

spectro::lyser™ industrial

spectro::lyser™ monitors depending on the application an individual selection of: TSS, turbidity, NO₃-N, COD, BOD, TOC, DOC, UV254, NO₂-N, color, BTX, O₃, HS-, AOC, fingerprints, spectral alarms and temperature

- s::can plug & measure
- measuring principle: UV-Vis spectrometry over the total range (190-750 nm)
- ideal for industrial waste water and sewer applications
- explosion proof specification according to RL 2014/34/EU, TÜV-A16 ATEX
- factory precalibrated, with advanced calibration service included
- long term stable and maintenance free in operation
- automatic cleaning with compressed air
- mounting and measurement directly in the media (InSitu) or in a flow cell (monitoring station)
- multiparameter probe with adjustable open path length
- adaption of optical path lengths to 35 mm, 15 mm, 5 mm, 2 mm, 1 mm or 0.5 mm possible
- easy mounting without clogging



**up to 10 bar
operating pressure**



**explosion proof
specification**



**advanced calibration
service**

recommended accessories

| part number | article name |
|---------------|--|
| A-500-s | Inserts for optical pathlength 0.5 mm, sapphire |
| A-001-s | Inserts for optical pathlength 1 mm, sapphire |
| A-002-s | Inserts for optical pathlength 2 mm, sapphire |
| A-005-s | Inserts for optical pathlength 5 mm, sapphire |
| A-015-s | Inserts for optical pathlength 15 mm, sapphire |
| D-315-xxx | con::cube |
| S-11-xx-moni | moni::tool Software |
| F-120-spectro | carrier s::can™ spectrometer probe |
| F-48-spectro | s::can spectrometer flow-cell (by-pass setup), PVC |



technical specification

| | | | |
|--|---|-------------------------------|--|
| measuring principle | UV-Vis spectrometry 190 - 750 nm UV spectrometry 190 - 390 nm | cable type | PU jacket |
| measuring principle detail | xenon flash lamp, 256 photo diodes | housing material | stainless steel 1.4404 |
| automatic compensation instrument | two beam measurement, complete spectrum | window material | optical path length 15 ... 0.5 mm: sapphire optional: optical path length 35 ... 5 mm: fused silica (UV-grade) |
| automatic compensation cross sensitivities | turbidity / solids / organic substances | weight (min.) | 3.4 kg (incl. cable) |
| precalibrated ex-works | all parameters | dimensions (Ø x l) | optical path length 35 ... 0.5 mm: 44 x 547 mm / 591 mm |
| accuracy standard solution (>1 mg/l) | NO ₃ -N: +/- 2% +1/OPL[mg/l]* COD-KHP: +/-2% +10/OPL[mg/l]* (* OPL ... optical pathlength in mm) | operating temperature | 0 ... 45 °C |
| access to raw signals | access to spectral information | storage temperature | -10 ... 50 °C |
| reference standard | distilled water | storage humidity | 5 ... 90 % (non condensing) |
| onboard memory | 656 KB | operating pressure | 0 ... 10 bar |
| integrated temperature sensor | -10 ... 50 °C | explosion proof specification | RL 2014/34/EU, TÜV-A16 ATEX 3001Q |
| resolution temperature sensor | 0.1 °C | installation / mounting | submersed or in a flow cell |
| integration via | con::cube con::lyte con::nect | flow velocity | 3 m/s (max.) |
| power supply | 11 ... 15 VDC | ingress protection class | IP68 |
| power consumption (typical) | 4.2 W | automatic cleaning | compressed air or automatic brush |
| power consumption (max.) | 20 W | conformity - EMC | EN 61326-1, EN 61326-2-3 |
| interface to s:can terminals | MIL connector (IP67), RS485 | warranty standard | 2 years |
| interface to third party terminals | con::nect incl. gateway modbusRTU | extended warranty (optional) | 3 years |
| cable length | 7.5 m fixed cable (-075) or 1 m fixed cable (-010) | | |

paper mill WWTP influent

| | | concentration ranges and sensor/probe type for this application | | | | | part number |
|--|------|---|------------|--------------|---------------|-----------------|---|
| | | TSS [mg/l] | COD [mg/l] | COD f [mg/l] | UV254 [Abs/m] | UV254 f [Abs/m] | |
| spectro::lyser™ UV-Vis (TSS, COD, CODf, UV254, UV254f) | min. | 0 | 0 | 0 | 0 | 0 | SP-1-002-p0-s-EX-010 / -075 (incl. Global Calibration p1) |
| | max. | 3000 | 5000 | 4250 | 1250 | 1000 | |

paper mill WWTP effluent

| | | concentration ranges and sensor/probe type for this application | | | | | part number | |
|--|------|---|---------------------------|------------|--------------|---------------|-----------------|---|
| | | TSS [mg/l] | NO ₃ -N [mg/l] | COD [mg/l] | COD f [mg/l] | UV254 [Abs/m] | UV254 f [Abs/m] | |
| spectro::lyser™ UV-Vis (TSS, NO ₃ -N, COD, CODf, UV254, UV254f) | min. | 0 | 0 | 0 | 0 | 0 | 0 | SP-1-002-p0-s-EX-010 / -075 (incl. Global Calibration q1) |
| | max. | 1000 | 10 | 350 | 350 | 1250 | 1000 | |

brewery WWTP influent

| | | concentration ranges and sensor/probe type for this application | | | | part number |
|--|------|---|------------|---------------|-----------------|---|
| | | TSS [mg/l] | COD [mg/l] | UV254 [Abs/m] | UV254 f [Abs/m] | |
| spectro::lyser™ UV-Vis (TSS, COD, UV254, UV254f) | min. | 0 | 0 | 0 | 0 | SP-1-002-p0-s-EX-010 / -075 (incl. Global Calibration b1) |
| | max. | 5000 | 45000 | 1250 | 1000 | |

dairy WWTP influent

| | | concentration ranges and sensor/probe type for this application | | | | | part number | |
|--|------|---|---------------------------|------------|--------------|---------------|-----------------|---|
| | | TSS [mg/l] | NO ₃ -N [mg/l] | COD [mg/l] | COD f [mg/l] | UV254 [Abs/m] | UV254 f [Abs/m] | |
| spectro::lyser™ UV-Vis (TSS, NO ₃ -N, COD, CODf, UV254, UV254f) | min. | 0 | 0 | 0 | 0 | 0 | 0 | SP-1-500-p0-s-EX-010 / -075 (incl. Global Calibration m1) |
| | max. | 6000 | 80 | 12500 | 6000 | 2500 | 2000 | |

municipal sewer

| | | concentration ranges and sensor/probe type for this application | | | | | | | part number | |
|--|------|---|---------------------------|------------|--------------|------------|---------------|-----------------|-------------|---|
| | | TSS [mg/l] | NO ₃ -N [mg/l] | COD [mg/l] | COD f [mg/l] | BOD [mg/l] | UV254 [Abs/m] | UV254 f [Abs/m] | HS- [mg/l] | |
| spectro::lyser™ UV-Vis (TSS, NO ₃ -N, COD, BOD, UV254, UV254f) | min. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | SP-1-002-p0-s-EX-010 / -075 (incl. Global Calibration i3) |
| | max. | 3000 | 40 | 3750 | | 2000 | 1250 | 1000 | | |
| spectro::lyser™ UV-Vis (TSS, NO ₃ -N, COD, CODf, UV254, UV254f) | min. | 0 | 0 | 0 | 0 | | 0 | 0 | | SP-1-002-p0-s-EX-010 / -075 (incl. Global Calibration i1) |
| | max. | 3000 | 40 | 3750 | 1250 | | 1250 | 1000 | | |
| spectro::lyser™ UV-Vis (TSS, NO ₃ -N, COD, HS-, UV254, UV254f) | min. | 0 | 0 | 0 | | | 0 | 0 | 0 | SP-1-002-p0-s-EX-010 / -075 (incl. Global Calibration i5) |
| | max. | 3000 | 40 | 3750 | | | 1250 | 1000 | 25 | |