



Installation and operating instructions

DSO 01B

1227101020 - DSO 01B.1P.1250

1227101040 - DSO 01B.1P.915

1227101030 - DSO 01B.1L.1250

1227101050 - DSO 01B.1L.915

Basic technical data

Maximum capacity:	approx. 10 persons per minute
Electrical connection:	230 V, 50 Hz
Power consumption:	standby 3 VA, dosing + passage 45 VA
Electrical protection:	IP 55
Bath volume (water approx. 1 cm above grating):	_1250: 45 l; _915: 30 l; external water supply
Recommended disinfectant:	Consult the disinfectant supplier for a suitable product. Do not use: aggressive chlorine-based agents or chlorine compounds and other products that may adversely affect the stainless steel cladding and internal plastic piping.
Recommended solution concentration:	as specified by manufacturer
Product website:	DSO 01B

General description

The system consists of a stainless steel disinfection footbath with a handrail. The system is mounted on four height-adjustable feet.

Passage through this footbath into the controlled area (via the turnstile) is permitted only after successful hand disinfection in the ADR system (automatic hand disinfection).

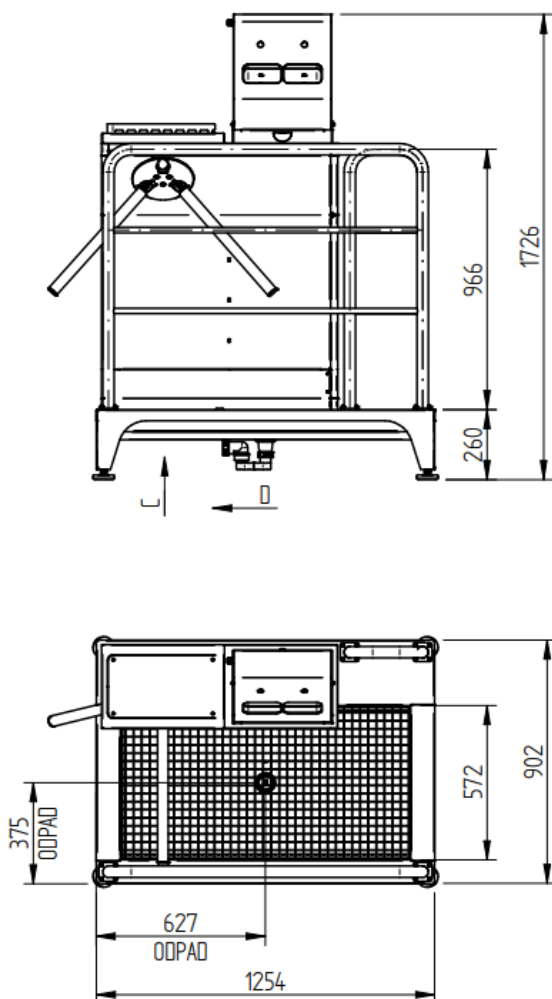
Passage in the opposite direction through the turnstile is not monitored.



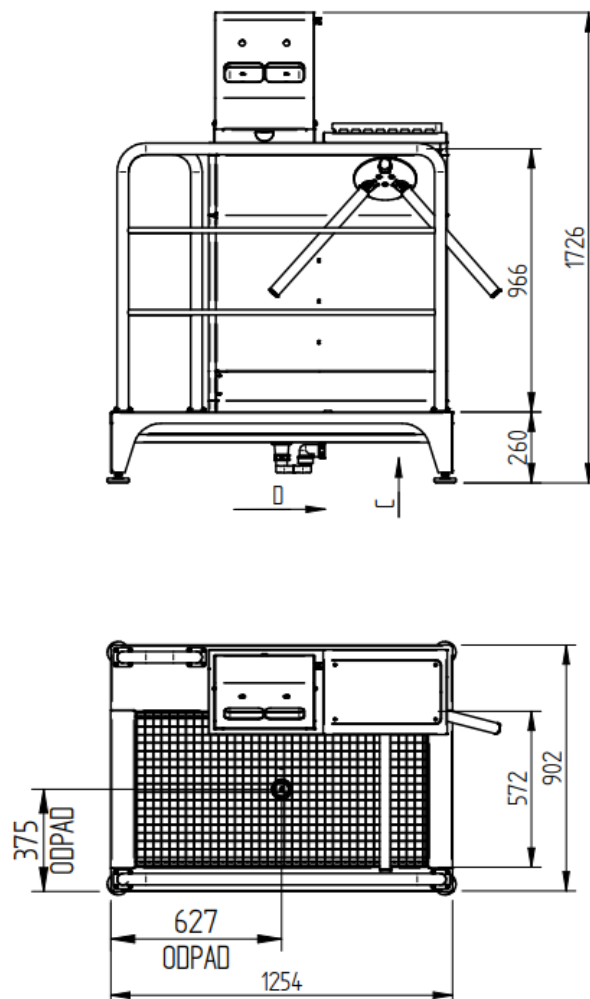


Diagram

1227101020 DSO 01B.1P.1250



1227101030 DSO 01B.1L.1250

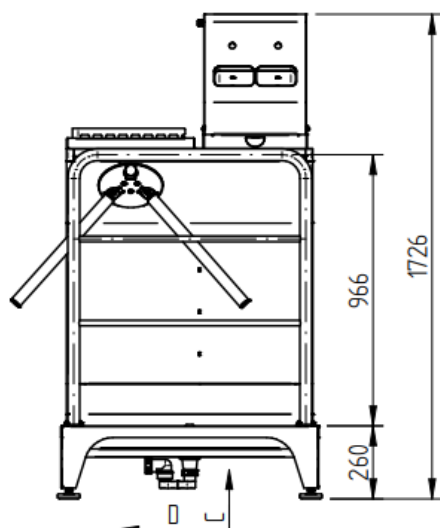


C – 230 V, 50 Hz power supply

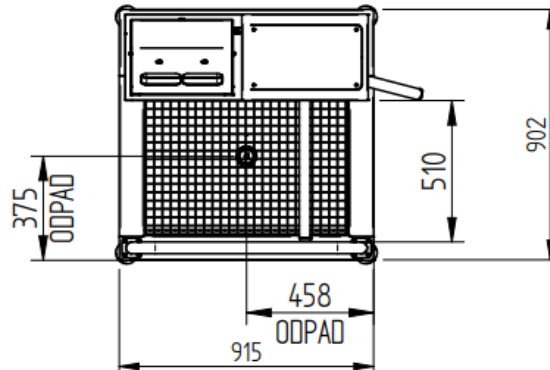
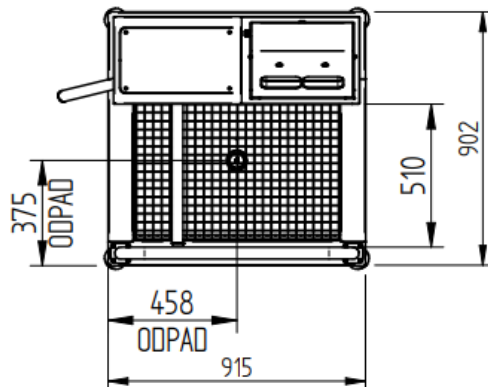
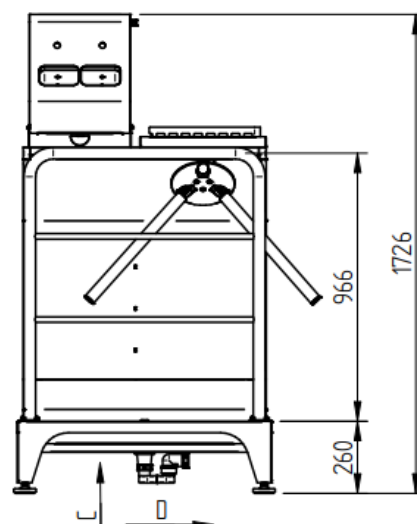
D – drain



1227101040 DSO 01B.1P.915



1227101050 DSO 01B.1L.915



C – 230 V, 50 Hz power supply
D – drain



Site preparation

- 1) Prepare the waste connection and the connection to the rotatable tray-type siphon DN 40.
- 2) Provide a 230 V/50 Hz power supply using a 3 x 0.75 mm² cable (minimum), separately protected by an external single-phase circuit breaker rated at 2 A.

Installation

- 1) Adjust the height of the footbath to compensate for surface irregularities using the four height-adjustable feet. Adjust the height by turning each foot in either direction (like a threaded connection).
- 2) Connect the drain.
- 3) Route the 230 V/50 Hz supply voltage through the cable glands into the marked box and connect it to the power terminal block located in the lower part of the turnstile leg.

Automatic hand disinfection (ADR) function

Automatic hand disinfection (hereinafter ADR) is used to disinfect hands with a disinfectant, primarily in the food industry, and is directly linked to a system that controls the movement of persons in a defined area, e.g. a turnstile.

The worker approaches the unit, on which the red indicator light is illuminated. When both hands are inserted into the openings in the ADR unit, the optoelectronic sensors are interrupted, activating the entire unit. The pump delivers the preset dose of disinfectant, which is sprayed onto the inserted hands through misting nozzles, and the green indicator light illuminates. At this moment, a potential-free contact closes, causing the barrier to open or the turnstile to unlock.

The sensors in both hand openings monitor the correct disinfection procedure. If disinfection is not performed correctly (e.g. the hands are removed before the complete disinfectant spray cycle is finished), passage through the turnstile is not permitted. The worker must repeat the disinfection procedure. The worker may pass through the turnstile into the controlled area only after the green indicator light illuminates.

Maintenance

System bleeding procedure:

The operator presses the button on the underside of the ADR enclosure, thereby activating the entire electronic system. The button must be held until disinfectant is discharged. The complete system must then be fully bled by repeatedly inserting the hands into the openings of the ADR enclosure. During normal operation, it is recommended to replace the canister in good time to prevent the disinfectant solution from being completely depleted and the system from drawing in air.



Settings

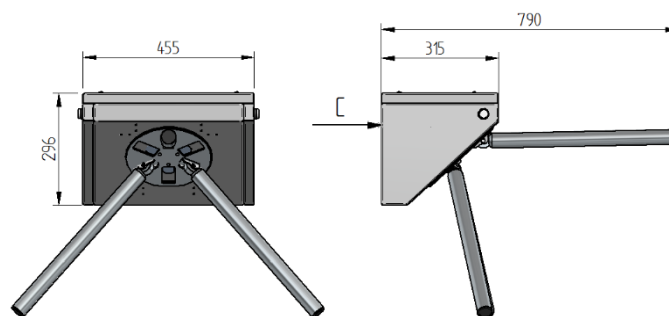
The injection duration is set by pressing the microswitch contact located on the printed circuit board inside the control box. Spray duration = time between presses. The adjustment range is 100 ms to 25 s in 100 ms increments. The setting can only be changed within 20 minutes after switching on the supply voltage. The terminals on the PCB terminal block are used for different ADR versions.

Warning:

Using a disinfectant other than the recommended one may damage the pump or clog the nozzles.

Turnstile function and technical description

The turnstile is a mechanical device whose main component is a control unit that blocks or releases rotation of the head with arms. The control unit can be configured as RIGHT / LEFT according to the required blocking direction. Determining the direction of rotation: when viewed from the front of the rotating head, clockwise rotation is the right-hand version, while counter-clockwise rotation is the left-hand version. The required version should preferably be specified when ordering. Alternatively, the passage direction can be set on site (see Setting the passage direction).



The turnstile consists of a stainless steel housing with a control unit and a rotating head.

The TRM 02 turnstile is also equipped with an automatic arm-drop function. In the event of a power failure, the arm drops into the vertical position. It is returned to its original position manually (the turnstile must be powered).

Maintenance

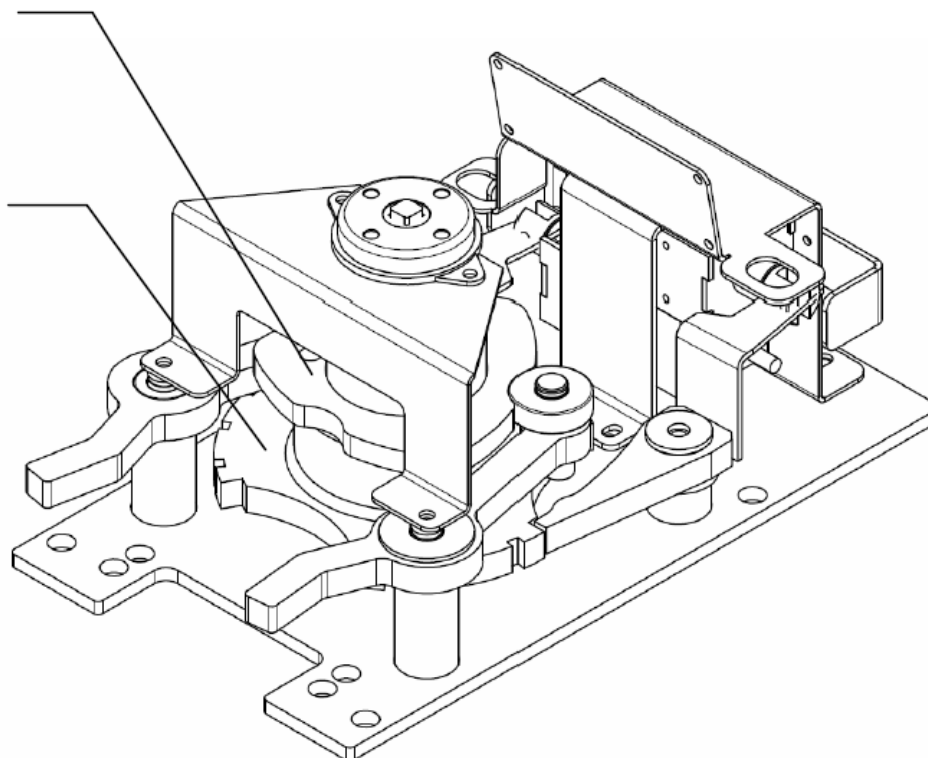
The turnstile mechanism is a complex mechanical device with rotating parts. Maintenance is therefore very important to ensure correct operation. Maintenance and adjustment must be carried out by an experienced person trained by the manufacturer, or preferably by the manufacturer. A service inspection must be carried out every 6 months or after approximately 20,000 passages.

In addition, rough mechanical damage and exposure to aggressive substances (alkalis, corrosive agents) must be prevented.



**Shaped
cam**

**Brake
wheel**



Lubricating the turnstile mechanism

To ensure smooth operation of the turnstile and reduce material wear, all mechanical parts of the turnstile (see the following figure) must be lubricated with special grease. Ordinary lubricants must not be used.

Spring adjustment

If greater spring stiffness is required, insert a washer between the spring and the positioning lever.

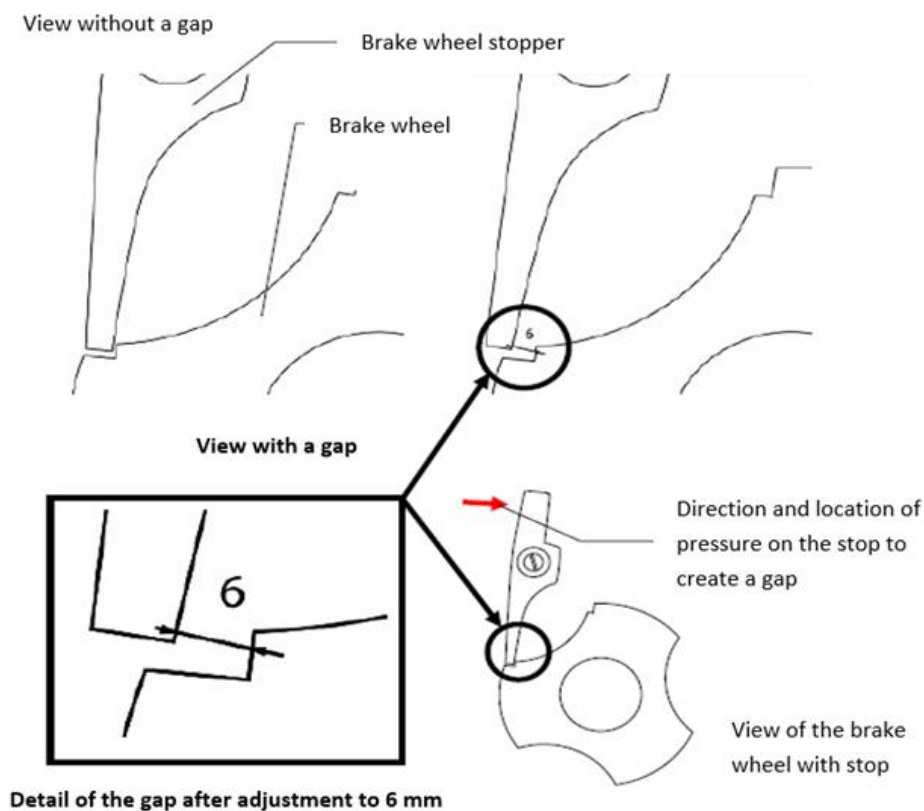
Setting the passage direction

Set the required direction by loosening or tightening the locking screw located under the corresponding brake wheel stop. When making this adjustment, ensure that the sensor is adjusted correctly (see the following section).

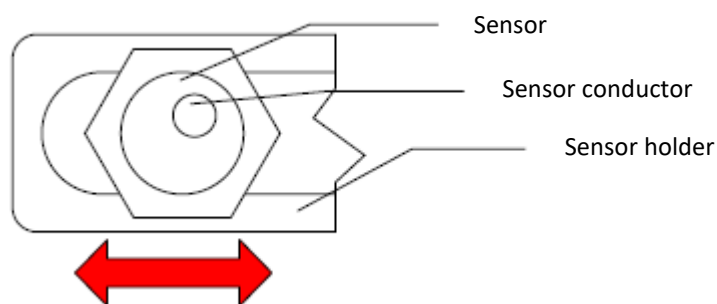
Sensor adjustment

The sensor is required for correct unlocking and locking of the rotating barrier. The sensor must be checked at least once every 3 months. Adjustment is required if the turnstile does not function correctly. Exercise particular care when tightening; do not overtighten the sensor, as this may damage it.

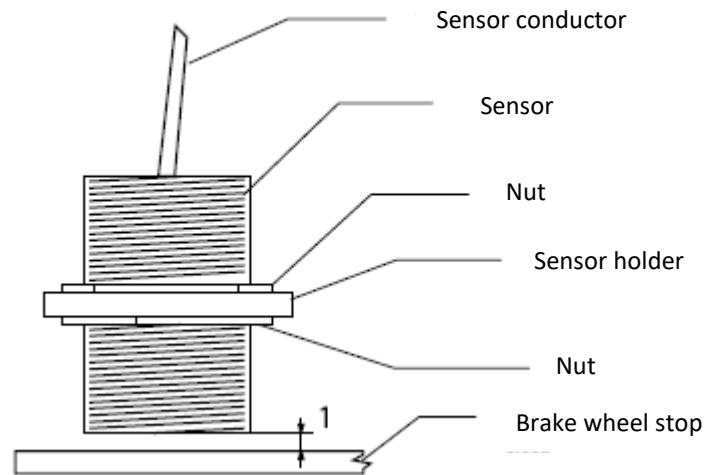
For adjustment, set the rotating barrier of the turnstile to the “Closed in both directions” position. The gap between the brake wheel and the brake wheel stop is important for adjustment and must be 6 mm. Create the gap by gently pressing the stop by hand at the electromagnet.



When the rotating barrier is in the “Closed in both directions” position, the LED indicator on the sensor is illuminated. Once the 6 mm gap has been set, the indicator must go out. If it remains illuminated, the sensor must be adjusted. Adjust the sensor by moving it on the sensor holder in the required direction.



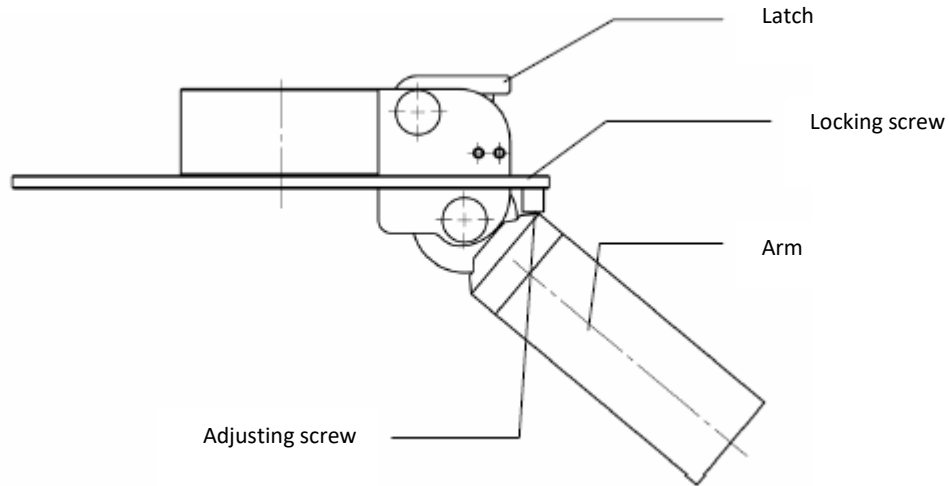
During all sensor adjustments, a **gap of 1 mm** must be maintained between the sensor and the brake wheel stop.



Adjustment of drop arms

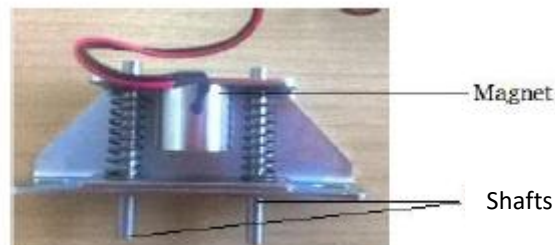
The drop arms allow free passage through the turnstile in the event of danger and evacuation (anti-panic function). Correct operation of the arms must be checked at least once every 3 months. If the arm does not drop automatically when the anti-panic function is activated (when the electrical circuit is interrupted), it must be adjusted to provide sufficient clearance for folding down.

Adjust the arm using the locking screw and adjustment screw. Press the latch to lower the arm into the vertical position and loosen the locking screw. If the arm clearance is too large, loosen the adjustment screw. If greater clearance is required, tighten the adjustment screw. Then retighten the locking screw. Return the arm to the horizontal position and rotate it. Test the arm function again and readjust if necessary.



Cleaning the drop arms

When cleaning the turnstile drop arms, the shafts must be lubricated with special grease and the area around the drop-arm magnet must be cleaned of all debris. The turnstile drop arms must be cleaned once every 3 months, or more frequently as required.



Prohibited operations

1. During the warranty period, it is prohibited to interfere with the turnstile unit in any way or to dismantle the drive unit without authorization. If this condition is violated during the warranty period, the operator loses the right to warranty repair.
2. It is prohibited to use force on the turnstile barriers when they are in the locked position in an attempt to enter an area with defined access rights.
3. It is prohibited to hang on the turnstile arm.



Maintenance and cleaning

The unit is made of stainless steel grade ČSN 17 240 (AISI 304) and must not be used in chemically aggressive environments. Cleaning agents containing chlorine must not be used. Recommended WÜRTH products: Metal restoring agent - Order No. 893 121 1 Stainless steel care spray - Order No. 0893 121 - K.

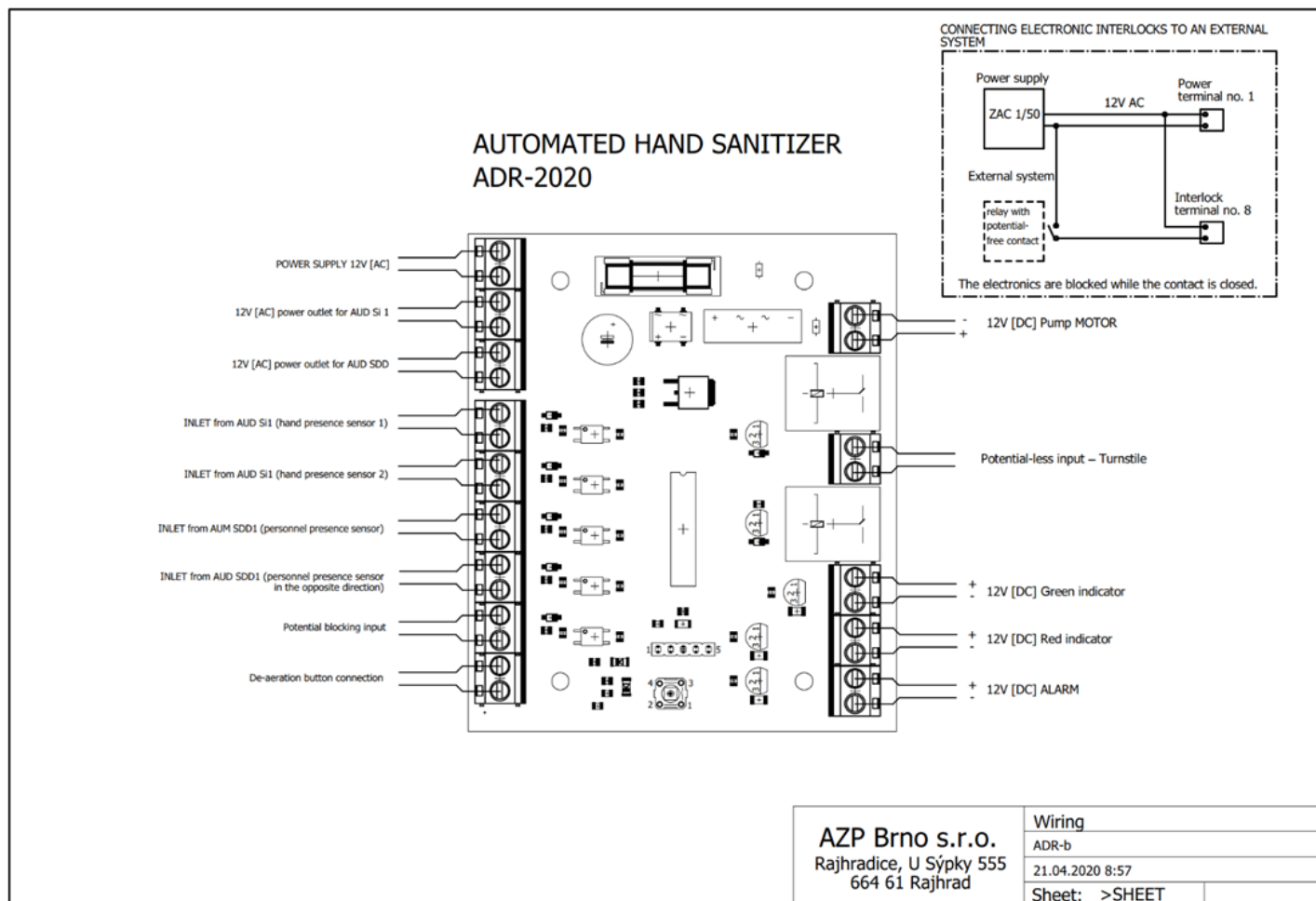
Spare parts list

- | | |
|---------------------------|------------------------|
| • Control Electronics ADR | Order No. # 1401400180 |
| • Hand sensor electronics | Order No. # 1782080120 |
| • Pump | Order No. # 1420300200 |
| • Power supply | Order No. # 1210001310 |
| • Nozzle | Order No. # 1309000300 |
| • Check valve | Order No. # 1306600100 |

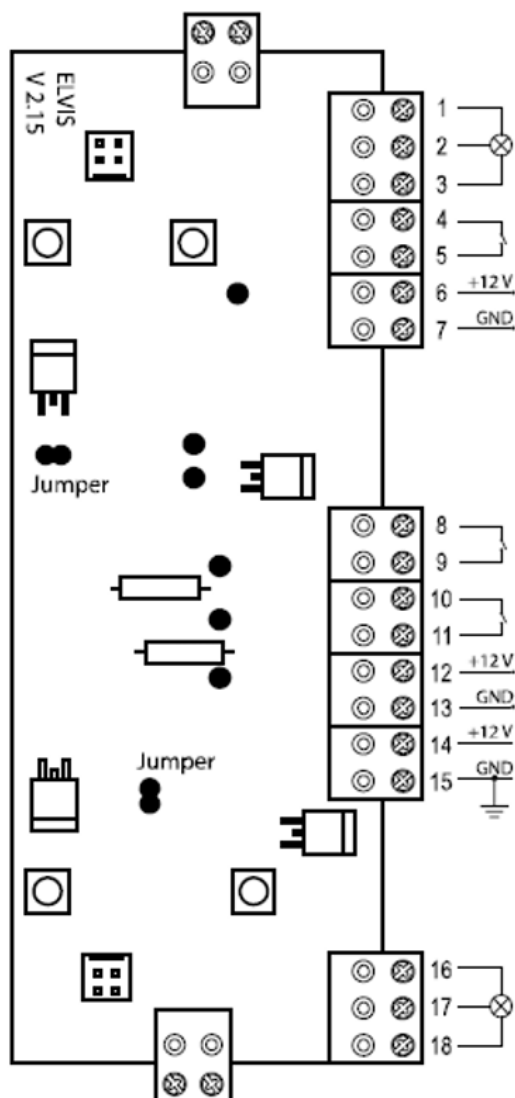
Operational safety

- The installed electrical equipment must undergo regular maintenance and inspection in accordance with applicable standards and regulations. Persons designated to operate the equipment must be properly and demonstrably instructed and familiarized with the equipment and with the hazards that may arise during work. In particular, they must be instructed in first aid for electrical accidents, mandatory fire precautions, etc.

Appendix No. 1: ADR control electronics wiring



Appendix No. 2 – Turnstile control electronics wiring



- 1 - Signalling DIRECTION A GREEN (open) +12V
- 2 - Signalling DIRECTION A GND
- 3 - Signalling DIRECTION A RED (closed) +12V
- 4 - Panic (release the turnstile in both directions)
- 5 - Panic (release the turnstile in both directions)
- 6 - Output for sensor power supply +12V DIRECTION A
- 7 - Output for GND sensor power supply DIRECTION A
- 8 - Turnstile control input DIRECTION A
- 9 - Turnstile control input DIRECTION A
- 10 - Turnstile control input DIRECTION B
- 11 - Turnstile control input DIRECTION B
- 12 - Output for sensor power supply +12V DIRECTION B
- 13 - Output for GND sensor power supply DIRECTION B
- 14 - Power supply +12V
- 15 - GND Power supply
- 16 - Signalling DIRECTION B GREEN (open) +12V
- 17 - Signalling DIRECTION B GND
- 18 - Signalling DIRECTION B RED (closed) +12V