Modbus Register
Polymetron 9500 Controller only

v2.01

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Name	Register	Data Type	Length	Access Mode	Discrete Range	Min / Max	Description
Calculated Value	40001	Float	2	R			A measurement calculated from sensor measurements
Language	40003	Selection List	1	R/W	?		Language to be used on the controller (0=English
Data Format	40004	Selection List	1	R/W	?		Format used for the Data
Error Hold Mode	40005	Unsigned Integer	1	R/W		0 /5	Hold mode when an error occurs
Location String	40006	String	8	R/W			Location name for the controller
Display Contrast	40014	Unsigned Integer	1	R/W		0 /10	Display contrast setting (1-9)
Calculation Log Mode	40015	Unsigned Integer	1	R/W		0 /3	Calculated measurement logging mode (0=Snapshot
Calculation Log Interval	40016	Unsigned Integer	1	R/W		0 /7	Calculated measurement logging mode (0=5sec
Variable X Device Selection	40017	Unsigned Integer	1	R/W		0 /1	Device selection to be used for the X variable in the calculations (0=Device 1
Variable Y Device Selection	40018	Unsigned Integer	1	R/W		0 /1	Device selection to be used for the Y variable in the calculations (0=Device 1
Variable X Measurement Selection	40019	Unsigned Integer	1	R/W		0 /15	Measurement selection to be used for the X variable in the calculations
Variable Y Measurement Selection	40020	Unsigned Integer	1	R/W		0 /16	Measurement selection to be used for the Y variable in the calculations
Math Formula	40021	Unsigned Integer	1	R/W		0 /16	Selection of the math formula used in the calculation
Units	40022	String	3	R/W			Units for the calculated value
Display Format	40025	Unsigned Integer	1	R/W		0 /16	Display format for the calculated value
Parameter	40026	String	3	R/W			Parameter for the calculated value
Auto Range Selection X	40029	Unsigned Integer	1	R/W		0 /15	Selection of which range (of auto range) measurement to use for variable X
Auto Range Selection Y	40030	Unsigned Integer	1	R/W		0 /16	Selection of which range (of auto range) measurement to use for variable Y
Mode	40031	Unsigned Integer	1	R/W		0 /0	Data logging mode
Interval	40032	Unsigned Integer	1	R/W		0 /0	Data logging interval
Source	40033	Unsigned Integer	1	R/W		0 /4	The source to use for this output (none or probe)
Sensor Select	40034	Unsigned Integer	1	R/W		0 /1	The device to use for this output
Measurement Select	40035	Unsigned Integer	1	R/W		0 /15	The measurement within the sensor for this output
Function Select	40036	Unsigned Integer	1	R/W		0 /1	The output type (0=Linear
Transfer Value	40037	Float	2	R/W		0 /25	The output value to be used for the transfer setting
Filter	40039	Unsigned Integer	1	R/W		0 /999	Filter time (sec)
Zero Select	40040	Unsigned Integer	1	R/W		0 /1	Selection of the zero level (0=0mA
Minimum Setting	40041	Float	2	R/W		-999999 /999999	The measurement value for the minimum output
Maximum Setting	40043	Float	2	R/W		-999999 /999999	The measurement value for the maximum output
Knee Value Setting	40045	Float	2	R/W		-999999 /999999	The measurement value for the knee point output

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Name	Register	Data Type	Length	Access Mode	Discrete Range	Min / Max	Description
Knee Current Setting	40047	Float	2	R/W		0 /100.0	The current value for the knee point output
50 Percent Setting	40049	Float	2	R/W		.0001 /999999	The measurement value for 50% output
Mode	40051	Unsigned Integer	1	R/W		0 /1	The PID mode (0=Auto
Manual Setting	40052	Float	2	R/W		0 /100.0	The manual setting for the output (0 to 100%)
Setpoint	40054	Float	2	R/W		-999999 /999999	Setpoint for the PID control
Phase	40056	Unsigned Integer	1	R/W		0 /1	PID phase (0=Direct
Proportional Band	40057	Float	2	R/W		-999999 /999999	Propotional Band
Integral Time	40059	Unsigned Integer	1	R/W		0 /9999	Integral Time (0 to 9999 sec)
Derivative Time	40060	Unsigned Integer	1	R/W		0 /9999	Derivative Time (0 to 9999 sec)
Transit Time	40061	Unsigned Integer	1	R/W		0 /9999	Transist Time (0 to 9999 sec)
Auto Range Selection	40062	Unsigned Integer	1	R/W		0 /16	Selection of which range (of auto range) measurement to use
Source	40063	Unsigned Integer	1	R/W		0 /4	The source to use for this output (none or probe)
Sensor Select	40064	Unsigned Integer	1	R/W		0 /1	The device to use for this output
Measurement Select	40065	Unsigned Integer	1	R/W		0 /15	The measurement within the sensor for this output
Function Select	40066	Unsigned Integer	1	R/W		0 /3	The output type (0=Linear
Transfer Value	40067	Float	2	R/W		0 /25	The output value to be used for the transfer setting
Filter	40069	Unsigned Integer	1	R/W		0 /999	Filter time (sec)
Zero Select	40070	Unsigned Integer	1	R/W		0 /1	Selection of the zero level (0=0mA
Minimum Setting	40071	Float	2	R/W		-999999 /999999	The measurement value for the minimum output
Maximum Setting	40073	Float	2	R/W		-999999 /999999	The measurement value for the maximum output
Knee Value Setting	40075	Float	2	R/W		-999999 /999999	The measurement value for the knee point output
Knee Current Setting	40077	Float	2	R/W		0 /100.0	The current value for the knee point output
50 Percent Setting	40079	Float	2	R/W		.0001 /999999	The measurement value for 50% output
Mode	40081	Unsigned Integer	1	R/W		0 /1	The PID mode (0=Auto
Manual Setting	40082	Float	2	R/W		0 /100.0	The manual setting for the output (0 to 100%)
Setpoint	40084	Float	2	R/W		-999999 /999999	Setpoint for the PID control
Phase	40086	Unsigned Integer	1	R/W		0 /1	PID phase (0=Direct
Proportional Band	40087	Float	2	R/W		-999999 /999999	Propotional Band
Integral Time	40089	Unsigned Integer	1	R/W		0 /9999	Integral Time (0 to 9999 sec)
Derivative Time	40090	Unsigned Integer	1	R/W		0 /9999	Derivative Time (0 to 9999 sec)
Transit Time	40091	Unsigned Integer	1	R/W		0 /9999	Transist Time (0 to 9999 sec)
Auto Range Selection	40092	Unsigned Integer	1	R/W		0 /15	Selection of which range (of auto range) measurement to use

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Name	Register	Data Type	Length	Access Mode	Discrete Range	Min / Max	Description
Source	40093	Unsigned Integer	1	R/W		0 /4	The source to use for this relay (none
Sensor Select	40094	Unsigned Integer	1	R/W		0 /1	The device to use for this relay
Measurement Select	40095	Unsigned Integer	1	R/W		0 /15	The measurement within the sensor for this relay
Function Select	40096	Unsigned Integer	1	R/W		0 /7	The relay type (0=Alarm
Transfer Value	40097	Unsigned Integer	1	R/W		0 /1	The relay state to be used for the transfer setting (0=off
High Alarm	40098	Float	2	R/W		-999999 /999999	The high alarm setting
Low Alarm	40100	Float	2	R/W		-999999 /999999	The low alarm setting
High Alarm Deadband	40102	Float	2	R/W		-999999 /999999	The high alarm deadband setting
Low Alarm Deadband	40104	Float	2	R/W		-999999 /999999	The low alarm deadband setting
On Delay	40106	Unsigned Integer	1	R/W		0 /999	The alarm on delay time (0 to 999 sec)
Off Delay	40107	Unsigned Integer	1	R/W		0 /999	The alarm off delay time (0 to 999 sec)
Setpoint	40108	Float	2	R/W		-999999 /999999	The relay control setpoint
Phase	40110	Unsigned Integer	1	R/W		0 /1	The controller action (0=direct
Deadband	40111	Float	2	R/W		-999999 /999999	The controller deadband
Overfeed Timer	40113	Unsigned Integer	1	R/W		0 /999	The overfeed timer setting (0 to 999 sec)
On Delay	40114	Unsigned Integer	1	R/W		0 /999	The controller on delay time (0 to 999 sec)
Off Delay	40115	Unsigned Integer	1	R/W		0 /999	The controller off delay time (0 to 999 sec)
Overfeed Timer Reset	40116	Unsigned Integer	1	R/W		0 /1	A write resets the overfeed timer
Setpoint	40117	Float	2	R/W		-999999 /999999	The event setpoint
Phase	40119	Unsigned Integer	1	R/W		0 /1	The event action (0=direct
Deadband	40120	Float	2	R/W		-999999 /999999	The controller deadband
Max On Time	40122	Unsigned Integer	1	R/W		0 /9999	The event control max on time
Min On Time	40123	Unsigned Integer	1	R/W		0 /9999	The event control min on time
Max Off Time	40124	Unsigned Integer	1	R/W		0 /9999	The event control max off time
Min Off Time	40125	Unsigned Integer	1	R/W		0 /9999	The event control min off time
Sensor Hold Type	40126	Unsigned Integer	1	R/W		0 /0	Selects the sensor hold type (0=None
Sensor Hold Select	40127	Unsigned Integer	1	R/W		0 /0	Select probes to hold when this relay is on when the Hold Type is set for particular sensor. (0=sensor 1
Hold Mode	40128	Unsigned Integer	1	R/W		0 /0	Selects the hold mode used (1=hold
Duration	40129	Unsigned Integer	1	R/W		0 /0	Relay on time

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Name	Register	Data Type	Length	Access Mode	Discrete Range	Min / Max	Description
Interval Time	40130	Unsigned Integer	1	R/W		0 /0	The interval time between triggering the relay on
Off Delay	40131	Unsigned Integer	1	R/W		0 /0	The alarm off delay time (0 to 999 sec)
Warning Level	40132	Unsigned Integer	1	R/W		0 /0	The warning level that triggers the relay
Mode	40133	Unsigned Integer	1	R/W		0 /1	Manual vs Auto select (0=auto
Manual Setting	40134	Float	2	R/W			The manual setting for the output (0 to 100%)
Integral Time	40136	Unsigned Integer	1	R/W		0 /65535	Integral Time (0 to 9999 sec)
Period	40137	Float	2	R/W		0 /3.40282347 E+38	Period for PWM control
Min Pulse Width	40139	Float	2	R/W		0 /3.40282347 E+38	Minimum pulse width
Max Pluse Width	40141	Float	2	R/W		0 /3.40282347 E+38	Maximum pulse width
Range	40143	Unsigned Integer	1	R/W		0 /16	Range selection for auto range tags
Fail Safe Mode	40144	Unsigned Integer	1	R/W		0 /16	Fail Safe Mode (0= off
Start Time	40145	Time	2	R/W			Start time for the schduler
Run days	40147	Unsigned Integer	1	R/W		0 /16	Run day selection
Source	40148	Unsigned Integer	1	R/W		0 /4	The source to use for this relay (none
Sensor Select	40149	Unsigned Integer	1	R/W		0 /4	The device to use for this relay
Measurement Select	40150	Unsigned Integer	1	R/W		0 /15	The measurement within the sensor for this relay
Function select	40151	Unsigned Integer	1	R/W		0 /0	The relay type (0=Alarm
Transfer Value	40152	Unsigned Integer	1	R/W		0 /0	The relay state to be used for the transfer setting
High Alarm	40153	Float	2	R/W		0 /0	The high alarm setting
Low Alarm	40155	Float	2	R/W		0 /0	The low alarm setting
High Alarm Deadband	40157	Float	2	R/W		0 /0	The high alarm deadband setting
Low Alarm Deadband	40159	Float	2	R/W		0 /0	The low alarm deadband setting
On Delay	40161	Unsigned Integer	1	R/W		0 /0	The alarm on delay time (0 to 999 sec)
Off Delay	40162	Unsigned Integer	1	R/W		0 /0	The alarm off delay time (0 to 999 sec)
Setpoint	40163	Float	2	R/W		0 /0	The relay control setpoint
Phase	40165	Unsigned Integer	1	R/W		0 /0	The controller action (0=direct
Deadband	40166	Float	2	R/W		0 /0	The controller deadband
Overfeed Timer	40168	Unsigned Integer	1	R/W		0 /0	The overfeed timer setting (0 to 999 sec)
On Delay	40169	Unsigned Integer	1	R/W		0 /0	The controller on delay time (0 to 999 sec)
Off Delay	40170	Unsigned Integer	1	R/W		0 /0	The controller off delay time (0 to 999 sec)
Overfeed Timer Reset	40171	Unsigned Integer	1	R/W		0 /0	A write resets the overfeed timer

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Name	Register	Data Type	Length	Access Mode	Discrete Range	Min / Max	Description
Setpoint	40172	Float	2	R/W		0 /0	The event setpoint
Phase	40174	Unsigned Integer	1	R/W		0 /0	The event action (0=direct
Deadband	40175	Float	2	R/W		0 /0	The controller deadband
Max On Time	40177	Unsigned Integer	1	R/W		0 /0	The event control max on time
Min On Time	40178	Unsigned Integer	1	R/W		0 /0	The event control min on time
Max Off Time	40179	Unsigned Integer	1	R/W		0 /0	The event control max off time
Min Off Time	40180	Unsigned Integer	1	R/W		0 /0	The event control min off time
Sensor Hold Type	40181	Unsigned Integer	1	R/W		0 /0	Selects the sensor hold type (0=None
Sensor Hold Select	40182	Unsigned Integer	1	R/W		0 /0	Select probes to hold when this relay is on when the Hold Type is set for particular sensor. (0=sensor 1
Hold Mode	40183	Unsigned Integer	1	R/W		0 /0	Selects the hold mode used (1=hold
Duration	40184	Unsigned Integer	1	R/W		0 /0	Relay on time
Interval Time	40185	Unsigned Integer	1	R/W		0 /0	The interval time between triggering the relay on
Off Delay	40186	Unsigned Integer	1	R/W		0 /0	The alarm off delay time (0 to 999 sec)
Warning Level	40187	Unsigned Integer	1	R/W		0 /0	The warning level that triggers the relay
Mode	40188	Unsigned Integer	1	R/W		0 /1	Manual vs Auto select (0=auto
Manual Setting	40189	Float	2	R/W			The manual setting for the output (0 to 100%)
Integral Time	40191	Unsigned Integer	1	R/W		0 /65535	Integral Time (0 to 9999 sec)
Period	40192	Float	2	R/W		0 /3.40282347 E+38	Period for PWM control
Min Pulse Width	40194	Float	2	R/W		0 /3.40282347 E+38	Minimum pulse width
Max Pulse Width	40196	Float	2	R/W		0 /3.40282347 E+38	Maximum pulse width
Range	40198	Unsigned Integer	1	R/W		0 /16	Range selection for auto range tags
Fail Safe Mode	40199	Unsigned Integer	1	R/W		0 /16	Fail Safe Mode (0= off
Start Time	40200	Time	2	R/W			Start time for the schduler
Run days	40202	Unsigned Integer	1	R/W		0 /16	Run day selection
Source	40203	Unsigned Integer	1	R/W		0 /4	The source to use for this relay (none
Sensor Select	40204	Unsigned Integer	1	R/W		0 /0	The device to use for this relay
Measurement Select	40205	Unsigned Integer	1	R/W		0 /15	The measurement within the sensor for this relay
Function select	40206	Unsigned Integer	1	R/W		0 /0	The relay type (0=Alarm
Transfer Value	40207	Unsigned Integer	1	R/W		0 /0	The relay state to be used for the transfer setting

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Name	Register	Data Type	Length	Access Mode	Discrete Range	Min / Max	Description
High Alarm	40208	Float	2	R/W		0 /0	The high alarm setting
Low Alarm	40210	Float	2	R/W		0 /0	The low alarm setting
High Alarm Deadband	40212	Float	2	R/W		0 /0	The high alarm deadband setting
Low Alarm Deadband	40214	Float	2	R/W		0 /0	The low alarm deadband setting
On Delay	40216	Unsigned Integer	1	R/W		0 /0	The alarm on delay time (0 to 999 sec)
Off Delay	40217	Unsigned Integer	1	R/W		0 /0	The alarm off delay time (0 to 999 sec)
Setpoint	40218	Float	2	R/W		0 /0	The relay control setpoint
Phase	40220	Unsigned Integer	1	R/W		0 /0	The controller action (0=direct
Deadband	40221	Float	2	R/W		0 /0	The controller deadband
Overfeed Timer	40223	Unsigned Integer	1	R/W		0 /0	The overfeed timer setting (0 to 999 sec)
On Delay	40224	Unsigned Integer	1	R/W		0 /0	The controller on delay time (0 to 999 sec)
Off Delay	40225	Unsigned Integer	1	R/W		0 /0	The controller off delay time (0 to 999 sec)
Overfeed Timer Reset	40226	Unsigned Integer	1	R/W		0 /0	A write resets the overfeed timer
Setpoint	40227	Float	2	R/W		0 /0	The event setpoint
Phase	40229	Unsigned Integer	1	R/W		0 /0	The event action (0=direct
Deadband	40230	Float	2	R/W		0 /0	The controller deadband
Max On Time	40232	Unsigned Integer	1	R/W		0 /0	The event control max on time
Min On Time	40233	Unsigned Integer	1	R/W		0 /0	The event control min on time
Max Off Time	40234	Unsigned Integer	1	R/W		0 /0	The event control max off time
Min Off Time	40235	Unsigned Integer	1	R/W		0 /0	The event control min off time
Sensor Hold Type	40236	Unsigned Integer	1	R/W		0 /0	Selects the sensor hold type (0=None
Sensor Hold Select	40237	Unsigned Integer	1	R/W		0 /0	Select probes to hold when this relay is on when the Hold Type is set for particular sensor. (0=sensor 1
Hold Mode	40238	Unsigned Integer	1	R/W		0 /0	Selects the hold mode used (1=hold
Duration	40239	Unsigned Integer	1	R/W		0 /0	Relay on time
Interval Time	40240	Unsigned Integer	1	R/W		0 /0	The interval time between triggering the relay on
Off Delay	40241	Unsigned Integer	1	R/W		0 /0	The alarm off delay time (0 to 999 sec)
Warning Level	40242	Unsigned Integer	1	R/W		0 /0	The warning level that triggers the relay
Mode	40243	Unsigned Integer	1	R/W		0 /1	Manual vs Auto select (0=auto
Manual Setting	40244	Float	2	R/W			The manual setting for the output (0 to 100%)
Integral Time	40246	Unsigned Integer	1	R/W		0 /65535	Integral Time (0 to 9999 sec)
Period	40247	Float	2	R/W		0 /3.40282347 E+38	Period for PWM control

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Name	Register	Data Type	Length	Access Mode	Discrete Range	Min / Max	Description
Min Pulse Width	40249	Float	2	R/W		0 /3.40282347 E+38	Minimum pulse width
Max Pluse Width	40251	Float	2	R/W		0 /3.40282347 E+38	Maximum pulse width
Range	40253	Unsigned Integer	1	R/W		0 /16	Range selection for auto range tags
Fail Safe Mode	40254	Unsigned Integer	1	R/W		0 /16	Fail Safe Mode (0= off
Start Time	40255	Time	2	R/W			Start time for the schduler
Run days	40257	Unsigned Integer	1	R/W		0 /16	Run day selection
Source	40258	Unsigned Integer	1	R/W		0 /4	The source to use for this relay (none
Sensor Select	40259	Unsigned Integer	1	R/W		0 /4	The device to use for this relay
Measurement Select	40260	Unsigned Integer	1	R/W		0 /15	The measurement within the sensor for this relay
Function select	40261	Unsigned Integer	1	R/W		0 /0	The relay type (0=Alarm
Transfer Value	40262	Unsigned Integer	1	R/W		0 /0	The relay state to be used for the transfer setting
High Alarm	40263	Float	2	R/W		0 /0	The high alarm setting
Low Alarm	40265	Float	2	R/W		0 /0	The low alarm setting
High Alarm Deadband	40267	Float	2	R/W		0 /0	The high alarm deadband setting
Low Alarm Deadband	40269	Float	2	R/W		0 /0	The low alarm deadband setting
On Delay	40271	Unsigned Integer	1	R/W		0 /0	The alarm on delay time (0 to 999 sec)
Off Delay	40272	Unsigned Integer	1	R/W		0 /0	The alarm off delay time (0 to 999 sec)
Setpoint	40273	Float	2	R/W		0 /0	The relay control setpoint
Deadband	40275	Float	2	R/W		0 /0	The controller deadband
Overfeed Timer	40277	Unsigned Integer	1	R/W		0 /0	The overfeed timer setting (0 to 999 sec)
On Delay	40278	Unsigned Integer	1	R/W		0 /0	The controller on delay time (0 to 999 sec)
Off Delay	40279	Unsigned Integer	1	R/W		0 /0	The controller off delay time (0 to 999 sec)
Phase	40280	Unsigned Integer	1	R/W		0 /0	The controller action (0=direct
Overfeed Timer Reset	40281	Unsigned Integer	1	R/W		0 /0	A write resets the overfeed timer
Setpoint	40282	Float	2	R/W		0 /0	The event setpoint
Phase	40284	Unsigned Integer	1	R/W		0 /0	The event action (0=direct
Deadband	40285	Float	2	R/W		0 /0	The controller deadband
Max On Time	40287	Unsigned Integer	1	R/W		0 /0	The event control max on time
Min On Time	40288	Unsigned Integer	1	R/W		0 /0	The event control min on time
Max Off Time	40289	Unsigned Integer	1	R/W		0 /0	The event control max off time
Min Off Time	40290	Unsigned Integer	1	R/W		0 /0	The event control min off time
Sensor Hold Type	40291	Unsigned Integer	1	R/W		0 /0	Selects the sensor hold type (0=None

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Name	Register	Data Type	Length	Access Mode	Discrete Range	Min / Max	Description
Sensor Hold Select	40292	Unsigned Integer	1	R/W		0 /0	Select probes to hold when this relay is on when the Hold Type is set for particular sensor. (0=sensor 1
Hold Mode	40293	Unsigned Integer	1	R/W		0 /0	Selects the hold mode used (1=hold
Duration	40294	Unsigned Integer	1	R/W		0 /0	Relay on time
Interval Time	40295	Unsigned Integer	1	R/W		0 /0	The interval time between triggering the relay on
Off Delay	40296	Unsigned Integer	1	R/W		0 /0	The alarm off delay time (0 to 999 sec)
Warning Level	40297	Unsigned Integer	1	R/W		0 /0	The warning level that triggers the relay
Mode	40298	Unsigned Integer	1	R/W		0 /1	Manual vs Auto select (0=auto
Manual Setting	40299	Float	2	R/W			The manual setting for the output (0 to 100%)
Integral Time	40301	Unsigned Integer	1	R/W		0 /65535	Integral Time (0 to 9999 sec)
Period	40302	Float	2	R/W		0 /3.40282347 E+38	Period for PWM control
Min Pulse Width	40304	Float	2	R/W		0 /3.40282347 E+38	Minimum pulse width
Max Pluse Width	40306	Float	2	R/W		0 /3.40282347 E+38	Maximum pulse width
Range	40308	Unsigned Integer	1	R/W		0 /16	Range selection for auto range tags
Fail Safe Mode	40309	Unsigned Integer	1	R/W		0 /16	Fail Safe Mode (0= off
Start Time	40310	Time	2	R/W			Start time for the schduler
Run days	40312	Unsigned Integer	1	R/W		0 /16	Run day selection
Discrete 1 Input	40313	Unsigned Integer	1	R		0 /1	State of the discrete input #1
Discrete 2 Input	40314	Unsigned Integer	1	R		0 /1	State of the discrete input #2
Discrete 3 Input	40315	Unsigned Integer	1	R		0 /1	State of the discrete input #3
Smart Sensor 1 Power	40316	Unsigned Integer	1	R/W		0 /1	Smart Sensor 1 Power State (0=Off
Smart Sensor 2 Power	40317	Unsigned Integer	1	R/W		0 /1	Smart Sensor 2 Power State (0=Off
DM STK LEFT	40318	Unsigned Integer	1	R		0 /65535	Device Manager Stack Entries Left
SCAN1 STK LEFT	40319	Unsigned Integer	1	R		0 /65535	Scan 1 Stack Entries Left
SCAN2 STK LEFT	40320	Unsigned Integer	1	R		0 /65535	Scan 2 Stack Entries Left
SCAN3 STK LEFT	40321	Unsigned Integer	1	R		0 /65535	Scan 3 Stack Entries Left
SCAN4 STK LEFT	40322	Unsigned Integer	1	R		0 /65535	Scan 4 Stack Entries Left
SCAN5 STK LEFT	40323	Unsigned Integer	1	R		0 /65535	Scan 5 Stack Entries Left
MT STK LEFT	40324	Unsigned Integer	1	R		0 /65535	Maintance Stack Entries Left

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Name	Register	Data Type	Length	Access Mode	Discrete Range	Min / Max	Description
MB NET STK LFT	40325	Unsigned Integer	1	R		0 /65535	Modbus Net Stack Entries Left
MB AUX STK LFT	40326	Unsigned Integer	1	R		0 /65535	Modbus Aux Stack Entries Left
UI STK LEFT	40327	Unsigned Integer	1	R		0 /65535	UI Stack Entries Left
SYS STK LEFT	40328	Unsigned Integer	1	R		0 /65535	System Stack Entries Left
SD STK LEFT	40329	Unsigned Integer	1	R		0 /65535	SD card Stack Entries Left
Idle time	40330	Unsigned Integer	1	R		0 /65535	Microprocessor idle time (x100)
Clear Stats Count	40331	Unsigned Integer	1	R/W		0 /1	Clear the Modbus port stats count
NetCard Good Msg	40332	Unsigned Integer	2	R		0 /4294967295	Number of good messages on the Network Card port
NetCard Bad Msg	40334	Unsigned Integer	2	R		0 /4294967295	Number of bad messages on the Network Card port
NetCard % Good	40336	Float	2	R		0 /100.0	Percentage of good messages on the Network Card port
Service Port Good Msg	40338	Unsigned Integer	2	R		0 /4294967295	Number of good messages on the Service port
Service Port Bad Msg	40340	Unsigned Integer	2	R		0 /4294967295	Number of bad messages on the Service port
Service Port % Good	40342	Float	2	R		0 /100.0	Percentage of good messages on the Service Port
Port1 Good Msg	40344	Unsigned Integer	2	R		0 /4294967295	Number of good messages on the Sensor port 1
Port1 Bad Msg	40346	Unsigned Integer	2	R		0 /4294967295	Number of bad messages on the Port1
Port1 % Good	40348	Float	2	R		0 /100.0	Percentage of good messages on the Port1
Port2 Good Msg	40350	Unsigned Integer	2	R		0 /4294967295	Number of good messages on the Sensor port 2
Port2 Bad Msg	40352	Unsigned Integer	2	R		0 /4294967295	Number of bad messages on the Port2
Port2 % Good	40354	Float	2	R		0 /100.0	Percentage of good messages on the Port2
Port3 Good Msg	40356	Unsigned Integer	2	R		0 /4294967295	Number of good messages on the Sensor port 3
Port3 Bad Msg	40358	Unsigned Integer	2	R		0 /4294967295	Number of bad messages on the Port3
Port3 % Good	40360	Float	2	R		0 /100.0	Percentage of good messages on the Port3
Port4 Good Msg	40362	Unsigned Integer	2	R		0 /4294967295	Number of good messages on the Sensor port 4
Port4 Bad Msg	40364	Unsigned Integer	2	R		0 /4294967295	Number of bad messages on the Port4
Port4 % Good	40366	Float	2	R		0 /100.0	Percentage of good messages on the Port4
Output 1 Cal Count - 4 mA	40368	Unsigned Integer	1	R/W		0 /25000	Calibration count for output 1 - 4mA value
Output 1 Cal Count - 20 mA	40369	Unsigned Integer	1	R/W		35000 /65533	Calibration count for output 1 - 20mA value
Output 2 Cal Count - 4 mA	40370	Unsigned Integer	1	R/W		0 /25000	Calibration count for output 2 - 4mA value
Output 2 Cal Count - 20 mA	40371	Unsigned Integer	1	R/W		35000 /65533	Calibration count for output 2 - 20mA value
Clear Event Log	40372	Unsigned Integer	1	R/W		1 /4	Clears one of the device event logs (1=Sensor1
Clear Data Log	40373	Unsigned Integer	1	R/W		1 /4	Clears one of the device data logs (1=Sensor1

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Name	Register	Data Type	Length	Access Mode	Discrete Range	Min / Max	Description
Output 1 Test Enable	40374	Unsigned Integer	1	R/W		0 /1	Enable Output 1 Test mode (0=Disabled
Output 1 Value	40375	Float	2	R/W		0 /25.0	Output 1 Value
Output 2 Test Enable	40377	Unsigned Integer	1	R/W		0 /1	Enable Output 2 Test mode (0=Disabled
Output 2 Value	40378	Float	2	R/W		0 /25.0	Output 2 Value
Relay 1 Test Enable	40380	Unsigned Integer	1	R/W		0 /1	Enable Relay 1 Test mode (0=Disabled
Relay 1 Value	40381	Unsigned Integer	1	R/W		0 /1	Relay 1 Value
Relay 2 Test Enable	40382	Unsigned Integer	1	R/W		0 /1	Enable Relay 2 Test mode (0=Disabled
Relay 2 Value	40383	Unsigned Integer	1	R/W		0 /1	Relay 2 Value
Relay 3 Test Enable	40384	Unsigned Integer	1	R/W		0 /1	Enable Relay 3 Test mode (0=Disabled
Relay 3 Value	40385	Unsigned Integer	1	R/W		0 /1	Relay 3 Value
Relay 4 Test Enable	40386	Unsigned Integer	1	R/W		0 /1	Enable Relay 4 Test mode (0=Disabled
Relay 4 Value	40387	Unsigned Integer	1	R/W		0 /1	Relay 4 Value
Keyboard Test	40388	Unsigned Integer	1	R/W		0 /0	Enter key stroke or see last key entry
Internal Temperature	40389	Float	2	R		-60.0 /190.0	Internal temperature of the unit
12V Supply	40391	Float	2	R		0 /15.0	Current 12V supply measurement
3.3V CURRENT	40393	Float	2	R		0 /1.0	Total 3.3V Supply current (A)
12V CURRENT	40395	Float	2	R		0 /2.51	Total 12V Supply current (A)
SMART SENSOR 1 CUR	40397	Float	2	R		0 /2.5	Smart Sensor 1 - 12V Supply current (A)
SMART SENSOR 2 CUR	40399	Float	2	R		0 /2.5	Smart Sensor 2 - 12V Supply current (A)
ANALOG SENSOR 1 CUR	40401	Float	2	R		0 /0.25	Analog Sensor 1 - 12V Supply current (A)
ANALOG SENSOR 2 CUR	40403	Float	2	R		0 /0.25	Analog Sensor 2 - 12V Supply current (A)
PID 1 Prop Component	40405	Float	2	R		0 /0	The proporational component of PID1 output
PID 1 Intg Component	40407	Float	2	R		0 /0	The intg component of PID1 output
PID 1 Derv Component	40409	Float	2	R		0 /0	The derv component of PID1 output
PID 1 Total	40411	Float	2	R		0 /0	The total of all component of PID1 output
Max Temperature	40413	Float	2	R		-60.0 /190.0	Daily max temperature
Min Temperature	40415	Float	2	R		-60.0 /190.0	Daily min temperature
LanguageSelected	40417	Unsigned Integer	1	R/W		0 /1	
SecurityEnabled	40418	Unsigned Integer	1	R/W		0 /1	
Password	40419	String	3	R/W			
SdCardInstalled	40422	Unsigned Integer	1	R		0 /1	
ErrorCode	40423	Unsigned Integer	1	R		0 /65535	
SerNumString	40424	String	6	R			
NONE	40430	Unsigned Integer	1	R		0 /65535	
RESERVED	40431	Unsigned Integer	1	R		0 /65535	

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Name	Register	Data Type	Length	Access Mode	Discrete Range	Min / Max	Description
Network Error	40432	Unsigned Integer	1	R		0 /65535	Error word for the network (bit0 = Sensor1 communications error
Network Status	40433	Unsigned Integer	1	R		0 /65535	Status word for the network (bit0 = Sensor1 connected
Sd Board Status	40434	Unsigned Integer	1	R		0 /65535	
SoftwareResetData	40435	Unsigned Integer	2	R		0 /4294967295	
12V Gound	40437	Float	2	R		0 /2.50	Current 12V ground measurement
FileSelect	40439	Unsigned Integer	1	R/W		0 /8	
FileNumUpdates	40440	Unsigned Integer	1	R		0 /65535	
NetCardAddrMap	40441	Unsigned Integer	1	R		0 /65535	
Set Defaults	40442	Unsigned Integer	1	R/W		0 /1	Sets the configurations settings to default conditions
Initialization Flag	40443	Unsigned Integer	1	R/W		0 /1	This flag is set after the input has been initialized
Initialization Flag	40444	Unsigned Integer	1	R/W		0 /1	This flag is set after the input has been initialized
Initialization Flag	40445	Unsigned Integer	1	R/W		0 /1	This flag is set after the input has been initialized
Mode	40446	Unsigned Integer	1	R/W		0 /2	Input mode of operation (0=Disabled
Mode	40447	Unsigned Integer	1	R/W		0 /2	Input mode of operation (0=Disabled
Mode	40448	Unsigned Integer	1	R/W		0 /2	Input mode of operation (0=Disabled
Warning Enable	40449	Unsigned Integer	1	R/W		0 /1	Warning enable flag (0=Disabled
Warning Enable	40450	Unsigned Integer	1	R/W		0 /1	Warning enable flag (0=Disabled
Warning Enable	40451	Unsigned Integer	1	R/W		0 /1	Warning enable flag (0=Disabled
Hold Mode	40452	Unsigned Integer	1	R/W		0 /2	Hold Mode (1=Active
Hold Mode	40453	Unsigned Integer	1	R/W		0 /2	Hold Mode (1=Active
Hold Mode	40454	Unsigned Integer	1	R/W		0 /2	Hold Mode (1=Active
Hold Selection	40455	Unsigned Integer	1	R/W		0 /3	Select which sensor use the Hold Mode (bit 0=Sensor 1
Hold Selection	40456	Unsigned Integer	1	R/W		0 /3	Select which sensor use the Hold Mode (bit 0=Sensor 1
Hold Selection	40457	Unsigned Integer	1	R/W		0 /3	Select which sensor use the Hold Mode (bit 0=Sensor 1
On Delay	40458	Unsigned Integer	1	R/W		0 /999	On delay time (sec)
On Delay	40459	Unsigned Integer	1	R/W		0 /999	On delay time (sec)
On Delay	40460	Unsigned Integer	1	R/W		0 /999	On delay time (sec)
Off Delay	40461	Unsigned Integer	1	R/W		0 /999	Off delay time (sec)
Off Delay	40462	Unsigned Integer	1	R/W		0 /999	Off delay time (sec)

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Name	Register	Data Type	Length	Access Mode	Discrete Range	Min / Max	Description
Off Delay	40463	Unsigned Integer	1	R/W		0 /999	Off delay time (sec)
Slot 0 Mapping	40464	Unsigned Integer	1	R		0 /65535	Bit field mapping of relay and analog output mapping of the sensor installed in slot 0
Slot 0 Mapping	40465	Unsigned Integer	1	R		0 /65535	Bit field mapping of relay and analog output mapping of the sensor installed in slot 0
Telegram Configuration Mode	40466	Unsigned Integer	1	R/W		0 /1	Sets the Profibus Telegram configuration to Auto Mode (0) or Manual Mode (1)
AutoTelegram	40467	Unsigned Integer	1	R/W		0 /1	
Relay1WarningLevel	40468	Unsigned Integer	2	R/W		0 /4294967295	The warning level that triggers the relay
Relay2WarningLevel	40470	Unsigned Integer	2	R/W		0 /0	The warning level that triggers the relay
Relay3WarningLevel	40472	Unsigned Integer	2	R/W		0 /0	The warning level that triggers the relay
Relay4WarningLevel	40474	Unsigned Integer	2	R/W		0 /0	The warning level that triggers the relay
ResinWatch	40476	Unsigned Integer	1	R/W		0 /1	Watch resin life length
ResinCapacity	40477	Float	2	R/W		0.5 /5.0	
ResinVolume	40479	Float	2	R/W		0.5 /20.0	
ResinFlow	40481	Float	2	R/W		2.0 /20.0	
ResinConcentration	40483	Float	2	R/W		0.0 /20.0	
ResinInstallationDate	40485	Date	2	R/W			
ResinTimeLeft	40487	Float	2	R		0 /999	

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