

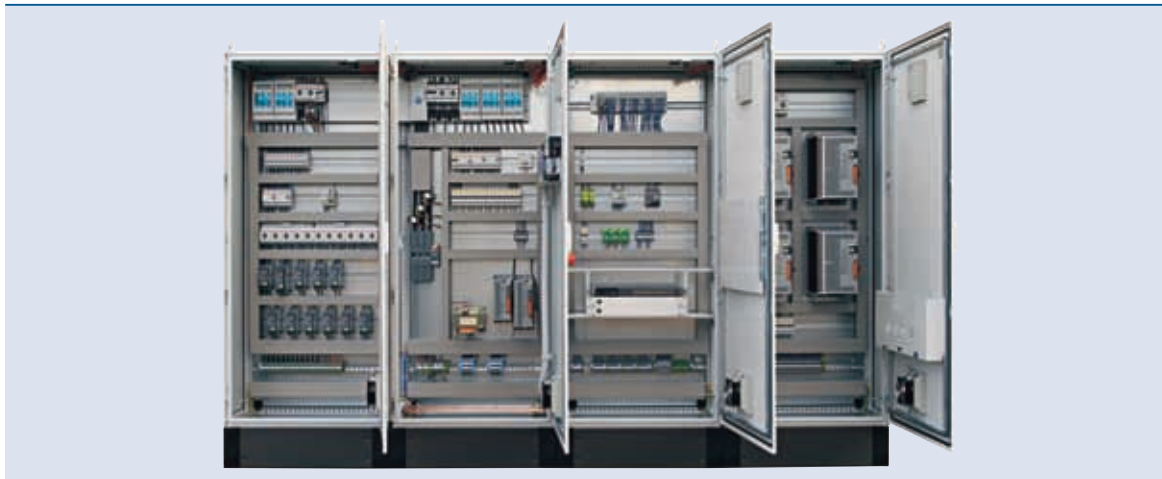


EVERYTHING UNDER CONTROL AT THE TOUCH OF A BUTTON

OASE switchgear is the control centre of a fountain system or spray fountain system.

State-of-the-art manufacturing; our products satisfy the VDE guidelines in all points. They are fitted with all required protection and safety devices, such as a residual current protection switch that switches off the system if nominal residual current greater than 30 mA is detected, so that full safety is always ensured for people and animals.

Safety cut-outs protect individual components in the event of overload and short-circuit. Special motor circuit breakers with 3-phase protection protect the motor in the event of overload and running in 2-phases. Depending on the requirements and customer desires switchgear systems can be fitted with special start-up processes such as star-delta starting or soft start-up to ensure safe start-up of the motors.



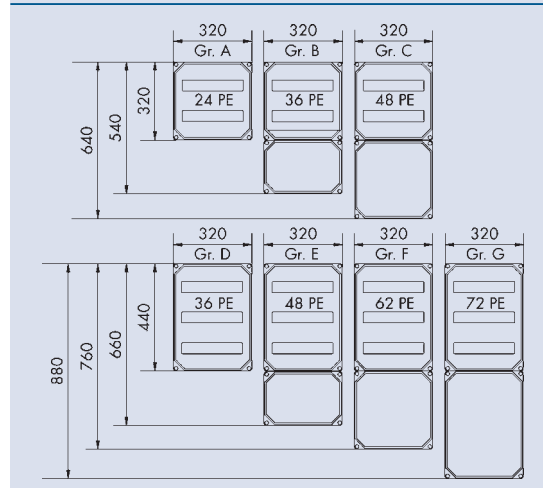


On customer request switchgear can also be equipped with main switches and load-disconnection switches.

Individual components such as pumps, lighting, and water-level controls can be activated with modern manual-0-automatic switches. Pumps and/or illumination can be automatically switched on or off via a 2-channel timer.

Individual components can be controlled and monitored via a PLC. A central monitoring device for querying current status of the components such as pumps, illumination, water-level etc. can be queried via an Ethernet coupling and this data can be analysed at a central location (technical coordination centre).

Appropriate switchgear can be selected from a standard product range for basic applications. In addition OASE manufactures all conceivable special switchgear with supplemental devices to meet customer requirements.





ELECTRICAL SWITCHGEAR IN STANDARD AND SPECIAL DESIGN

OASE switchgear and control centres for spray fountain or fountain installations are manufactured with the latest technology. They satisfy the VDE guidelines in all points and are equipped with all required protection and safety fixtures.

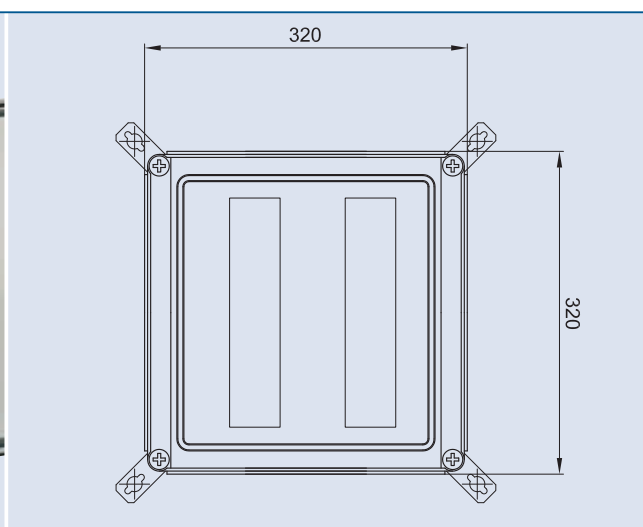
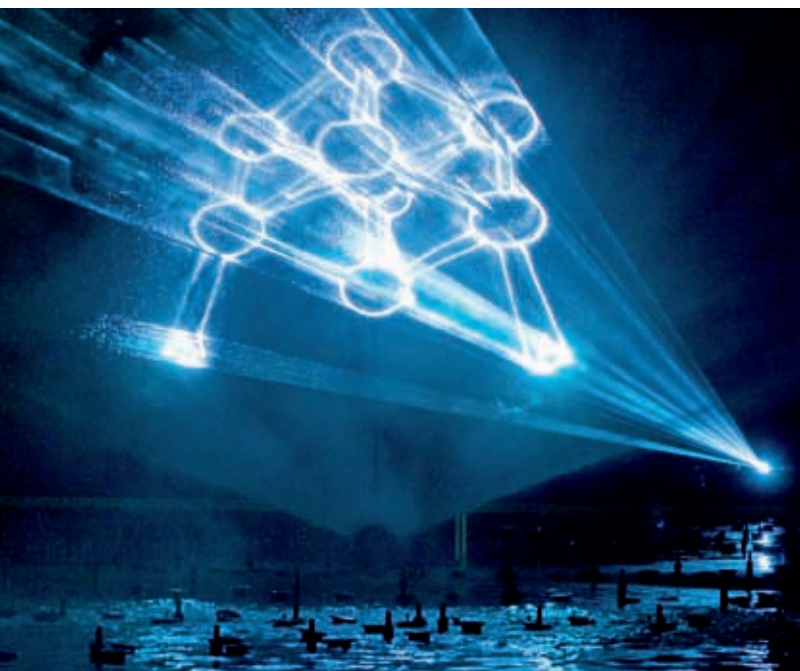
A residual current protection switch switches the system off immediately if nominal residual current greater than 30 mA is detected, so that complete safety is always ensured for people and animals. Safety cut-outs protect individual components in the event of overload and short-circuit. Special protection switches with 3-phase protection prevent overload and running pump motors on 2-phase.

Pump, lighting, and water level regulator can be switched on or off automatically or manually with the modern manual-0-automatic switch in conjunction with 2-channel timers.

The standard models offer suitable switchgear for a variety of applications. In addition OASE manufactures the perfect switchgear with all required additional fixtures for all conceivable customer requirements.

Product characteristics at a glance

- Especially suitable for public systems
- Equipped with all required protection and safety fixtures
- Wired ready-to-connect
- Special solutions are manufactured on customer request



	EL 100 W	EL 101 W	EL 110 W	EL 111 W
Dimensions (LxWxH) [mm]	320x320x200	320x320x200	320x320x200	320x320x200
Protection class	IP 55	IP 55	IP 55	IP 55
Input voltage [V]	1x 230	1x 230	1x 230	1x 230
Residual current protection switch [A]	25/0.03	25/0.03	25/0.03	25/0.03
Timer, Number of programs	2	2	2	2
Output voltage pumps [V]	1x 230	1x 230	1x 230	1x 230
Output power pumps [kW]	1x 0.55	1x 0.55	1x 0.55	1x 0.55
Type of motor start-up	direct	direct	direct	direct
Motor protection switch	no	no	no	no
Output voltage illumination [V][AC]	none	none	1x230	1x 230
Output power illumination [kW]	none	none	1x0,30	1x 0,30
Output voltage water-level regulator [V] [DC]	none	24	none	24
Output voltage water-level regulator [W]	none	1x 15	none	1x 15
Number of M-0-A switches	1	2	2	3
Number of indicator lights	1	2	2	3
Weight [kg]	6.0	6.2	6.2	6.8
Order no.	51341	51342	51343	51344



EASY CONTROL – FOR YOUR INDEPENDENCE!

With the OASE Easy Control you can easily program your system from a PC or laptop – on a well-organised user interface, with freely programmable sequential programs of up to 512 programmable channels, and everything is transmitted simply via USB – a convincing concept!



The device is quite simple to operate:

The interface module is connected to a laptop or PC via USB connectors, the software is installed, and you are ready to program. Thanks to the well-organised and clearly structured user interface you can create sequential programs without programming skills. The interface module has 256 channels that can be controlled individually. Signals are transmitted via DMX-512.

Product characteristics at a glance

- Simple programming from PC or laptop
- Signal transmission via USB
- Freely programmable sequential programs
- Up to 256 channels can be programmed in stand-alone operation

DMX IN DETAIL: INFORMATION ON THE TRANSMISSION PROTOCOL

The transmission protocol for our components (e.g. BEST-LED, Jumping Jet etc.) is sent via a serial bus system (in accordance with the industrial protocol RS 485).

The protocol is based on DMX-512 or DMX-512/1990 and originally comes from the application area of stage and show technology. DMX means Digital MultipleXed.

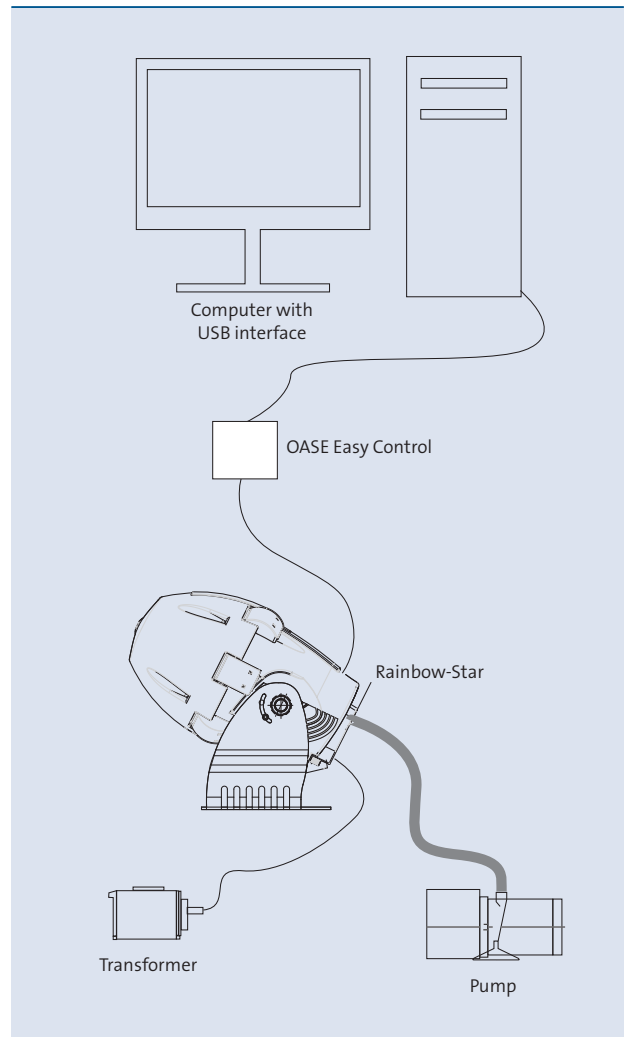
DMX-512 is an accord concerning the connection between control device (transmitters, such as OASE DMX Easy Control or OASE MUSICAL Fountain Control), and receivers (such as BEST-LED, Jumping Jet, dimmer pack, scanners, etc.)

The data network is structured as a bus topology (daisy chain). The advantage of this structure is that you only need one data line to activate the components (spotlights, Jumping Jet, etc.) because you simply loop the DMX line through from device to device. With DMX-512 up to 512 different information signals can be transferred over one DMX line. A maximum of 32 devices (receivers) can be connected to one DMX line

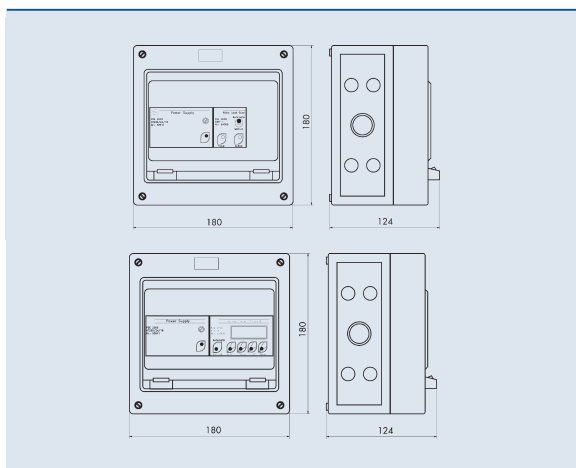
Attention: To ensure correct signal transmission the DMX line should not exceed a length of 100 m.

DMX-capable devices are equipped with standardised 5-pole XLR connectors.

Control devices and transmitters have female connectors, receiving devices (e.g. dimmer packs, Jumping Jets) have male connectors.



	Easy Control
Dimensions (LxWxH)	100 x 80 x 45 mm
Compatibility	DMX-512 / 1990
Channels	512 (transmit mode on the PC) 256 (stand-alone mode)
Connection PC	USB 2.0
Connection bus system	XLR 5-pin male
Supply voltage	USB 12V/DC (external plug-in power supply)
Weight (incl. power supply)	0.2 kg
Order no.	50289



ELECTRONIC WATER-LEVEL REGULATOR EWR 1 AND EWR 2

The EWR water-level regulator can be used for electronic water-level monitoring, and consequently for automatic top-up infeed of pool water, but it can also be used to switch off pump systems in the event of dry run.

The water-level control device essentially consists of an electronic water-level regulator, a water-level sensor, and a solenoid valve. Depending on the area of implementation individual components are available in different models.

Product characteristics at a glance

- For electronically monitoring the water level
- Automatic top-up infeed of pool water
- Automatic switch off of pump technology when using water-level sensors incl. dry-run protection electrode

Electronic water-level regulator		EWR 1	EWR 2
Dimensions (LxWxH)	[mm]	180 x 180 x 124	180 x 180 x 124
Housing		plastic	plastic
Protection class		IP 54	IP 54
Voltage	[V / Hz]	230 / 50	230 / 50
Output power			
Solenoid valve	[V / Hz]	230 / 50	230 / 50
	[A]	5.0	5.0
Solenoid valve	[V / DC]	24	24
	[A]	0.5	0.5
Pump	[V]	230 / 50	230 / 50
	[A]	5.0	5.0
Switch/Button		1	2
Indicator lights		1	1
Connections for electrodes		3	4
Dry-run protection		no	yes
Alarm monitoring		no	yes
Weight	[kg]	2.1	2.1
Order no.		51554	55846

SOLENOID VALVES

MV 0.5" 24V AND MV 1" 24V

OASE solenoid valves to top-up pool water are installed in the fresh water infeed line of a pool system or in a water reservoir.

In automatic mode, and if there is an empty pool, the solenoid valve in the fresh water infeed line opens and the water flows until it reaches the maximum electrode. As soon as the maximum electrode is reached a non-hazardous control current flows between the maximum electrode and the common electrode. This switches the solenoid valve off and water infeed is interrupted. If the water level drops to a level where the minimum electrode is no longer covered with water, the control current will be interrupted. The solenoid valve opens and allows water to flow until the water level has reached the maximum electrode and the control current flows again.

For greater reliability and safety there are only 24-Volt models.

Product characteristics at a glance

- For automatic regulation of the water level



Solenoid valves		MV 0.5" 24V	MV 1" 24V
Dimensions (LxWxH)	[mm]	67 x 45 x 88	96 x 70 x 108
Function		normally closed	normally closed
Nominal diameter		1/2"	1"
Directions		2/2	2/2
Voltage	[V DC]	24	24
Duty cycle		100%	100%
Protection class		IP 65	IP 65
Pressure range	[bar]	0.4 – 10	0.4 – 10
Material		brass	brass
Weight	[kg]	0.5	1.3
Order no.		51556	51557



WATER-LEVEL SENSORS

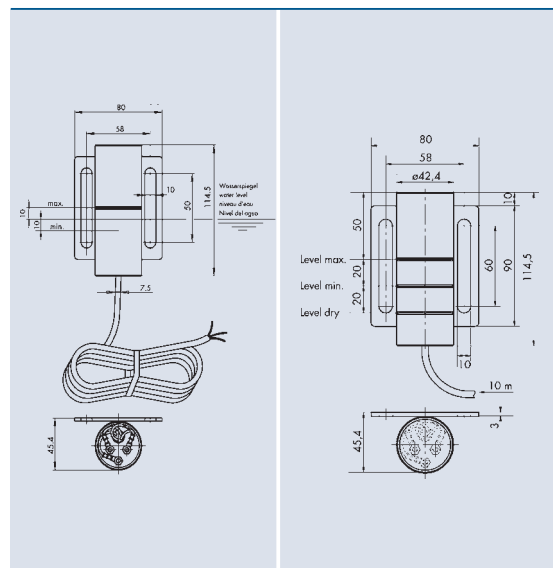
WSS 20-3, WSS 20-4

OASE water-level sensors ensure reliable control of the water level and thus prevent the pool from overflowing.

The stainless steel housings of the WSS 20-3 and WSS 20-4 water-level sensors also take on the function of the common electrode. The minimum and maximum electrodes are in the housing. The permanently set level difference is 20 mm. In addition the WSS 20-4 has a dry-run protection electrode.

Product characteristics at a glance

- For automatic infeed and top-up feed of freshwater if the water level drops
- Dry-run protection and alarm function can be connected
- Compensates for different water levels
- Robust and reliable technology
- Safe operation



Water-level sensors		WSS 20-3	WSS 20-4
Dimensions (L x W x H)	[mm]	115 x 80 x 46	115 x 80 x 46
Housing		stainless steel	stainless steel
Protection class		IP 68	IP 68
Electrodes		3	4
Common		1	1
Minimum		1	1
Maximum		1	1
Dry-run		-	1
Level difference	[mm]	20	20
Cable length	[m]	10.0	10.0
Weight	[kg]	2.2	2.3
Order no.		51559	53918

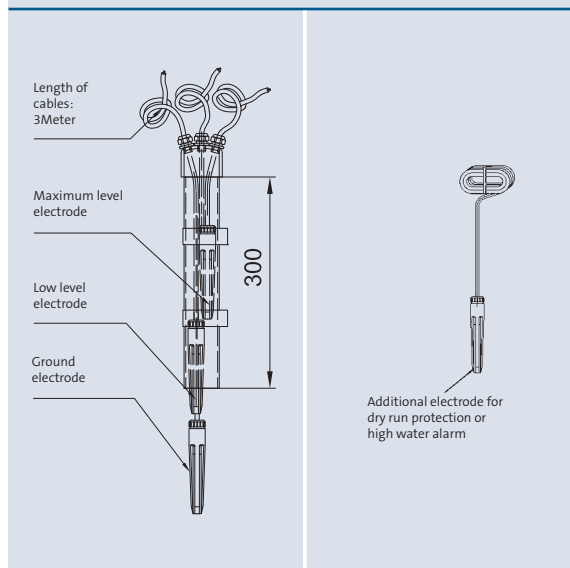
WATER-LEVEL SENSOR WSS 2000-3/5

The WSS 2000-3/5 water level sensor is designed for greater level differences of approximately 50 to 2000 mm, such as occur in water reservoirs.

It can be retrofitted with a dry run protection electrode. The electrodes can be adjusted according to the level differences via the cable length. They give switch on and switch off commands to regulate the water level or to protect the pump technology (ZE 2000-1).

Product characteristics at a glance

- For automatic infeed and top-up feed of freshwater if the water level drops
- With dry-run protection and alarm function
- Compensates for different water levels
- Robust and reliable technology
- Safe operation



Water-level sensor		WSS 2000-3/5	Supplemental electrode ZE 2000 -1
Dimensions (L x W x H)	[mm]	115 x 80 x 46	
Housing		plastic	plastic
Protection class		IP 68	IP 68
Electrodes		3	1
Common		1	-
Minimum		1	-
Maximum		1	-
Dry-run		-	1
Level difference	[mm]	max. 2500	max. 2500
Cable length	[m]	3.0	3.0
Weight	[kg]	2.5	0.3
Order no.		55845	55843



CONTROL DEVICE AND ANEMOMETER

If there is stormy weather fountains often have an inharmonious effect and fountain operation gets the surrounding area wet. Wind-level fountain controls reduce the fountain height, or completely switches the system off depending on weather conditions.

The WFA 3/K control device directly switches off the pump at a certain wind levels. If multiple pumps are operated that feed one fountain, they can be switched off one after the other. Or two bypass valves are opened depending on the wind and the pump is switched off only in the third step.

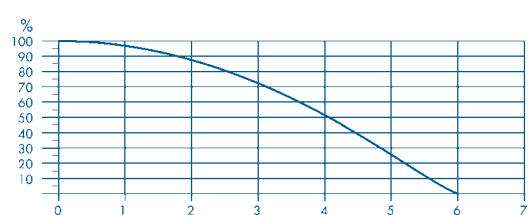
The control device is usually placed next to the control cabinet of the fountain system. The control cables of the pumps are routed out of the control cabinet and connected. Wind conditions on the anemometer and on the fountains should be identical if possible, consequently the anemometer should be slightly elevated and mounted on a mast or a roof in the vicinity of the fountain. The pulse

lines of the anemometer should be shielded and routed to the WFA 3/K control device via the shortest path possible.

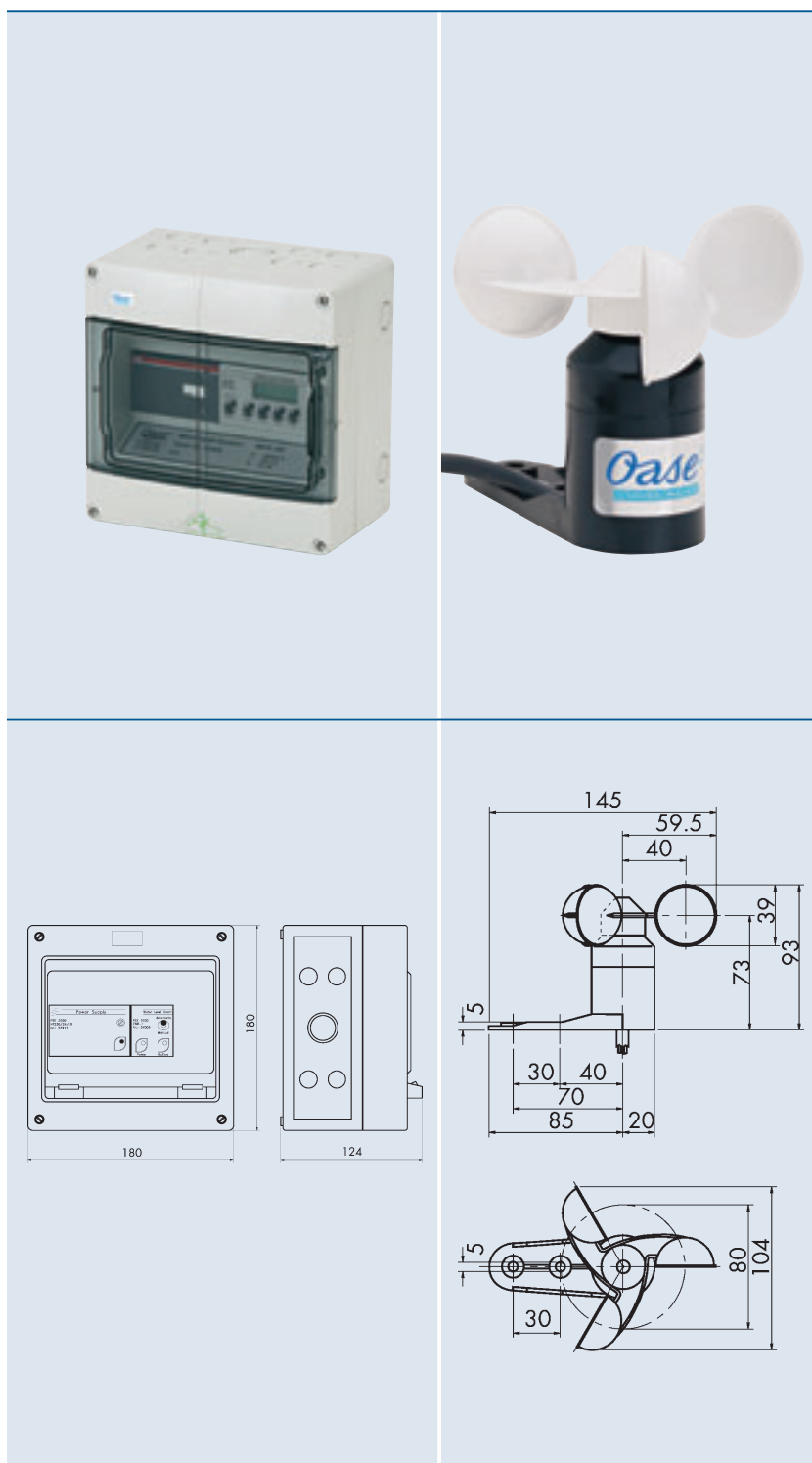
Product characteristics at a glance

- Wind-dependent switch-off in 3 stages
- Saves water and power costs
- Weather-dependent harmonious water pattern
- No irritated passers-by
- Easy to install

Possible fountain heights in %



Wind forces from 0 – 6 according to the Beaufort wind force scale



		Wind level fountain control WFA 3/K	Anemometer K
Dimensions (L xW xH)	[mm]	180 x 180 x 124	145 x 104 x 93
Housing		plastic	plastic
Protection class		IP 54	IP 54
Voltage	[V / Hz]	230 / 50	230 / 50
Switch/button		5	–
Indicator light		1	–
Control lines		3	–
Contact load	[A]	5	–
Weight	[kg]	2.2	0.8
Order no.		51838	53913