





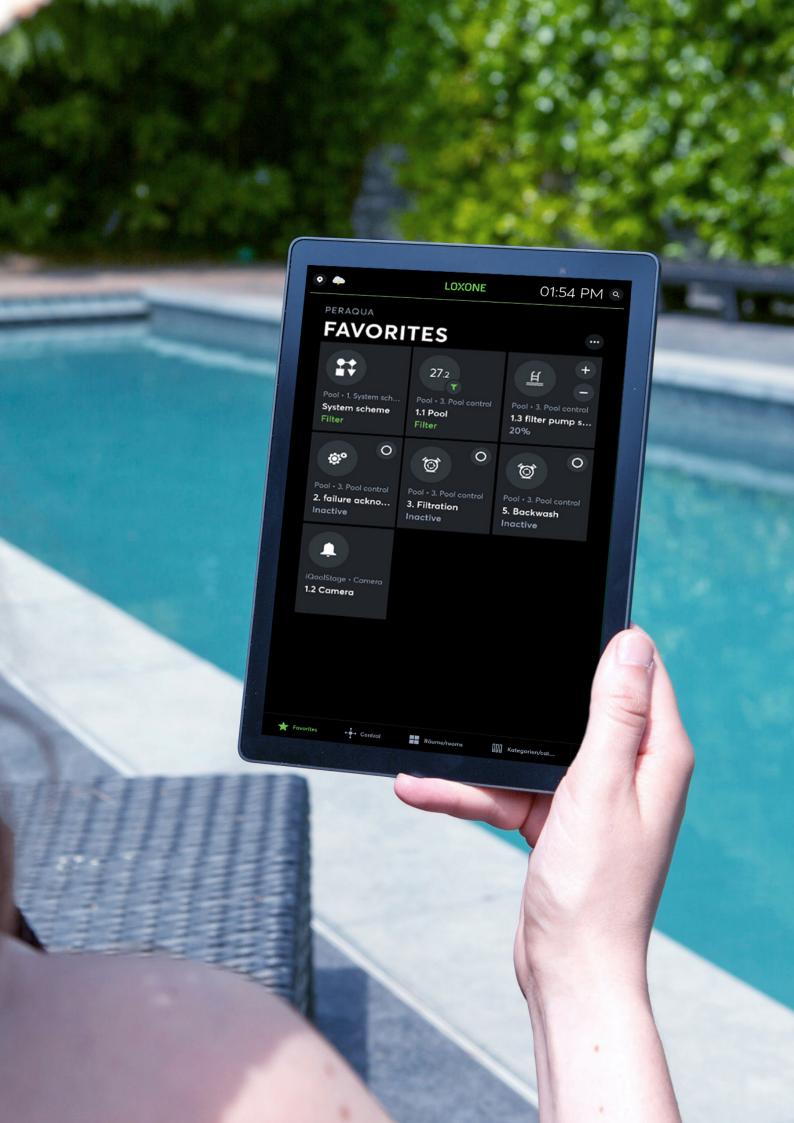
iQnnect is an exquisite range of intelligently networked pool technology from the Peraqua® product range for fully automatic pool control. With the aim to run a completely automatic, safe and sustainable pool system via a smart device, iQnnect from Peraqua® creates 100% benefit in daily pool operation.

POOLED INTELLIGENCE

Digitization has long since found its way into the pool industry. Realtime data on temperature, salinity, pH and chlorine values readable on different Apps on mobile devices are no longer a dream of the future to keep the pool clean.

Peraqua® wants to be one step ahead and optimize the "jungle" of pool apps for maximum usability, security, cleanliness and sustainability. This works with the control of all pool technology components via a single app, which can also be integrated into the smart home App.





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iQntrol DOS-MODBUS DOSING SYSTEM

alternative product to salt electrolysis

iQntrol SALT-MODBUS SALT ELECTROLYSIS SYSTEM

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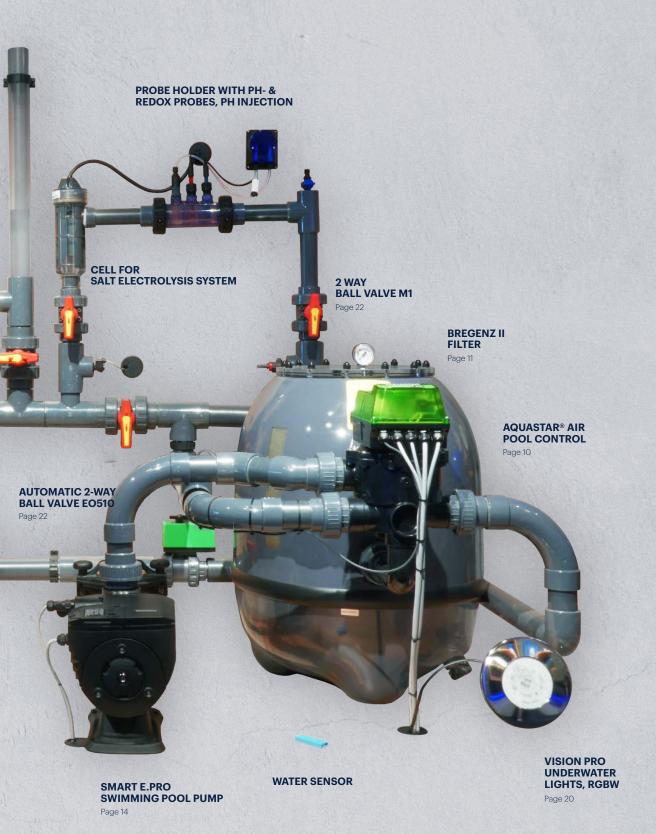
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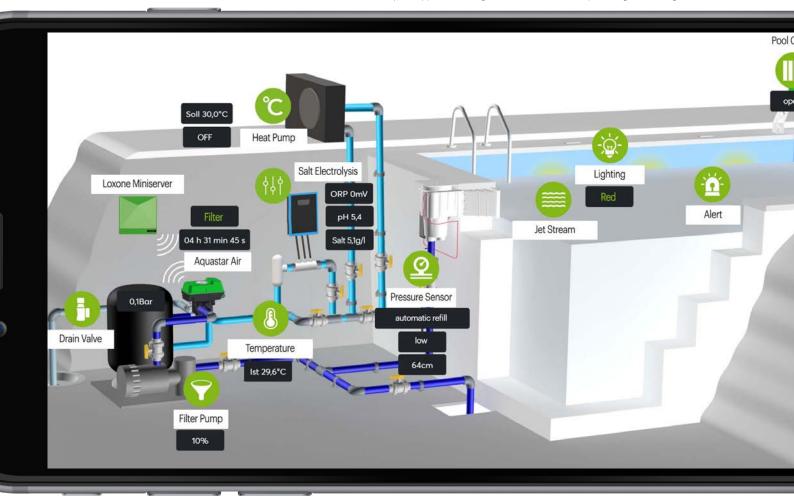


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SMART-UP YOUR POOL

ONE POOL.
ONE SYSTEM.
ONE SMART HOME APP.

The device diagram can be found in the app. In the system schematic you have all pool settings und values (Ph, Redox or salinity) clearly presented at a glance. The values can directly be changed in the diagram.



CONTROL, MEASURE AND INFORMATION

With the app all functions of the pool control can be operated manually or automatically. With the automatic designer various functions can be connected and various modes generated.

You only need one click on mode "pool party" to increase the speed as well as the salt production and the colour change of the under water lights at once. Furthermore, the pool owner gets information in case of differing values and errors or at activating of functions.

FUNCTIONS

FILTER & PUMP CONTROL

- Control and automation of backwash and filter times with user friendly weekly schedule in the app
- Sustainable and energy efficient filtering on demand if necessary thanks to the speed controlled Smart filter pump E.Pro
- Individual flow and speed of the filter pump in various cycles, for example, low filtration speed and higher flow rate during backwash cycle

NIVEAU CONTROL

- Water level control with pressure sensor (overflow pools & skimmer pools) or floater (skimmer pools)
- The pressure sensor measures the level with centimetre accuracy
- An automatic niveau control offers dry-running protection, protecting the mechanical seal of the filter pump
- Protection against overflow with the pressure sensor, thanks to automatic triggering of the back wash cycle

WATER TEMPERATURE CONTROL

- Heating, cooling or heating & cooling with the full inverter heat pump with Inverter Technology
- $\,-\,$ The automatic operation is set by target temperature $\,$
- The automatic regulation of the water temperature with the Smart Full-Inverter heat pump is very energy efficient in comparison to a common ON/OFF heat pump

WATER TREATMENT

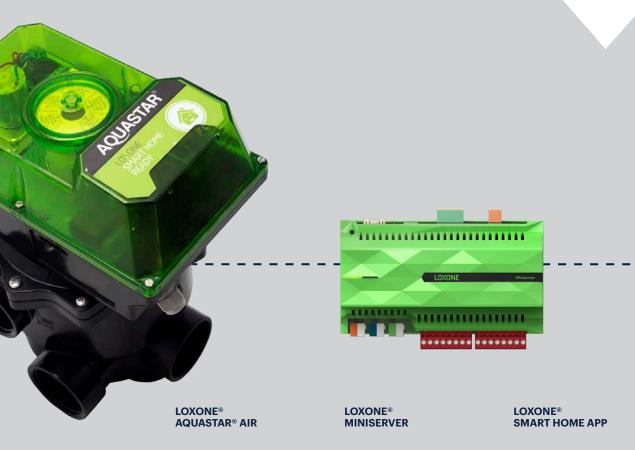
- Automatic dosage and measuring of salinity, Redox value and pH value
- Automatic water treatment with salt electrolysis can reduce use of chemicals. It is only used
 if necessary and only the required quantity. It helps to keep the pool water quality clean and
 hygienic for a long time.

UNDER WATER LIGHTING

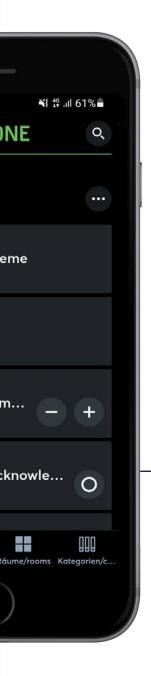
- The RGB under water lights can be controlled either bundled or single with additional transformers
- Innovative technologies such as QuickConnectTM, PressFitTM or ClickOnTM facilitate a practical installation
- simple colour scenario change with "touch" or automatic with time controller

UNPAIRED CONNECTION

The close cooperation in the development of the Aquastar® Air with Loxone® enabled the seamless integration of the pool control into the Loxone® app. Air stands for the wireless connection between Aquastar® Air and Loxone® Miniserver, which enables fully automatic filter and backwash control. The Loxone® Miniserver communicates with the Loxone® App on the mobile device via the in-house network (WIFI).



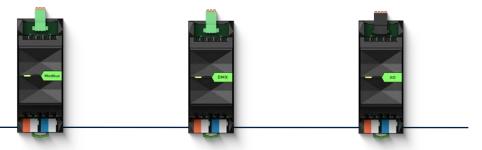
08:49 № LOXO PERAQUA **FAVORITES** System sch Filter Pool • 3. Pool control 1.1 Pool 25.4 ▼ Filter Pool • 3. Pool control 1.3 filter pu Ħ 20% Pool • 3. Pool control 2. failure a Inactive Pool • 3. Pool control •••



FIRMLY LINKED

Link refers to the interface in the Loxone® Miniserver for wiring with Loxone® Extensions. This enables integration of numerous other devices.

iQnnect needs the interface for the integration of salt electrolysis, heat pump, filter pump and underwater lighting. Various extensions are required to integrate the components into the network. Extensions are the interpreters of the iQnnect components. They send and receive programming codes and signals and allow flexibility in the functions of the automatic pool control. This allows, for example, the integration of pool covers, video surveillance, countercurrent systems, outdoor lighting, and much more.



MODBUS
HEAT PUMP
SALT ELECTROLYSIS
CHLORINE DOSING
SYSTEMS

DMX
UNDER WATER
LIGHTING

AO FILTER PUMP

WIRING DIAGRAM



AUTOMATIC FILTER CONTROL

AQUASTAR® AIR

The future of pool control starts with the most modern 6-way back wash valve. The heart of the pool area guarantees a regular and automatic pool filtering cleaning for highest hygiene and cleanliness of the pool water.

EXPANDABLE WITH "SAFETY PACK"

No water loss by using the "Safety Pack" function which offers absolute operational safety in case of power failure.

DIRECT DRAIN

Is possible directly over the valve and not over the filter.

INTELLIGENT FEATURES

Manual override, optical position indication, integration of Praher Plastics® pressure sensor, smooth changing of positions by switching off the pump, and much more.

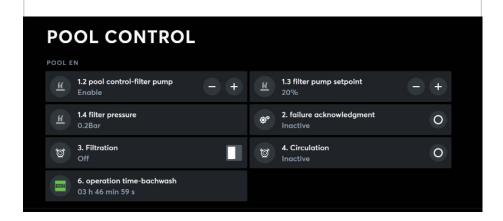
EASY UPGRADE

Suitable for all common filter brands with Praher V6 valve piping kit in sizes 1% or 2%.





- 1.2 Release filter pump: ON and OFF
- 1.3 Filter pump setpoint in percent: rpm and flow rate can be changed
- 1.4 Filter pressure: automatic backwash process can be triggered by pressure
- 2 To quit malposition of the valve press button "active"
- 3 Manual release "Filtration"
- 4 Manual activation of "circulation"
- 6 Operation time since last back wash process



6 WAY - 7 POSITIONS

FILTER
BACKWASH
RINSING
CIRCULATE
DRAIN
CLOSED
WINTER POSITION



FILTER BREGENZ II

The practical features of the Bregenz II filter series enable significantly easier inspection and maintenance of the filter and guarantee maximum mechanical durability. The filter body is made of proven isophtalic resin, durable glass fibers and UV-resistant gel coat. The high filter bed allows for longer filtration resulting in the purest pool water.

operation pressure: max. 2.5 bar | test pressure: max. 3.5 bar | operation temperature: max. 42 $^{\circ}\text{C}$



Transparent sight window for checking the filter medium



Large transparent lid with a diameter of 400 mm



Large drain opening 11/4" male for quick draining

Prod.No. 7300247

Ø 900, 2" 6-way

valve, side mount

AUTOMATIC NIVEAU CONTROL

AQUASTAR® AIR

The Aquastar® Air has its own analog input for connection of a floater in skimmer pools and a pressure sensor for overflow pools for automatic control and regulation of the water level.

A magnetic valve can be connected at one of the three free relays on the Aquastar® Air. At too low water level the magnetic valve opens, the required water quantity is refilled.





.1 Release of automatic filling: at "automatic refill" the niveau control is activated by floater, at "manual operation "the valve opens and water is refilled until deactivation, "closed" means no filling

- 1.2 Status of water level according to floater in the skimmer "okay" or "low"
- 2.1 Status of the valve: open or closed



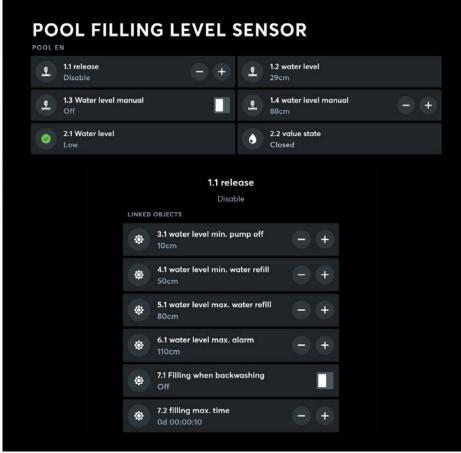




FUNCTIONS PRESSURE SENSOR

- 1.1 Release of automatic filling: at "automatic refill" the niveau control is activated by the pressure sensor, at "manual operation" the valve opens and water is refilled until deactivation, "closed" means no filling
- 1.2 Measured water level in cm
- 2.1 Status of the water level
- 2.2 Status of the valve: open or closed
- 3.1 Min. water level: for dry running protection of the pump it is important that at falling below the value the pump is switched off and a push information is sent to the end device
- 4.1 In case value is too low the valve opens for refilling of water
- 5.1 In case value is reached the valve closes and filling is stopped
- 6.1 When value is reached a backwash process will be activated and a push information is sent to the end device.

 During the backwash process the filter will be cleaned and the excess water in the pool is discharged into the canal
- 7.1 De-/activation of filling at valve position "backwash": at "ON" valve is open
- 7.2 Max. filling time: overflow protection



PRESSURE SENSOR

MAGNETIC VALVE

Prod.No. 740046 O - 10 V, O - 0.3 bar

Prod.No. 7300699 230V AC, G ½"

FLOAT SWITCH

Prod.No. 50631 24V DC, G ½"

Prod.No. 31150 incl. 5m connection hose Prod.No. 31152 incl. 15m connection hose **WIRING DIAGRAM**





FILTER PUMP CONTROL SMART E.PRO

The powerful E.Pro smart filter pump gives the iQnnect pool system the necessary power and drives the filter process. Thanks to the frequency converter, the speed and flow can be adjusted, optimizing performance and reducing energy consumption.

The E.Pro pump is connected to the 230V mains. The pump communicates with the iQnnect system via a data cable. The AO Extension is responsible for automatic speed regulation. This changes the speed or the flow with 0-10 V.

UNIQUE

- high-efficiency permanent magnet synchronous motor
- optimized hydraulics to reduce pressure losses
- flow measurement in m³/h
- can be used for several pool sizes

VERSATILE

- 8 different speeds can be set, so one model includes the power of 4 pumps (0.33 kW, 0.5 kW, 0.75 kW, 1.1
- infinitely adjustable in the iQnnect system thanks to 0-10 V
- - 1,5 hp (27 m³/h at 15.4 m) 3 hp (40 m³/h at 8 m) up to 4% salt water resistant

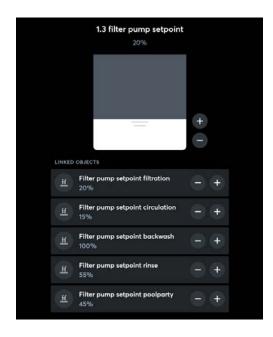
QUIET & ENERGY SAVING

- the motor is water-cooled, so it has no fan and runs extremely quietly
- thanks to variable speed, up to 90% energy savings under optimal conditions
- the E.Pro pump can adapt the flow rate perfectly to the system, i.e. it adjusts the speed depending on the ambient conditions

VARIABLE SPEED EXTRA QUIET WATER-COOLED SALT WATER RESISTANT UPTO90%ENERGYSAVINGS

FUNCTIONS

- Adjustment of speed and flow rate of the filter pump for various filter positions (filter, backwash, rinse, pool party, circulation)
- The filter pump delay can be adjusted additionally.
- This function is responsible for using residual heat of the heat pump.
- The heating hysteresis is responsible for the difference to the target temperature.
- The higher the hysteresis, the higher the difference in tem-perature can be.
- Pump running time in manual filtering
- Pump running time in manual circulation





INTEGRATION LOXONE®
AO EXTENSION



Prod.No. 7300445 E.Pro 150, 1.5 PS, 2" female

Prod.No. 7300905 E.Pro 300, 3 PS, 2" female

Prod.No. 7300489 data cable

AUTOMATIC WATER TREATMENT

SALT-MODBUS

In salt electrolysis, the pool water is enriched with table salt (NaCl - sodium chloride), like Peraqua's Smart sea salt. A slight current flow is generated in the cell of the salt plant by means of electrolysis, which converts the salt into chlorine gas. So it is made of a natural product. The resulting free chlorine destroys all microorganisms and is therefore a very strong disinfectant alternative to liquid chlorine.

The salt electrolysis system is integrated into iQnnect with its own power supply and a connection to the Modbus extension.

The upgrade with pH/redox set, salt content sensor and flow monitor ensures automatic monitoring and control of all water values with real-time data. With the salinity sensor, the water temperature can be measured in addition to the salinity g/l. The connection can be found in the operating instructions.

The optimal performance of saltwater chlorination is based on the correct choice of chlorine production per hour depending on the pool size.

The pH value has a big influence on an effective use of a salt electrolysis system or on a perfect water disinfection, which is ideally between 7.2 and 7.4.

When using for the first time, we recommend 5 kg of salt per m³ and a redox value of 700 mV. Depending on the chlorine content in the water, the redox value should be increased or decreased.



FUNCTIONS

- 1.1 Release of filter and circulation process: at these two valve positions the salt electrolysis may start. Additionally to that there is a maintenance mode where you can calibrate the sensors, etc. The salt electrolysis also can be locked.
- 1.2 For operation mode "manual" the setpoint is used. The electrolysis is on when the filter pump is in operation. For operation mode "automatic" it is the Redox value that counts
 - In case the actual Redox value comes close to the target Redox value the set production level is reduced. Reaching the target Redox value the electrolysis is stopped.
- 2.1 Set target value
- 2.2 Actual production value in percent: Volt / amp
- 3.1 Cleaning cycle for polarity reversal frequency of the cell: 4 hours recommended (preset)
- 3.2 Overview of all settings: ON-/OFF
- 3.3 Status of salt electrolysis
- 3.4 Cell operation hours
- 4.1 Production target value: can be set from 0-100%
- 4.2 Production target value with closed cover: a contact can be installed which reduces the target value to the production target value when cover is closed.

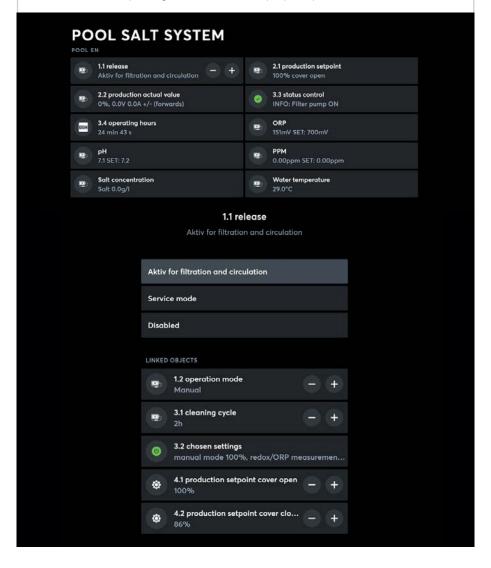
On this screen the pH and Redox target values (and ppm value) can be set and the actual values can be seen. The value of water temperature gives information about the quality of the pool water.



INTEGRATION LOXONE® MODBUS EXTENSION



UPGRADE
PH & REDOX
SET





AUTOMATIC TEMPERATUR CONTROL

FULL-INVERTER PLUS

Inverter heat pumps are equipped with variable speed compressors, depending on the energy demand and the surroundings conditions, the speed of the compressor will be increased or decreased.

The temperature of the pool water is automatically adjusted to the set value thanks to the heating, cooling or automatic mode. The full inverter technology prevents high temperature fluctuations, saves energy and is noticeably quieter in operation. In addition, the Smart heat pump offers a soft start. This means that the current consumption increases slowly when starting.

- The Smart full-inverter heat pump Plus is Modbus capable and perfectly integrable to the iQnnect system.
- The heat pump is connected to the power supply system.
 It is very important that the heat pump is protected with a separate fuse.
- When using a heat pump, a pool cover and well isolated pool construction is recommended.
- The dimension of the heat pump is calculated according to the pool size, but a stronger heat pump model mostly can be run at lower speed. This means energy saving and low sound level. Thanks to better performance a stronger model can help to extend the bathing season.
- The connection of the heat pump with a Modbus extension works with a special connection cable (Modbus-connection cable with, 4-pole plug).

Prod. No.	7300714	7300715	7300772	7300716							
recomm. pool size (m³)*	25~45	30~55	35~65	40~75							
operation temperature (°C)	-7-43										
operation conditions: air 26°C, water 26°C, humidity 80%											
heat capacity (kW)	10,3	12,8	15,0	17,3							
C.O.P	14.5~6.9	15.0~7.4	15.5~6.7	14.8~5.9							
COP at 50% speed	10,4	11,0 10,9		10,5							
operation conditions: air 15°C, water 26°C, humidity 70%											
heat capacity (kW)	7,1 8,3		10,5	11,4							
C.O.P	7.3~4.6	7.7~4.8	7.8~4.6	7.5~4.3							
COP at 50% speed	6,4	6,8	6,6	6,1							
operation conditions: air 35°C,water 28°C, humidity 80%											
cooling capacity (kW)	4,5	5,5	6,8	7,7							
sound level 1m dB(A)	38.6~49.9	42.1~50.7	41.3~54.0	43.1~53.8							
sound level 10m dB(A)	18.6~29.9	22.1~30.7	21.3~34.0	23.1~33.8							
sound level at 50% speed 1m dB(A)	43,3	45,7	46,0	46,5							
heat exchanger	titanium										
power supply	230V/1 Ph/50Hz										
rated input power at 15°C (kW)	0.19~1.5	0.22~1.73	0.27~2.2	0.3~2.6							
rated current at 15°C (A)	0.83~6.5	0.96~7.52	1.17~9.6	1.3~11.3							
recomm. flow rate (m³/h)	3~4	4~6	5~7	6.5~8.5							
water pipe specification in-out (mm)	50										

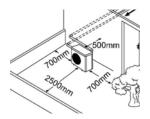




CONNECTION LOXONE® MODBUS EXTENSION

IMPORTANT **KEEP DISTANCES**

CABLE SPECIFICATION



Prod.No.		7300714	7300715	7300772	7300716	7300717	7300718	7300719
Breaker	Rated Current A	12,0	14,5	16,5	18,0	21,0	9,0	12,0
Fuse A		12,0	14,5	16,5	18,0	21,0	9,0	12,0
Power cord n	mm²	3 x 2,5	3 x 2,5	3 x 2,5	3 x 4	3 x 4	5 x 2,5	5 x 2,5
Signal cable	mm²	3 x 0,5						



^{*} The specified values apply under ideal conditions: the pool is covered with an isothermal cover, the filter system runs at least 15 hours a day. Minor deviations of the technical specifications are system specific possible and subject to technical changes

FULL INVER-TER PLUS **Prod.No. 7300714** 10.3 kW, pool size up to 45 m³

Prod.No. 7300717 20.4 kW, pool size up

to 95 m³

Prod.No. 7300715 12.8 kW, pool size up to 55 m³

Prod.No. 7300718 27,0 kW, pool size up to 120 m³

Prod.No. 7300772 15.0 kW, pool size up to 65 m³

Prod.No. 7300719 35,6 kW, pool size up to 160 m³

Prod.No. 7300716 17.3 kW, pool size up to 75 m³

Prod.No. 7301102 10m, Modbus connection cable **WIRING DIAGRAM**



AUTOMATIC POOL LIGHTING

ADAGIO PRO



3.000LM 75W RGBW SPECTRUM DIMMABLE

Vision LED under water lights are innovative LED lighting solutions assembled with high quality components and materials making them very powerful, economical use and ease in use. An easy-to-mount plug with gold-plated contacts enables uncomplicated connection.

An adjustable light mounting system that allow these pool lights to be fitted seamlessly to the wall, even if the wall conduits have not been mounted 100% vertically.

According to the pool size and the individual requirements the Adagio's are available in the dimensions 5 or 10 cm diameter and can be specifically mounted in $1\frac{1}{2}$ " IG wall conduits.

Thanks to the possibility of retrofitting the pool with the Vision and thanks to the innovative concept for the effortless replacement of panels, the Vision underwater lights can be installed in any pool.

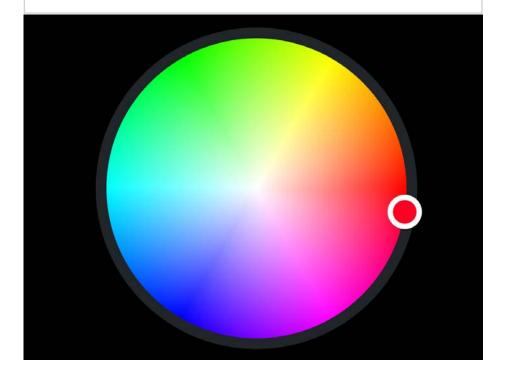
The LED lights are connected to the DMX-capable Vision Pro remote control according to the connection diagram.



INTEGRATION LOXONE® DMX EXTENSION

FUNCTIONS

- The Vision Pro under water lights include all colours of the RGB spectrum
- Colours adjustable with a RGB colour rose, dimmable with %-controller
- Setting or colour changes are possible. The RGBW under water lights can be controlled bundled or single with an additional transformer





Prod.No. 7400388D10 cm, RGB, 3,500
lm, 85 W

Prod.No. 7301366 D10 cm, RGB, 1,200

Matching covers in V4A or plastic available in different colors for all sizes.

Prod.No. 7400294 VISION Pro DMX control, 350 VA



FLOW CONTROL

PVC fittings from Praher Plastics® promise an above-average service life, the best UV resistance and optimum pressure and flow proper-ties. The wide range of connection types, connection sizes and seals allow a diverse selection of pool piping systems.



2-WAY BALL VALVE

The modula, manual ball valve M1 is of 100% proved quality to offer full safety for all pools. Especially the technical secured handle system and the integrated base offer additional safety. Praher Plastics® ball valves show best flow properties.

M1



AUTOMATIC BALL VALVE

The Praher Plastics® ball valve EO510 is automatically controlled by the Aquastar® Air. In the iQnnect system there is a ball valve S6 installed onto the sewer pipe and is automatically opened for backwash, rinse and drain process. This avoids water loss during position change of the backwash valve or in position "winter".

The automatic ball valve S6 is available in different sizes (standard d50 and d63) and in model 12-24 V AC/DC and 230 V AC.

HOW TO INSTALL IQNNECT POOL GOOD TO KNOW

POOL SIZE & POOL TECHNOLOGY

The iQnnect pool technology is designed for private pools from $5 \times 3 \times 1,5$ m to $15 \times 6 \times 1,5$ m. Depending on the pool size, different models of the products listed can be installed. Depending on customer requirements, it is also possible to integrate other products. However, we only provide documentation for the products listed. Loxone® components can be obtained from the Loxone® partner or directly from Loxone®.

WIRING DIAGRAM

Peraqua® has a clear connection plan for the respective components. The QR codes in this guide link to the electrical plans.

SOFTWARE

Peraqua® offers ready-made software packages with all of the functions mentioned for variants of salt or chlorine systems as well as level control with float switches or pressure switches. These are available in the webshop.

UPGRADE

An existing pool can also be retrofitted with iQnnect. It should be noted that the Aquastar® Air must first be installed in the system with the appropriate PraherPlastics® backwash valve. This enables automatic filtration. Depending on customer requirements, other iQnnect-capable components from Peraqua® (e.g. swimming pool pump, salt electrolysis system, heat pump, underwater lighting, etc.) can be installed and integrated into the Loxone® app.

EXPERTS FOR YOUR PROJECT

For an iQnnect project, we recommend close cooperation between a specialist pool dealer and a Loxone® partner. We would be happy to put you in touch with a partner in your area.



REQUESTS

In order to be able to make you a project-related offer for the correctly selected iQnnect components in connection with the pool size, please call us or write to us.

PHONE: +43 7435 58 488-0 E-MAIL: info@peragua.com

PERAQUA



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