

Technical Data

Spektron Series

Main Applications

Disinfection of clear fresh water to meet relevant biological standards:

- Private and municipal drinking water supplies
- Beverage and food industry
- Process water for industrial use
- Fish farming (fresh water)

The units have a DVGW-Certificate according to **DVGW W294-2** and an ÖVGW-Certificate according to **ÖNORM M5873-1** (No. W 1.430).

Water temperature recommended range 5 – 30°C

Wasser UV transmittance (@ 254 nm, 1 cm) min. 80%

Flow rate (400 J/m² - DVGW certified) max. 945 m³/h

Technical Description

- Cylindrical stainless steel reactor
- High efficiency low pressure UV lamps, concentrically, easily removable
- Calibrated UV intensity monitoring system
- Electronic UV lamp supervision system with error memory and external interfaces
- Monitoring of reactor temperature and external flow rate signal
- CE and EMC approved

UV Reactor	Material	Stainless steel 316L (1.4404)
	Mounting	horizontal or vertical
	Connection type	external thread or flanges DIN 2999 / EN 1092-1 Type 02
	Seals	O-rings, Fluorocarbon-india rubber (FKM), DVGW, KTW and FDA approved
	Components	flow optimizing internals, UV and temperature sensors, cleaning valves (only for Spektron 400) and fittings for sampling (only for Spektron 400)
UV lamp	cylindrical low pressure high efficiency UV lamp WLR20, WLR30 with WEDECO-Spektrotherm [™] technology (Indium amalgam)	
UV sensor	calibrated according to ÖVGW M5873-1 and DVGW W294-3, 160° measuring angle accuracy ± 3 %, selectivity 240 – 290 nm > 90%, aging stability, temperature stability up to 70°C during continuous operation	

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Electrical cabinet	Painted sheet steel enclosure, wall mounted Ready for connection, incl. reactor cables of 10 m	
Design	Supply voltage	Spektron 3 – Spektron 25: 230 V, 50 - 60 Hz, (TN-S net, TN-C net), Spektron 400: 400 V, 50–60 Hz, (TN-S net, TN-C net), power factor ~ 1 Ambient temperature 5 to 40 °C
Components	Main switch, cooling fan, EcoTouch controller with operator touch panel ⁱ , LED indicators: "normal operation", "prealarm", "alarm", Electronic ballasts with integrated SOFTSTART ignition, UV intensity measuring system with two programmable warning points, Electronic single lamp monitoring, alarm history, All I/O terminals in one board (TERC) for Spektron 15-25 LC-display: UV intensity in W/m ² UV Dose display Control mode 2 operating hours counters (lamp life / total) On/off cycles Status messages (available languages: English, German, French, Spanish, Italian, Swedish, Polish, Portuguese, Norwegian), Operation, user and service level (password protected)	
Terminals	In:	remote ON / OFF 230VAC (or volt-free), UV sensor, UV transmission (0/4-20mA) customer supplied ⁱⁱ water flow rate (0/4 – 20 mA) customer supplied
	Out:	UV intensity adjustable (0/4 – 20 mA), Volt-free contacts for: System running, high priority alarm, low priority alarm, intermittent flushing, enable flow

ⁱ Spektron 400 features PECO

ⁱⁱ Only Spektron 15-25

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Model	Spektron 3	Spektron 6	Spektron 15	Spektron 25
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UV reactor				
Connections (thread or flange)	1½"	2"	DN 65	DN 80
Cleaning valves	¼"	¼"	¼"	¼"
Dimensions	please refer to the respective drawing			
Volume (l) approx.	12	19	24	31
Total weight, dry (kg) approx.	12.5	15.5	18.5	21.5
Minimum Flow (m³/hr)	0.034	0.06	0.181	0.284
Operating pressure (bar), max.	16		10	
Surface	inner pickled / outer electropolished			
Protection class	IP 65			

UV lamp				
Type	WLR5	WLR10	WLR20	WLR30
Lamp power (W)*	40	70	210	330
UV-C output 254 nm (W)	14	25	73	120
Quantity	1			
Lamp life (h)	10,000		12,000	

Calibrated UV monitoring system	
UV sensor	SO 13599 acc. ÖNORM
Electronics	EcoTouch
Quantity	1
Standard output signal	0/4 – 20 mA

Electrical cabinet				
Width (mm) approx.	350		600	
Height (mm) approx.	370		500	
Depth (mm) approx.	240		300	
Weight (kg) approx.	7		36	
Color painting	RAL 7035, gray; door blue		RAL 7035, gray	
Power supply (V / Hz)	230 / 50 - 60			
Power consumption (kW) approx.	0.055	0.09	0.42	0.53
Protection class	IP 54			
Mains terminals	L / N / PE			

Options / accessories (extra charges)	
- Cleaning valve Spektron 3 - 25 - Reactor cables standard 10 m (5 m optional)	

Options not included in the sales price list have to be requested at the Sales Support Team in Herford.

* at 18 °C water temperature

Technical Data

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Model	Spektron 400
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UV reactor	
Connections (flange)	DN 300
Cleaning valves	1¼"
Dimensions	please refer to the respective drawing
Volume (l) approx.	635
Total weight, dry (kg) approx.	450
Minimum Flow (m ³ /hr)	2.274
Operating pressure (bar), max.	10
Surface	inner pickled / outer pickled and glass bead blasted
Protection class	IP 65

UV lamp	
Type	WLR 30
Lamp power (W)*	330
UV-C output 254 nm (W)	120
Quantity	8
Lamp life (h)	12,000

Calibrated UV monitoring system	
UV sensor	SO 13599 acc. ÖNORM M5873-1
Electronics	PECO
Quantity	1
Standard output signal	0/4 – 20 mA

Electrical cabinet	
Width (mm) approx.	600
Height (mm) approx.	600
Depth (mm) approx.	350
Weight (kg) approx.	54
Color painting	RAL 7035, gray
Power supply (V / Hz)	400 / 50 - 60
Power consumption (kW) approx.	2.95
Protection class	IP 54
Mains terminals	3L / N / PE

Options / accessories (extra charges)	
- Reactor cables standard 10 m (5 m optional) - Sample valve (¼") acc. DIN 38402	

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* at 18 °C water temperature