Modbus Register
EVITA sc Gateway

V1.03

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EVITA sc Gateway V1.03

Name	Register	Data Type	Length	Access Mode	Discrete Range	Min / Max	Description
Measurement	40001	Float	2	R/W		0 /100	Measured Value NH4N
Measurement	40003	Float	2	R/W		0 /15	Measured Value PO4P
CORR FACTORS	40006	Float	2	R/W		0.1 /9.99	Gain correction
MEAS UNITS	40008	Unsigned Integer	1	R/W	U0 /2		unit (mg/l=0, ppm=2)
CAL. INTERVAL	40009	Unsigned Integer	1	R/W	0 /1 /2 /3 /4 /5 /7 /10 /14		chemical calibration period input
CAL. INTERVAL	40010	Float	2	R/W			reserved
NEXT KAL.	40012	Unsigned Integer	1	R/W		0 /40	next chem. calibration time
NEXT KAL.	40013	Unsigned Integer	1	R/W		0 /24	next chem. calibration time
SET FILTER	40016	Float	2	R/W		10 /300	filter a signal with time constant
PRODUCT. DATE	40018	Float	2	R		0 /0	date item was produced
COMMAND	40020	Unsigned Integer	1	R/W	0 /1		commands
ION.MEMB.SERV.	40043	Integer	1	R/W		-32768 /32767	Inonen membrane service
MenuFunktion	40046	Unsigned Integer	1	R/W		0 /65535	actual menu after process
OUTPUT MODE	40047	Unsigned Integer	1	R/W	0 /1 /2 /3		mode of operation for the output
LOGGERINTERVAL	40048	Unsigned Integer	1	R/W	1 /6 /12 /24 /60 /120 /180 /360		logger interval
SET PARAMETER	40049	String	3	R			sensor typ parameter
SENSOR TYPE	40052	Unsigned Integer	1	R	0 /1 /2 /3 /4 /5 /6 /7		sensor typ
Location	40053	String	8	R/W			sensor code nummer
HW VERS EVITA	40061	Unsigned Integer	1	R		0 /31	hardware version evita
REST REAGENTS	40062	Integer	1	R		-32768 /32767	next service reagents
CODE VERSION	40063	Float	2	R		0 /3.40282346638529E+38	software version
DRIVER VERS	40065	String	6	R			version of the firmware that operates the probe
SENSOR RANGE	40071	Unsigned Integer	1	R	0 /1 /2 /3 /4 /5 /6 /7		range of sensor measurements (eg. 0-25 mg/l...)
SN. GATEWAY	40072	String	6	R/W			board serial number
MEMBRANE TYPE	40078	String	8	R			membran type
SET OF REAGENT	40086	String	8	R			set of reagents
MODEL NUMBER	40094	String	8	R/W			model number
REAG.SERV.INTV	40102	Unsigned Integer	1	R/W		0 /65535	reagenz service interval
ION.M.SERV.INT	40103	Unsigned Integer	1	R/W		0 /65535	ionen membran service interval
CAL. DATE 1	40104	String	8	R			Date of a calibration
TOTAL TIME	40112	String	8	R			total operation time
TOTAL TIME	40120	Unsigned Integer	2	R		0 /4294967295	total operation time
RESTMEMBRANE	40122	Integer	1	R		-32768 /32767	next service ionfilter
LAST CALIBR	40123	String	8	R			last calibration

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STATUS	40131	Unsigned Integer	1	R/W	0 /1 /2 /3 /4 /5 /6 /7 /8 /9 /10 /11 /12 /13 /14 /15 /16 /17 /18 /19		general status of the sensor
STATUS	40132	Unsigned Integer	1	R/W	0 /1 /2 /3 /4 /5 /6		spez. status of the sensor
Process	40133	Unsigned Integer	1	R/W		0 /65535	Function Code
SERIAL NUMBER	40134	String	8	R			device serial number
Location	40142	String	8	R/W			location string
SW VERS EVITA	40150	String	10	R			software version evita
ERROR CODE	40160	Unsigned Integer	1	R		0 /65535	error code
ERROR PENDING	40161	Unsigned Integer	1	R		0 /65535	error pending
ERROR TIME	40162	Unsigned Integer	1	R		0 /65535	error time (in minute)
COUNT_HART_REC	40163	Unsigned Integer	2	R/W		0 /4294967295	hart receive counter
COUNT_HART_ERR	40165	Unsigned Integer	2	R/W		0 /4294967295	hart error counter
HART COMMUNIC.	40167	Float	2	R/W			hartbus communication error
REMAIN RUNTIME	40169	Unsigned Integer	1	R		0 /65535	remaining runtime
SELF TEST	40170	Unsigned Integer	1	R	0 /1 /2 /255		test itself result
VERSIONSTRUCT	40171	Unsigned Integer	1	R/W		0 /255	version structur number
VERSIONFIRMW	40172	Unsigned Integer	1	R/W		0 /255	version firmware
VERSIONCONTENT	40173	Unsigned Integer	1	R/W		0 /255	version content
CALIBR. VAL 1	40175	Unsigned Integer	1	R		0 /65535	calibration value 1
CALIBR. VAL 2	40176	Unsigned Integer	1	R		0 /65535	calibration value 2
CALIBR. VAL 3	40177	Unsigned Integer	1	R		0 /65535	calibration value 3
CH.CAL.SIG.1	40178	Unsigned Integer	1	R/W		0 /65535	change calibrate signal 1
CH.CAL.SIG.2	40179	Unsigned Integer	1	R/W		0 /65535	change calibrate signal 2
CH.CAL.SIG.3	40180	Unsigned Integer	1	R/W		0 /65535	change calibrate signal 3
CH.CAL.RINSE.S	40181	Unsigned Integer	1	R/W		0 /65535	change calibrate rinse signal
DATE FACTOR	40192	Time2	2	R			date from factor
PREV. CAL.	40194	Float	2	R/W			preview calibration
MEASUR.VALID	40196	Unsigned Integer	1	R/W		0 /65535	messurement is valid flag (1=valid)

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Name	Register	Data Type	Length	Access Mode	Discrete Range	Min / Max	Description
WARNING	40197	Unsigned Integer	1	R/W	0 /1 /2 /3 /4 /5 /6 /7 /8 /9 /10 /11 /12		warning code
Error Code	40198	Unsigned Integer	1	R/W	0 /1 /2 /3 /4 /5 /6 /7 /8 /9 /10 /11 /12 /13 /14		error code
Quest YN	40215	Unsigned Integer	1	R/W	1 /2		user input
ReinigDat	40216	Time2	2	R/W			date of sensor cleaning
ReinigWarnJN	40218	Unsigned Integer	1	R/W	1 /2		warning message of cleaning switch on or off

ALL Sensors and Analyzer: Classified ERROR Word - Register 49930

Table 2 Error register

Bit	Error	Description
0	Calibration error	Faulty calibration detected
1	Electronic settings error	Faulty electronic calibration/settings
2	Cleaning error	Error in cleaning cycle detected
3	Measuring module error	Error in measuring module detected
4	System initialization	Inconsistent settings detected, reset to factory settings
5	Hardware error	Faulty hardware detected
6	Internal communication error	Internal communication error detected
7	Humidity error	Excessive humidity detected
8	Excessive temperature	Excessive temperature detected
9		
10	Sample feed warning	Error in sample feed detected
11	Questionable calibration warning	Accuracy of previous calibration inadequate
12	Questionable measurement warning	Accuracy of previous measurement inadequate/out of range
13	Safety warning	Safety equipment error detected
14	Reagent warning	Reagent warning, e.g. fill level < min detected
15	Service request warning	Service request detected

ALL Sensors and Analyzer: Classified STATUS Word - Register 49931

Table 3 Status register

Bit	Status 1	Description
0	Calibration activated	Calibration in progress, measurement value not up to date
1	Cleaning activated	Cleaning in progress, measurement value not up to date
2	Service mode activated	Device in "Service" mode, measurement value not up to date
3	General error message	General error detected, refer to error text for details
4	Measurement value channel 0, poor quality	Measurement accuracy is not within specified limits
5	Measurement value channel 0, range short-fall	Measurement value falls short of the specified range
6	Measurement value channel 0, range exceeded	Measurement value exceeds the specified range
7	Measurement value channel 1, poor quality	Measurement accuracy is not within specified limits
8	Measurement value channel 1, range short-fall	Measurement value falls short of the specified range
9	Measurement value channel 1, range exceeded	Measurement value exceeds the specified range
10	Measurement value channel 2, poor quality	Measurement accuracy is not within specified limits
11	Measurement value channel 2, range short-fall	Measurement value falls short of the specified range
12	Measurement value channel 2, range exceeded	Measurement value exceeds the specified range
13	Measurement value channel 3, poor quality	Measurement accuracy is not within specified limits
14	Measurement value channel 3, range short-fall	Measurement value falls short of the specified range
15	Measurement value channel 3, range exceeded	Measurement value exceeds the specified range