

# DWS Doorway Sanitizer



## **General**

For safety during installation and later use it is very important that installation, operating and maintenance instructions are carefully followed.

You are requested to keep this instruction manual at a location where it will be available at all times, and it should be submitted to the person who is responsible for this product. In the event that the instruction manual is lost, you are welcome to order a new one from your dealer.

If any doubt should arise with regard to the content of these instructions, please contact the distributor.

## **Proper use**

System Cleaners' system is exclusively designed to transport and pressure-increase of water to satellite stations. All other forms of application or use not within the scope of the above are considered to be improper and inconsistent with the requirements and regulations, and may lead to hazardous situations.

System Cleaners A/S cannot be held liable for consequential damage resulting from improper use of the equipment.

Proper use includes the following:

- The instructions, regulations and recommendations concerning the system stated in the instruction manual
- Observance of the specified inspection and maintenance intervals
- Correct maintenance of good operating condition of the system
- Observance of the specified environmental and operating conditions

Proper use also includes observance of all information that is stated in this instruction manual. This applies in particular to the specified safety instructions.

## **Liability**

Each user must handle and use the system in a responsible manner.

It is therefore of great importance that this instruction manual is available to the sanitation employee concerned at all times.

## **Safety**

The design of the system complies with generally accepted technical regulations and provisions concerning the working environment and accident prevention. Despite this, risks can occur during use that can lead to physical inconvenience for the user or a third party or have an impact on the machine or other equipment.

The system must therefore be in prime technical condition before use and may only be used in accordance with its purpose and with strict observance of the safety requirements and operating instructions. In particular, malfunctions and irregularities that can affect safety must be remedied immediately.

## **Warranty**

For a period of 24 months from the date of delivery, your dealer will honor a warranty on parts that do not function properly due to material defects or manufacturing faults. The warranty does not cover wearing parts. The warranty will cover replacement or repair of the defective part. Costs with regard to dismantling, forwarding and reassembly are defrayed by the purchaser. Any return shipments from System Cleaners A/S following completed repairs are defrayed by System Cleaners A/S. The defective parts remain the property of System Cleaners A/S.

Claims that may be made for legal reasons, ordinary wear and tear, as well as damage to parts that can be attributed to negligent or improper handling are not covered by the warranty. The warranty will be void if the system has been exposed to frost. The warranty will also be void if modifications or repairs have been carried out by unauthorized personnel. Warranty claims will only be accepted if they are reported to System Cleaners A/S immediately after damage has been discovered. The warranty is terminated if there is a change of ownership of the machine. System Cleaners A/S and its dealers cannot be held liable for personal injury, damage to equipment, loss of earnings, including production losses, losses to stock or similar that may have arisen as a result of defects or delayed delivery of the sold product, irrespective of the cause, including manufacturing faults or material defects. In addition, please refer to our general terms and conditions of sales and delivery.

## **Disposal**

Please be aware of the following applicable provisions: the equipment must be disposed of according to its nature and applicable requirements, e.g. electrical scrap, synthetic material, stainless steel, brass, etc.

## **Labelling**

The system is equipped with a type plate containing technical data.

The type plate is located on a fixed part of the system.

## **Declaration of conformity**

We declare that this product is in conformity with the following directives:

- 2006/42/EC Directive on Machinery



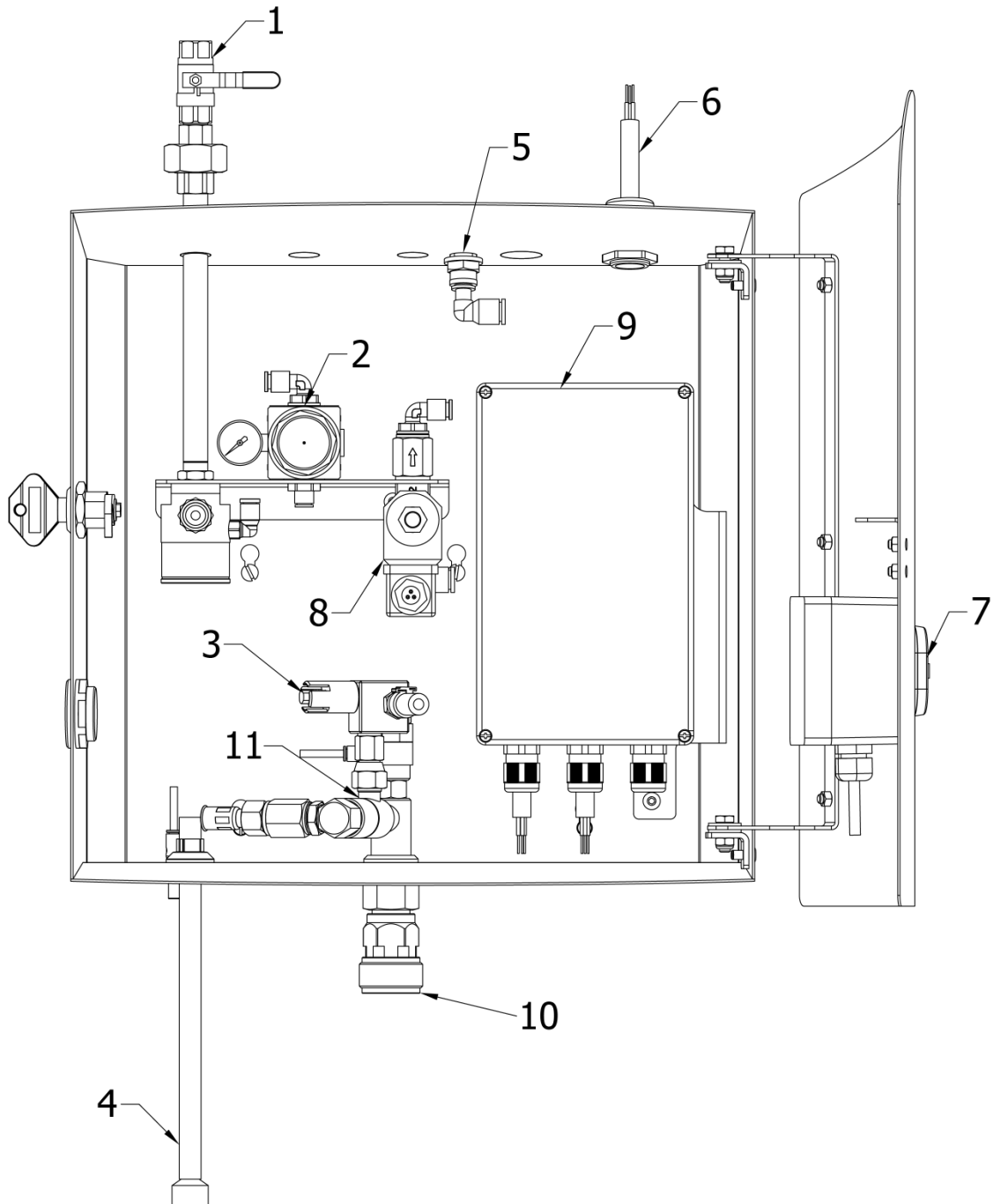
Per Kjøller  
Development Manager

## DESCRIPTION

### Satellite

A satellite is connected to pressurized water, a number of chemicals and, depending on the model, compressed air.

Using a satellite it is possible for one operator to rinse, foam or disinfect (depending on model).



Pos.	Description
1	Inlet water
2	Air regulator
3	Dosing valve chemical
4	Suction tube chemical
5	Inlet air
6	Electrical connection
7	Start/Stop
8	Solenoid valve
9	Electrical control
10	Outlet water
11	Injector system

## **INSTALLATION**

### **Storage**

The machine must not be exposed to frost unless it has been emptied of water (frost protected). Even brief periods of exposure to frost may cause damage to the equipment.

Store the equipment in a frost-free room in the original packing.

### **Installation**

Place the equipment in a frost-free room, well protected from the sun and place it on a hard surface.

Make sure that, in the event of failing non-return valves in the air and water supply, there are suitable back-flow preventers fitted.

Local regulations may require installation of a back-flow protecting device to prevent compressed air or chemicals getting into the water supply.

### **Piping**

The piping should be made from materials suitable for the media in the pipes, the maximum pressure and temperature.

It is the fitter's responsibility to ensure that the piping including all armatures conform to local regulations.

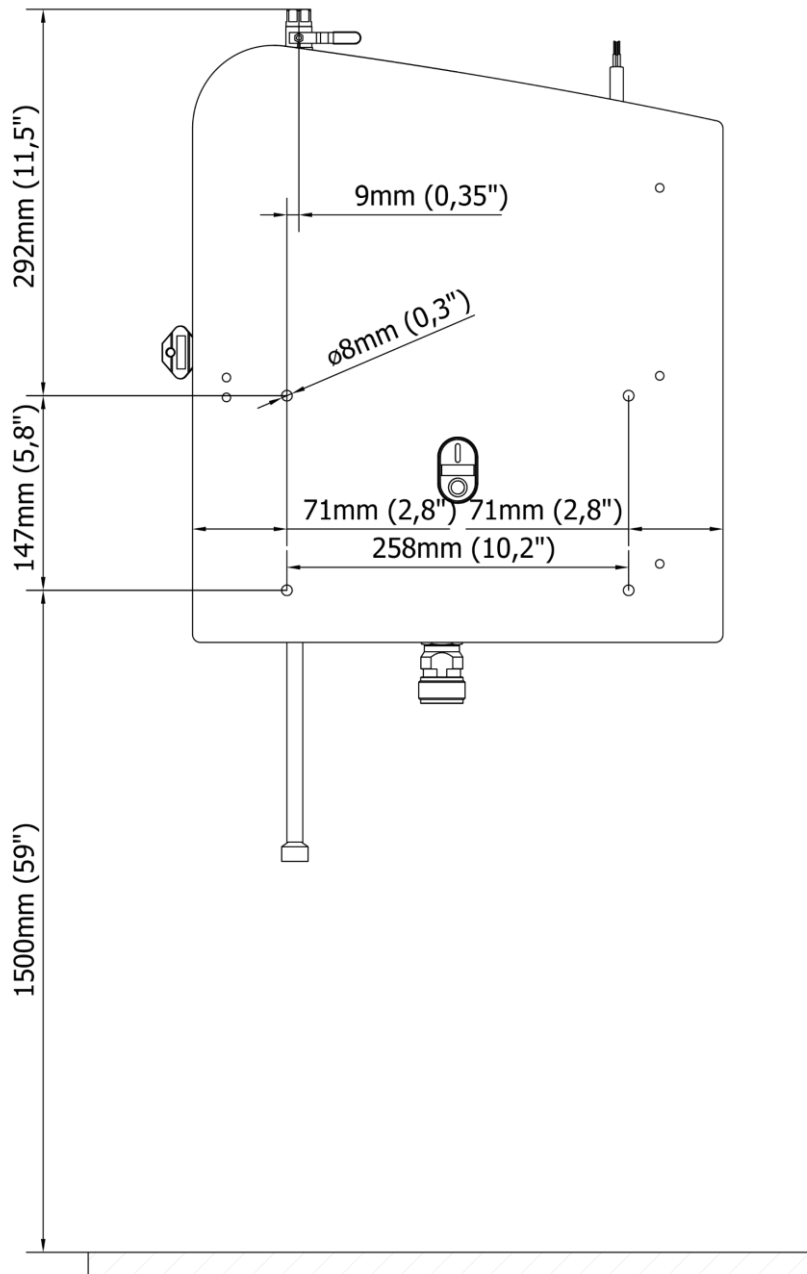
The installation must be performed such that forces from pipes etc. are not transferred to the equipment during and after fitting, as this may result in leaks or damage the equipment.

Select a pipe size so that the flow velocity in the pipe is up to 3 meters/second (10 feet/second). This gives a normally accepted pressure loss and low noise from the flow.

In order to facilitate maintenance of the equipment, it is recommended to fit a shut-off valve in the pipelines immediately at the connections for water.

### **Pipe supports**

Always use pipe supports designed for the pipe size and material and maximum working pressure and temperature.



## COMMISSIONING

### Flushing

Pipes etc. must be flushed efficiently before connecting the unit.

Before commencing operation on the unit or following repair work, the unit must be flushed thoroughly to remove any impurities or foreign bodies.

### Disinfection

Local specifications may require disinfection of the wetted parts like internals of pipes and pumps before use to avoid contamination of newly cleaned surfaces.

### Dosing

Adjust the dosing according to the chemical supplier's recommendations.

Always calibrate and, if required, document the dosing on a regular basis.

## **Air**

Adjust the air pressure until a satisfactory foam quality is achieved.

Note that good foam quality depends on the mixture of water, chemical and air and getting a perfect result requires some adjustments of the mixing ratios.

## **OPERATION**

### **Safety**

It is recommended that suitable working clothes be worn. For protection against certain types of detergents, always use protective goggles, respiratory protective equipment and rubber gloves.

It is recommended that non-slip footwear be worn since the floor can be slippery due to the presence of water and foam.

This system may only be operated, maintained and – not least - repaired by persons who are familiar with the system and properly trained to carry out the job concerned.

It is the customer's responsibility that these installation and operating instructions are supplemented by in-house instructions concerning inspection and reporting, industrial management, personnel training, etc.

Do not carry out any work if you are unsure of the consequences or are insufficiently skilled to carry it out. If in doubt, you should contact your superior or your agent in advance.

Never direct the water jet at other persons.

Never direct the water jet at electrical installations.

Check that couplings "lock" when hoses and nozzles are fitted. If possible, practise this procedure before operation. Always relieve the pressure in the rinsing hose by opening the low-pressure gun or valve after the water supply has been shut off before dismantling the couplings and removing the hose.

During operation of the system, ensure that the low-pressure gun/valve is closed before releasing the handle.

When the low-pressure gun or valve is opened, the water jet will result in a certain amount of counter-pressure. Therefore make sure that you hold the handle firmly and have a firm foothold.

Before removing the cabinet, the power supply must be switched off.

Safety precautions and safety devices must comply with national regulations applicable at any time.

Internally, protection corresponds to IP 55. On a number of components hazardous voltages can occur. During operation the cabinet must always be closed.

Never insert or remove a plug from an electrical socket unless the power has been switched off.

System Cleaners low-pressure systems may only be used in conjunction with soaps and chemicals that are approved for cleaning within the food or transport industries.

Soaps and chemicals that are classified as highly corrosive, toxic or which pose a health risk to humans or animals may not be used.

The system must not be used together with solvents or volatile liquids that pose a health risk or are inflammable.

In the event that the system is used with non-approved soaps, chemicals or solvents, System Cleaners A/S disclaims all liability.

If in doubt, please contact your soap or chemical supplier and read the supplier manual.

In the event that you use the system with chemicals that require mandatory labelling, or if the water temperature exceeds 50°C, a low-pressure gun with an automatic closing device must be used.

In the event that you use the system without a gun with an automatic closing device together with chemicals that require mandatory labelling, or water with a temperature that exceeds 50°C, System Cleaners A/S disclaims all liability.

### **Pressure relief**

After use shut the isolating valves over the equipment and relieve air and water pressure in hoses etc.

### **Flush injector system**

After each use flush the injector system with warm water to avoid clogging of the injector.

## **MAINTENANCE**

### **Water filter**

Depending on the mains water quality it may be necessary to clean the water filter on a regular basis to prevent the pump from stopping.

### **Water non-return valve**

Water non-return valves are critical wear parts and should be replaced yearly.

### **Air filter**

Depending on the quality of the compressed air it may be necessary to empty condensation collected in the air filter bowl on a regular basis.

### **Injector system**

The injector system consists of foot strainer, dosing valve, non-return valve and injector.

Chemical residues compromises the function of the injector and flushing with warm water after each use is required to maintain trouble free operation.

Depending on the water quality it may be necessary to de-scale the water side of the injector on a regular basis following the chemical supplier's guidelines.

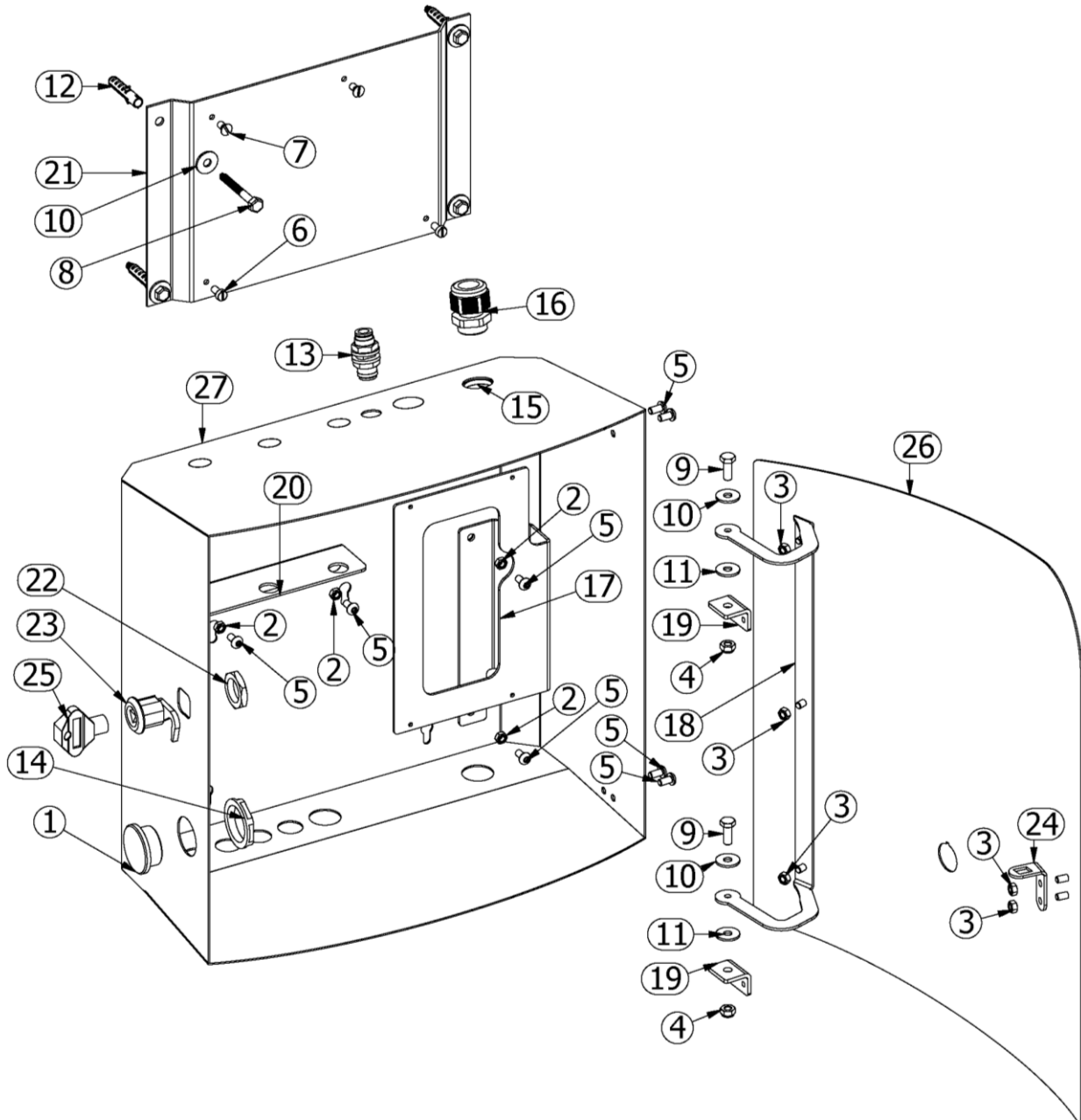


## TROUBLE SHOOTING

<b>Fault</b>	<b>Cause</b>	<b>Remedy</b>
No water or insufficient water at the nozzle when rinsing	Function selector is in closed position	Turn the function selector switch to the desired function
	Insufficient water supply to the unit	Make sure that the water supply is as described in the technical specifications
	Valve at the end of the hose not open	Open valve
The unit does not suck up detergent	Function selector is not in the correct position	Turn function selector switch to desired function
	Suction filter or chemical restrictor are blocked by chemical residue	Clean suction filter or chemical restrictor
	Water pressure is too low	Make sure water supply is as described in the technical specifications
	Suction filter is above the fluid level in chemical container	Position the suction filter below fluid level
Poor foam quality	Chemical product is not a foaming product	Change to a foaming chemical
	Incorrect dosing	Adjust the dosing according to chemical supplier's specifications
	Suction filter or chemical restrictor are blocked by chemical residue	Clean the suction filter or chemical restrictor
	Water pressure is too low	Make sure that the water supply is as described in the technical specifications
	Air pressure too low	Increase air pressure
	Non-original foam nozzle fitted	Replace with original white foam nozzle

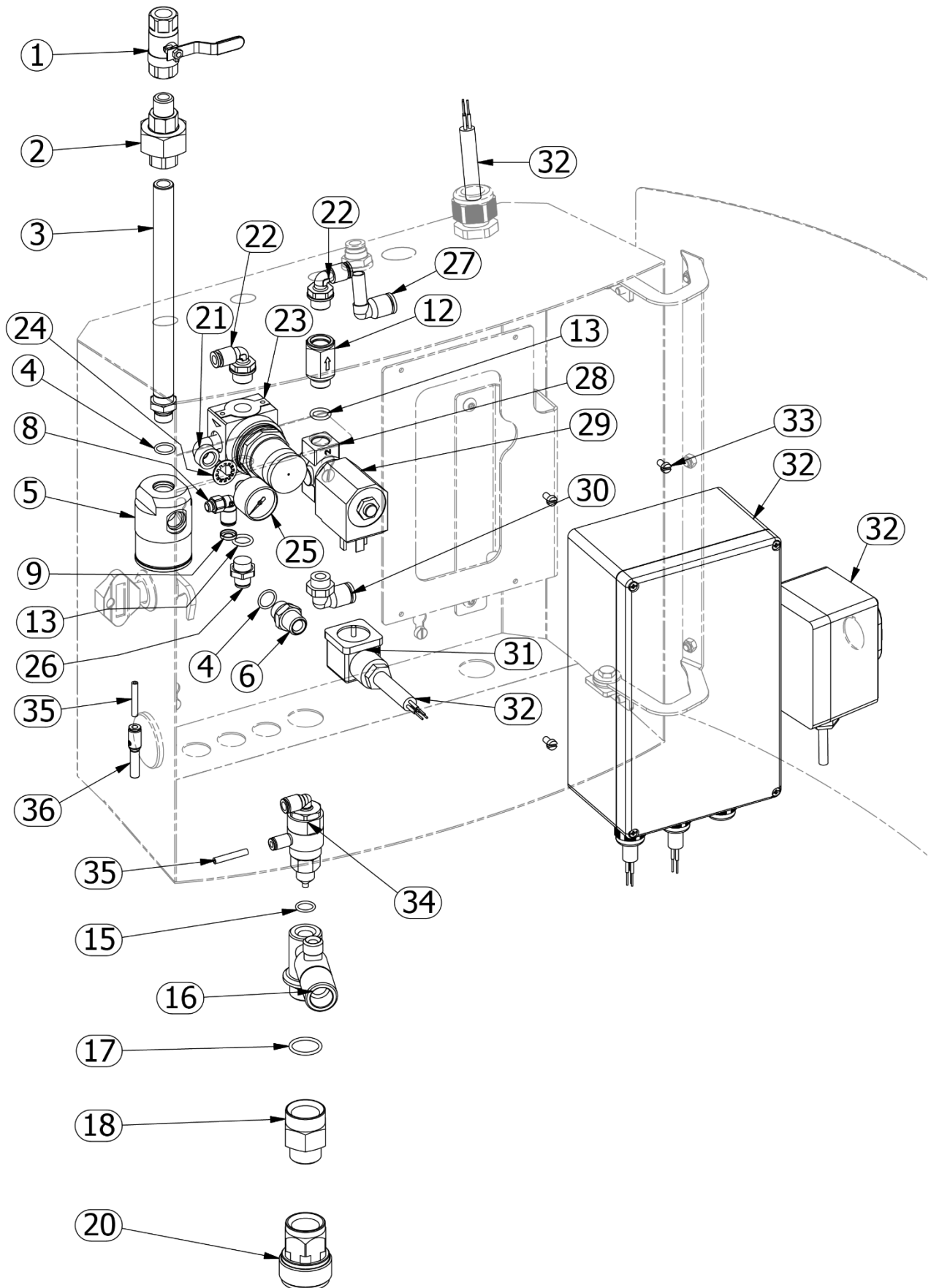
# SPARE PARTS

## Cabinet



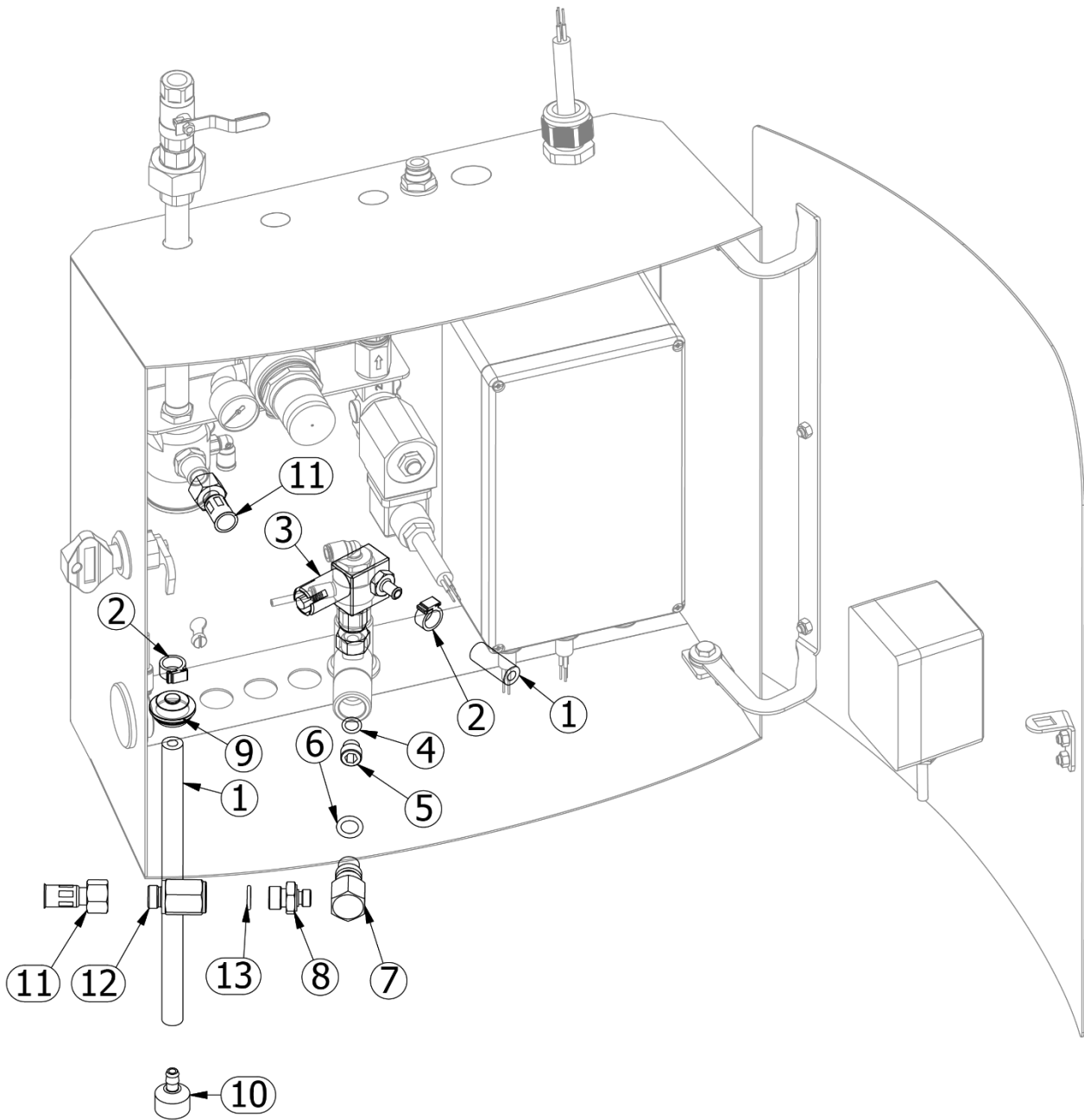
<b>Pos.</b>	<b>Part no.</b>	<b>Description</b>	<b>Material</b>
1	04-000224	Plug ø38x16-M30x1,5	POM/C
2	08-000501	Nut M5	A2
3	08-000502	Lock nut M5	A2
4	08-000602	Lock nut M6	A2
5	08-100501	Screw button head M5x10	A2
6	08-100505	Screw M5x10 cylinder head	A2
7	08-100512	Screw fillister head M5x10	A2
8	08-100606	Coach screw M6x50	A2
9	08-200606	Set screw M6x16	A2
10	08-300602	Disc washer ø6	A2
11	08-300605	Disc washer ø6	Nylon
12	08-900008	Rawlplugs S 8	PVC
13	15-000071	Bulkhead Union air ø8	Plastic
14	20-300000-02	Panel nut function selector	Plastic
15	35-700163	Nut PG16	Brass
16	35-700165	Screwed cable connection PG16	Plastic
17	42-200116	Bracket for control	AISI 304
18	42-600038	Hinge for door 300 mm	AISI 304
19	42-600039	Hinge for satellite	AISI 304
20	42-700030	Bracket for chemical valve	AISI 304
21	43-100080-01	Wall bracket for satellite	-
22	72-000030	Nut for lock	Nylon
23	72-000040	Lock with hook	AISI 304/Plastic
24	72-000051	Strike plate 300 mm cabinet	-
25	72-100010	Key for housing	Plastic
26	41-230312	Door 300 mm with hole DWS	AISI 304
27	46-400303	Housing 300mm DWS	AISI 304

## Internal parts



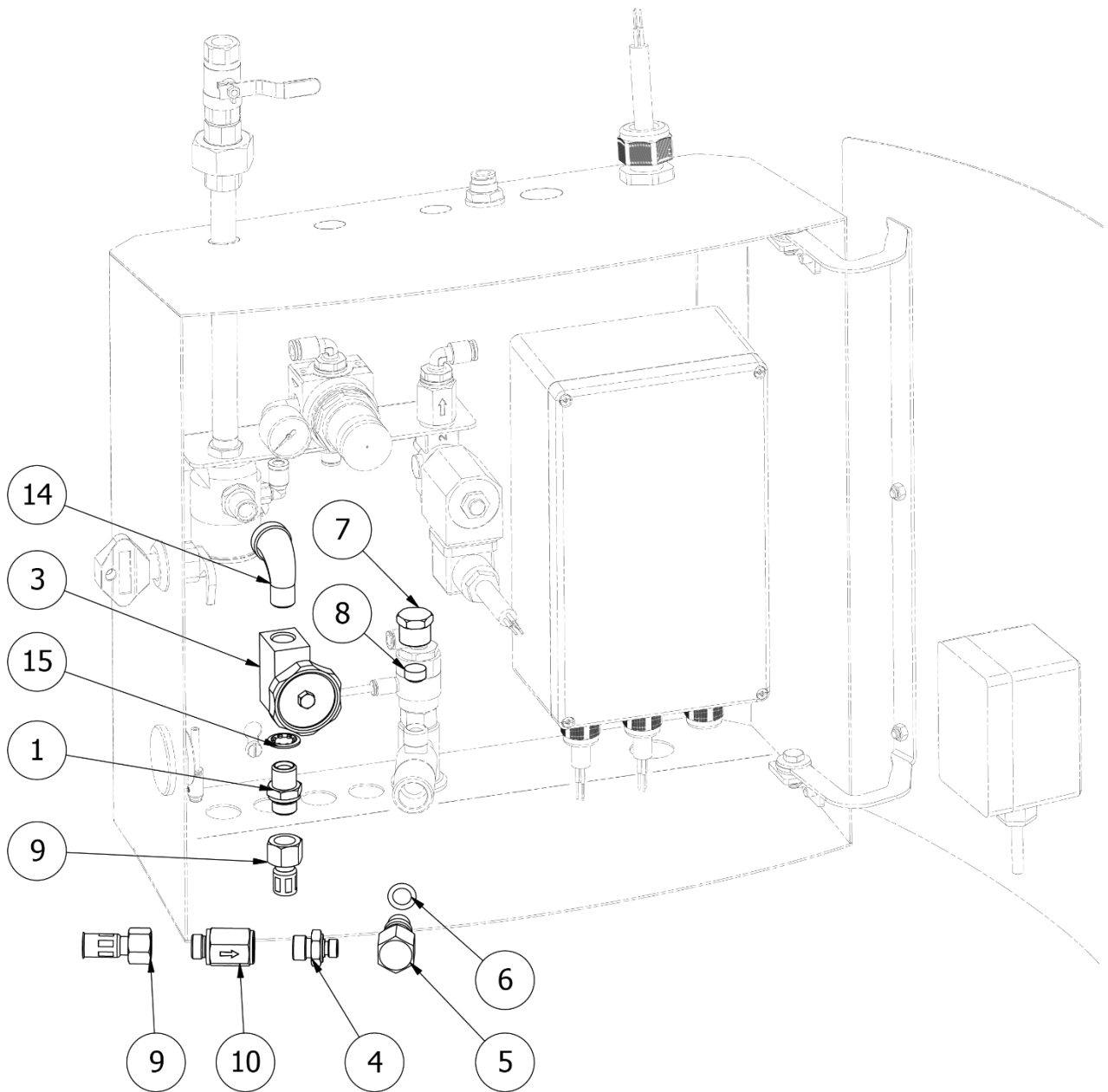
<b>Pos.</b>	<b>Part no.</b>	<b>Description</b>	<b>Material</b>	<b>Version</b>
1	20-000240	Ball valve 1/4" SS (blue)	AISI 316	All
2	15-800070	Union 1/4" with packing, E/I	AISI 316/PTFE	All
3	25-000600	Inlet pipe 1/4"x181,2	AISI 316	All
4	17-030018	O-ring 11x1,5 Viton 70 sh	Viton	All
5	20-000810	Chemical valve, pneumatic Viton	AISI 316/Viton	All
6	15-100082	Hexagon nipple 1/4"	AISI 316	All
8	15-010170	Air fitting M7x6 elbow	Nickel-plated brass/Plastic	All
9	15-090606	Color ring 6mm green	Plastic	All
12	20-200025	Non-return valve air 1/4"	-	All
13	17-010012	O-ring 10x2 70 sh	NBR	All
15	17-000032	O-ring 10,1x1,6 NBR 70 shore	NBR	All
16	27-010130-01	Chemical part injector II	AISI 316	3-8 bar
16	27-010111	Injector housing with 1 connection	AISI 316	15-40 bar
17	17-020080	O-ring 18x2 70 sh	EPDM	All
18	16-800060	Outlet nipple 1/2"x37 E/I	AISI 304	All
20	30-000010	Outlet coupling 1/2", internal	AISI 303	All
21	15-600340	Elbow 1/8" SS 90° E/I	AISI 316	All
22	15-010081	Air fitting 1/4"x6 elbow	Nickel-plated brass/Plastic	All
23	20-300080	Regulator air without filter	Plastic	All
24	17-000072	Gasket 1/8"	Nylon	All
25	22-000071	Gauge ø20 0-10 bar	AISI 304/brass/glycerine	All
26	15-010071	Air fitting 1/4"x6	Nickel-plated brass/Plastic	All
27	15-000061	Air fitting 8x8 elbow	Plastic	All
28	20-100020	Solenoid valve 1/4"	Nickel-plated brass	All
29	20-100022	Coil for solenoid valve 24V AC	-	All
30	15-000011	Air fitting 1/4"x8 elbow	Nickel-plated brass/Plastic	All
31	20-120021	Plug for large coil	-	All
32	37-500600	Control door disinfection	-	All
33	08-100408	Screw M4x8 cylinder head	A2	All
34	15-010167	Air fitting elbow ø1,5	Nickel-plated brass/Plastic	3-8 bar
34	15-010162	Air fitting elbow ø2,0	Nickel-plated brass/Plastic	15-40 bar
35	55-110080	Air hose ø4mm black	PA12	All
36	15-020010	Air fitting 6x4	Plastic	All

## Function F



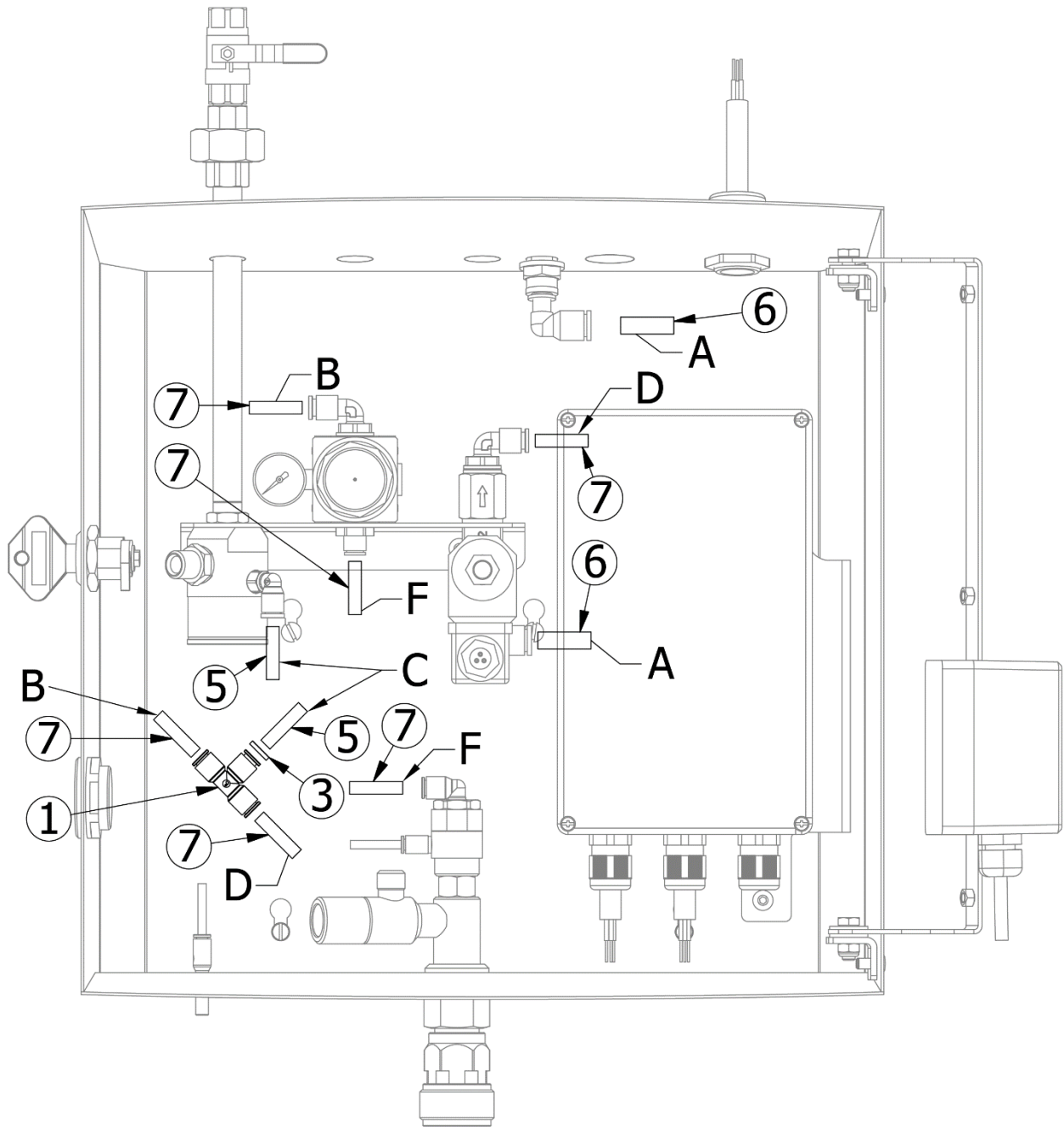
Pos.	Part no.	Description	Material	Version
1	55-200020	Suction hose 1/4" white, m	PVC	All
2	15-300012	Hose clip for 1/4"	PVC	All
3	20-400056	Dosing valve concentrated	AISI 316/Viton	All
4	17-030008	O-ring 7,65x1,78 Viton 70 sh	Viton	All
5	27-200020	Water nozzle $\varnothing$ 1,8	AISI 316	15-40 bar
5	27-200010	Water nozzle $\varnothing$ 2,0	AISI 316	3-8 bar
6	17-000132	O-ring 9,92x2,62	NBR	All
7	16-100100	Adapter 1/8"xM12x1	AISI 316	All
8	110-014018	Hexagon nipple 1/4"x1/8" SS	AISI 316	All
9	04-000082	Diaphragm nipple	EPDM	All
10	27-300040	Suction filter $\varnothing$ 6,5	AISI 316	All
11	55-700091	Hose 1/4"x285 SS	-	All
12	20-200031	Non-return valve 1/4" chemical (0)	-	All
13	17-020055	O-ring 10x2 70 sh	EPDM	All

## Function PF



Pos.	Part no.	Description	Material
1	15-100082	Hexagon nipple 1/4"	AISI 316
3	20-400012	Needle valve 1/4"	-
4	110-014018	Hexagon nipple 1/4"x1/8" SS	AISI 316
5	16-100100	Adapter 1/8"xM12x1	AISI 316
6	17-000132	O-ring 9,92x2,62	NBR
7	15-901400	End cap 1/4"	Nickel-plated brass
8	04-000232	Cone ø12 black	Plastic
9	55-700091	Hose 1/4"x285 SS	-
10	20-200031	Non-return valve 1/4" chemical (0)	-
14	15-600310	Elbow 1/4" 90° E/I	AISI 316
15	17-000012	Gasket 1/4"	PA12

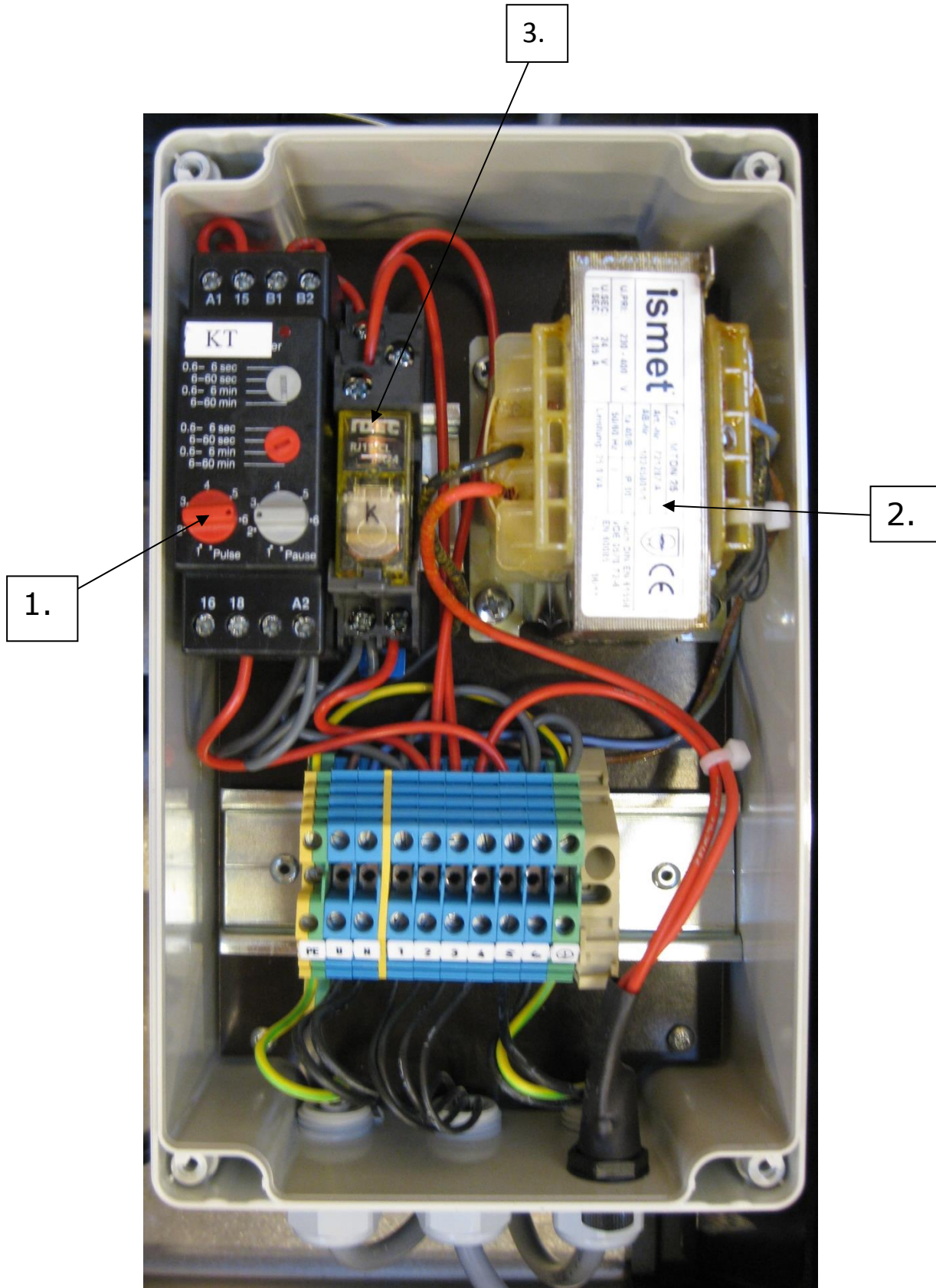
## Pneumatic



Pos.	Part no.	Description	Material
1	15-010110	Air fitting 6/6/6 (T-piece)	Plastic
3	15-090606	Color ring 6mm green	Plastic
5	55-100030	Air hose 6mm green	PA12
6	55-100040	Air hose 8mm black	PA12
7	55-110040	Air hose $\varnothing$ 6mm black	PA12

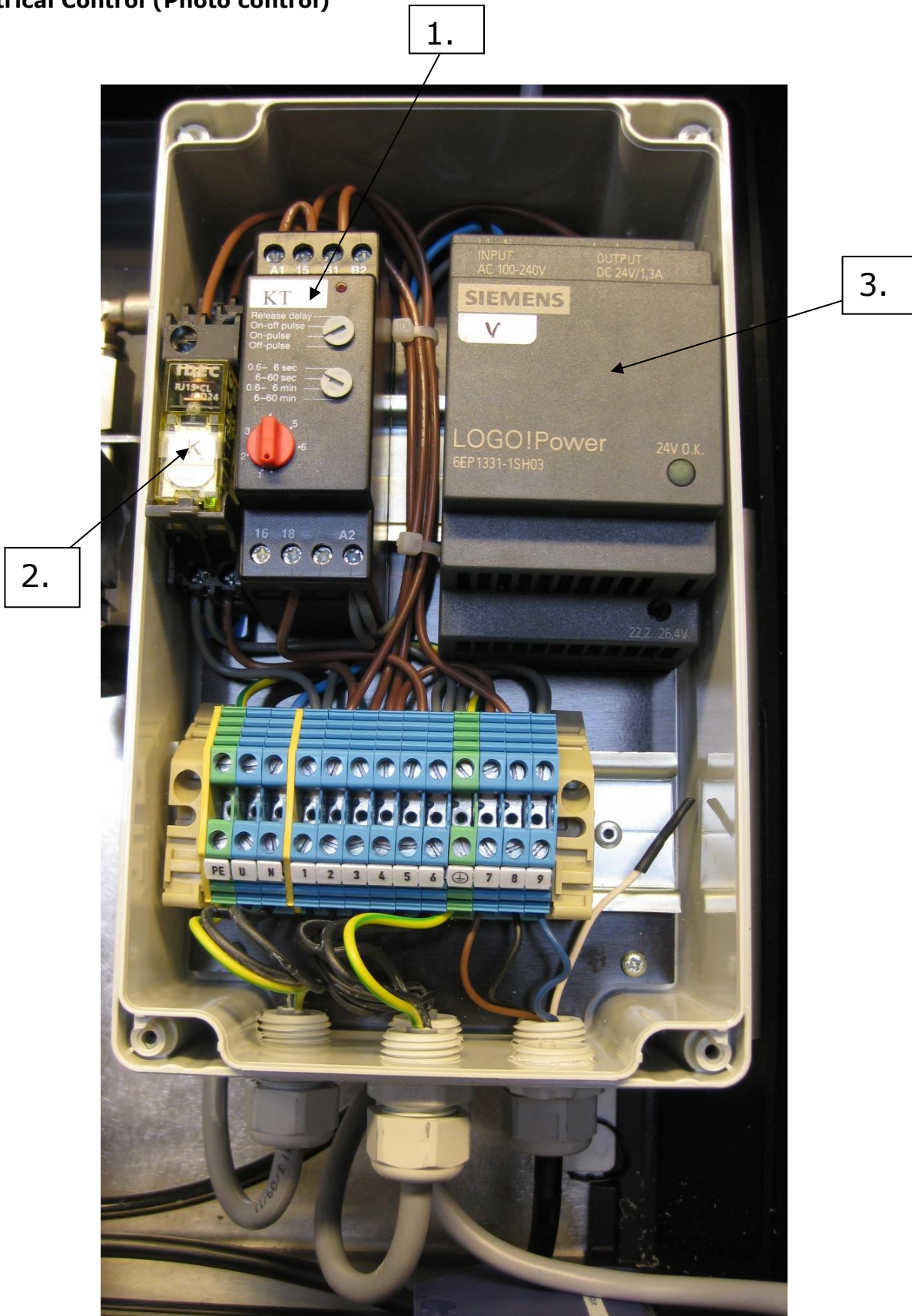


## Electrical Control



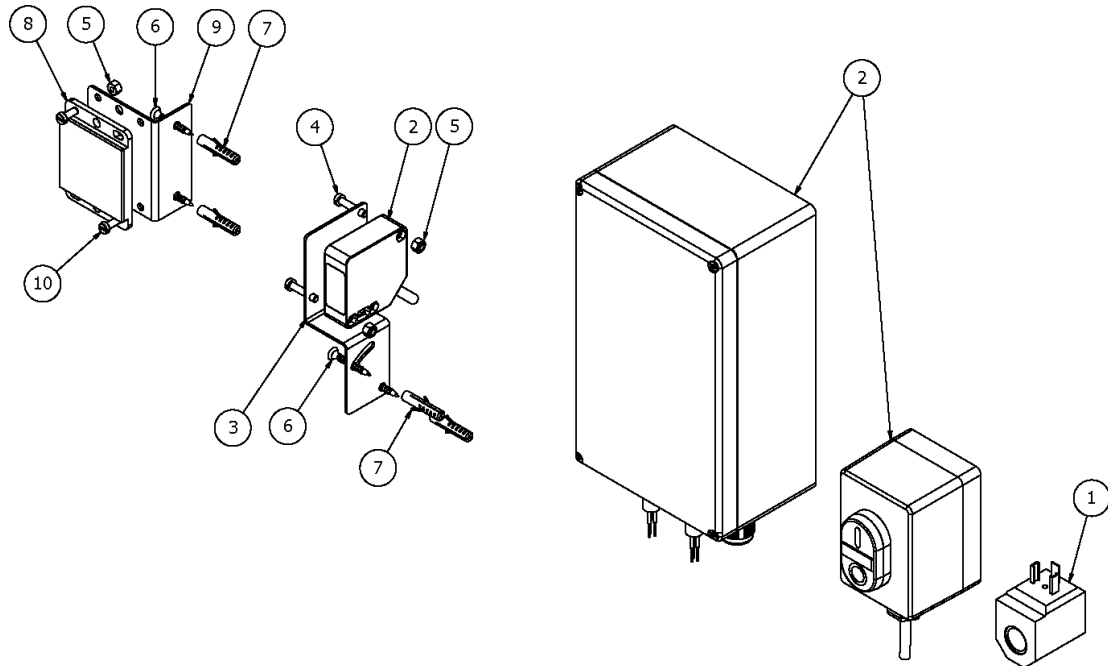
Pos.	Part no.	Description	Material
1	35-300200	Pulse timer XT-D1	-
2	35-900082	Transformer 25VA 230V	-
3	36-700079	Relay 24V AC 1-pole	-

**Electrical Control (Photo control)**



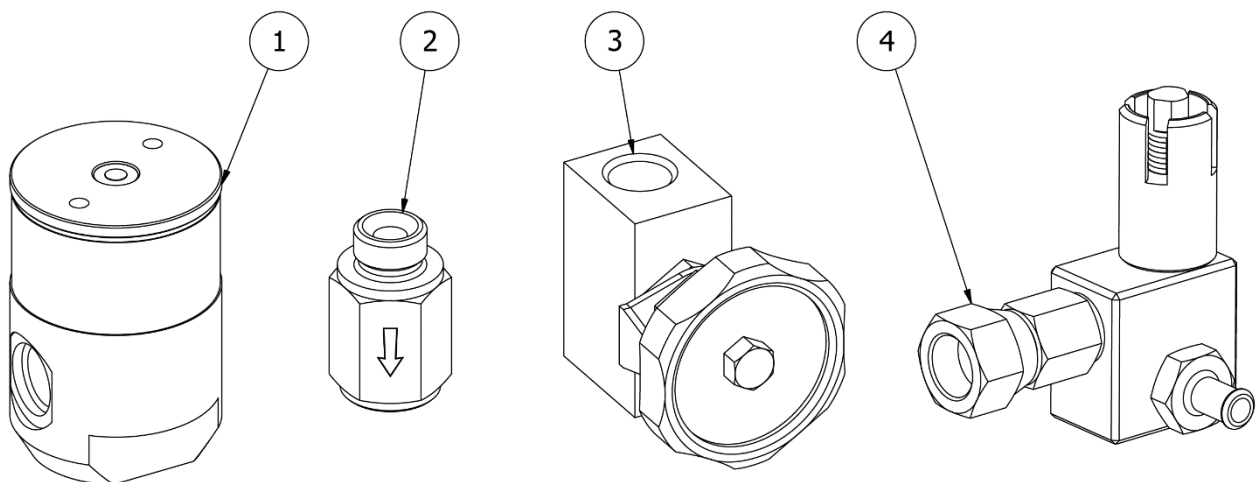
Pos.	Part no.	Description	Material
1	35-300210	Timer XW-D1	-
2	36-700080	Relay 24V DC 1-pole	-
3	35-900200	Transformer AC 100-240V 1,3 A	-

## DWS option: Photocell



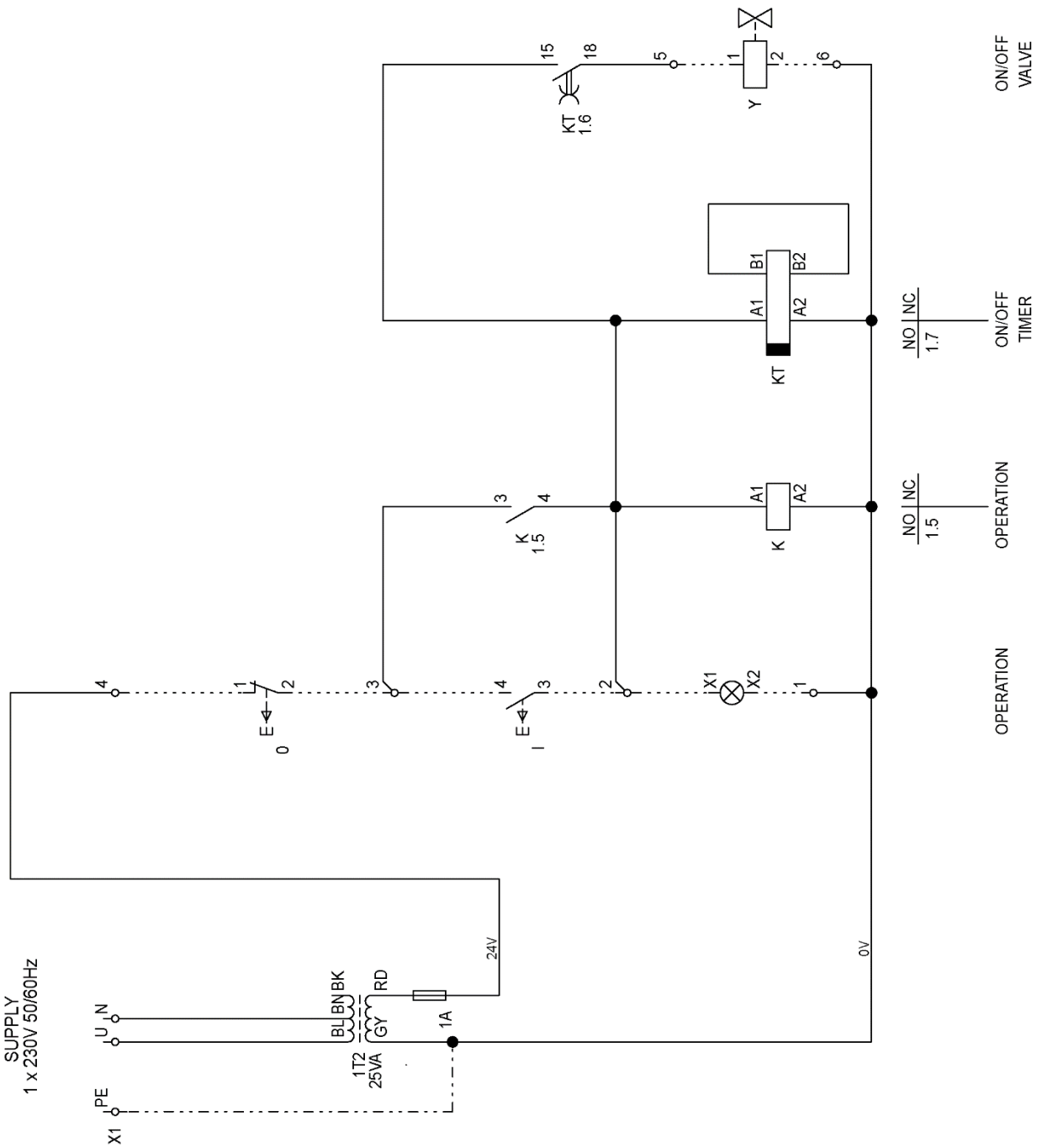
Pos.	Part no.	Description	Material
1	20-100023	Coil for 20-100020 24V DC	-
2	37-500610	Control door disinfection	-
3	42-300300	Bracket for FC	AISI 304
4	08-100402	Screw M4x20 cylinder head	A2
5	08-000401	Lock nut M4	A2
6	08-104001	Screw 4,2-32 self tapping	A2
7	08-900006	Rawlplugs S 6	PVC
8	37-500611	Reflector XUZC50 Telemecanique	-
9	42-300301	Bracket for reflector	AISI 304
10	08-100407	Screw M4x10 cylinder head	A2

## Recommended spare parts



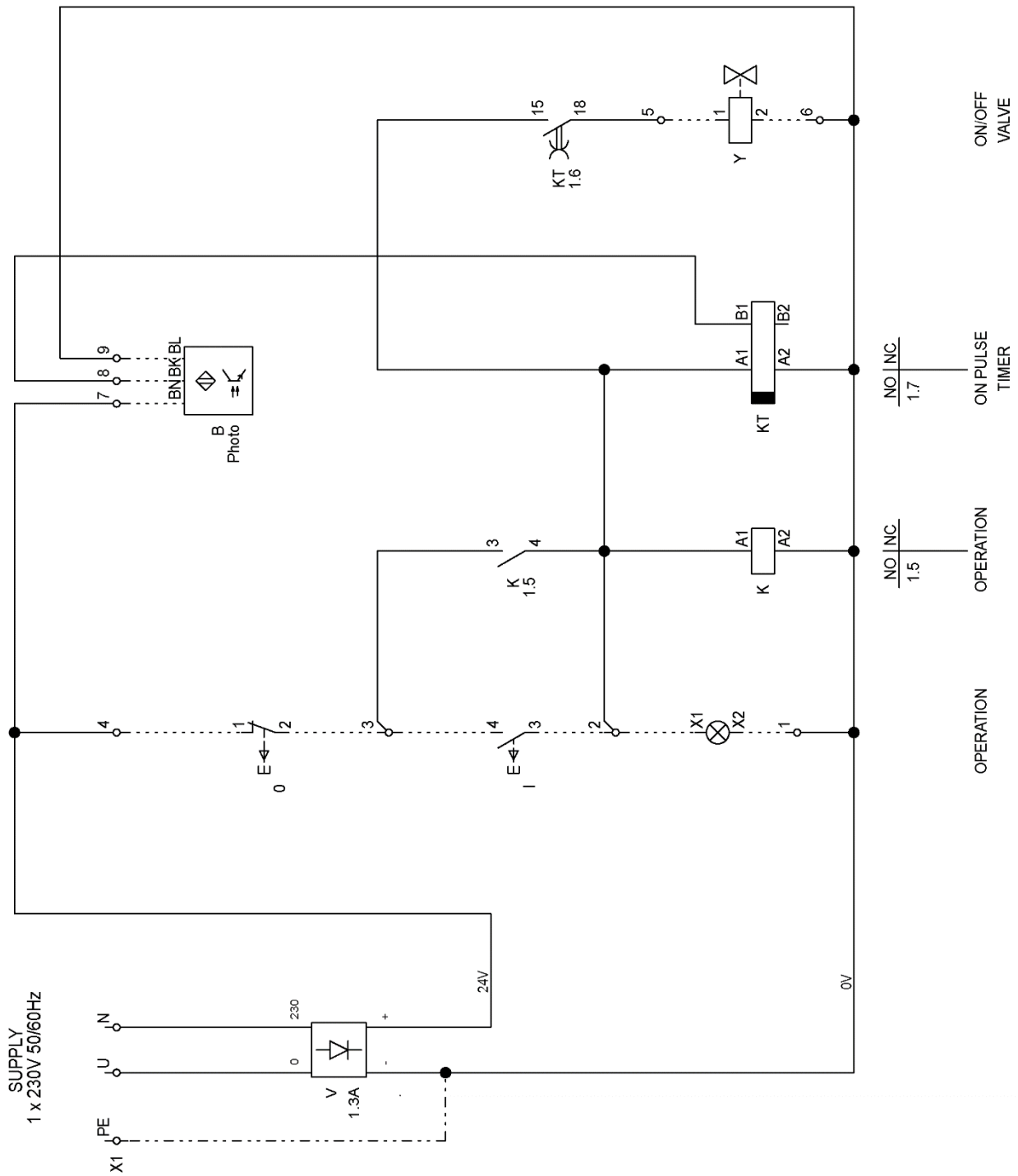
Pos.	Part no.	Description	Material
1	20-000800	Chemical valve, pneumatic EPDM	AISI 316/EPDM
2	20-200025	Non-return valve air 1/4"	-
3	20-400010	Needle valve 1/4"	-
4	20-400056	Dosing valve concentrated	AISI 316/Viton

# WIRING DIAGRAM: DWS STEP CONTROL OF FOAM/DISINF.

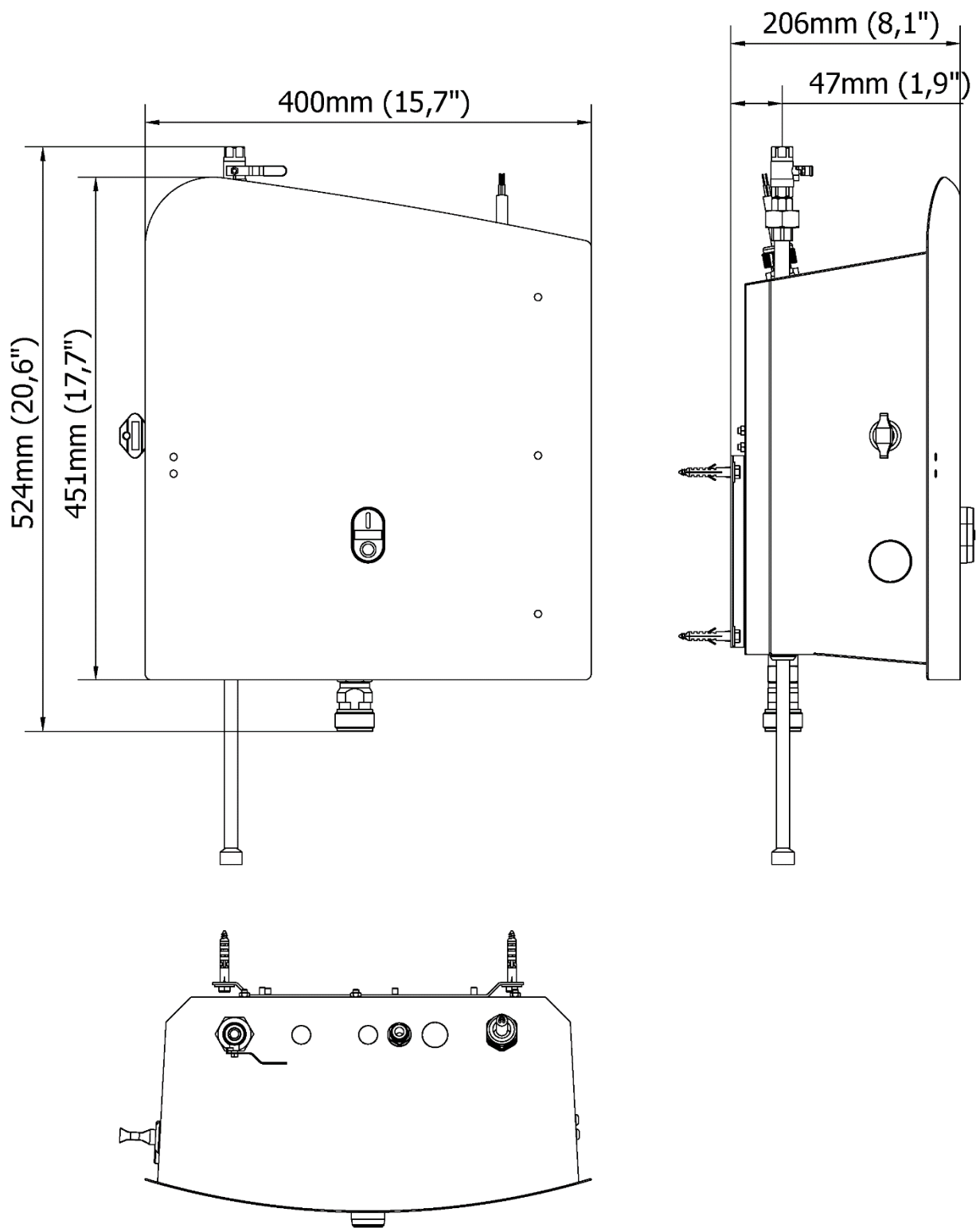




**WIRING DIAGRAM: DWS FOTO CONTROL OF FOAM/DISINF.**



## Technical specifications wall



## Technical specifications wall

<b>Model</b>	<b>DWS F</b>	<b>DWS PF</b>
<b>Installation</b>		
Ambient temperature	3-40°C / 37-104°F	
<b>Connections</b>		
Air inlet	Ø8	Ø8
Water inlet	1/4" BSP	-
Pre-diluted chemical inlet	-	1/4" BSP
Outlet	SC coupling	
<b>Water</b>		
Maximum pressure	50 bar / 725 psi	-
Temperature	3-70°C / 37-160°F	-
Minimum recommended flow	10 liter/min / 7.9 USgal/min	
<b>Air</b>		
Pressure	5-10 bar / 72-145 psi	
Minimum flow	150 liter/min / 5.3 cfm	
<b>Chemical</b>		
Max. pressure pre-diluted	-	12 bar / 174 psi
Dosing range	0.2-6%*	



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*Please note:*

*We reserve the right to make alterations to the technical specifications without notice.*