# Modbus Register
# TU5300 sc

V 1.43

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| Name | Register | Data Type | Length | Access Mode | Discrete Range | Min / Max | Description |
|---|---|---|---|---|---|---|---|
| TURBIDITY FNU / FTU / NTU / TEF | 40001 | Float | 2 | R | FNU | TRB | |
| TURBIDITY PSL | 40001 | Float | 2 | R | MEAS UNIT5400 DEG | TRB | |
| TURBIDITY mNTU / mFNU | 40003 | Float | 2 | R | mNTU | TRB | |
| TURBIDITY EBC | 40005 | Float | 2 | R | EBC | TRB | |
| RSD | 40007 | Float | 2 | R | % | | |
| FLOW RATE | 40009 | Float | 2 | R | L /min | | |
| TURBIDITY MIN | 40012 | Float | 2 | R | | | |
| TURBIDITY MAX | 40014 | Float | 2 | R | | | |
| EDITED NAME | 40021 | String | 8 | R/W | | | |
| RESPONSE TIME | 40029 | Unsigned Integer | 1 | R/W | s | | |
| MEAS UNIT 5400 | 40030 | Unsigned Integer | 1 | R/W | | | U7/6/8/9/20/41/42 |
| MEAS UNIT5400 DEG | 40030 | Unsigned Integer | 1 | R/W | | | 60 |
| SET RESOLUTION | 40031 | Unsigned Integer | 1 | R/W | | | 0/1 |
| BUBBLE REJECT | 40032 | Unsigned Integer | 1 | R/W | | | 1/0 |
| LOGGER INTERVAL | 40033 | Unsigned Integer | 1 | R/W | | | 0/1/2/3/4/5/6/7 |
| BUTTON FUNCTION | 40034 | Unsigned Integer | 1 | R/W | | | 0/1/2/3/4 |
| FLOW SENSOR | 40037 | Unsigned Integer | 1 | R/W | | | 1/0 |
| CLEANING UNIT | 40038 | Unsigned Integer | 1 | R/W | | | 1/0 |
| CHECK INTERVAL | 40039 | Unsigned Integer | 1 | R/W | | | 0/1/2/3/4/5/6 |
| SENSITIVITY | 40040 | Unsigned Integer | 1 | R/W | | | 0/1 |
| CLEANING INTERVAL | 40041 | Unsigned Integer | 1 | R/W | | | 0/1/2/3/4 |
| CLEANING REMINDER | 40042 | Unsigned Integer | 1 | R/W | | | 1/0 |
| CLEANING LEVEL | 40043 | Unsigned Integer | 1 | R/W | | | 1/0 |
| THRESHOLD NTU | 40044 | Float | 2 | R/W | NTU | TRB | |
| THRESHOLD PSL | 40046 | Float | 2 | R/W | DEG | TRB | |
| OUTPUT DELAY | 40051 | Unsigned Integer | 1 | R/W | s | | |
| ACM SOFT VERSION | 40052 | Unsigned Integer | 1 | R | | | |
| CALIBRATION CURVE | 40053 | Unsigned Integer | 1 | R/W | | | 0/1/2 |
| CALIBRATION RANGE | 40054 | Unsigned Integer | 1 | R/W | | | 0/1 |
| COUNT OF CALIBRATION POINTS | 40055 | Unsigned Integer | 1 | R/W | | | |
| VERIFY AFTER CAL | 40056 | Unsigned Integer | 1 | R/W | | | 1/0 |
| CALIBRATION MENU GUIDED | 40057 | Unsigned Integer | 1 | R/W | | | 1/2/0 |

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|---|---|---|---|---|---|---|---|
| SET OUTMODE CALIBRATION | 40058 | Unsigned Integer | 1 | R/W | | | 0/1/2 |
| CALIBRATION REMINDER | 40059 | Unsigned Integer | 1 | R/W | | | 0/1/2/3/4 |
| VERIFICATION MENU GUIDED | 40095 | Unsigned Integer | 1 | R/W | | | 1/2/0 |
| SET OUTMODE VERIFICATION | 40096 | Unsigned Integer | 1 | R/W | | | 0/1/2 |
| VERIFICATION INTERVALL | 40097 | Unsigned Integer | 1 | R/W | | | 0/1/2/3/4 |
| VERIFICATION STANDARD NTU | 40098 | Float | 2 | R/W | NTU | | |
| ACCEPT RANGE VALUE | 40100 | Float | 2 | R/W | NTU | | |
| ACCEPT RANGE % | 40102 | Unsigned Integer | 1 | R/W | % | | |
| ACCEPT RANGE UNIT | 40103 | Unsigned Integer | 1 | R/W | % | | U7/10/60 |
| SET OUTMODE MNT/TEST | 40115 | Unsigned Integer | 1 | R/W | | | 0/1/2 |
| SERIAL NUMBER | 40116 | String | 6 | R/W | | | |
| PROGRAM | 40122 | Float | 2 | R | | | |
| BOOTPROGRAM | 40124 | Float | 2 | R | | | |
| STRUCTURE | 40126 | String | 3 | R | | | |
| PROGRAM AU | 40131 | Unsigned Integer | 1 | R | | | |
| SERIAL NUMBER AU | 40132 | Unsigned Integer | 2 | R/W | | | |
| SER NO PCB AU | 40134 | Unsigned Integer | 2 | R/W | | | |
| SER NO LASER | 40136 | Unsigned Integer | 2 | R/W | | | |
| VIAL CONDENSATION STATE | 40139 | Unsigned Integer | 1 | R | | | 0/1/2/3 |
| VIAL CONDITION STATE | 40140 | Unsigned Integer | 1 | R | | | 0/1/2/3 |
| VIAL CONDENSATION | 40141 | Integer | 1 | R | % | | |
| VIAL CONDITION | 40142 | Integer | 1 | R | % | | |
| TOTAL TIME SENSOR | 40177 | Unsigned Integer | 1 | R | days | | |
| WIPER REPLACE | 40178 | Unsigned Integer | 1 | R | Counts | | |
| VIAL DATE | 40179 | Time2 | 2 | R | Counts | | |
| VIAL CLEANING DATE | 40181 | Time2 | 2 | R | Counts | | |
| CALIBRATION | 40183 | Time2 | 2 | R | Counts | | |
| VERIFICATION | 40185 | Time2 | 2 | R | Counts | | |
| FACTORY SERVICE | 40187 | Time2 | 2 | R | Counts | | |
| DESICCANT TIME | 40189 | Unsigned Integer | 1 | R | days | | |
| LOAD | 40190 | Unsigned Integer | 1 | R | % | | |
| PUMP TIME | 40191 | Unsigned Integer | 2 | R | h | | |
| VIAL PRESENT | 40193 | Unsigned Integer | 1 | R | | | 0/1 |

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|---|---|---|---|---|---|---|---|
| LID TYPE | 40194 | Unsigned Integer | 1 | R | | | 0/1/2 |
| MEAS RAW | 40195 | Float | 2 | R | nA | | |
| REF RAW | 40197 | Float | 2 | R | nA | | |
| HEATER | 40199 | Float | 2 | R | C | | |
| RATIO P/L | 40209 | Unsigned Integer | 1 | R | % | | |
| HUMIDITY | 40210 | Float | 2 | R | % | | |
| TEMP CONDENS | 40212 | Float | 2 | R | C | | |
| SET POINT | 40214 | Unsigned Integer | 1 | R | % | | |
| RATIO P/L WEEK | 40219 | Unsigned Integer | 1 | R | % | | |

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## 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 |