smart.Cleaner

User Manual

SAMCON
Prozessleittechnik GmbH

Table of contents

Table of Figures and Charts

History of Revisions

Product:	ExCam® smart.Cleaner
Title:	User manual for ExCam® smart.Cleaner
Doc. -Id.	190917-PT08BA-AK-smart.Cleaner_en_rev.02.docx
Author:	Alexander Kruse
Created on:	07.01.2020
Latest Update:	17.02.2025

Rev.- Index	Date	Name	Comment	Approved by the ATEX supervisor
0	07.01.2020	A. Kruse	Compilation of the document	
1	28.09.2023	M. Kassner	Additions Assembly + network configuration Video link	
2	17.02.2025	E. Schneider	Supplement for installing the water connections	Alexander Kruse Digital unterschrieben von Alexander Kruse DN: cn=Alexander Kruse, o, ou, email=a.kruse@samcon.eu, c=DE Datum: 2025.03.03 09:01:12 +01'00'

1 Introduction

The smart.Cleaner is a compact, powerful IP-cleaning water supply unit, which can be used in hazardous areas. Despite its compact size, it offers place for up to four cleaning water connections.
The smart.Cleaner consists of an exterior housing and the ex-proof components inside. These inner components are an ExConnection Rail and the Ex-Valves.
The system is certified in accordance with the European (ATEX) directive. The explosion-protected housing is approved for the ATEX group II for zones 1, 2 as well as 21 and 22 including the explosion groups IIC/IIIC. To see other approvals, please visit our website at www.samcon.eu.

Attention!
Only the components inside the control cabinet are explosion-proofed! No other devices or things, which haven't been approved by SAMCON GmbH, must be placed in the cabinet. Otherwise danger of explosion!

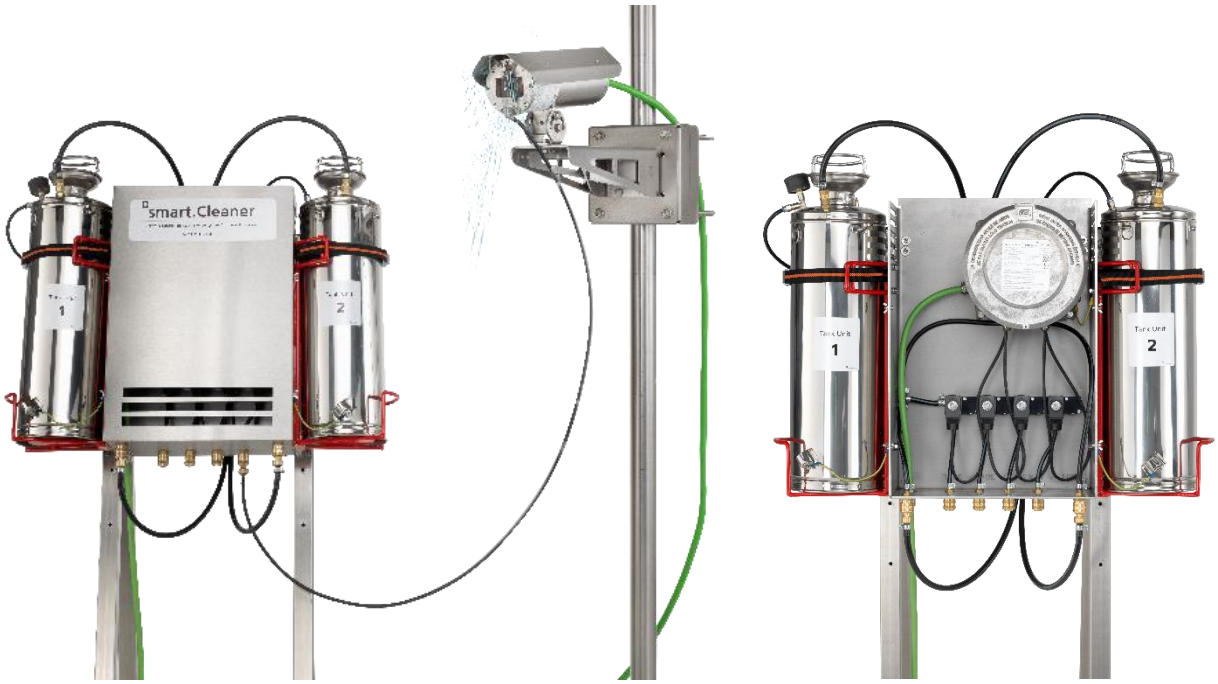


Figure 1-1 smart.Cleaner with camera in action and smart.Cleaner opened

2 Technical data

2.1 Explosion protection and marking of the device

Identification marks acc. To Directive 2014/34/EU:	II 2G (zone 1 and 2) II 2D (zone 21 and 22)
Explosion protection (gas):	Ex IIC T4 Gb
Explosion protection (dust):	Ex IIIC T130°C Db
Protection class:	IP 65/66 (IEC/ EN 60529)
Transport-/ storage temperature:	0°C … +50°C
Ambient temperature (Ex):	-10°C … +45°C (N.N-Model) -30°C … +45°C (LL.N-Model)

2.2 Explosion protection and marking of the inner components

Identification marks acc. To Directive 2014/34/EU:	II 2G (zone 1 and 2) II 2D (zone 21 and 22)
<u>ExConnection Rail</u>	
Explosion protection (gas):	Ex db IIC T5 Gb
Explosion protection (dust):	Ex tb IIIC T95°C Db
Protection class:	IP 66 (IEC/ EN 60529)
Ambient temperature (Ex):	-30°C … +55°C
Named testing laboratory:	TÜV Rheinland (Nummer 0035)
EU-type approval certificate:	TÜV 10 ATEX 7969 X (2010)
IECEx Certificate of Conformity:	TUR 16.0025X (2010)
EAC-Ex TUR Report:	TC RU C-DE.АБ.61.B.00381/19
<u>Solenoid valves</u>	
Explosion protection (gas):	Ex mb IIC T4 Gb
Explosion protection (dust):	Ex mb IIIC T130°C Db
Protection class:	IP 65 (IEC/ EN 60529)
Ambient temperature (Ex):	-40°C … +55°C
Named testing laboratory:	Bureau Vertis
IECEx Certificate:	IECEx EPS 18.0110X
EU-type approval certificate:	EPS 18 ATEX 1232 X
Other certificates see:	https://www.samcon.eu/en/products/equipment/smart-cleaner/

2.3 Models/Variants

	„ExCam smart.Cleaner“ model variation					
Type	Connec-tions	Power supply	Number of pressure tanks	Range of temp.	Cable length [m] cable type	Termina-tion
T05-	4-	24 -	0DR-	N.N-	005.A-	P
T05-	4-	24-	0DR-	N.N-	005.A-	T
T05-	4-	230-	0DR-	N.N-	005.A-	P
T05-	4-	230-	0DR-	N.N-	005.A-	T
T05-	4-	24 -	2DR-	N.N-	005.A-	P
T05-	4-	24-	2DR-	N.N-	005.A-	T
T05-	4-	230-	2DR-	N.N-	005.A-	P
T05-	4-	230-	2DR-	N.N-	005.A-	T
T05-	4-	24 -	0DR-	LL.N-	005.A-	P
T05-	4-	24-	0DR-	LL.N-	005.A-	T
T05-	4-	230-	0DR-	LL.N-	005.A-	P
T05-	4-	230-	0DR-	LL.N-	005.A-	T
T05-	4-	24 -	2DR-	LL.N-	005.A-	P
T05-	4-	24-	2DR-	LL.N-	005.A-	T
T05-	4-	230-	2DR-	LL.N-	005.A-	P
T05-	4-	230-	2DR-	LL.N-	005.A-	T

Tab. 2.1: Model variation

Illustration:

1) **Smart.Cleaner =** Funktional product description (technical data/ specification)

2) T**05** = SAMCON Production- Type 05

3) **4** = Water connections

4) **24** = Power supply 24 VDC
230 = Power supply 230 VAC

5) **0DR** = No water pressure tank (On-side water)
2DR = 2 water pressure tanks

6) **N**.N = No valve for low temperatures (-10°C)
LL.N = Valve for low temperatures (-30°C)

7) **005.**A = Length oft he connection cable in meters at delivery; 5m is standard cable length, max. cable length: 003…100 [m]
005.**A** = Armoured cable

8) **P** = Plug- termination (*standard*)
CAT6, RJ-45 network plug (heavy duty), AWG 26-22,
contact assignment acc. to specification EIA/TIA-568**B**
T = Terminal Box- termination(optional)
Ethernet 100BaseTx (I/O Modul)
230 VAC or 24 VDC (depending on type)

2.4 Electrical parameters of the supply unit

Supply of the unit with PoE and power supply:

Voltage supply:	230V / 24V (depending on type)
Maximum power consumption:	100W
Typical power consumption:	45W@230VAC/ 37W@24VDC

2.5 Connection cable ASKDP03-T

Description:	Data transfer and power supply of the cleaning water unit (compliant with DIN EN 60079-14)
Jacket colour:	Green (GN), similar to RAL3001
Outside diameter:	15.50 ± 0.6 mm
Bending radius:	15 x D_a when installed and 10 x D_a after relocation
Data line:	4 x 2 x AWG23/1 CAT.6
Performance elements:	3G1.5 (BK-BU-GN/YE)
Properties:	PUR halogen-free, flame-retardant, UV-resistant, chemical resistance, shielded

Quicklink:
https://www.samcon.eu/fileadmin/documents/en/60-Assembling%26mounting/ASKDP03-T_Datasheet.pdf

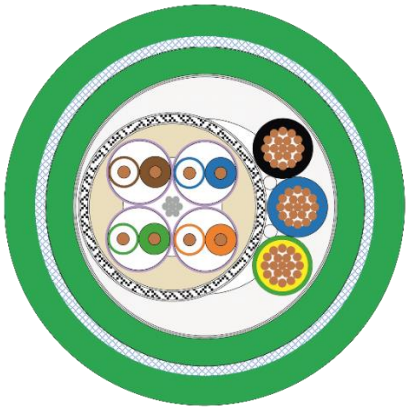


Figure 2-1 Sectional view of ASKDP03-T

2.6 Technical specification of the I/O-modul

We use the AXIS P8221 I/O modul within the pressure resistant enclosure. For details please have a look at the product documentation of AXIS®:
https://www.axis.com/products/axis-p8221-io-audio-module

3 Safety Instructions

Please absolutely observe the installation instruction`s safety directions of the EX Installation Manual of the T04 series!

Quicklink:
https://www.samcon.eu/fileadmin/documents/en/70-Server%26ConnectionRails/20-ConnectionRail-series/ExConnection-Rail-Series-T04-Ex-Installationmanual.pdf

It is absolutely mandatory to adhere to the national safety regulations and regulations for prevention of accidents, as well as to the safety instructions given below in this User Manual!

Attention!
Devices of the type smart.Cleaner are not suitable for use in zones 0 and 20. The ambient temperature, temperature class and explosion group written on the typeplate of the supply unit must be absolutely adhered to! The customer is not allowed to make any alterations of the device! The device must be operated in a proper and sound condition and only in the way intended.

Attention!
Repairs may only be carried out by using original parts from the manufacturer. Repairs which affect the explosion protection may only be carried out in accordance with the nationally applied regulations and exclusively by the manufacturer.

Attention!
Prior to installation, take external sources of heat or cold into account! The temperature ranges prescribed for storage, transport and operating must be adhered to!

Attention!
Adhere to the warnings given on the nameplate:

“WARNING –DO NOT OPEN IN HAZARD AREAS“

Using in explosion-protected areas with regard to temperature and dust layers is defined in the respective national regulations. Furthermore, it must be ensured that compressed air leaks do not lead to dust turbulence and thus to a zone jump in zone 20. Appropriate construction and cleaning decisions have to be made.

When installing the smart.Cleaner, adhere to the requirements of the EN / IEC 60079-14.

4 Installation

For commissioning and operating the device, the relevant national regulations, as well as the generally accepted rules of technology shall prevail. Before mounting the smartCleaner, thoroughly check it for any transport damage, especially on the housing and cable. Installation, electrical connection and the first start must only be carried out by qualified specialists.

4.1 Work preparation:

Attention!
Prepare your work carefully and in accordance with the relevant regulations.

Attention!
Depending on classification of hazard areas, it is imperative to obtain a work approval first!
When you open the pressure-resistant enclosure under voltage, it is absolutely necessary to prevent potentially explosive atmosphere!

- Use appropriate tools and aids.
- When working, ensure a safe stand.
- Make sure that any static charge is avoided.

Attention!
Please observe the national security, installation and accident prevention regulations (e.g. DIN EN 60079-14) and the safety instructions in this User Manual, as well as the ones in the Installation Guidelines!

Attention!
Adhere to the provisions of the IECEx, ATEX and
EX installation instructions for mounting and starting up!

The smart.Cleaner consists of a control cabinet with a pressure-resistant Gubox enclosure and 4 encapsulated solenoid valves inside and a prewired supply cable with RJ45 plug or terminal box. Mount the smartCleaner in an appropriate distance to the cameras. Mount the injector tubes at the flange of the camera. After laying the tubes (max. length of the tube l_{max}=50m) the coupler plugs can easily be plugged into the device and the output tube coupling.

Attention!
Water connections must not be plugged in at temperatures <0°C or under pressure!

This means that the pressure must be released before connecting the hoses and care must be taken to ensure that the ambient temperature is definitely above the operating temperature of the coupling (-20°C), if possible above 0°C.
The washing water supply has to be connected with either a suitable water connection or with water tanks (accessory). For this use the coupling (left or right) on the underside. Refer to Figure 4-1 for the right connections (water connections smart.Cleaner).
Depending on model tanks could be available. If required the tanks have to be supplied with compressed air (3.5 bar). This is done via the compressed air connections of the tanks. Both of the tanks have to be connected to compressed air (if pumping is not desired). If the customer doesn`t want a compressed air connection the needed tank pressure has to be raised with the hand pump on the tanks.
The temperature of the water should be between 0°C <temp. < 80°C and the pressure must not be higher than 3.5 bar. For lower temperatures a suitable antifreeze agent has to be used (see chapter 7).
If the tank pressure is 3.5 bar the loss of pressure after 100 to 150 sprayers is about 0.8 bar.

Pressure: 3,5bar (≈50psi≈350kPa)

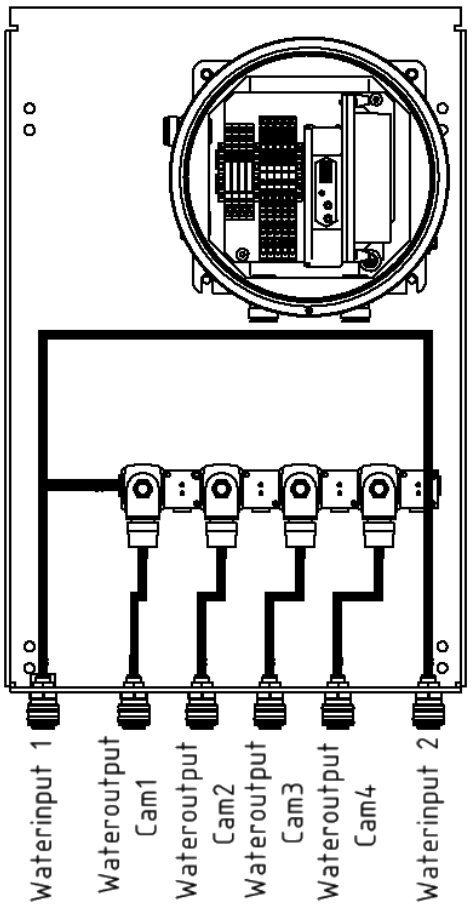


Figure 4-1 Water connection of the smart.Cleaner

Attention!
Prior to installation, take external sources of heat or cold into account! The temperature ranges prescribed for storage, transport and operating must be adhered to!

4.2 Mounting the nozzle hose on the camera flange

The water hose of the smart.Cleaner must be routed to the camera and the camera and the nozzle must be mounted on the camera flange.

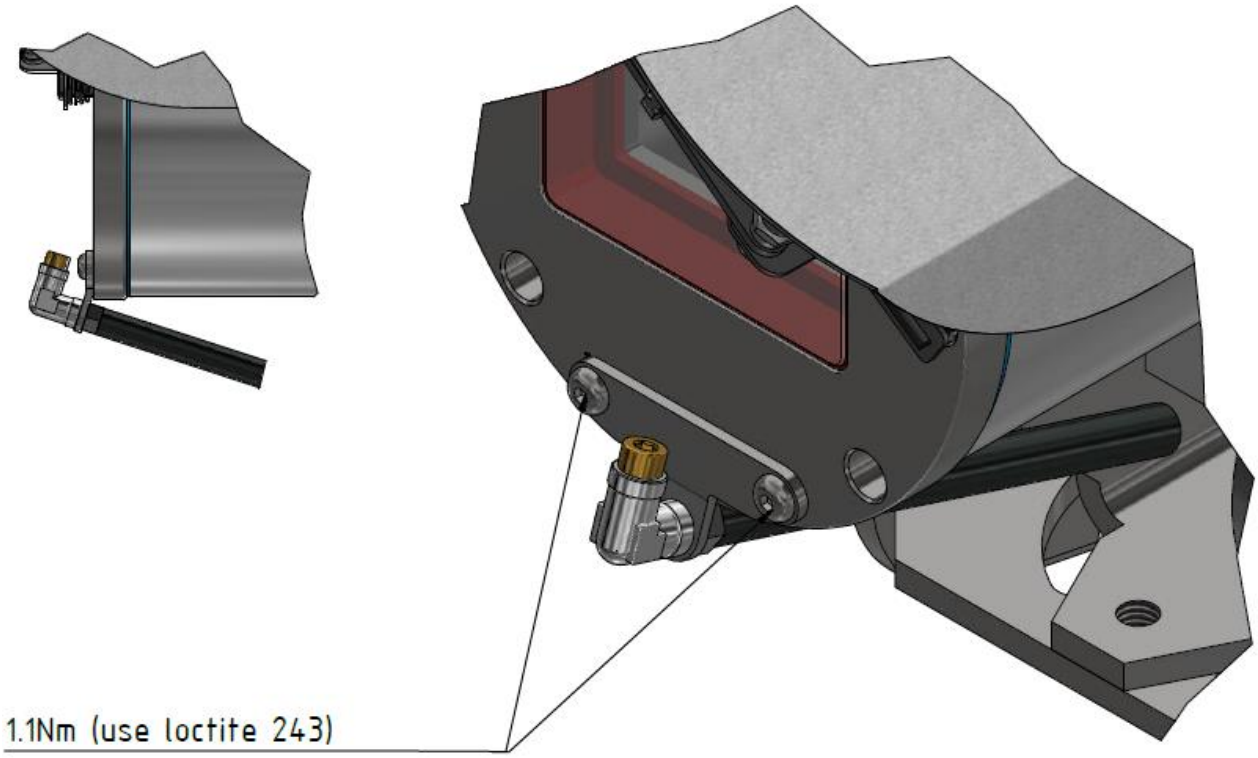


Figure 4-2 Cleaning nozzle mounted on the camera flange

4.3 Mounting and grounding of the water tanks (optional)

For mounting and grounding of the water tanks please observe the assembly instruction. The two tank brackets have to be fixed with 3 screws (M8x20, torque 20.6 Nm). Grounding has to be connected on the three positions see picture below.

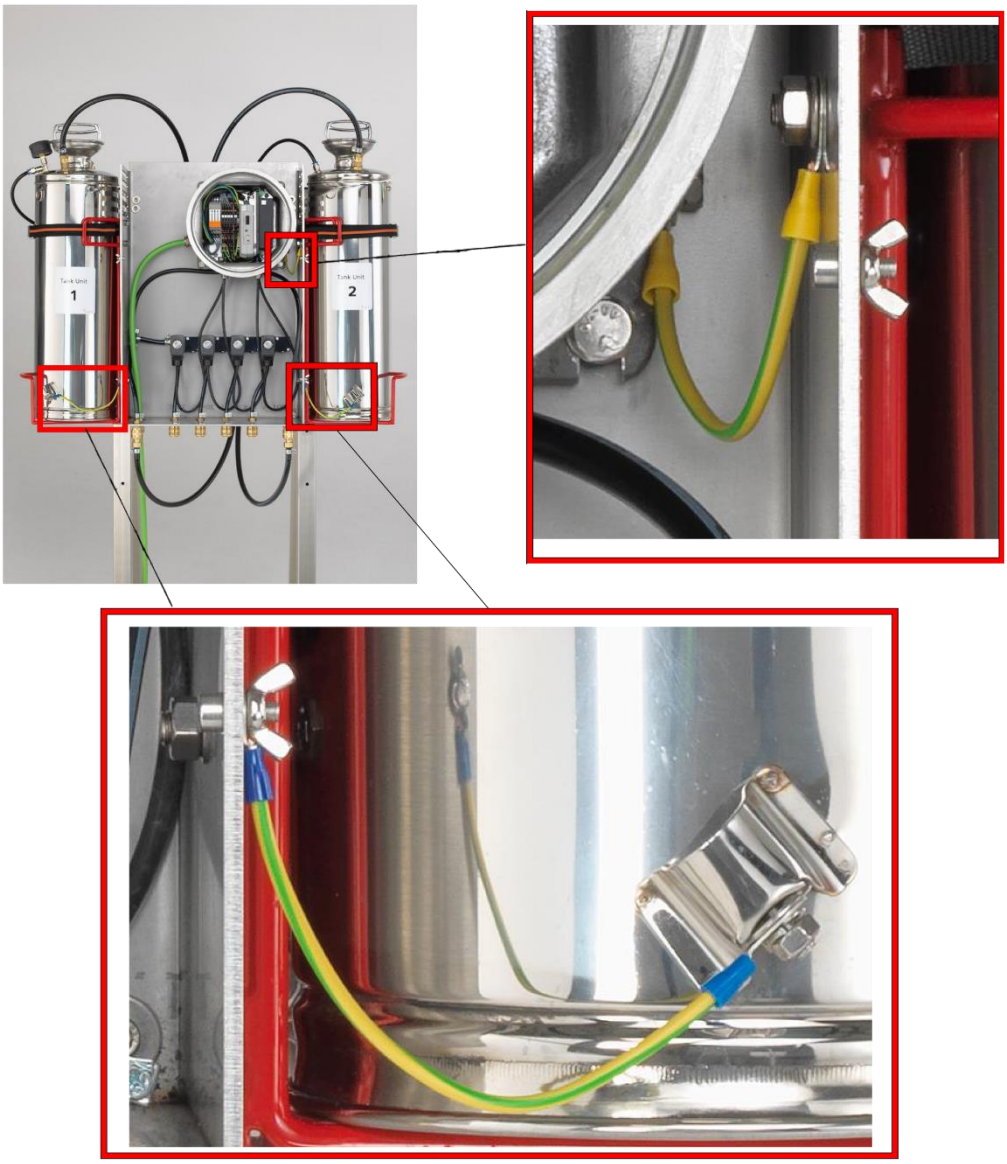


Figure 4-3 Grounding of water tanks (optional)

Attention!
For models with two tanks both of the tanks should be filled evenly.

Attention!
Release the pressure before connecting or disconnecting the tanks (0bar). Do not open the water tanks under pressure.

Attention!
At temperatures below 0°C, each tank must be closed with a black protective cap.

Attention!
Please pay attention to the national and local regulations for mounting heavy loads. In case of doubt, take appropriate security measures.

Optional accessory

Polyurethan-tube, antistatic		Length: up to 50m

Tab. 4.1: Accessory

5 Electrial connection

Attention!
The electrical connection of the equipment may only be carried out by qualified and skilled personnel!

Attention!
It is absolutely necessary to ground the ExCam® series' housing via the PA connection.

Attention!
Please observe the national security, installation and accident prevention regulations (e.g. DIN EN 60079-14) and the safety instructions in this User Manual, as well as the ones in the Installation Guidelines!

The delivered ExCam® smart.Cleaner is equipped with a pre-installed electrical connection cable. The maximum transmission range from the PoE I/O module (PD) to the PoE network interface (PSE) typically is 95 metres (maybe. shorter/ depending on EMV) and can be individually specified by the client. The user is NOT authorised to do electrical connection procedures inside the pressure-resistant enclosure.

5.1 Potential equalization

Potential equalization/grounding of the control cabinet is absolutely necessary, in order to avoid static charges and thus the formation of sparks. For this purpose, a ground screw on the bottom right is provided (see Figure 5-1). The cross-section of the potential equalization should comply with the National Ground Rules (at least 4mm^2).

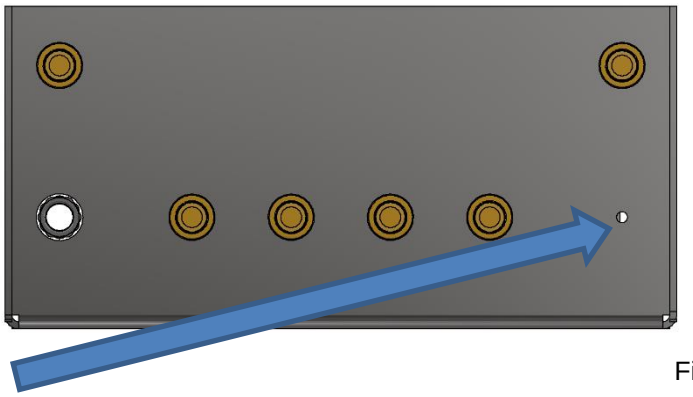


Figure 5-1 Earthing screw

5.2 Connection work at the device

5.2.1 Network connection / Plug assignments (RJ45)

The smart.Cleaner has an RJ45 plug (pin assignment EIA/TIA-568B), which must be plugged into an RJ45 socket on the network device. The network device may already be active while the plug is connected; there is no sequence of switching on the voltage.

5.2.2 Connection via a terminal box (alternative)

If the device should be connected to a terminal box the plug has to be removed. In this case the correct connection of the individual pins in accordance with EIA/TIA-568B has to be observed. Generally, the pins of the same color code are connected (IEC60757).
Particularly in EMC critical environments, it is important to earth the shield at the terminal block side

Attention!
Never open the Ex-e terminal box while energized!

Attention!
Observe the international regulations for connection spaces with increased safety (Ex-e)!

Attention!
Please observe the delivered user manual of the ex-e terminal box.

go.samcon.eu/v01

Figure 5-2 Video Tutorial ExTB-3

The pin assignment of the ASKDP03-T is executed in accordance with the standard EIA/TIA-568B for 100BaseTX and 230VAC (24VDC) as follows:

smart.Cleaner (T568B)	**Colour ASKDP03-T** (IEC60757)	**Terminal ExTB-3**	**Cross-sectional surface**	**Comment**
Armierung	YE / GN	PE	2,5 mm²	Flex
Tx+	WH / OG	1	0,32 mm²	Solid conductor
Tx-	OG	2	0,32 mm²	Solid conductor
Rx+	WH / GN	3	0,32 mm²	Solid conductor
Rx-	GN	4	0,32 mm²	Solid conductor
(NC)	WH / BU	5	0,32 mm²	Solid conductor
(NC)	BU	6	0,32 mm²	Solid conductor
(NC)	WH / BN	7	0,32 mm²	Solid conductor
(NC))	BN	8	0,32 mm²	Solid conductor
GND/SHD	YE / GN	PE	2,5 mm²	Flex
L+	BK	9	1,5 mm²	L+ 230VAC (24VDC*)
L-	BU	10	1,5 mm²	L- 230VAC (24VDC*)
PE	YE / GN	PE	1,5 mm²	PE

Tab. 5-1 Wire assignment of terminal box ExTB-3 (ASKDP03-T)

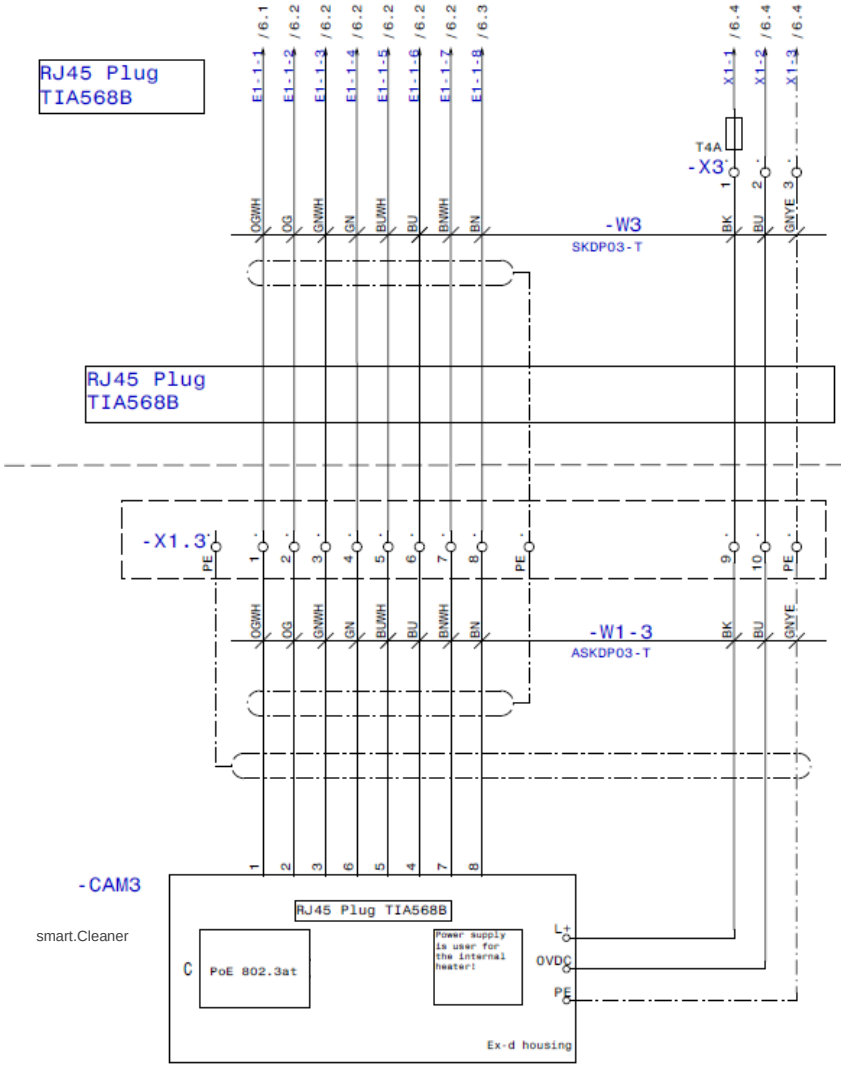


Figure 5-3 Sample circuit of terminal box ExTB-3

Attention!
Introduce the foiling up to about 15 mm close to the terminals, in order to prevent alien crosstalk. Make sure that the foiling cannot cause any short circuit of the data pairs!

Attention!
Bring the twisted pair composite up to about 10 mm close to the terminals, in order to ensure interference immunity.

Attention!
Use only terminals approved by SAMCON.

Attention!
Finally, check your network installation with a Class-D Link Test.

5.3 External connection and protection

There are several options of routing the ExTB-3 terminal box to a safe area:

5.3.1 Direct routing from the ExTB-3 into the safe area

In the case of direct routing from ExTB-3 to the safe area, the power supply and the voltage signal are led from the safe area to the terminal box. Please observe the terminal box assignment, as described above.

Attention!
Cables and wires must comply with the requirements of the IEC 60079-0/1/7 & 14.

Attention!
The supply line must have a sufficient cross-section. The cable protection must comply with national and international regulations.

Attention!
Cables and wires must comply with the requirements of the IEC 60079-0/1/7 & 14.

Attention!
The supply line must have a sufficient cross-section. The cable protection must comply with national and international regulations.

Attention!
Cable glands which are not fitted with a cable have to be closed with the red blind plug.

5.3.2 Test prior to switching on voltage

Attention!
Prior to starting the device, perform all tests as indicated by the national regulations. Furthermore, check the correct function and installation of the device in accordance with this User Manual and other applicable regulations.

Attention!
Incorrect installation or operation of the camera may lead to a loss of warranty!

Attention!
Do not switch on the camera at temperatures below 0°C!

6 Working inside the pressure-resistant housing

6.1 Opening the pressure-resistant housing

Opening the pressure–resistant ConnectionRail housing is only allowed to replace the fuses. Afterwards, the housing has to be closed explosion-proof again!

„WARNING – DO NOT OPEN IN HAZARDOUS AREAS“

„WARNING – ENSURE THAT THERE IS NO VOLTAGE BEFORE EXCHANGE OF FUSES“

Attention:
For opening the pressure-resistant die-cast aluminium housing T04 ConnectionRail Gr.3 of the smart.Cleaner, it is mandatory to follow the step-by-step instructions as stated in the T04 Ex installation manual!

Attention!
Heed that you do not damage the thread surface of the flame-proof gap.

Attention!
Heed that you do not damage the housing seals. Keep them clean!

When touching electrical components, observe potential equalization (grounding of the body): carry electrostatic-discharge clothes, a PE wristband etc.!

6.2 Closing the pressure-resistant housing

Attention:
For closing the pressure-resistant die-cast aluminium housing T04 ConnectionRail Gr.3 of the smart.Cleaner, it is mandatory to follow the step-by-step instructions as stated in the T04 Ex installation manual! For closing the housing, proceed in reverse order as when opening. Use exclusively original screws included in the supply.

Attention!
If any mechanical damages occurred to the fitting gap, it is no longer allowed to use the housing!

Attention!
Do not lock-in any foreign objects in the housing.

7 Antifreeze agent

At temperatures below 0°C, suitable antifreeze should be used for the fluid in the tanks. We recommend TECTROL antifreeze (material number 1627381). It must be ensured that the seals are fully resistant to the antifreeze. This is the case as long as the anti-freeze agents do not contain any dissolved or solid alkali metals for better heat transfer or as long as they do not contain any fluorine-based substances. The amount of alkali metals such as lithium or fluorine can be taken from the datasheet of the selected anti-freeze.

8 Controlling the smart.Cleaner with the camera

The smart.Cleaner can be operated via the camera's website or via a video management system (VMS). Control is via the network; there is no direct cabling from the smart.Cleaner to the camera.

8.1 Network configuration of the smart.Cleaner

The smart.Cleaner is intended for use in an Ethernet network and requires an IP address to access and control it. In the most today's networks, a DHCP server is integrated. This server automatically assigns an IP address. The assigned IP address can be read using the Axis IP Utility tool:
https://www.axis.com/support/tools/axis-ip-utility

If there is no DHCP server available in the network, the **default IP address** of ExCam smart.Cleaner is **192.168.0.90** (subnet masking 255.255.255.0).

Open the smart.Cleaner website by entering the IP address in the web browser and log in.
The username is factory set to: **root**
The password is set at the factory: **root**

The network access of the smart.Cleaner and functionalities via the web interface are explained in detail in the Axis operating instructions for the IO module.
https://www.axis.com/files/manuals/um_p8221_36575_en_1706.pdf

The delivered smart.Cleaner is set to the applicable net frequency (50Hz or 60Hz).

The Output Buttons can be configured „Setup > Live View Config > Layout“ in the domain Output Buttons, to adapt the device`s functions to the needs. Only the Outputs 1 to 4 are functional.

The Interface can be seen in figure 8-1 (max. 4 Output channels).

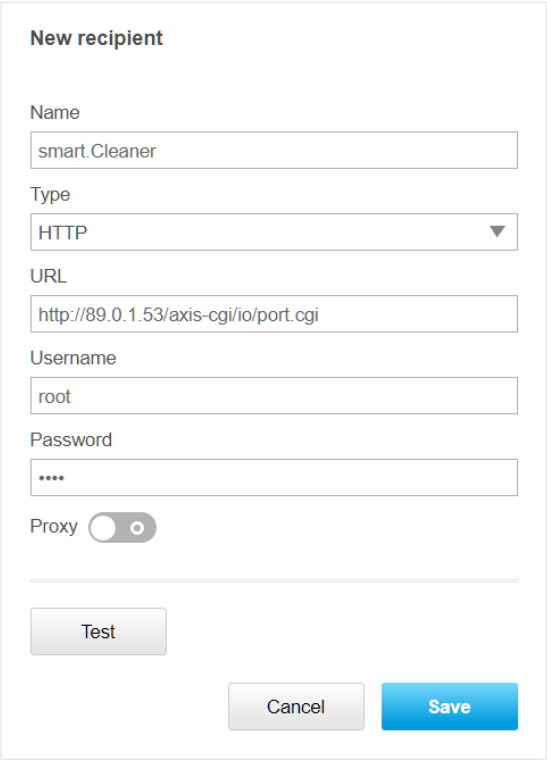
Figure 8-1 Interface smart.Cleaner

8.2 Configuration of the ExCam to control the smart.Cleaner

The following explains how to configure the ExCam to activate the spray system of the smart.Cleaner via an on-screen button in addition to the wiper of the camera.

The following configuration is performed on the camera's web page as the root user:

8.2.1 Create recipient: smart.Cleaner (IO module Axis P8221)



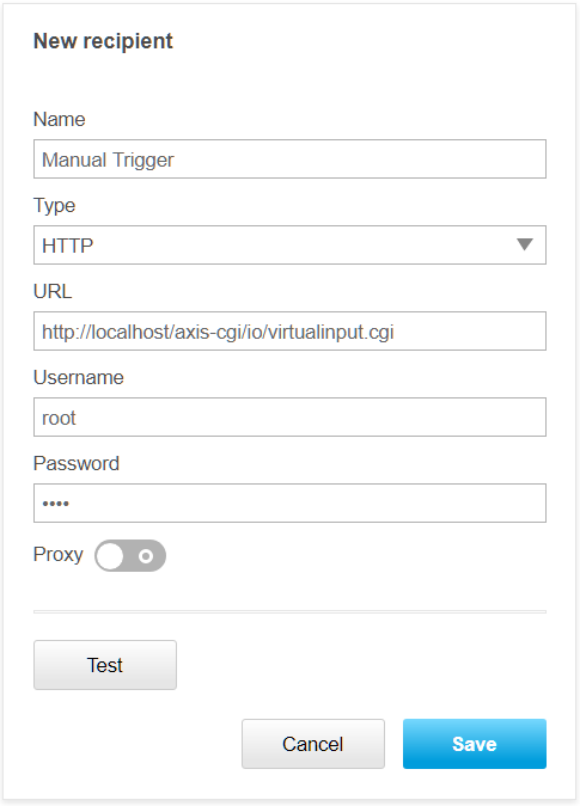
Create a receiver for the Axis P8221 IO module of the smart.Cleaner under
System / Events / Recipients.

Name: smart.Cleaner
Type: HTTP
URL: http://ip-io-modul-p8221/axis-cgi/io/port.cgi
Username: root
Password: root
Proxy: deactivated

Figure 8-2

Recipient „smart.Cleaner“ (IO module Axis P8221)

8.2.2 Create recipient: Manual Trigger

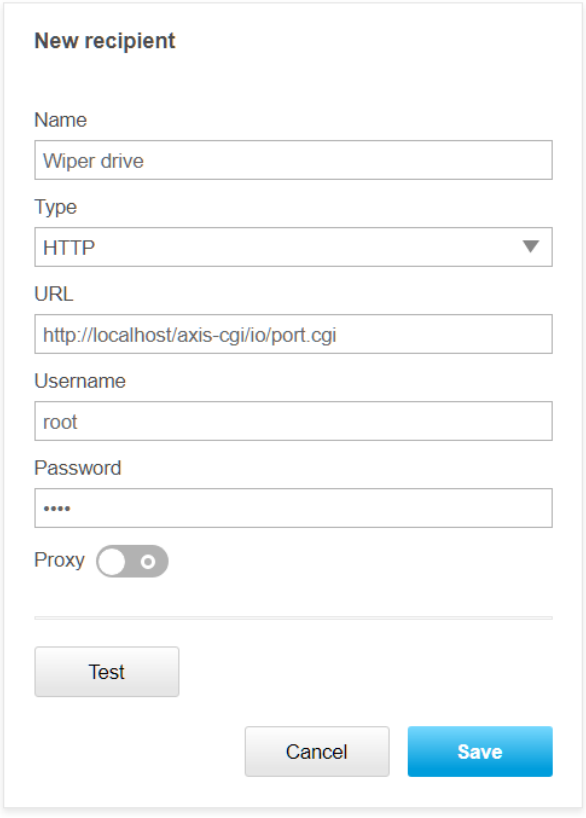


Add the camera's manual trigger button as a receiver.

Name: Manual Trigger
Type: HTTP
URL: http://localhost/axis-cgi/io/virtualinput.cgi
Username: root
Password: root
Proxy: deactivated

Figure 8-3 Recipient „Manual Trigger"

8.2.3 Create recipient: Wiper drive



Configure the "Wiper drive" receiver.

Name: Wiper drive
Type: HTTP
URL: http://localhost/axis-cgi/io/port.cgi
Username: root
Password: root
Proxy: deactivated

Figure 8-4 Recipient „Wiper drive"

8.2.4 Create action rules

The so-called "manual trigger" of the camera, a virtual button (marked yellow in the image), is used as an action condition for the wiper and for controlling of the smart.Cleaner.

Figure 8-5 Manual trigger

In addition, a rule is configured that automatically deactivates the manual trigger again so that a push button effect can be achieved.

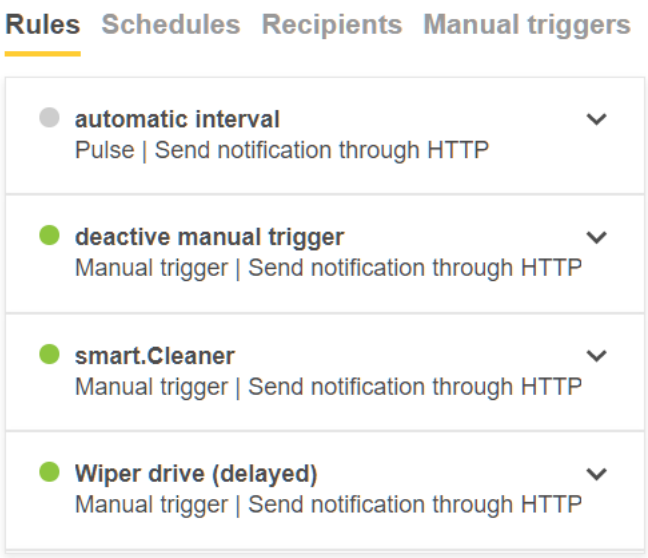
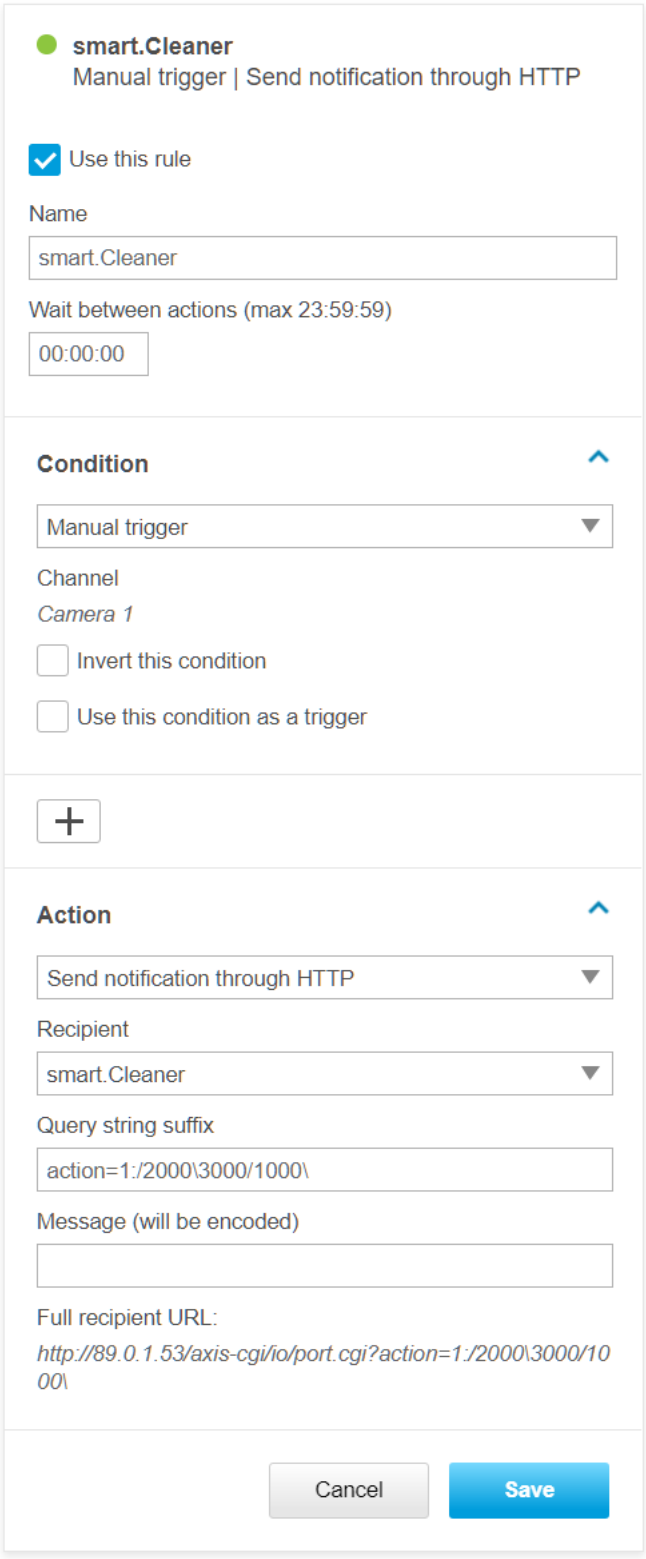


Figure 8-6 Action rules

This image shows the configured action rules that will be created in the following steps.

8.2.5 Create the action rule „smart.Cleaner“

The following action rule is created to activate the spray system of the smart.Cleaner.



The query string suffix can be used to control the smart.Cleaner.

The following command activates the spray system for one second:
Query string suffix: `action=1:/1000\`

Explanation:
In this example the smart.Cleaner is connected to port 1 of the IO module P8221:
`action=1:/1000\`

If another port is used, it must be controlled accordingly:
`action=3:/1000\`

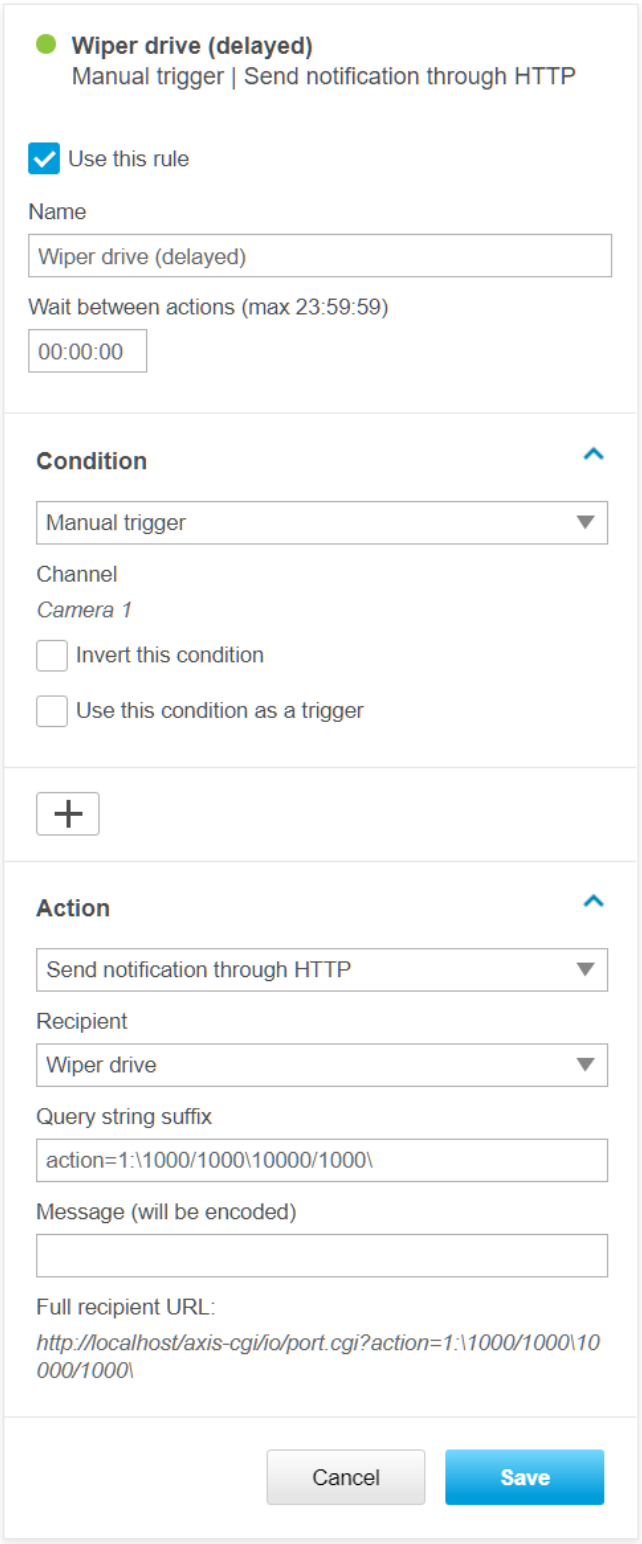
A front slash / switches the spray system of the smart.Cleaner on, a back slash \ switches it off. The numbers between a slash are the milliseconds until the following slash is executed as a control command. In the above command, the spray system is active for one second.

If another spray is to be made after a short pause, the following command can be used, to spray for two seconds, pause for three seconds and then spray again for one second:
`action=1:/2000\3000/1000\`

Figure 8-7 Action rule „smart.Cleaner“

8.2.6 Create the action rule „Wiper drive”

To activate the wiper shortly after the spray system, the following rule is established.



The query string suffix can be used to control the wiper.

The following command activates the wiper after 1 sec. delay.
Query string suffix:
`action=1:\1000/1000\`

Explanation:
The wiper is connected to port 1:
`action=1:\1000/1000\`

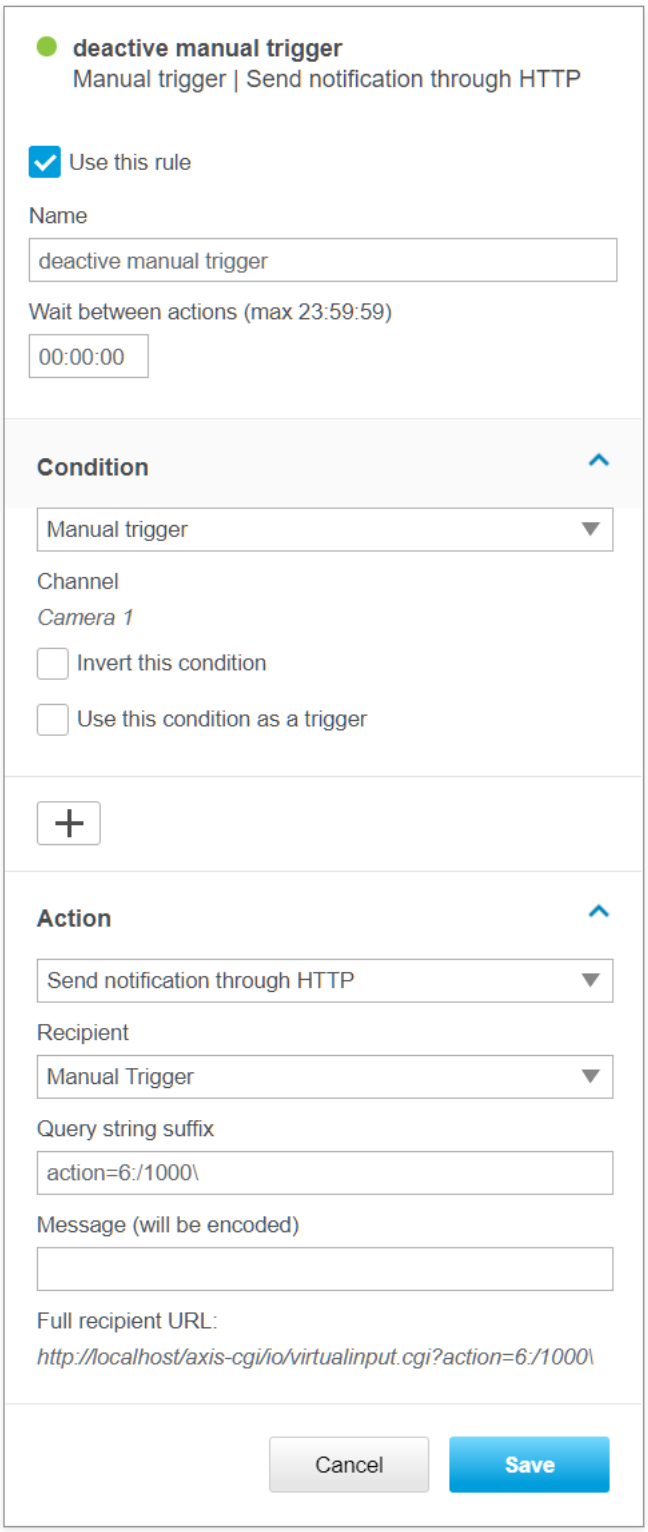
A frontslash / activates the wiper, a backslash \ turns the wiper off.
The numbers between a slash are the milliseconds until the following slash is executed as a control command. In the above command, the wiper is left off for one second and only activated after this delay, when there is enough water on the glass.

After activation, two wiper cycles are executed, i.e. the wiper moves twice in both directions and requires approx. 10 seconds for this.
If the wiper should be active for longer, it can be switched on again after a pause of 10 seconds:
`action=1:\1000/1000\10000/1000\`

Figure 8-8 Action rule „Wiper drive“

8.2.7 Create the action rule „deactivate manual trigger“

For a push-button effect, the manual trigger must be switched off again automatically after it has been switched on. The following rule is created for this purpose.



After one second, the manual trigger is deactivated again.
Query string suffix: `action=6:/1000\`

Figure 8-9 Action rule „deactivate manual trigger“

9 Maintenance / Modification

The applicable regulations for the maintenance and servicing of electrical devices in potentially explosive atmospheres must be adhered to.

The required maintenance intervals are specific to the individual devices. The operating company has to determine these intervals depending on the application parameters. The maintenance tasks especially include examination of parts on which the ignition protection depends (e.g., proper condition of the casing, seals and cable entry points). If maintenance measures are necessary they have to be initiated and/or executed.

10 Repairs

Repairs may only be carried out with original parts of SAMCON Prozessleittechnik GmbH. Damaged pressure-resistant housings have to be replaced completely. In case of doubt, send the part in question back to SAMCON Prozessleittechnik GmbH.
Reparations concerning the explosion protection must only be carried out in accordance with nationally applied regulations by SAMCON Prozessleittechnik GmbH or by an authorized electrical technician authorized by SAMCON Prozessleittechnik GmbH. Rebuilding of or alterations to the devices are not permitted.

11 Disposal / Recycling

When disposing of the device, nationally applicable regulations must be observed.

This Document is subject to alterations and additions.

12 Drawings & 3D Models

The following figures are technical drawings of the smart.Cleaner.
Further drawings, accessories, 3D models, STEP-files, DXF shapes, certificates and other information are available in the download area of the product page on our website:

https://www.samcon.eu/en/products/equipment/smart-cleaner/

If you wish additional technical information, please contact us at:
support@samcon.eu

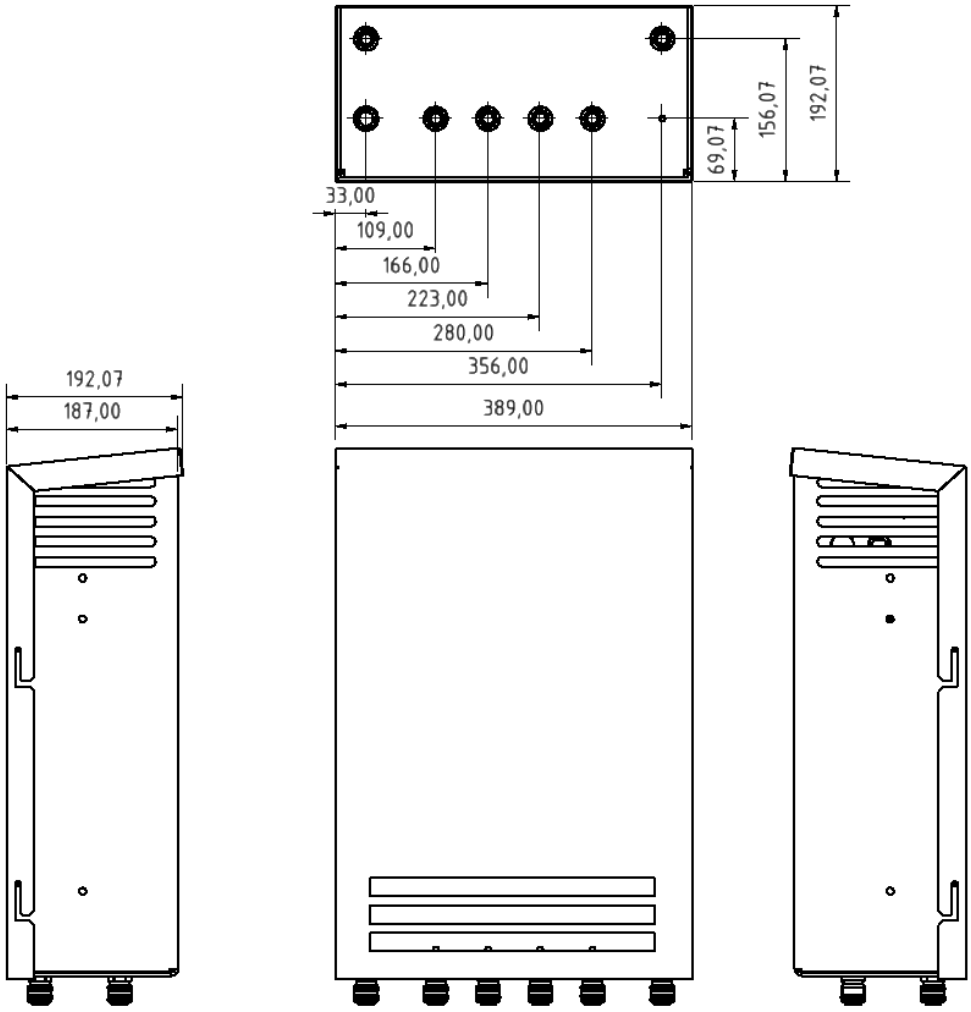


Figure 11.1 – Dimensions

13 Certificates and further documentation

Certificates and further documentation are available in the download area at the product website:

https://www.samcon.eu/en/products/equipment/smart-cleaner/

14 Notes

SAMCON

Schillerstraße 17, 35102 Lohra-Altenvers
www.samcon.eu, info@samcon.eu
fon: +49 6426 9231-0, fax: - 31