

# Modbus Register NISE sc

V1.02

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| Name                            | Register | Data Type        | Length | Access Mode | Discrete Range         | Min / Max          | Description |
|---------------------------------|----------|------------------|--------|-------------|------------------------|--------------------|-------------|
| Nitrate NO3-N                   | 40001    | Float            | 2      | R           |                        | 0 /1500            |             |
| Nitrate NO3                     | 40003    | Float            | 2      | R           |                        | 0 /6643            |             |
| Chloride                        | 40005    | Float            | 2      | R           |                        | 0 /1500            |             |
| TEMPERATURE [C]                 | 40007    | Float            | 2      | R           |                        | 0 /60              |             |
| TEMPERATURE [F]                 | 40009    | Float            | 2      | R           |                        | -54 /180           |             |
| Chlorine compensation           | 40013    | Unsigned Integer | 1      | R/W         | 0 /1                   |                    |             |
| Logger Interval                 | 40014    | Unsigned Integer | 1      | R/W         | 0 /1 /2 /3 /4 /5 /6 /7 |                    |             |
| Response Interval               | 40015    | Unsigned Integer | 1      | R/W         |                        | 10 /1800           |             |
| TEMP UNITS                      | 40016    | Unsigned Integer | 1      | R/W         | U25 /26                |                    |             |
| SET PARAMETER                   | 40017    | Unsigned Integer | 1      | R/W         | 0 /1                   |                    |             |
| MEAS UNITS                      | 40018    | Unsigned Integer | 1      | R/W         | U0 /2                  |                    |             |
| TEMP ADJUST [C]                 | 40019    | Float            | 2      | R/W         |                        | -1.5 /1.5          |             |
| TEMP ADJUST [F]                 | 40021    | Float            | 2      | R/W         |                        | -2.7 /2.7          |             |
| Location                        | 40024    | String           | 8      | R/W         |                        |                    |             |
| SENSORCODE                      | 40033    | String           | 8      | R/W         |                        |                    |             |
| CART. NO.                       | 40041    | Unsigned Integer | 2      | R           |                        | 0 /9999999         |             |
| SERIAL NUMBER                   | 40043    | String           | 6      | R/W         |                        |                    |             |
| AC Code Version                 | 40049    | Float            | 2      | R           |                        | 0 /3.40282347 E+38 |             |
| BC Code Version                 | 40051    | Float            | 2      | R           |                        | 0 /3.40282347 E+38 |             |
| Structure DD                    | 40053    | Unsigned Integer | 1      | R           |                        | 0 /255             |             |
| Content DD                      | 40054    | Unsigned Integer | 1      | R           |                        | 0 /255             |             |
| Firmware DD                     | 40055    | Unsigned Integer | 1      | R           |                        | 0 /255             |             |
| Moist [%]                       | 40056    | Unsigned Integer | 1      | R           |                        | 0 /100             |             |
| CI substitute value             | 40058    | Float            | 2      | R/W         |                        | 0 /1500            |             |
| Nitrate mV                      | 40060    | Float            | 2      | R           |                        | -2000 /2000        |             |
| Nitrate Drift                   | 40062    | Float            | 2      | R           |                        | -2000 /2000        |             |
| Nitrate Noise                   | 40064    | Float            | 2      | R           |                        | -2000 /2000        |             |
| Chloride mV                     | 40066    | Float            | 2      | R           |                        | -2000 /2000        |             |
| Chloride Drift                  | 40068    | Float            | 2      | R           |                        | -2000 /2000        |             |
| Chloride Noise                  | 40070    | Float            | 2      | R           |                        | -2000 /2000        |             |
| Reference mV                    | 40072    | Float            | 2      | R           |                        | -2000 /2000        |             |
| Reference Drift                 | 40074    | Float            | 2      | R           |                        | -2000 /2000        |             |
| Reference Noise                 | 40076    | Float            | 2      | R           |                        | -2000 /2000        |             |
| Reference 2 [mV]                | 40078    | Float            | 2      | R           |                        | -2000 /2000        |             |
| Temperatur [mV]                 | 40084    | Float            | 2      | R           |                        | -2000 /2000        |             |
| Date of point Matrix 1 Nitrate  | 40091    | Time2            | 2      | R           |                        |                    |             |
| Nitrate point Matrix 1          | 40093    | Float            | 2      | R/W         |                        | 0 /1500            |             |
| Date of point Matrix 1 Chloride | 40095    | Time2            | 2      | R           |                        |                    |             |

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| Chloride point Matrix 1          | 40097    | Float     | 2      | R/W         |                | 0 /1500     |             |
| Date of point 1 Matrix 2 Nitrate | 40099    | Time2     | 2      | R           |                |             |             |
| Nitrate point 1Matrix 2          | 40101    | Float     | 2      | R/W         |                | 0 /1500     |             |
| Date of point 2 Matrix 2 Nitrate | 40103    | Time2     | 2      | R           |                |             |             |
| Nitrate point 2 Matrix 2         | 40105    | Float     | 2      | R/W         |                | 0 /1500     |             |
| Slope NO3-N                      | 40126    | Float     | 2      | R           |                |             |             |
| Offset NO3-N                     | 40128    | Float     | 2      | R           |                |             |             |
| Slope CL-                        | 40132    | Float     | 2      | R           |                |             |             |
| Offset CL-                       | 40134    | Float     | 2      | R           |                |             |             |
| NO3 impedance                    | 40146    | Float     | 2      | R           |                |             |             |
| CL impedance                     | 40148    | Float     | 2      | R           |                |             |             |
| Phd impedance                    | 40150    | Float     | 2      | R           |                |             |             |
| REF2 impedance                   | 40152    | Float     | 2      | R           |                |             |             |
| GNDROD                           | 40174    | Integer   | 1      | R/W         |                | -1000 /1000 |             |

## 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              |