

# Modbus Register LDO II

V1.24



*Be Right™*

LDO II V1.24

Name	Register	Data Type	Length	Access Mode	Discrete Range	Min / Max	Description
DO (ppm)	40001	Float	2	R		-5 /21	DO in ppm
DO (mg/l)	40001	Float	2	R		-5 /21	DO in mg/l
DO (%)	40003	Float	2	R		0 /200	DO in percent
Temperature (C)	40005	Float	2	R		-5 /55	Temp in C
Temperature (F)	40005	Float	2	R		0 /122	Temp in F
Phase difference	40007	Float	2	R		-180 /180	BluePhase - RedPhase
Blue phase	40009	Float	2	R		-90 /90	Blue LED phase
Red phase	40011	Float	2	R		-90 /90	Red LED phase
Blue magnitude	40013	Float	2	R		-1.0 /1.	Blue LED magnitude
Red magnitude	40015	Float	2	R		-1.0 /1.	Red LED magnitude
Software Version	40017	Float	2	R		0 /10.0	App code version
LegacyCoeff0	40019	Float	2	R		0 /0	
LegacyCoeff1	40021	Float	2	R		0 /0	
LegacyCoeff2	40023	Float	2	R		0 /0	
LegacyCoeff3	40025	Float	2	R		0 /0	
LegacyCoeff4	40027	Float	2	R		0 /0	
LegacyCoeff5	40029	Float	2	R		0 /0	
LegacyCoeff6	40031	Float	2	R		0 /0	
LegacyCoeff7	40033	Float	2	R		0 /0	
LegacyCoeff8	40035	Float	2	R		0 /0	
Sample value (ppm)	40037	Float	2	R/W		-21 /21	Sample cal value in ppm
Sample value (mg/l)	40037	Float	2	R/W		-21 /21	Sample cal value in mg/l
Sample value (%)	40037	Float	2	R/W		-200 /200	Sample cal value in percent
LegacyDOvalue	40039	Float	2	R		0 /0	
Altitude (feet)	40041	Float	2	R/W		-5000 /15000	Alt/Pressure in feet
Altitude (m)	40041	Float	2	R/W		-1524 /4572	Alt/Pressure in meter
Pressure (mmHg)	40041	Float	2	R/W		0 /2000	Alt/Pressure in mmHg
Pressure (Torr)	40041	Float	2	R/W		0 /2000	Alt/Pressure in Torr
Salinity	40043	Float	2	R/W		0 /250.	Salinity
Offset (ppm)	40045	Float	2	R/W		-3 /3	Offset in ppm
Offset (mg/l)	40045	Float	2	R/W		-3 /3	Offset in mg/l
Offset (%)	40045	Float	2	R/W		-50 /50	Offset in percent
Gain (slope)	40047	Float	2	R/W		0.5 /1.5	Cal gain
Coeff0	40049	Float	2	R/W			
Coeff1	40051	Float	2	R/W			
Coeff2	40053	Float	2	R/W			
Coeff3	40055	Float	2	R/W			
Coeff4	40057	Float	2	R/W			

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Coeff5	40059	Float	2	R/W			
Coeff6	40061	Float	2	R/W			
Coeff7	40063	Float	2	R/W			
Coeff8	40065	Float	2	R/W			
Coeff9	40067	Float	2	R/W			
Coeff10	40069	Float	2	R/W			
Coeff11	40071	Float	2	R/W			
Coeff12	40073	Float	2	R/W			
Coeff13	40075	Float	2	R/W			
Coeff14	40077	Float	2	R/W			
Coeff15	40079	Float	2	R/W			
Coeff16	40081	Float	2	R/W			
Coeff17	40083	Float	2	R/W			
Coeff18	40085	Float	2	R/W			
Coeff19	40087	Float	2	R/W			
Coeff20	40089	Float	2	R/W			

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Name	Register	Data Type	Length	Access Mode	Discrete Range	Min / Max	Description
Meas unit	40091	Unsigned Integer	1	R/W	U0 /2 /10		DO measurement unit (0=mg/l, 2=ppm , 10= %sat)
Alt/Press unit	40092	Unsigned Integer	1	R/W	U13 /43 /45 /47		Altitude or pressure unit
Temp unit	40093	Unsigned Integer	1	R/W	U25 /26		Temp measurement unit
LegacySensorCode	40094	String	5	R			
LegacySensorName	40099	String	6	R			
Signal Avg	40105	Unsigned Integer	1	R/W		0 /999	Sig Avg (Filter)
Log Interval	40106	Unsigned Integer	1	R/W	0 /1 /2 /3 /4 /5 /6 /7		Data log interval setup
LegacyLEDOperation	40107	Unsigned Integer	1	R		0 /1	
Function Code	40108	Unsigned Integer	1	R/W		0 /65535	Menu function code
Next state	40109	Unsigned Integer	1	R		0 /65535	Menu next state
DO	40110	Unsigned Integer	1	R		0 /0	DO display tag
Temperature	40111	Unsigned Integer	1	R		0 /0	Temp display tag
Alt or press	40112	Unsigned Integer	1	R		0 /0	Alt or press display tag
Sample value	40113	Unsigned Integer	1	R		0 /21.0	Sample value tag
Offset	40114	Unsigned Integer	1	R		0 /0	Cal offset display tag
Serial Number	40115	String	6	R/W			Instrument serial number
Output mode	40121	Unsigned Integer	1	R	0 /1 /2		Output mode during cal (Act=0, Hold=1, Transfer 2)
Abort query	40122	Unsigned Integer	1	R/W	0 /1 /2		Menu abort (Abort=0, Back=1, Leave=2)
NoYes query	40123	Unsigned Integer	1	R/W	0 /1		Menu no/yes query(No=0, Yes=1)
DO (integer mg/l)	40124	Integer	1	R		-5 /21	Integer DO in mgl
DO (integer ppm)	40125	Integer	1	R		-5 /21	Integer DO in ppm
DO (integer %)	40126	Integer	1	R		0 /200	Integer Do in percent
Temperature (integer F)	40127	Integer	1	R		0 /122	Integer Temp in F
Temperature (integer C)	40128	Integer	1	R		0 /50	Integer Temp in C
Name	40129	String	8	R/W			Assigned sensor name
Clean interval	40137	Unsigned Integer	1	R/W		0 /90	Clean interval in days
Sensor life	40138	Unsigned Integer	1	R		0 /1830	Life in days
Boot version	40139	Float	2	R		0 /10	Boot code version
Driver version	40141	Unsigned Integer	1	R		0 /100	Device driver version
Days to clean	40142	Unsigned Integer	1	R		0 /365	Days remaining until cleaning is required
SENSOR LIFE	40143	Unsigned Integer	1	R/W	0 /1 /2 /3 /4 /5 /6		
Cap Lot Code	40144	Unsigned Integer	1	R		0 /65535	Lot code of the sensor cap
Offset	40145	Float	2	R		-50 /50	Offset in set meas unit
AltPress	40147	Float	2	R		-5000 /15000	Alt or Press in set unit

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Name	Register	Data Type	Length	Access Mode	Discrete Range	Min / Max	Description
Ref voltage	40149	Float	2	R		0 /1024.0	
Int temp	40151	Float	2	R		0 /1024.0	
Int pressure	40153	Float	2	R		0 /1024.0	
Int humidity	40155	Float	2	R		0 /1024	
5V	40157	Float	2	R		0 /1024	
LotCode	40159	Unsigned Integer	1	R/W		0 /65535	
Crc	40160	Unsigned Integer	1	R/W		0 /65535	
TestCapProgStatus	40161	Unsigned Integer	1	R		0 /65535	
TestCodeWriStatus	40162	Unsigned Integer	1	R		0 /65535	
pO2	40163	Float	2	R			
SysChange	40165	Unsigned Integer	1	R		0 /10	

## 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



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