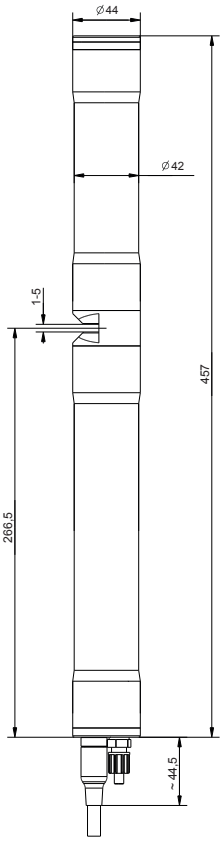
s::can
Intelligent. Optical. Online.

Bluetooth

spectro::lyser® V3

spectro::lyser™ UV-Vis monitors depending on the application an individual selection of: TSS, TS, turbidity, color, TOC, DOC, BOD, COD, NO_3-N, NO_3, HS-, O_3, CLD, UV254, fingerprints, spectral alarms and temperature



- measuring principle: UV-Vis spectrometry over the total range (190-750 nm)
- web server on board - IoT enabled, no user software is needed to configure the probe
- communicates directly with your mobile device via Bluetooth or 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 10 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
- long term stable and maintenance free in operation
- factory precalibrated, local multi-point calibration possible
- automatic cleaning with compressed air or brush/ruck::sack

recommended accessories	
part number	**article name**
B-32-xxx	s::can compressor
B-33-012	con::nect V3
B-44 B-44-2	cleaning valve
D-330-xxx	con::cube V3
F-110-V3	carrier s::can spectrometer V3 & V2 probe, 45 degree
F-120-V3	carrier s::can spectrometer V3 & V2 probe, vertical
F-48-V3	spectrometer V3 & V2 flow-cell (by-pass setup), PVC
S-11-xx-moni	moni::tool Software

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technical specification

measuring principle	UV-Vis spectrometry 190 - 750 nm
measuring principle detail	xenon flash lamp, pixel array detector
automatic compensation instrument	real dual beam measurement for compensation and detailed diagnostics
automatic compensation of 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 ... 45 °C
resolution temperature sensor	0.1 °C
integration via	con::cube V3 (D-330-xxx) con::nect V3 (B-33-012) 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 mode)	60 mW
power consumption (max.)	20 W
interface to s::can terminals	M12 RSTS 8Y (IP67), RS485, Ethernet
interface to third party terminals	con::nect V3 incl. Modbus RTU, REST API
digital interface (for cleaning devices)	1 digital in/out 1 digital out
network connection	100Base-T Ethernet, Bluetooth, WLAN
measurement interval	10 sec (configurable, depending on application)

status information	RGB LED ring
internal sensors	supply voltage sensor, tilt sensor, rotation sensor
cable length	1 m fixed cable (-010) or 7.5 m fixed cable (-075) or 15 m fixed cable (-150) or 30 m fixed cable (-300)
cable type	PU jacket
housing material	stainless steel 1.4404
window material	optical path length 5 and 1 mm: sapphire optical path length 35 mm: fused silica (UV-grade)
weight (min.)	3.4 kg (incl. 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 ... 45 °C
storage temperature	-10 ... 65 °C
operating pressure	0 ... 3 bar
high pressure specification (optional)	10 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
conformity environmental testing	EN 60721-3
conformity - EMC	EN 61326-1
conformity - RoHS2	EN 50581
standard warranty	2 years
extended warranty (optional)	3 years

municipal WWTP influent & sewer

		parameter													
		TSS [mg/l]	color (app) [Hazen]	color (true) [Hazen]	TOC [mg/l]	DOC [mg/l]	BOD [mg/l]	COD [mg/l]	COD f [mg/l]	NO_3-N [mg/l]	NO_3^- [mg/l]	HS^- [mg/l]	UV254 t [Abs/m]	UV254 f [Abs/m]	part number
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.	1200	3500	2100	500	400	800	1500	800	16	70	12	500	420	
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.	8000	23000	14000	3300	2600	5300	10000	5300	100	460	80	3300	2800	
parameter part no.		GC-I-TSS	GC-I-COL		GC-I-TOC		GC-I-BOD	GC-I-COD		GC-I-NO3-N		GC-I-HS	GC-I-UV254		

municipal WWTP aeration

		parameter						
		TS [g/l]	COD f [mg/l]	NO_3-N [mg/l]	NO_3^- [mg/l]	UV254 t [Abs/m]	UV254 f [Abs/m]	part number
spectro::lyser™ V3 (1 mm OPL, UV-Vis)	min.	0	0	0	0	0	0	SP3-1-01-NO-xxx
	max.	20	530	26	110	3300	2800	
parameter part no.		GC-A-TS	GC-A-COD	GC-A-NO3-N		GC-A-UV254		

municipal WWTP effluent

		parameter*														
		TSS [mg/l]	turbidity [NTU/FTU]	color (app) [Hazen]	color (true) [Hazen]	TOC [mg/l]	DOC [mg/l]	BOD [mg/l]	COD [mg/l]	COD f [mg/l]	NO_3-N [mg/l]	NO_3^- [mg/l]	O_3 [mg/l]	UV254 t [Abs/m]	UV254 f [Abs/m]	part number
spectro::lyser™ V3 (5 mm OPL, UV-Vis)	min.	0	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	190	180	500	420	
spectro::lyser™ V3 (1 mm OPL, UV-Vis)	min.	0	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	1300	1200	3300	2800	
parameter part no.		GC-E-TSS	GC-E-TURB	GC-E-COL		GC-E-TOC		GC-E-BOD	GC-E-COD		GC-E-NO3-N		GC-E-O3	GC-E-UV254		

*measurable concentration ranges may vary due to water matrix

brewery WWTP influent

		parameter*							
		TSS [mg/l]	COD [mg/l]	COD f [mg/l]	NO_3-N [mg/l]	NO_3^- [mg/l]	UV254 t [Abs/m]	UV254 f [Abs/m]	part number
spectro::lyser™ V3 (5 mm OPL, UV-Vis)	min.	0	0	0	0	0	0	0	SP3-1-05-NO-xxx
	max.	2000	9000	7900	16	70	500	420	
spectro::lyser™ V3 (1 mm OPL, UV-Vis)	min.	0	0	0	0	0	0	0	SP3-1-01-NO-xxx
	max.	13000	60000	53000	100	470	3300	2800	
parameter part no.		GC-B-TSS	GC-B-COD		GC-B-NO3-N		GC-B-UV254		

paper mill WWTP influent

		parameter*							
		TSS [mg/l]	COD [mg/l]	COD f [mg/l]	NO_3-N [mg/l]	NO_3^- [mg/l]	UV254 t [Abs/m]	UV254 f [Abs/m]	part number
spectro::lyser™ V3 (5 mm OPL, UV-Vis)	min.	0	0	0	0	0	0	0	SP3-1-05-NO-xxx
	max.	1200	2000	1700	16	70	500	420	
spectro::lyser™ V3 (1 mm OPL, UV-Vis)	min.	0	0	0	0	0	0	0	SP3-1-01-NO-xxx
	max.	8000	13000	11000	100	470	3300	2800	
parameter part no.		GC-P-TSS	GC-P-COD		GC-P-NO3-N		GC-P-UV254		

paper mill WWTP effluent

		parameter*							
		TSS [mg/l]	COD [mg/l]	COD f [mg/l]	NO_3-N [mg/l]	NO_3^- [mg/l]	UV254 t [Abs/m]	UV254 f [Abs/m]	part number
spectro::lyser™ V3 (5 mm OPL, UV-Vis)	min.	0	0	0	0	0	0	0	SP3-1-05-NO-xxx
	max.	600	790	490	16	70	500	420	
spectro::lyser™ V3 (1 mm OPL, UV-Vis)	min.	0	0	0	0	0	0	0	SP3-1-01-NO-xxx
	max.	4000	5300	3300	100	470	3300	2800	
parameter part no.		GC-Q-TSS	GC-Q-COD		GC-Q-NO3-N		GC-Q-UV254		

dairy WWTP influent

		parameter*							
		TSS [mg/l]	COD [mg/l]	COD f [mg/l]	NO_3-N [mg/l]	NO_3^- [mg/l]	UV254 t [Abs/m]	UV254 f [Abs/m]	part number
spectro::lyser™ V3 (1 mm OPL, UV-Vis)	min.	0	0	0	0	0	0	0	SP3-1-01-NO-xxx
	max.	8000	33000	16000	210	940	3300	2800	
parameter part no.		GC-M-TSS	GC-M-COD		GC-M-NO3-N		GC-M-UV254		

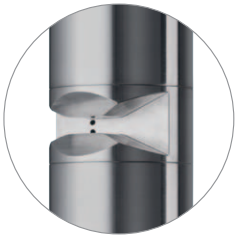
*measurable concentration ranges may vary due to water matrix

The perfect accuracy for every application

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

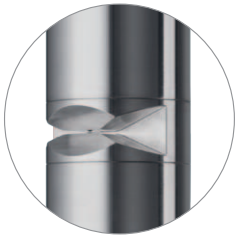
drinking water:

35 mm



surface water:

5 mm



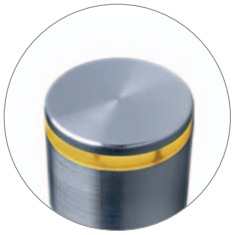
waste water:

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.