



# MICROWELL

**EN - WALL-MOUNTED SWIMMING POOL DEHUMIDIFIER**

OWNER'S & INSTALLATION MANUAL

**DE - LUFTENTFEUCHTER FÜR SCHWIMMHALLEN**

BEDIENUNGS -und MONTAGEANLEITUNG

**RU - НАСТЕННЫЙ ОСУШИТЕЛЬ ДЛЯ БАСЕЙНОВ**

РУКОВОДСТВО ПО УСТАНОВКЕ И ОБСЛУЖИВАНИЮ

**SK - BAZÉNOVÝ NÁSTENNÝ ODVLHČOVAČ**

NÁVOD NA OBSLUHU A MONTÁŽ

**CZ - BAZÉNOVÝ NÁSTĚNNÝ ODVLHČOVAČ**

NÁVOD NA OBSLUHU A MONTÁŽ

**HU - OLDALFALI USZODAI PÁRÁTLANÍTÓ**

HASZNÁLATI UTASÍTÁS ÉS MŰSZAKI DOKUMENTÁCIÓ

**PL - PRZYŚCIENNY OSUSZACZ BASENOWY**

INSTRUKCJA OBSŁUGI I MONTAŻU

**MODEL: DRY 300i & 500i Silver**

Thank you for your decision to purchase our device.

Please read this user manual carefully before starting to use the device.

Please keep the instructions of this practical guide in order to get a quick know-how.

We do not take any responsibility or provide warranty in case of damage, loss or damnification caused by incorrect usage or usage for other purposes, not specified in this manual.

- Contents:
1. Safety measures
  2. Usage specification
  3. Instructions for use
  4. Instructions for maintenance
  5. Servicing the unit
  6. Installation guide
  7. Technical data

## 1. SAFETY MEASURES

- Do not manipulate with the device with wet hands.
- Do not spray any flammable substances into the equipment; this might lead to fire.
- Do not clean the device with water.
- The cover of the device is made of rustless steel. For cleaning and polishing the cover without making any undesired matt blobs on its surface, use grooming and protective articles suitable for rustless metal surfaces. Apply some drops on a dry and non-fluffy clout and then smoothly wipe it into the surface. After 2 minutes of drying, wipe it again and polish it using a dry and clean clout (grooming article together with a clout is in the package).
- Do not clean the equipment with aggressive cleaning agents, this might lead to damage or deformations.
- Never throw or insert any objects into any tube or opening.
- Use this device only for the intended purpose, as described in the attached instructions for use. Do not use components, which are not recommended.
- Never block the air opening of the product. Protect the air openings from clogging by particles, hair etc.
- When the device is not running correctly (smoke, smell, etc.), switch off the device by a circuit breaker in the switchboard.
- Repairs and relocations must be performed only by a service technician.
- Before cleaning the device, switch off the circuit breaker in the switchboard.
- Do not place any objects on the surface of the device.
- When you do not intend to use the device for a longer time, switch off the circuit breaker.

## 2. USAGE SPECIFICATION

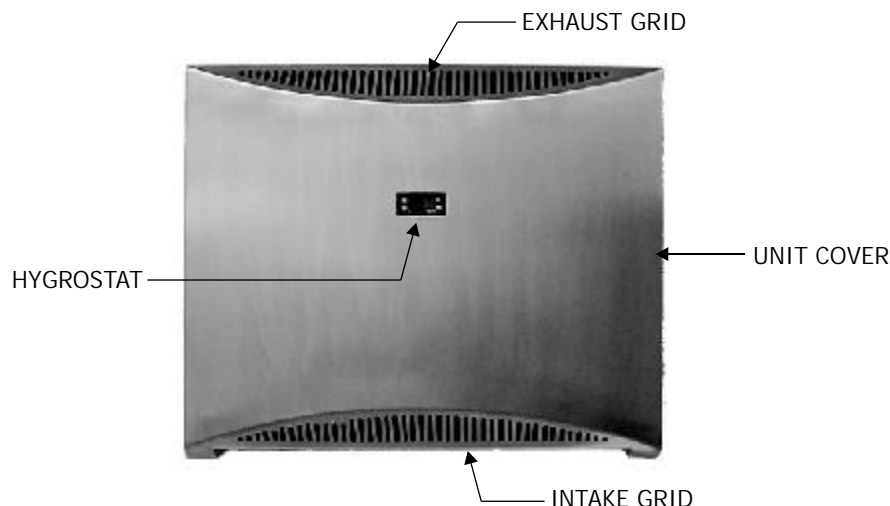
The units are designed especially for use in indoor swimming pools, spas and saunas. They can also be very useful in laundries, drying rooms and elsewhere.

Microwell DRY 300i Silver is designed for rooms with a swimming pool, which surface is up to 30 m<sup>2</sup>.

Microwell DRY 500i Silver is designed for rooms with a swimming pool, which surface is up to 60 m<sup>2</sup>.

The condition of using the equipment is keeping a room temperature within a range between min. 15 °C and max. 35 °C.

Optimal situation occurs when the room temperature is about 2-3 °C higher than a swimming pool water-temperature.



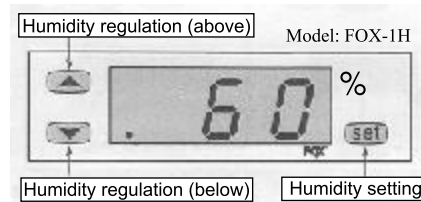
### 3. INSTRUCTIONS FOR USE

#### 3.1. Humidity regulation with an inbuilt digital humidistat located in the cover of the equipment

The inbuilt humidistat is located in the cover of the device. It reads the humidity of the incoming air, and depending on the set value, switches on the compressor. In indoor swimming pool halls, the correct air humidity should range between 55% and 65%. Decreasing the level of humidity under the above mentioned range is not desirable, considering the physiological aspects as well as the aspects of providing building protection. Moreover, it increases the consumption of electrical energy. The humidistat can be controlled by the user.



Hygrostat display (front view)



#### Application mode change

When pressing the **[set]** button, the set humidity starts to blink.

When you wish to change the set value, press the **[up/down]** button.

When pressing the **[set]** button again, **0-E** symbol is displayed, the set value is memorized and you can read the value of the measured humidity on the display.

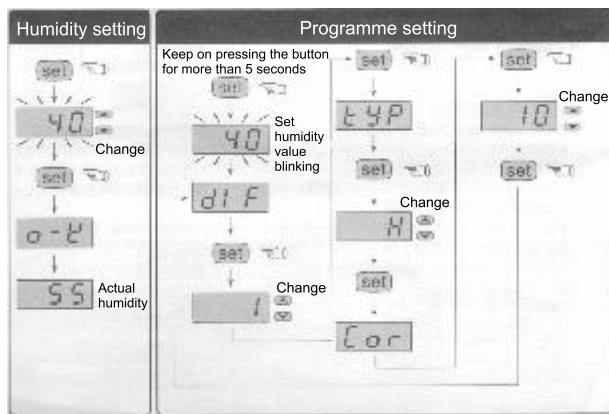
#### Setting programming functions

When the **[set]** button is pressed for a longer time than 5 seconds, the following commands are set: DIF (humidity deviation = hysteresis) TYP (chosen type = function of dehumidification or humidification) COR (displayed humidity correction).

When pressing the **[up/down]** button, the values of each mode you wish to change are set, and by pressing the **[set]** button, the following mode is displayed.

#### Failure reporting

- E-r1 Memory failure. Switch off and then switch on again the electrical connection. If the failure reporting continues, please ask us to change the component.
- 0-E Sensor failure. The electrical connection of the sensor is broken off. Please control the cable.
- S-E Sensor failure. The sensor is short-circuited. Please control the cable.



#### 3.2. Humidity regulation with a back-up mechanical humidistat located in the electronic box

In the electronic box there is a back-up mechanical humidistat, which is set on the value of 70% RH. This humidistat has a back-up function in case of digital humidistat failure. User should not perform any regulation of this humidistat.

#### 3.3. Fan regulation

Under the inside cover of the unit, there is a two-positional fan mode switch. In the first position, the fan runs even if the compressor of the appliance has stopped: continuous operation of the fan. In the second position, the fan only runs simultaneously with the compressor: periodical duty of the fan. The continuous operation mode of the fan is preferable, since the humidity reader built in the device continuously reads humidity, and therefore a greater accuracy is reached. At the same time, continuous operation of the fan results in better air circulation in the room. The installation work supplier selects the mode of the fan according to the request of the user.



Switch of fan operation

### 3.4. Compressor regulation

The compressor's operation starting is for securing its protection, delayed by min. 3 minutes. Depending on the humidity of environment, it may last even longer. The user must not manipulate with the setting element of a time relay.

## 4. MAINTENANCE INSTRUCTIONS

It is necessary to make sure that the intake- and exhaust outlet are not covered. It is forbidden to place towels or clothes on the exhaust outlet, to dry them. Cleaning the device's cover can be done only using grooming articles suitable for rustless steel surfaces. In case there is a water dripping from the equipment, check whether a condensate pipe is not obstructed.

## 5. SERVICING THE UNIT

At least once a year, it is necessary to have the unit checked and cleaned by a service specialist. This is necessary in order to secure a long operational life of the device. Cleaning the interior parts of the device by a user is not recommended, as this may lead to a damage on the unit. The device contains mobile elements as well as elements under electrical pressure, therefore the interior parts can be cleaned only by a certified electrician with an appropriate knowledge of refrigerating technology.

## 6. INSTALLATION GUIDE

The unit must be installed in compliance with the local installation and electrical installation regulations !

### 6.1. Unit location

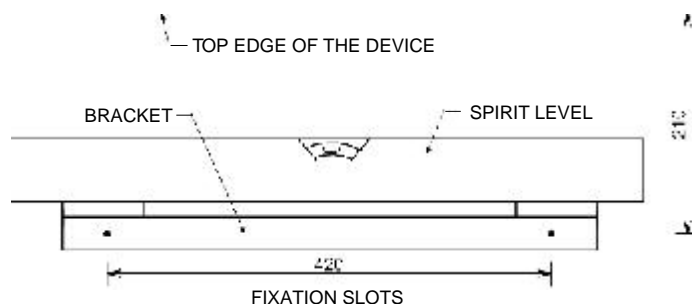
To ensure maximum efficiency, it is necessary to install the unit as high above the ground as possible. It is forbidden to install the unit on the floor. However it is possible to install the unit to a mobile rack, which is an accessory equipment, that can be ordered additionally. It is essential to ensure good air circulation by allowing at least 150 mm of free space under the unit and at least 200 mm of free space above the unit. For the purpose of maintenance, it is further necessary to allow at least 200 mm of free space on both sides of the unit.

### 6.2. Equipment fixation

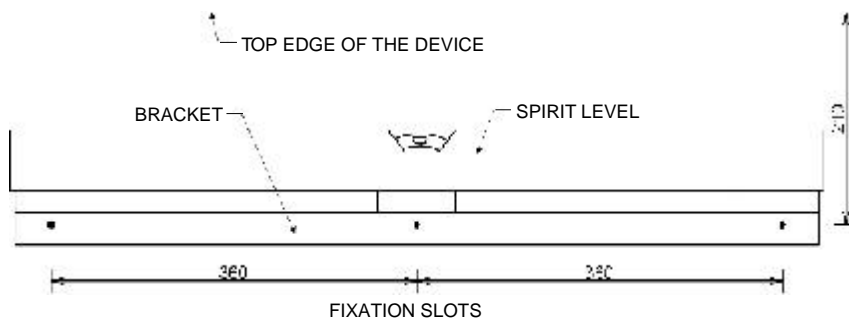
The equipment has a self-supporting construction and is very easy to install.

There is an installation bracket included in the equipment accessories, which must be fixed on the wall. The axis of the fixation slots is 210 mm lower than the top edge of the device. The distance between the fixation slots is 420 mm (DRY 300i Silver) and 360 mm (DRY 500i Silver). When the bracket is fixed, it is possible to hang up the device without dismantling its cover.

#### Model DRY 300i Silver



#### Model DRY 500i Silver

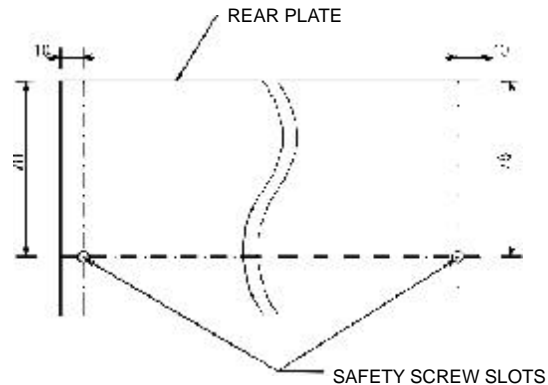


### 6.3. Dismounting and mounting of the cover

The cover can be dismounted after releasing two screws (DRY 300 Silver) or three screws (DRY 500 Silver) at the bottom of the device. Release the screws, pull the bottom part of the cover toward yourself and then, by lifting it shortly, rake down the cover from the rear plate. To mount the cover, carry the procedure out in reverse order.

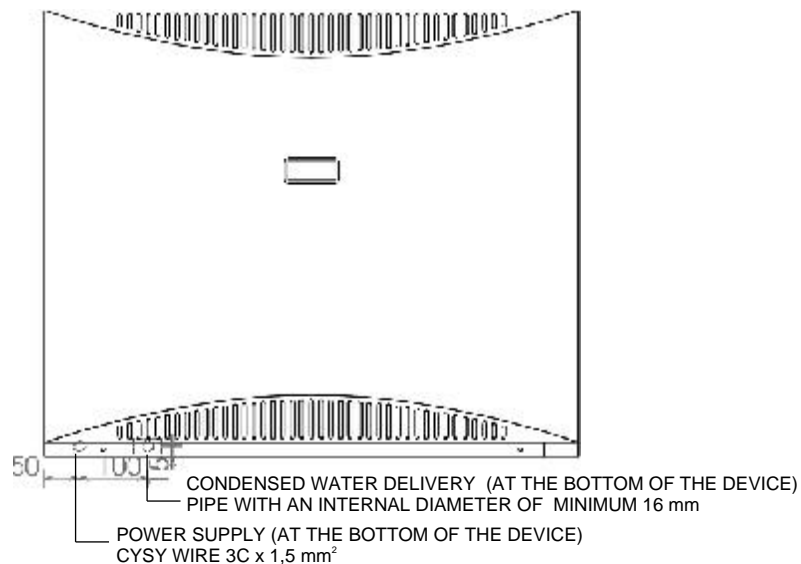
#### 6.4. Position assuring of the device

The design of the device enables its safe mounting and proper fixation even if lifted accidentally. There are slots for safety screws accessible after dismantling a front fibreglass cover, located in the top corners of the rear plate. There is an arrow that indicates safety screw slots in the rear plate. The safety screw is fixed through a slot in the rear plate into a wall fastener. It prevents the device from being pulled out and from falling out from a mounting bracket. At the same time, it secures a vertical position of the device together with a device alignment with a wall.



#### 6.5. Condensate drain

Condensed water is drained from the device by the force of gravity. It is necessary to locate the device in a way that enables sufficient condensed water gradient. The condensate must be delivered through a siphon into the sewer or into the outside environment. It is strictly forbidden to deliver the condensate back into the swimming pool, as it may be bacterially contaminated. There is a tube for condensed water delivery located at the bottom of the device, on the left side. This tube must be plugged into a sewerage pipe with an internal diameter of minimum 16 mm.



DRY 300i Silver and DRY 500i Silver with connections (front view)

#### 6.6 Connecting the device to the mains

Connecting the device onto the mains and protection securing must satisfy the requirements of relevant norms. Connection requirements are the following: 220-240 V/50Hz, protection 10A (DRY 300i Silver) and 16A (DRY 500i Silver) with a mains-fuse that has a current-carrying differential disconnecting capacity, not exceeding 30mA. There is a terminal for connection to the mains, located on the left hand side of the device. The master switch of the device must be located outside the swimming pool area, it must be bipolar and with L and N conductors' disconnecting. The device for disconnecting the appliance from the mains must be inbuilt to a steady point. There has to be a distance of min. 3 mm between the contacts (when switched off) for all the poles. Connection of the device to the mains must be performed by a certified electrician.



Preparation of electric power supply, condensate drain and console mounting

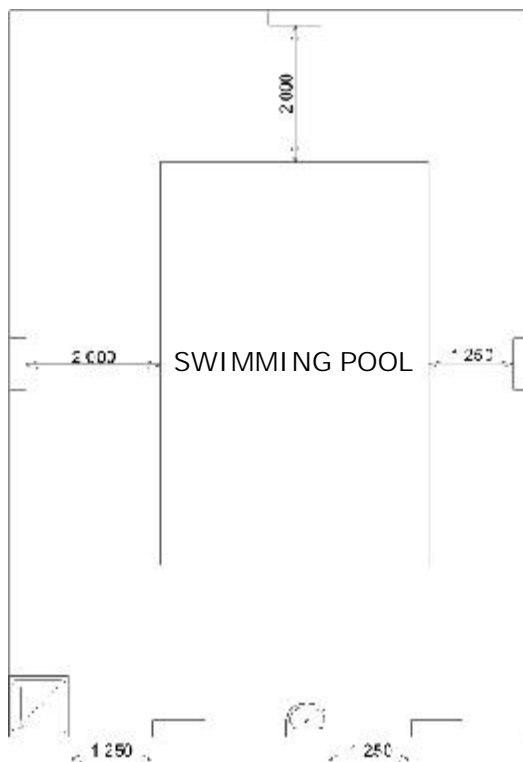
## DEVICE LOCATION

Device location must be in accordance with HD 384.7.702 S1 and IEC 60364-7-702 standard. It is recommended to locate the device outside zones 0,1 and 2. In case the device is located into zones 2 or 1, HD and IEC standards requirements must be satisfied.

### ZONE 1, IPX4

Swimming pools which are not cleaned by splashing water

In the distance of 1250 - 2000 mm from the swimming pool edge in accordance with HD and IEC standards and at least 300 mm above the floor



### ZONE 2, IPX2

Swimming pools which are not cleaned by splashing water

In the distance of 2000 - 3500 mm from the swimming pool edge. In accordance with HD and IEC standards and at least 300 mm above the floor, in order to secure the sufficient air-circulation. It is strictly forbidden to install the device onto the floor.

### OUTSIDE THE ZONES

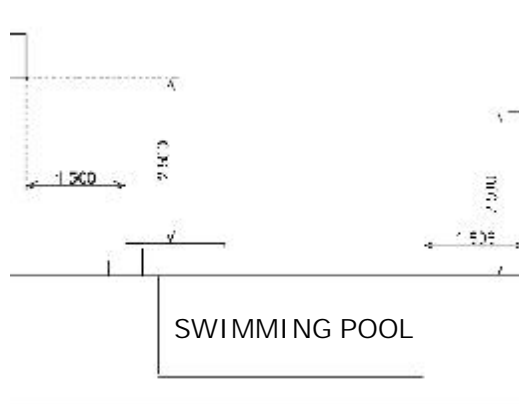
In the distance of 1250 mm or less from the swimming pool edge, the bottom edge of the device must be 2500 mm above the swimming pool surface.

At least 1250 mm (i.e. out of the reach of the hand) from the side edge of the shower cabinet. It cannot be placed above the shower cabinet.

At least 1250 mm (i.e. out of the reach of the hand) from the side edge of the wash basin, in the minimum height of 1200 mm above ground. It cannot be placed above the wash basin.

### OUTSIDE THE ZONES

In the distance of at least 1500 mm from the vertical plane around jumping platforms, jumping boards and starting blocks, 2500 mm above the highest surface, where people are likely to stay.



### OUTSIDE THE ZONES

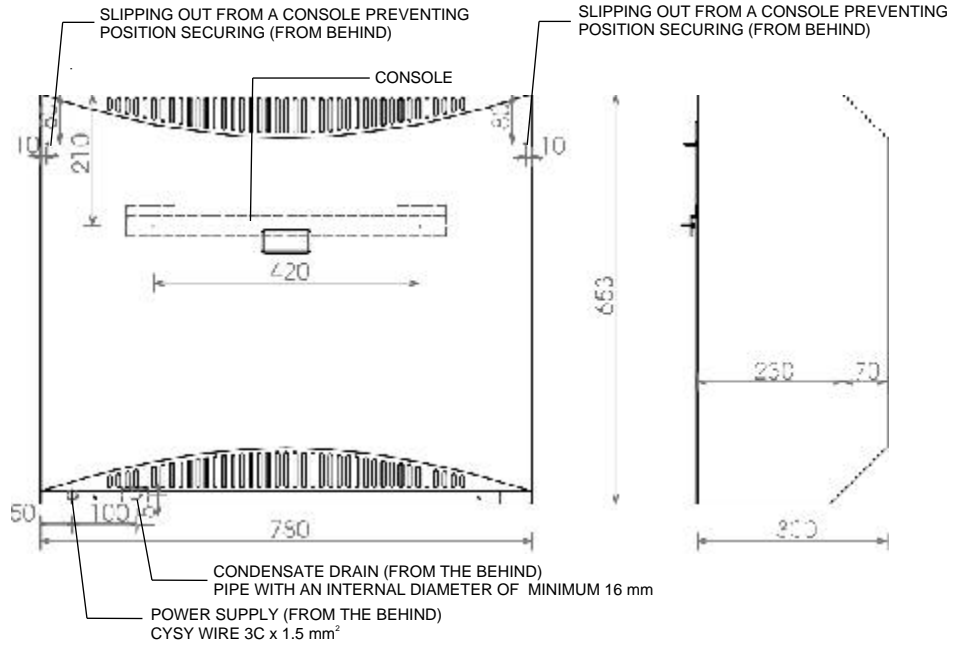
If the unit is in the distance of less or equal to 1250 mm horizontally from the edge of the swimming pool, then it must be raised up to the height of 2500 mm from the swimming pool surface; if the pool is embedded under the floor, then the unit must be raised up to the height of 2500 mm from the floor.

It is inevitable to locate the device outside the zones, where cleaning with splashing water is supposed. Connection of the unit to the mains and its protection must correspond with the applicable standards. Electrical supply of the unit must be carried out by a protective isolating transformer, or it must be protected by a current protector with a current-carrying differential disconnecting capacity, not exceeding 30mA.

DRY 300i Silver swimming pool dehumidifier parameters

FRONT VIEW

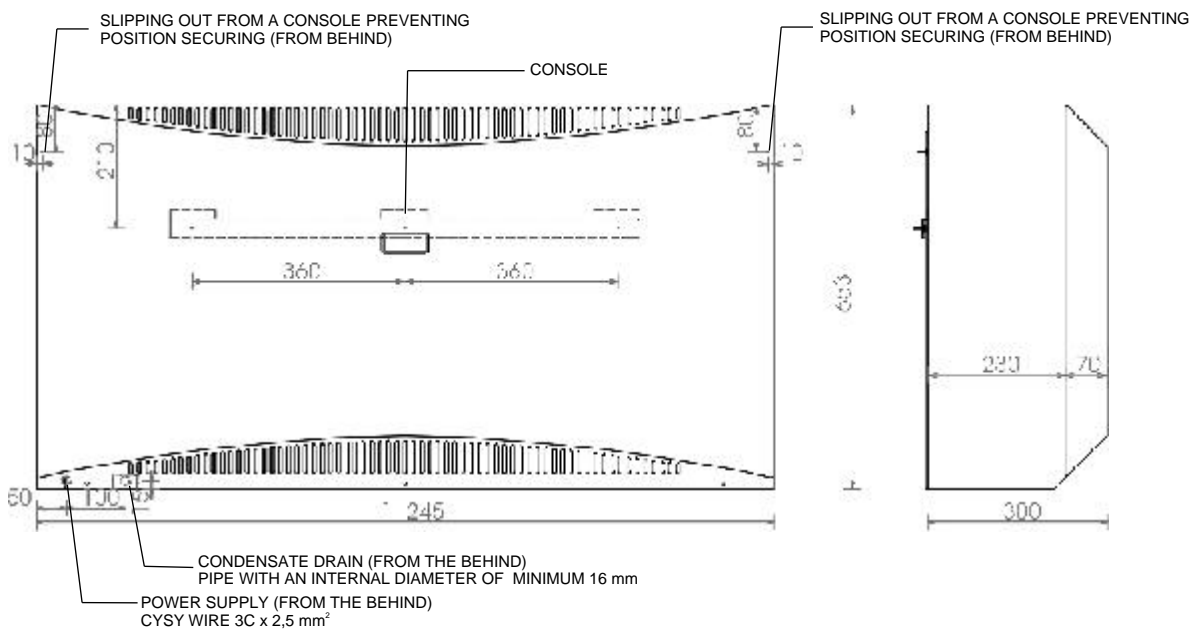
SIDE VIEW



DRY 500i Silver swimming pool dehumidifier parameters

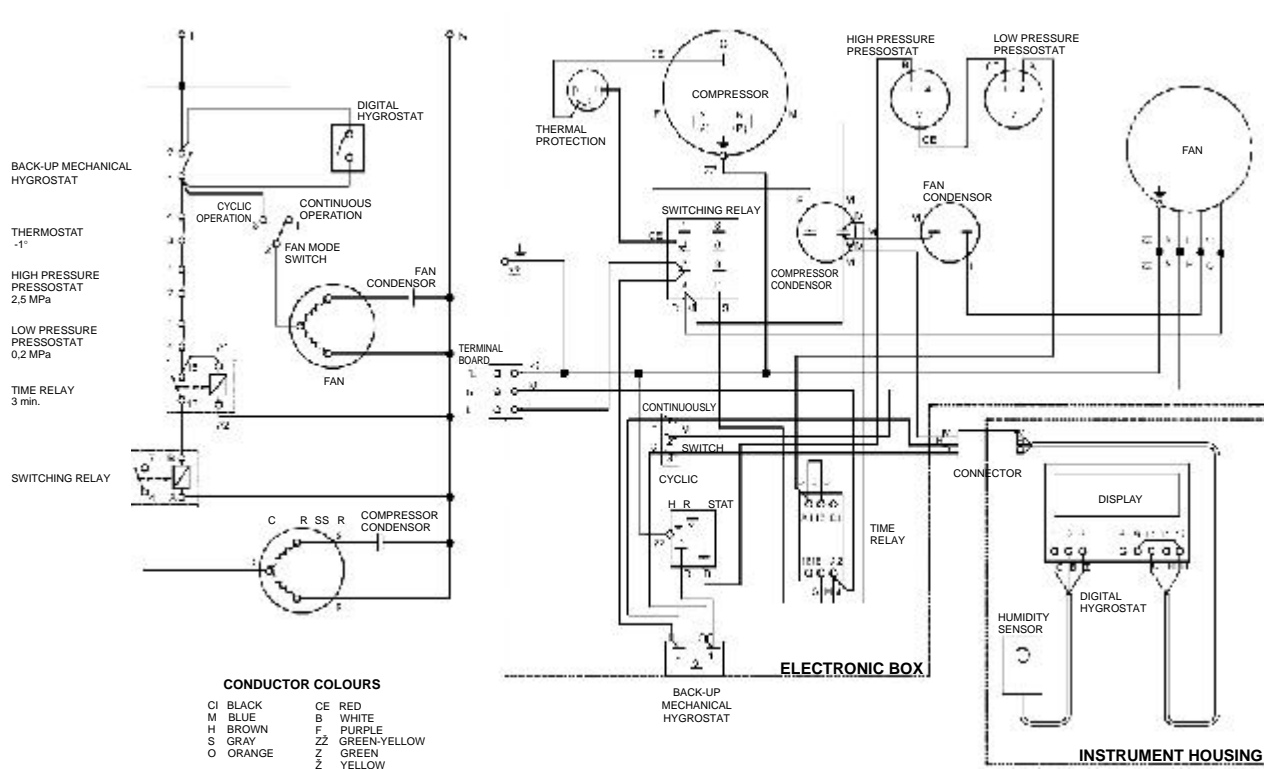
FRONT VIEW

SIDE VIEW



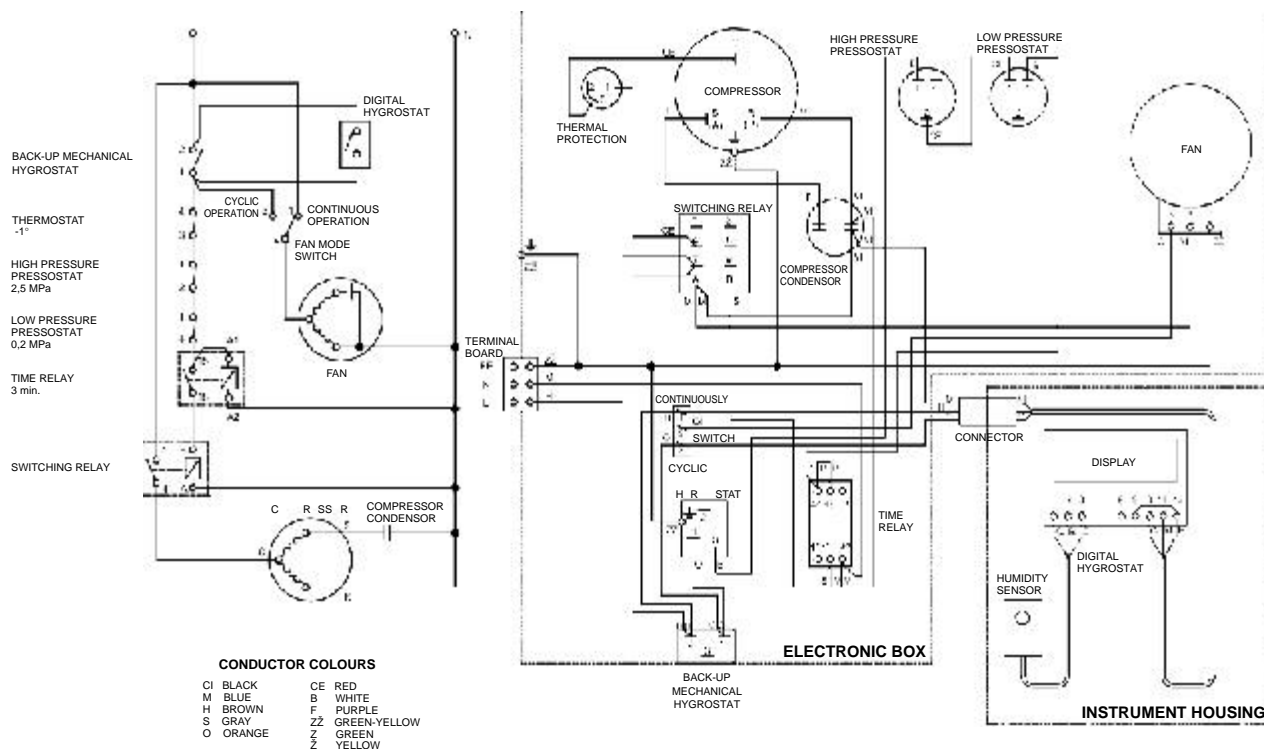
WIRING DIAGRAM OF MICROWELL DRY 300i SILVER

ELECTRIC CIRCUIT DIAGRAM AND WIRING DIAGRAM OF MICROWELL DRY 300i SILVER



WIRING DIAGRAM OF MICROWELL DRY 500i SILVER

ELECTRIC CIRCUIT DIAGRAM AND WIRING DIAGRAM OF MICROWELL DRY 500i SILVER

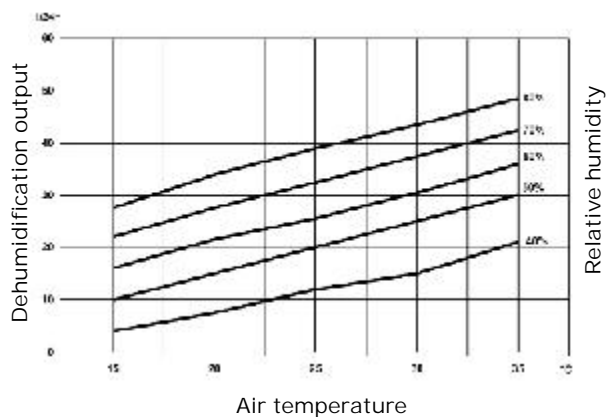




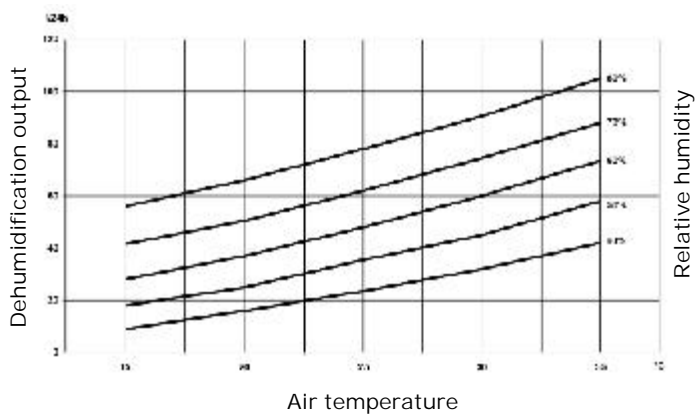
## 7. Technical data

TECHNICAL DATA	UNITS	DRY 300i Silver	DRY 500i Silver
For swimming pools with max. surface	m <sup>2</sup>	30	60
<b>DEHUMIDIFICATION PERFORMANCE:</b>			
at 30 °C and 60 % RH	l/24 h	30	60
at 30 °C and 70 % RH	l/24 h	38	75
at 30 °C and 80 % RH	l/24 h	43	92
Operating temperature range	°C	15-35	15-35
Operating humidity range	% Rw	20-100	20-100
Air flow	m <sup>3</sup> /h	440	740
Noisines (in 1 m distance)	dB (A)	44	44
Thermal capacity	W	1900	3500
Electrical power consumption	W	750	1200
Voltage	V/Hz/f	230/50/1	230/50/1
Operating current / Starting current	A	4,4 / 15,8	7,5 / 30
Protection	A	10	16
Mechanical Protection	IP	44	44
Conductor	mm <sup>2</sup>	CYSY 3C x 1,5	CYSY 3C x 2,5
Pipe for condensate delivery (min. interior diameter)	mm	d 16	d 16
Sizing (width x height x depth)	mm	780 x 653 x 300	1245 x 653 x 300
Package sizing (width x height x depth)	mm	850 x 810 x 345	1315 x 810 x 345
Weight - net / in package	kg	50/56	77/86
Refrigerant - R 407 C	kg	0,5	0,75
Max. pressures in the system HP/LP	bar	20,6/10,6	20,6/10,6
Dehumidifier efficiency rate	DER	2,4	2,7

OUTPUT DIAGRAM OF DEHUMIDIFICATION  
DRY 300i Silver



OUTPUT DIAGRAM OF DEHUMIDIFICATION  
DRY 500i Silver



Technický skúšobný ústav Piešťany, š.p.

Notifikovaný orgán: Identifikačné číslo 1299

Notified Body: Identification No. 1299

Autorizovaný orgán: Reg. číslo SKTC 104 / SK03



Authorised Body: Reg. No. SKTC 104 / SK03

**CERTIFIKÁT ZHODY**  
**CONFORMITY CERTIFICATE**  
**Č./No.: 712990054**

pre výrobcu alebo jeho autorizovaného zástupcu v Európskej únii  
to the manufacturer or his authorised representative in the European Union

MICROWELL spol. s r.o.

SNP 2018/42

927 01 Šaľa, Slovak Republic

Výrobok a určenie typu / Product and designation of type

Odvlhčovač vzduchu MICROWELL  
typ DRY 300i; DRY 500i;  
DRY 300i Silver; DRY 500i Silver

Dehumidifier MICROWELL  
Type DRY 300i; DRY 500i;  
DRY 300i Silver; DRY 500i Silver

Preskúšaná vzorka spĺňa základné požiadavky na bezpečnosť podľa nasledujúcich európskych smerníc Nového prístupu:

The sample tested meets the essential safety requirements of the following European New Approach Directives:

Smernica o EMC

2004/108/EC

2004/108/EC

EMC Directive

Smernica o nízkom napätí

2006/95/EC

2006/95/EC

Low Voltage Directive

Existujú pre to nasledujúce dokumenty:  
záverečný protokol č.

For this the following documents exist:  
Final Report No.

750146/2007

750146/2007

Dodržiavajú všetky príslušné smernice ES a poskytujú ES Vyhlásenie výrobcu o zhode, vyššie uvedené výrobok môže byť opatrený označením CE.

Observing all relevant EC New Approach Directives and providing the Manufacturer's EC Declaration of Conformity above mentioned product can be labelled with CE marking.

**CE**



Piešťany 26.09.2007

750146

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