totalizer 2 = Tamper c. C 3 = Tamper c. O 4 = Time sync 5 = Fault res.
C	M	4563	Mode of function input 4	0	6	0	0 = Off 1 = Totalizer 2 = Tamper c. C 3 = Tamper c. O 4 = Time sync 5 = Fault res.

## TOTALIZER

Code	Type	MBR	Designation	Min	Max	Default	Selection
T	L	1410	Volume at base conditions				
T	L	1412	Volume at measurement conditions				
T	L	1414	Volume at measurement conditions Vo				
T	L	1418	Disturbance volume at base conditions				
T	L	1420	Disturbance volume at measurement conditions				
T	L	1416	Volume at measurement conditions customer value				
T	L	1470	On the fly calibration, base conditions				
T	L	1472	On the fly calibration, meas. conditions				
D	F	1408	Time, on the fly calibration				
U	M	1402	Control, on the fly calibration	0	3	0	0 = Off 1 = OTFC start 2 = OTFC stop 3 = OTFC reset
C	M	1403	Unit volume at measurement conditions	0	3	0	0 = m3 1 = ft3 2 = yd3 3 = gal
C	M	1404	Unit volume at base conditions	0	3	0	0 = m3 1 = ft3 2 = yd3 3 = gal
T	D	1426	Volume at base conditions, fraction				
T	D	1430	Volume at measurement conditions, fraction				
T	D	1434	Vo totalizer fraction				
T	D	1442	Disturbance volume at base cond., fraction				
T	D	1446	Disturbance volume at meas. cond., fraction				
T	D	1438	Customer totalizer fraction				
T	D	1480	On the fly calibration, Vb (Vn) fraction				
T	D	1484	On the fly calibration, Vm (Vb) fraction				



D	F	4916	Compressibility factor at measurement cond.				
D	F	4914	Compressibility factor at base conditions				
D	F	4920	Calculated density from GERG				
D	F	4962	Calculated standard density for GERG				
D	F	4964	Calculated relative density for GERG				
U	F	4924	Default value of K coefficient	0.5	1.5	1	
U	F	4938	Table value calorific value	5	20000	10	
U	F	4942	Table value standard density	0.6	1.3	0.8	
U	F	4946	Table value relative density	0.5	1.2	0.6187	
U	F	4944	Table value hydrogen	0	20	0	
U	F	4948	Table value nitrogen	0	20	10	
U	F	4940	Table value carbon dioxide	0	20	1	
*C	F	2222	Pressure at based cond. (ref. quantity)	0.01	1100	1.01325	
C	F	4926	Standard temperature country specific AGA NX 19	-20	340	0	
C	M	4901	Standard temperature country spec. t1 GERG	0	4	0	0 = 0°C 1 = 15°C 2 = 15.56°C 3 = 20°C 4 = 25°C
C	M	4902	Standard temperature country spec. t2 GERG	0	3	3	0 = 0°C 1 = 15°C 2 = 20°C 3 = 25°C
C	M	4900	Mode for K coefficient	0	6	1	0 = K=const. 1 = GERG-88-S 2 = GERG-88-S+ 3 = Aga8-Gross1 4 = Aga8-Gross1+ 5 = AGA-NX-19 6 = NX-19cor
C	M	4903	Selection of standard density or rel. density	0	1	0	0 = With sd 1 = With rd
C	M	4905	Unit calorific value	0	5	0	0 = kWh/m3 1 = MWh/m3 2 = Btu/ft3 3 = MJ/m3 4 = kcal/m3 5 = Mcal/m3

## OPERATING MODES AND DATA

Code	Type	MBR	Designation	Min	Max	Default	Selection
C	C	7522	Access code 1 (for legal changes)	1111111 1	99999998	11111111	
C	C	7524	Access code 2 (for legal changes)	1111111 1	99999998	22222222	
C	C	7536	Access code 3 (for legal changes)	1111111 1	99999998	33333333	
U	C	7538	User code 1	1111111 1	99999998	55555555	
U	C	7540	User code 2	1111111 1	99999998	66666666	
U	C	7542	Filter code 1	1111111 1	99999998	77777777	
U	C	7544	Filter code 2	1111111 1	99999998	88888888	
N	L	7526	Time of operation (counter)	0	0	0	
N	U	7560	Time of next calibration	0	4294967295	0	
D	I	8819	Time of next battery change				
N	U	7562	Time of last battery change	0	4294967295	0	
D	L	7532	Unixtime in seconds				
D	U	7528	Date and time (from unix-seconds)				
D	W	7503	Day of week				
D	U	7594	Coordinated universal time (UTC)				
D	U	7596	Central european time (CET)				
D	U	7598	Central european summer time (CEST)				
N	U	8856	Current clock change	0	4294967295	1206842400	
N	U	8858	Next clock change	0	4294967295	1224990000	
N	I	7566	Current timezone	0	1	0	
N	U	7564	Time of last timezone change	0	4294967295	0	
C	F	8844	Correction factor realtime clock	1.999609 6	2.0003843	2	
C	M	8804	Selection of summertime zone switching	0	1	0	0 = D.s.t off 1 = D.s.t. on
C	M	8805	Selection of timezone switching	0	4	0	0 = Off 1 = On input 1 2 = On input 2 3 = On input 3 4 = On input 4
N	I	7593	Code disable after n minutes	1	60	15	
D	I	7592	Battery capacity				



C	M	7505	Reset display of battery lifetime	0	1	1	0 = On 1 = Off
N	M	7906	Reset error message	0	1	1	0 = On 1 = Off
C	M	7504	Selection of base symbols	0	1	0	0 = New 1 = Old
C	M	8808	Language selection	0	1	0	0 = German 1 = English
N	I	7508	Display of status time synchronisation	0	1	0	
D	I	7509	Status of time synchronisation				
N	U	7590	Setting of date and time	0	4294967295	1100000000	
C	M	7506	Timebase of synchronisation	0	1	0	0 = Loc. time 1 = UTC
C	F	7550	Local time lag to UTC	-720	720	60	
U	I	7512	Modbus address of display customer-line 3	0	7600	1020	
U	I	7513	Modbus address of display customer-line 4	0	7600	1022	
U	I	7514	Modbus address of display customer-line 5	0	7600	4910	
U	I	7515	Modbus address of display customer-line 6	0	7600	4912	
U	I	7516	Modbus address of display customer-line 7	0	7600	1412	
U	I	7517	Modbus address of display customer-line 8	0	7600	1410	
U	I	7518	Modbus address of display customer-line 9	0	7600	1420	
D	I	8616	Status of sealable switch				
D	I	7908	Status of alarm message				
D	I	7907	Status of warn message				
D	I	8603	Status of access code 1				
D	I	8604	Status of access code 2				
D	I	8605	Status of access code 3				
D	I	8606	Status of access code for totalizer setting				
D	I	8607	Status of user code 1				
D	I	8608	Status of user code 2				
D	I	8674	Status Lesekopf				





D	U	9943	Last time stamp parameter logbook				
D	I	9945	Write index of the parameter logbook				
D	I	9946	Read index optical communication port				
D	I	9948	Read index communication port 1				
D	R	9960	Display event log				
N	I	9971	Status read record Nr. xxxx (Modbus Omni)	0	600	0	
N	I	9967	Level of the event logbook	0	600	0	
D	L	9961	Last idature number event logbook				
D	U	9963	Last time stamp event logbook				
D	I	9965	Write index of the event logbook				
D	I	9966	Read index optical communication port				
D	I	9968	Read index communication port 1				
C	I	9800	End of tariff day	0	24	6	
C	U	9801	End of tariff year	0	4294967295	1100000000	
C	I	9817	Setup archiv cycle	1	600	60	
C	I	9806	Setup load cycle	1	120	3	
C	M	9813	Selection of mode for archives	0	1	0	0 = RMG1 1 = Omni
N	M	9876	End of search criteria	0	1	0	0 = search to 1 = no break
C	D	9803	Tariff start	0	0	0	
C	M	9807	Mode for archives	0	2	1	0 = Off 1 = On 2 = Test
C	M	9811	Archive structure for export	0	1	1	0 = Standard 1 = DSfG
C	M	9812	Content periodic archive	0	1	0	0 = Without event 1 = With event
C	M	9808	Mode to reset archives	0	7	0	0 = Off 1 = Period 2 = Days 3 = Months 4 = Disturb 5 = Event 6 = Load 7 = All arch.

C	M	9814	Selection of additional event records	0	8	0	0 = Off 1 = RTCInt 2 = Period 3 = Day 4 = Month 5 = Last 6 = SetClk 7 = RSwork 8 = OPwork
C	M	9809	Mode for log	0	2	1	0 = Off 1 = On
C	M	9810	Mode to reset log	0	4	0	0 = Off 1 = Legal log 2 = Param log 3 = Event log 4 = All logb

## FLOW RATE

Code	Type	MBR	Designation	Min	Max	Default	Selection
D	F	1010	Flow rate at measurement conditions				
D	F	1012	Flow rate at standard conditions				
D	F	2010	Frequency volume input M				
D	F	2012	Frequency volume input R				
D	F	4620	Maximum indicator Qb (Qn)				
D	U	4622	Time of maximum Qb (Qn)				
D	F	4550	Maximum indicator Qm (Qb)				
D	U	4552	Time of maximum Qm (Qb)				
D	L	4520	Pulses main channel				
D	L	4528	Pulses reference channel				
D	L	4510	Pulses Vo channel				
C	F	4512	Lower alarm-limit flow rate at measured cond.	0	20000	50	
C	F	4514	Upper alarm-limit flow rate at measured cond.	0	25000	1000	
C	L	4548	Maximum time for start up of meter	0	10000	1000	
C	F	4546	Creeping quantity limit	0	10000	12.5	
U	F	4524	Average factor flow rate Qm (Qb)	1	100	1	
U	F	4618	Average factor flow rate Qb (Qn)	1	100	1	
*C	M	4505	Mode flow rate	0	4	0	0 = Off 1 = Chan. M +QLL 2 = Chan. R +QLL 3 = Chan. M -QLL 4 = Chan. R -QLL
C	M	4507	Selection of unit flow rate at measured cond.	0	3	0	0 = m3/h 1 = ft3/h 2 = yd3/h 3 = gal/h
C	M	4508	Selection of unit flow rate at standard cond.	0	3	0	0 = m3/h 1 = ft3/h 2 = yd3/h 3 = gal/h

**TYPE PLATE**

Code	Type	MBR	Designation	Min	Max	Default	Selection
C	M	7000	Selection type of pressure sensor	0	5	0	0 = DA-092 1 = DA-095 2 = DA-0910 3 = DA-0920 4 = DA-0940 5 = DA-0970
C	S	7156	pressure sensor serial number	0	0	0	
C	S	7164	pressure sensor minimum range	0	0	0	
C	S	7172	pressure sensor maximum range	0	0	0	
C	M	7001	Selection type of temperature sensor	0	1	0	0 = PT 1000 1 = PT 100
C	S	7180	Temperature sensor serial number	0	0	0	
C	S	7188	Temperature sensor minimum range	0	0	0	
C	S	7196	Temperature sensor maximum range	0	0	0	
C	S	7132	Max. sensor frequency	0	0	0	
C	M	7002	Meter type	0	4	0	0 = TRZ 1 = US 2 = DKZ 3 = VOL 4 = TERZ
C	S	7140	Meter serial number	0	0	0	
C	S	7148	Meter dimension	0	0	0	
C	F	7032	Meter Qmin	0	20000	50	
C	F	7036	Meter Qmax	0	25000	1000	
C	D	6090	Meter factor measurement input 1m <sup>3</sup> =	0.001	20000	1	
C	D	6094	Meter factor reference input 1m <sup>3</sup> =	0.001	20000	1	
C	M	4506	Selection of counting input	0	2	0	0 = Channel M 1 = Channel R 2 = Chan. VO
C	M	7007	Encoder read cycle	0	3	3	0 = 5 sec 1 = 10 sec 2 = 15 sec 3 = 30 sec
C	I	7018	Year of construction EC 900	2000	3000	2009	





**INTERFACES**

Code	Type	MBR	Designation	Min	Max	Default	Selection
U	M	8300	Selection of type for optical interface EVC	0	1	1	0 = Off 1 = Slave
U	M	8301	Selection of baudrate for optical interface EVC	0	3	3	0 = 1200 1 = 2400 2 = 4800 3 = 9600
U	M	8302	Selection of databits for optical interface EVC	0	0	0	0 = 8
U	M	8303	Selection of parity for optical interface EVC	0	2	1	0 = None 1 = Even 2 = Odd
U	M	8304	Selection of stopbits for optical interface EVC	0	1	0	0 = 1 1 = 2
U	M	8305	Selection of protocol for optical interface EVC	0	2	1	0 = Modb. ASCII 1 = Modb. RTU 2 = M900
U	M	8306	Selection of modbus format for opt. inter. EVC	0	2	0	0 = 4321 1 = 2143 2 = 1234
U	M	8307	Selection of modbus test for opt. inter. EVC	0	7	0	0 = Off 1 = Test float 2 = Test double 3 = Test int 4 = Test mode 5 = Test long 6 = Test string 7 = Test archive
U	I	8308	Modbus address for optical interface EVC	0	99	1	
U	I	8309	Modbus offset for optical interface EVC	0	10000	0	
U	I	8310	Modbus timeout for optical interface EVC	1	300	5	

U	I	8311	Modbus bittime for optical interface EVC	0	100	1	
U	M	8312	Selection access code for optical interface EVC	0	1	0	0 = No 1 = Yes
U	M	8313	Selection CRC check for optical interface EVC	0	1	1	0 = No 1 = Yes
U	M	8314	Selection exception for optical interface EVC	0	1	1	0 = No 1 = Yes
U	M	8320	Selection of type for COM1 interface EVC	0	3	1	0 = Off 1 = Modb. intern 2 = Slave 3 = Test rep.
U	M	8321	Selection of baudrate for COM1 interface EVC	0	2	1	0 = 9600 1 = 19200 2 = 38400
U	M	8322	Selection of databits for COM1 interface EVC	0	1	1	0 = 7 1 = 8
U	M	8323	Selection of parity for COM1 interface EVC	0	2	0	0 = None 1 = Even 2 = Odd
U	M	8324	Selection of stopbits for COM1 interface EVC	0	1	0	0 = 1 1 = 2
U	M	8325	Selection of protocol for COM1 interface EVC	0	2	2	0 = Modb. ASCII 1 = Modb. RTU 2 = M900
U	M	8326	Selection of modbus format for COM1 inter. EVC	0	2	0	0 = 4321 1 = 2143 2 = 1234

U	M	8327	Selection of modbus test for COM1 inter. EVC	0	7	0	0 = Off 1 = Test float 2 = Test double 3 = Test int 4 = Test mode 5 = Test long 6 = Test string 7 = Test archive
U	I	8328	Modbus address for COM1 interface EVC	0	99	1	
U	I	8329	Modbus offset for COM1 interface EVC	0	10000	0	
U	I	8330	Modbus timeout for COM1 interface EVC	1	300	5	
U	I	8331	Modbus bittime for COM1 interface EVC	0	100	1	
U	M	8332	Selection access code for COM1 interf. EVC	0	1	0	0 = No 1 = Yes
U	M	8333	Selection CRC check for COM1 interf. EVC	0	1	1	0 = No 1 = Yes
U	M	8334	Selection exception for COM1 interf. EVC	0	1	1	0 = No 1 = Yes
U	I	8870	Transfer Filter 1	0	7600	1020	
U	I	8871	Transfer Filter 2	0	7600	1022	
U	I	8872	Transfer Filter 3	0	7600	4910	
U	I	8873	Transfer Filter 4	0	7600	4912	
U	I	8874	Transfer Filter 5	0	7600	1412	
U	I	8875	Transfer Filter 6	0	7600	1410	
U	I	8876	Transfer Filter 7	0	7600	1420	
U	I	8877	Transfer Filter 8	0	7600	1418	
U	I	8878	Transfer Filter 9	0	7600	7528	
U	I	8879	Transfer Filter 10	0	7600	1020	
U	I	8880	Transfer Filter 11	0	7600	1022	
U	I	8881	Transfer Filter 12	0	7600	4910	
U	I	8882	Transfer Filter 13	0	7600	4912	
U	I	8883	Transfer Filter 14	0	7600	1412	
U	I	8884	Transfer Filter 15	0	7600	1410	
U	I	8885	Transfer Filter 16	0	7600	1420	
U	I	8886	Transfer Filter 17	0	7600	1418	
U	I	8887	Transfer Filter 18	0	7600	7528	
*D	L	8380	CU status				
*D	I	8382	Signal strength				
*D	I	8383	Net login				
*D	I	8384	Pin satus				



**DIGITAL / ANALOG OUTPUTS**

Code	Type	MBR	Designation	Min	Max	Default	Selection
D	L	8208	Setup output pulse 1				
D	L	8210	Actual output pulse 1				
D	F	8212	Frequency output				
U	M	8200	Source for digital output 1	0	4	0	0 = Vm 1 = Vb 2 = VO 3 = Flow 4 = Flow bcond
U	M	8201	Type of digital output 1	0	4	2	0 = Off 1 = Tot. LF 2 = Dispat. LF 3 = Disp.NF-CU 4 = Disp. HF
U	F	8206	Pulse value of pulse output 1	1	10000	1	
*U	M	8202	Pulse duration of LF output 1	0	8	2	0 = 10 ms 1 = 25 ms 2 = 50 ms 3 = 75 ms 4 = 100 ms 5 = 150 ms 6 = 200 ms 7 = 250 ms 8 = 500 ms
*U	M	8203	Pulse pause of LF output 1	0	8	2	0 = 10 ms 1 = 25 ms 2 = 50 ms 3 = 75 ms 4 = 100 ms 5 = 150 ms 6 = 200 ms 7 = 250 ms 8 = 500 ms
U	M	8204	Selection HF pulse width output 1	0	4	1	0 = 0.05 ms 1 = 0.1 ms 2 = 0.2 ms 3 = 0.5 ms 4 = 1.0 ms
U	I	8205	Test output pulse 1	0	1000	0	
D	L	8222	Setup output pulse 2				
D	L	8224	Actual output pulses 2				
D	F	8228	Frequency output				

U	M	8215	Source for digital output 2	0	4	1	0 = Vm 1 = Vb 2 = VO 3 = Flow 4 = Flow bcond
U	M	8216	Type of digital output 2	0	4	2	0 = Off 1 = Tot. LF 2 = Dispat. LF 3 = Disp.NF-CU 4 = Disp. HF
U	F	8220	Pulse value of pulse output 2	1	10000	1	
*U	M	8217	Pulse duration of LF output 2	0	8	2	0 = 10 ms 1 = 25 ms 2 = 50 ms 3 = 75 ms 4 = 100 ms 5 = 150 ms 6 = 200 ms 7 = 250 ms 8 = 500 ms
*U	M	8218	Pulse pause of LF output 2	0	8	2	0 = 10 ms 1 = 25 ms 2 = 50 ms 3 = 75 ms 4 = 100 ms 5 = 150 ms 6 = 200 ms 7 = 250 ms 8 = 500 ms
U	M	8226	Selection HF pulse width output 2	0	4	1	0 = 0.05 ms 1 = 0.1 ms 2 = 0.2 ms 3 = 0.5 ms 4 = 1.0 ms
U	I	8219	Test output pulse 2	0	1000	0	
D	I	8238	Setup output pulse 3				
U	M	8230	Source for digital output 3	0	8	0	0 = Pressure 1 = Temperat. 2 = Conv. fact. 3 = K coeff. 4 = Flow 5 = Flow bcond 6 = Input 3 7 = Input 4 8 = Input 5

U	M	8231	Type of digital output 3	0	9	8	0 = Off 1 = Per. pulse 2 = Alarm co. 3 = Warn co. 4 = C sw. code 5 = Code on 6 = Min cont. 7 = Max cont. 8 = Mi/Ma. co. 9 = In to Out
U	F	8232	Min. trigger output 3	-100	1500000	0.7	
U	F	8236	Max. trigger output 3	-100	1500000	40	
U	M	8234	Test signal output 3	0	1	0	0 = Low 1 = High
D	I	8252	Setup output pulse 4				
U	M	8245	Source for digital output 4	0	8	1	0 = Pressure 1 = Temperat. 2 = Conv. fact. 3 = K coeff. 4 = Flow 5 = Flow bcond 6 = Input 3 7 = Input 4 8 = Input 5
U	M	8246	Type of digital output 4	0	9	8	0 = Off 1 = Load pulse 2 = Alarm co. 3 = Warn co. 4 = C sw. code 5 = Code on 6 = Min cont. 7 = Max cont. 8 = Mi/Ma. co. 9 = In to Out
U	F	8247	Min. trigger output 4	-100	1500000	-10	
U	F	8250	Max. trigger output 4	-100	1500000	50	
U	M	8249	Test signal output 4	0	1	0	0 = Low 1 = High
D	I	8268	Setup output pulse 5				
U	M	8260	Source for digital output 5	0	8	2	0 = Pressure 1 = Temperat. 2 = Conv. fact. 3 = K coeff. 4 = Flow 5 = Flow bcond 6 = Input 6

							7 = Input 7 8 = Input 8
U	M	8261	Type of digital output 5	0	9	8	0 = Off 1 = Per. max. 2 = Alarm co. 3 = Warn co. 4 = C sw. code 5 = Battery 6 = Min cont. 7 = Max cont. 8 = Mi/Ma. co. 9 = In to Out
U	F	8262	Min. trigger output 5	-100	1500000	0.7	
U	F	8266	Max. trigger output 5	-100	1500000	40	
U	M	8264	Test signal output 5	0	1	0	0 = Low 1 = High
D	I	8282	Setup output pulse 6				
U	M	8275	Source for digital output 6	0	8	3	0 = Pressure 1 = Temperat. 2 = Conv. fact. 3 = K coeff. 4 = Flow 5 = Flow bcond 6 = Input 6 7 = Input 7 8 = Input 8
U	M	8276	Type of digital output 6	0	9	8	0 = Off 1 = Day max. 2 = Alarm co. 3 = Warn co. 4 = C sw. code 5 = Mains 6 = Min cont. 7 = Max cont. 8 = Mi/Ma. co. 9 = In to Out
U	F	8277	Min. trigger output 6	-100	1500000	0.5	
U	F	8280	Max. trigger output 6	-100	1500000	1.5	
U	M	8279	Test signal output 6	0	1	0	0 = Low 1 = High
D	F	8010	Analog output 1 value				
D	F	8012	Analog output 1 current				
U	M	8000	Selection type of analog output 1	0	3	2	0 = Off 1 = 0-20mA 2 = 4-20mA 3 = Cal.cur.on



U	M	8001	Source of analog output 1	0	7	5	0 = Pressure 1 = Temperat. 2 = Conv. fact. 3 = K coeff. 4 = Qm 5 = Qb 6 = Freq. chan1 7 = Freq. chan2
U	F	8014	Analog output 1 range min	-40	1500000	0	
U	F	8016	Analog output 1 range max	-40	1500000	2000	
U	I	8022	Analog output 1 average factor	1	100	1	
U	F	8018	Analog output 1 set value	0	20	12	
U	F	8020	Analog output 1 correction factor	-5	5	0	
D	F	8060	Analog output 2 value				
D	F	8062	Analog output 2 current				
U	M	8050	Selection type of analog output 2	0	3	2	0 = Off 1 = 0-20mA 2 = 4-20mA 3 = Cal.cur.on
U	M	8051	Source of analog output 2	0	7	4	0 = Pressure 1 = Temperat. 2 = Conv. fact. 3 = K coeff. 4 = Qm 5 = Qb 6 = Freq. chan1 7 = Freq. chan2
U	F	8064	Analog output 2 range min	-40	1500000	0	
U	F	8066	Analog output 2 range max	-40	1500000	1000	
U	I	8072	Analog output 2 average factor	1	100	1	
U	F	8068	Analog output 2 set value	0	20	12	
U	F	8070	Analog output 2 correction factor	-5	5	0	
D	F	8110	Analog output 3 value				
D	F	8112	Analog output 3 current				
U	M	8100	Selection type of analog output 3	0	3	2	0 = Off 1 = 0-20mA 2 = 4-20mA 3 = Cal.cur.on
U	M	8101	Source of analog output 3	0	7	0	0 = Pressure 1 = Temperat. 2 = Conv. fact. 3 = K coeff. 4 = Qm 5 = Qb 6 = Freq. chan1 7 = Freq. chan2
U	F	8114	Analog output 3 range min	-40	1500000	0.7	

U	F	8116	Analog output 3 range max	-40	1500000	2	
U	I	8122	Analog output 3 average factor	1	100	1	
U	F	8118	Analog output 3 set value	0	20	12	
U	F	8120	Analog output 3 correction factor	-5	5	0	
D	F	8160	Analog output 4 value				
D	F	8162	Analog output 4 current				
U	M	8150	Selection type of analog output 4	0	3	2	0 = Off 1 = 0-20mA 2 = 4-20mA 3 = Cal.cur.on
U	M	8151	Source of analog output 4	0	7	1	0 = Pressure 1 = Temperat. 2 = Conv. fact. 3 = K coeff. 4 = Qm 5 = Qb 6 = Freq. chan1 7 = Freq. chan2
U	F	8164	Analog output 4 range min	-40	1500000	-20	
U	F	8166	Analog output 4 range max	-40	1500000	60	
U	I	8172	Analog output 4 average factor	1	100	1	
U	F	8168	Analog output 4 set value	0	20	12	
U	F	8170	Analog output 4 correction factor	-5	5	0	

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