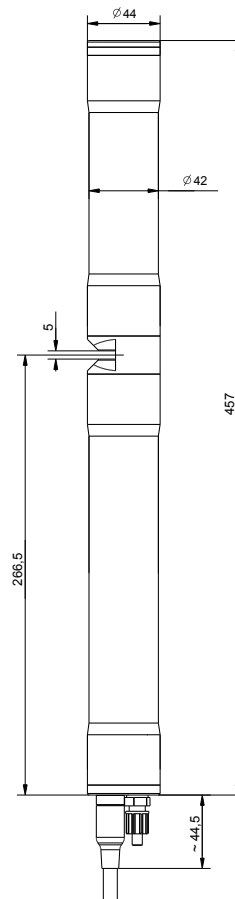


spectro::lyser V3

spectro::lyser® UV-Vis monitors depending on the application an individual selection of: TSS, TS, turbidity, color, TOC, DOC, BOD, COD, NO₃-N, NO₃, HS-, O₃, CLD, UV254, fingerprints, spectral alarms and temperature

- measuring principle: UV-Vis spectrometry over the total range (190-750 nm)
- web server on board
- communicates directly with your mobile device via WLAN
- choose exactly the parameters you want to measure – unlimited number of parameters possible
- 8 GB onboard memory - capacity for logging data for many years
- improved optical performance - revolutionary precision
- fast measurement interval - every 30 seconds possible
- extremely power efficient - sleep mode for low energy consumption
- multiparameter probe with 1 mm, 5 mm or 35 mm optical path length, ideal for waste water, surface water and drinking water
- non aging optics, long term stable and maintenance free in operation
- factory precalibrated, local multi-point calibration possible
- automatic cleaning with compressed air or brush/ruck::sack
- no consumables
- automatic compensation against multiple cross-sensitivities by unique chemometrics (e.g. turbidity)
- simple web interface for visualization & operation



technical specification

measuring principle	UV-Vis spectrometry 200 - 750 nm	network connection	100Base-T Ethernet, WLAN
measuring principle detail	xenon flash lamp, pixel array detector	status information	RGB LED ring
measurement interval	30 sec (configurable, depending on application)	cable length	1 m fixed cable (-010) or 7.5 m fixed cable (-075) or 15 m fixed cable (-150)
automatic compensation instrument	real dual beam measurement for compensation and detailed diagnostics	cable type	PU jacket
automatic compensation cross sensitivities	turbidity / solids / organic substances	housing material	stainless steel 1.4404 (optional titanium)
precalibrated ex-works	all parameters	window material	optical path length 5 and 1 mm: sapphire optical path length 35 mm: fused silica (UV-grade)
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)	weight (min.)	3.4 kg (incl. cable)
access to raw signals	access to spectral information	dimensions (Ø x l)	optical path length 35 mm: 44 x 473 mm / 517.5 mm optical path length 5 mm: 44 x 457 mm / 501.5 mm optical path length 1 mm: 44 x 453 mm / 497.5 mm
reference standard	distilled water	operating temperature	0 ... 50 °C
onboard memory	8 GB	operating pressure	0 ... 3 bar
integrated temperature sensor	0 ... 45 °C	installation / mounting	submersed or in a flow cell
resolution temperature sensor	0.1 °C	flow velocity	3 m/s (max.)
integration via	con::cube V3 con::nect V3 con::lyte V5 (D-320-pro2) and adapter cable (C-32-V3)	mechanical stability	30 Nm
power supply	10 ... 18 VDC	ingress protection class	IP68
power consumption (typical)	3 W	automatic cleaning	media: compressed air or autobrush permissible pressure: 3 ... 6 bar
power consumption (sleep model)	60 mW	storage temperature	-10 ... 65 °C
power consumption (max.)	20 W	conformity - environmental testing	EN 60721-3
interface to s::can terminals	M12 RSTS 8Y (IP67), RS485, Ethernet	conformity - EMC	EN 61326-1
interface to third party terminals	con::nect V3 incl. Modbus RTU, REST API, Modbus TCP/IP	conformity - RoHS 2	EN 50581
digital interface (for cleaning devices)	1 digital in/out 1 digital out	standard guarantee	1 years
internal sensors	supply voltage sensor, tilt sensor, rotation sensor	extended guarantee (optional)	3 years

recommended accessories

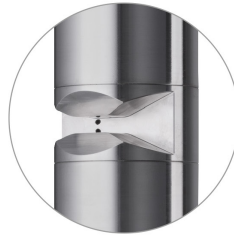
part number	article name
D-330-xxx	con::cube V3
B-33-012	con::nect V3
B-32-xxx	s::can compressor
B-44	cleaning valve
B-44-2	
C-32-V3	Adapter cable to connect a V3 spectrometer (M12) to V2 Terminal (MIL Plug)
F-110-V3	carrier s::can spectrometer V3 & V2 probe, 45°
F-48-V3	spectrometer V3 & V2 flow-cell (bypass setup), PVC
S-11-xx-moni	moni::tool Software
F-146-rs-x	ruck::sack (submersible Autobrush)

The perfect accuracy for every application

The spectro::lyser V3 is available with three different optical path lengths.



drinking water:
35 mm



surface water:
5 mm



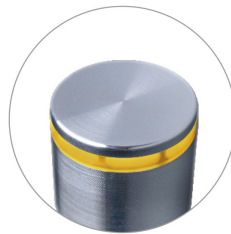
waste water:
1 mm

Optical information ring

The color of the optical information ring signals the state of the sensor.



everything
okay



sensor in
service mode



parameter or device
error

Wireless communication - Io::Tool

Intuitive web interface for data visualization and configuration of the spectro::lyser V3.



municipal WWTP influent & sewer

		parameter												part number
		TSS [mg/l]	color (app) [Hazen]	color (tru) [Hazen]	TOC [mg/l]	DOC [mg/l]	BOD [mg/l]	COD [mg/l]	COD f [mg/l]	NO ₃ -N [mg/l]	HS- [mg/l]	UV254 [Abs/m]	UV254 f [Abs/m]	
spectro::lyser™ V3 (1 mm OPL, UV-Vis)	min.	0	0	0	0	0	0	0	0	0	0	0	0	SP3-1-01-NO-xxx
	max.	8000	23000	14000	3300	2600	5300	10000	5300	100	80	3300	2800	
spectro::lyser™ V3 (5 mm OPL, UV-Vis)	min.	0	0	0	0	0	0	0	0	0	0	0	0	SP3-1-05-NO-xxx
	max.	1200	3500	2100	500	400	800	1500	800	16	12	500	420	

municipal WWTP aeration

		parameter					part number
		TS [g/l]	COD f [mg/l]	NO ₃ -N [mg/l]	UV254 [Abs/m]	UV254 f [Abs/m]	
spectro::lyser™ V3 (1 mm OPL, UV-Vis)	min.	0	0	0	0	0	SP3-1-01-NO-xxx
	max.	20	530	26	3300	2800	

municipal WWTP effluent

		parameter												part number	
		TSS [mg/l]	turbidity [NTU/FTU]	color (app) [Hazen]	color (tru) [Hazen]	TOC [mg/l]	DOC [mg/l]	BOD [mg/l]	COD [mg/l]	COD f [mg/l]	NO ₃ -N [mg/l]	O ₃ [mg/l]	UV254 [Abs/m]		UV254 f [Abs/m]
spectro::lyser™ V3 (1 mm OPL, UV-Vis)	min.	0	0	0	0	0	0	0	0	0	0	0	0	0	SP3-1-01-NO-xxx
	max.	4000	8000	23000	14000	2600	2000	2000	3300	2000	300	1200	3300	2800	
spectro::lyser™ V3 (5 mm OPL, UV-Vis)	min.	0	0	0	0	0	0	0	0	0	0	0	0	0	SP3-1-05-NO-xxx
	max.	600	1200	3500	2100	400	300	300	500	300	45	180	500	420	

paper mill WWTP influent

		parameter						part number
		TSS [mg/l]	COD [mg/l]	COD f [mg/l]	NO ₃ -N [mg/l]	UV254 [Abs/m]	UV254 f [Abs/m]	
spectro::lyser™ V3 (1 mm OPL, UV-Vis)	min.	0	0	0	0	0	0	SP3-1-01-NO-xxx
	max.	8000	13000	11000	100	3300	2800	
spectro::lyser™ V3 (5 mm OPL, UV-Vis)	min.	0	0	0	0	0	0	SP3-1-05-NO-xxx
	max.	1200	2000	1700	16	500	420	

paper mill WWTP effluent

		parameter					part number	
		TSS [mg/l]	COD [mg/l]	COD f [mg/l]	NO ₃ -N [mg/l]	UV254 [Abs/m]		UV254 f [Abs/m]
spectro::lyser™ V3 (1 mm OPL, UV-Vis)	min.	0	0	0	0	0	0	SP3-1-01-NO-xxx
	max.	4000	5300	3300	100	3300	2800	
spectro::lyser™ V3 (5 mm OPL, UV-Vis)	min.	0	0	0	0	0	0	SP3-1-05-NO-xxx
	max.	600	790	490	16	500	420	

brewery WWTP influent

		parameter						part number
		TSS [mg/l]	COD [mg/l]	COD f [mg/l]	NO ₃ -N [mg/l]	UV254 [Abs/m]	UV254 f [Abs/m]	
spectro::lyser™ V3 (1 mm OPL, UV-Vis)	min.	0	0	0	0	0	0	SP3-1-01-NO-xxx
	max.	13000	60000	53000	100	3300	2800	
spectro::lyser™ V3 (5 mm OPL, UV-Vis)	min.	0	0	0	0	0	0	SP3-1-05-NO-xxx
	max.	2000	9000	7900	16	500	420	

dairy WWTP influent

		parameter						part number
		TSS [mg/l]	COD [mg/l]	COD f [mg/l]	NO ₃ -N [mg/l]	UV254 [Abs/m]	UV254 f [Abs/m]	
spectro::lyser™ V3 (1 mm OPL, UV-Vis)	min.	0	0	0	0	0	0	SP3-1-01-NO-xxx
	max.	8000	33000	16000	210	3300	2800	