Modbus Register
NT3100 sc

V 1.06

HACH®

Be Right™

NT3100 sc V 1.06

Name	Register	Data Type	Length	Access Mode	Discrete Range	Min / Max	Description
Nitrate	40001	Float	2	R	MEAS UNITS	NO3	
Nitrogen in Nitrate	40003	Float	2	R	MEAS UNITS	NO3-N	
TOTAL NITROGEN	40005	Float	2	R	MEAS UNITS	NOx	
TOTAL NITROGEN NOx-N	40007	Float	2	R	MEAS UNITS	NOx-N	
LOCATION	40030	String	8	R/W			
DISPLAY PARAMETER NT3100	40039	Unsigned Integer	1	R/W			0/1/2/3
MEAS UNITS	40040	Unsigned Integer	1	R/W			U0/2
MEAS. INTERVAL	40041	Unsigned Integer	1	R/W			0/1/2/3/4/5
SIGNAL AVG	40042	Unsigned Integer	1	R/W			
CLEANING INTERVAL	40043	Unsigned Integer	1	R/W			0/1/2/3/4/5/6/7
WIPER MODE	40044	Unsigned Integer	1	R/W			0/1/2
BYPASS	40045	Unsigned Integer	1	R/W			0/1
OUTPUT MODE	40046	Unsigned Integer	1	R/W			0/1/2/3
SERVICE REMINDER	40047	Unsigned Integer	1	R/W			0/1/2/3/4
REMINDER INTERVAL	40048	Unsigned Integer	1	R/W			0/1/2/3/4/5
OFFSET NO3	40059	Float	2	R/W	MEAS UNITS	NO3	
OFFSET NOx	40059	Float	2	R/W	MEAS UNITS	NOx	
OFFSET NO3N	40061	Float	2	R/W	MEAS UNITS	NO3-N	
OFFSET NOxN	40061	Float	2	R/W	MEAS UNITS	NOx-N	
CAL. INTERVAL NOX/NOX-N	40065	Unsigned Integer	1	R/W			0/1/2/3/4
CAL. INTERVAL NO3/NO3-N	40065	Unsigned Integer	1	R/W			0/1/2/3/4
CALIBRATION NO3/NO3-N	40066	Integer	2	R	days		
CALIBRATION NOX/NOX-N	40066	Integer	2	R	days		
SERIAL NUMBER	40070	String	6	R			
PART NUMBER	40076	Unsigned Integer	1	R			0/1/2
SOFT VERSION BOOT CODE	40077	Float	2	R			
SOFT VERSION APPLICATION	40079	Float	2	R			
SOFT VERSION DEVICE DRIVER	40081	String	6	R			
Nitrate Raw	40093	Float	2	R			
Nitrogen in Nitrate Raw	40095	Float	2	R			
TOTAL NITROGEN Raw	40097	Float	2	R			
TOTAL NITROGEN NOx-N Raw	40099	Float	2	R			
DEXT1	40101	Float	2	R	mE		
DEXT2	40103	Float	2	R	mE		

HACH®
Be Right™

Name	Register	Data Type	Length	Access Mode	Discrete Range	Min / Max	Description
WIPER POSITION	40105	Unsigned Integer	1	R			0/1/2/3
DRIVE CURRENT	40106	Unsigned Integer	1	R	mA		
PEAK CURRENT	40107	Unsigned Integer	1	R	mA		
HUMIDITY	40108	Integer	1	R	%		
HUMIDITY MAINBOARD	40109	Integer	1	R	%		
HUMIDITY FLASHBOARD	40110	Integer	1	R	%		
TEMPERATURE	40111	Float	2	R	C		
TEMPERATURE MAINBOARD	40113	Float	2	R	C		
TEMPERATURE FLASHBOARD	40115	Float	2	R	C		
TEMPERATURE HEATERBOARD	40117	Float	2	R	C		
POSA DETECTOR A	40119	Unsigned Integer	1	R	mV		
POSB DETECTOR B	40120	Unsigned Integer	1	R	mV		
POSC DETECTOR C	40121	Unsigned Integer	1	R	mV		
WIPER BLADE COUNTER	40122	Unsigned Integer	2	R			
LAMP FLASHES	40124	Unsigned Integer	2	R			
FILT FLASHES	40126	Unsigned Integer	2	R			
MOTOR COUNT	40128	Unsigned Integer	2	R			
OPERATION TIME	40130	Unsigned Integer	2	R	h		
WIPER BLADE	40132	Integer	1	R	days		
SERVICE DUE	40133	Integer	1	R	days		
SHAFT SEALS	40134	Integer	1	R	days		
SEALS	40135	Integer	1	R	days		
CAL. TYPE NO3M2	40136	Unsigned Integer	1	R			0/1/2
NO3 M2 A	40137	Float	2	R			
NO3 M2 B	40139	Float	2	R			
NO3 M2 C	40141	Float	2	R			
NO3 M2 D	40143	Float	2	R			
SLUDGE MODE	40359	Unsigned Integer	1	R/W			0/1/2
	40364	Float	2	R			
	40366	Float	2	R			
	40368	Float	2	R			
	40370	Float	2	R			
	40372	Float	2	R			
	40374	Float	2	R			
	40376	Float	2	R			
	40376	Float	2	R			
	40378	Float	2	R			

HACH®
Be Right™

NT3100 sc V 1.06

Name	Register	Data Type	Length	Access Mode	Discrete Range	Min / Max	Description
	40378	Float	2	R			
	40380	Float	2	R			
	40380	Float	2	R			
	40382	Float	2	R			
	40382	Float	2	R			
	40384	Unsigned Integer	1	R			0/1/2/3/4
	40387	Float	2	R			
	40389	Float	2	R			
	40391	Float	2	R			
	40393	Unsigned Integer	1	R			
	40394	Unsigned Integer	1	R			
	40395	Unsigned Integer	1	R			
	40396	Unsigned Integer	1	R			
	40397	Float	2	R/W			
	40399	Float	2	R/W			
	40401	Float	2	R/W	mg /l		
	40403	Float	2	R/W	mg /l		
	40405	Float	2	R			
	40407	Float	2	R			
	40409	Unsigned Integer	1	R			
	40410	String	1	R			
	40411	Time2	2	R/W			
	40413	String	8	R			

HACH®
Be Right™

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