

spectro::lyser® V3 titanium for Wastewater

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 (200-720 nm)
- ideal for industrial waste water, desalination and sea water
- web server on board - IoT enabled, no user software is needed to configure the probe
- communicates directly with your mobile device via WLAN
- 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
- long term stable and maintenance free in operation
- factory precalibrated, local multi-point calibration possible
- automatic cleaning with compressed air or brush



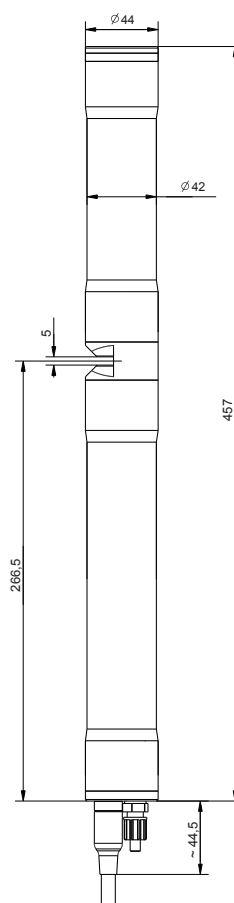
up to 5 bar
operating pressure



up to 50 °C
operating temperature



highly resistant
titanium grade 2



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	
F-140-V3	carrier s::can spectrometer V3 probe, 45°
F-150-V3	carrier s::can spectrometer V3 probe, vertical attachment
S-11-XX-MONI	moni::tool Software
V3-VALI	vali::tool - data validation software for spectrometer V3 probe

technical specification

measuring principle	UV-Vis spectrometry 200 - 720 nm UV spectrometry 200 - 390 nm
measuring principle detail	xenon flash lamp, pixel array detector
measurement interval	30 sec (configurable, depending on application)
automatic compensation instrument	real dual beam measurement for compensation and detailed diagnostics
automatic compensation cross sensitivities	turbidity / solids / organic substances
precalibrated ex-works	all parameters
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)
access to raw signals	access to spectral information
reference standard	distilled water
onboard memory	8 GB
integrated temperature sensor	0 ... 50 °C
resolution temperature sensor	0.1 °C
integration via	con::cube V3 con::nect V3 con::lyte V5 (D-320-pro2) and adapter cable (C-32-V3)
power supply	10 ... 18 VDC
power consumption (typical)	3 W
power consumption (sleep model)	60 mW
power consumption (max.)	20 W
interface to s::can terminals	M12 plug, RS485, Ethernet
interface to third party terminals	con::nect V3 incl. Modbus RTU, REST API, Modbus TCP/IP
digital interface (for cleaning devices)	1 digital in/out 1 digital out
interface software	lo::Tool browser software: multipoint calibration, free formular (incl. logical operators, historic values), display of fingerprint and compensated fingerprint, unlimited parameter display

data transfer	SCP, SFTP, HTTPS
IoT capabilities	remote configuration
internal sensors (can be displayed as parameters)	supply voltage sensor, tilt sensor, rotation sensor
network connection	100Base-T Ethernet, WLAN
status information	RGB LED ring
cable length	1 m fixed cable (-010) or 7.5 m fixed cable (-075) or 15 m fixed cable (-150)
cable type	PU jacket
housing material	titanium grade 2
window material	optical path length 5 and 1 mm: sapphire optical path length 35 mm: fused silica (UV-grade)
weight (min.)	2.2 kg (incl. 7.5 m cable)
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
operating temperature	0 ... 50 °C
operating pressure	0 ... 5 bar
installation / mounting	submersed or in a flow cell
flow velocity	3 m/s (max.)
mechanical stability	30 Nm
ingress protection class	IP68
automatic cleaning	media: compressed air or autobrush permissible pressure: 3 ... 6 bar
storage temperature	-10 ... 65 °C
conformity - environmental testing	EN 60721-3
conformity - EMC	EN 61326-1
conformity - RoHS 2	EN 50581
standard guarantee	1 years
extended guarantee (optional)	3 years

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-TI-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-TI-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-TI-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-TI-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-TI-xxx
	max.	8000	33000	16000	210	3300	2800	