

Operating instructions

Control head PLC-ATEX for globe and rotary valves



We reserve the right to make technical changes and improvements to our products.

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1 General information



These operating instructions are part of the control head and must be available to the user at all times. All safety instructions must be made sufficiently known and must be noted. If the device is passed on, the operating instructions must also be passed on.

1.1 Intended Use



In potentially explosive areas of Zone 1, 2 & 21, 22, only devices that are certified, approved and marked for this application in accordance with ATEX may be used.

These control heads are suitable for use on Kieselmann actuators for globe and rotary valves and actuators for ball valves, as well as for use on all actuators with a suitable encoder system.

Their area of application is designed for the described ATEX zones and therefore suitable for gas and dust. The energy-minimized design allows the use in both areas.

The personnel for maintenance, inspection and installation must be qualified to work in potentially explosive environments. Furthermore, the operator must ensure that the contents of the supplementary operating instructions are fully understood by all persons involved in the installation, commissioning, operation and maintenance of the ATEX control heads.

Conversions as well as modifications of the control heads are prohibited and always lead to the expiration of the ATEX approval.

Any other use or use beyond this is considered improper use, and AquaDuna GmbH & Co KG is not liable for any damages resulting from this.

The ATEX control heads are built according to the state of the art and are safe to operate. Incorrect operation or improper handling of the ATEX control head may result in danger to life and limb of persons, to the control head itself and to the operator's system.



The special conditions described in point 1.2 must be observed.

1.2 Special conditions

The EC type examination certificate number is: TPS

15 ATEX 51981 011 X

This results in the following restriction:



The UV light resistance of the housing has not been proven. It must not be exposed to ultraviolet radiation, e.g. direct sunlight.

1.3 Component identification

The control heads PLC-ATEX are available as operating equipment according to:

⊕ Ex II 2 G Ex eb ib mb IIC T4 Gb

⊕ Ex II 2 D Ex tb IIIC T120°C Db

(Ta 0°C to 60°C)

the marking is engraved on the type plate of the control head.

1.4 List of images and tables

Figure 1	Control head
Figure 2	Structure of the control head
Figure 3	Magnetic carrier and encoder
Figure 4	Set the actuator types
Figure 5	LED signals
Figure 6	Position of the connections on the front
Connectors Figure 7	Position of the connections on the rear
Connectors Figure 8	Labelling connector 7 pin (P2)
Figure 9	Labelling the solenoid valve
connector Figure 10	Dimensions
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1.5 Symbols used

Danger warnings



The warning triangle indicates special risks.



Risk of crushing or injuries to the hands

Warnings



Warning of dangers

Information



Observe operating instructions



Observe information



Notes on explosion protection

1.6 Abbreviations used

PLC
nu
ATEX

Programmable Logic Controller
not used
Explosion Protection Directive

1.7 Dangers



The control heads are operated with compressed air 6 - 8 bar. In case of leakage, there may be a pressure build-up in the hood of the control head due to the design. Hence, we specifically point out that only original spare parts may be used for repair / maintenance. Damages resulting from the use of **non-original parts** will **not be acknowledged** by the manufacturer.

The control head may only be operated in the intended environment.

The control head is equipped with a hood with bayonet locking. It must be ensured that no tools are used to release the hood and that the respective direction of rotation for opening or closing is observed.



Live cables must neither be plugged in or pulled out.

Only authorised persons are allowed to be in the operating area of the control head.

If the pulse generator is removed or inserted in the control rod, make sure that the sealing cap is screwed in as far as the metal stop. If the cap is not completely screwed in, the stroke movement of the piston rod may destroy the cap, which will invalidate the ATEX approval.



The control heads must not be operated with the hood removed, special caution is required during adjustment work (risk of crushing)

2 Techniques and application

2.1 Function of the control heads

The control heads can be combined with Kieselmann valves. They are mounted and screwed to the respective valve actuator.

The non-contact magnetic sensor technology allows the use with different valve types. The positions of the valve are detected by the electronics of the control head and transmitted to a higher-level control system. The signals are forwarded via a dedicated cabling. The electronics signal the valve status at the control head. The actuator is controlled via integrated pilot valves. The air is supplied either directly via the control head or via an external hose connection. Operation may only be carried out in the environment provided for this purpose.

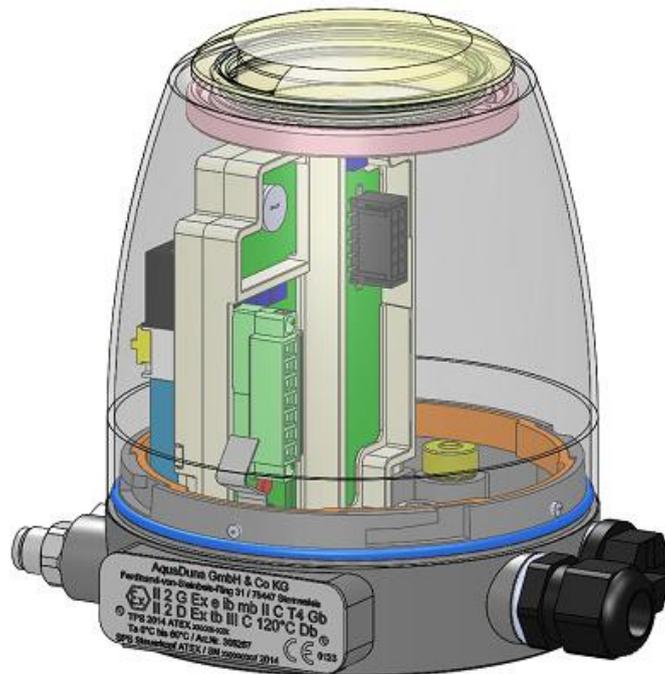


Figure 1

The installation of equipment must be carried out by  qualified personnel. The cables must be kept away from interfering components such as supply lines of frequency converters.

2.2 Design of the control heads

The control heads consist of a lower part with bayonet locking on which a stainless steel hood must be placed. An electronic system is integrated in the resulting housing, which makes it possible to control and record the positions of the valve. The integrated pilot valves control the movement of the actuator. The electrical connections are made via a cable entry in the lower part. A connection to the supply air is made using compressed air quick connectors. Optionally, shut-off elements are possible for the air intake.

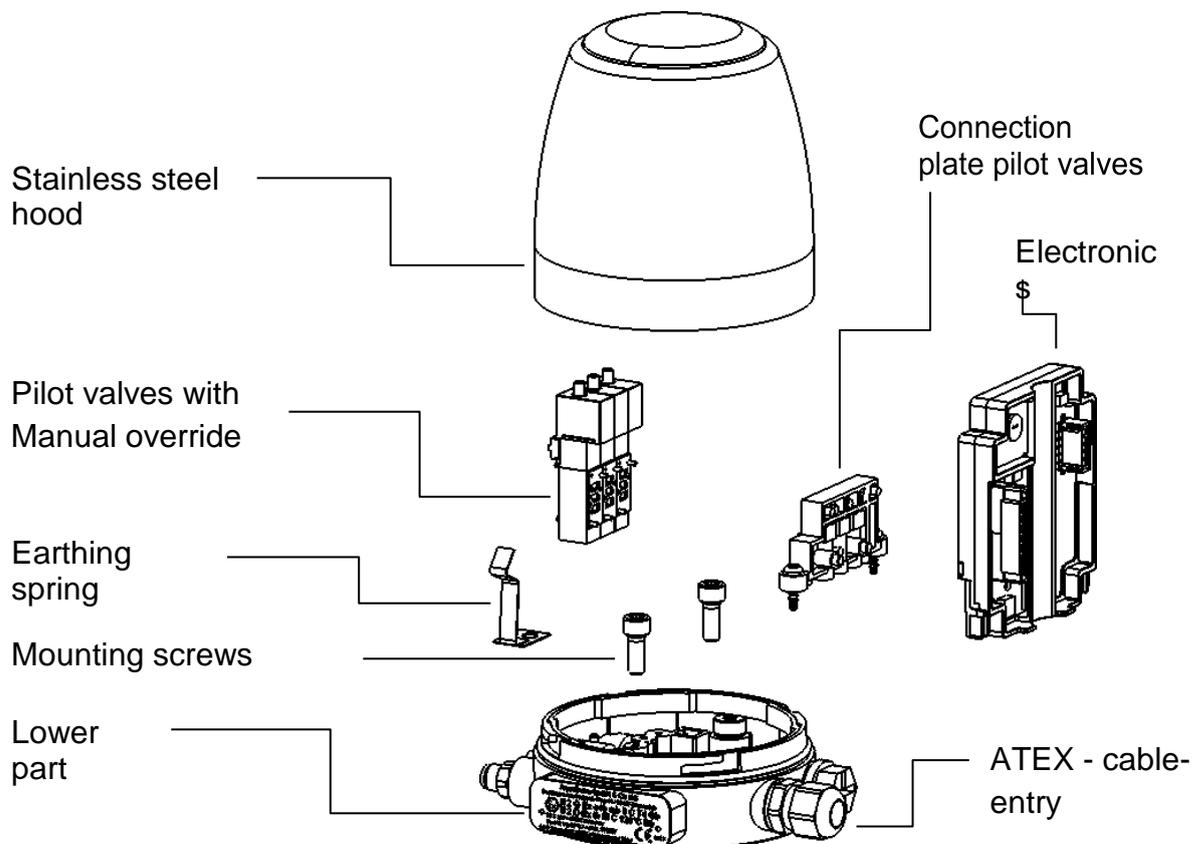


Figure 2

2.3 Control of the actuators

The actuator can be controlled via the built-in or external pilot valves. External pilot valves are located in the switchgear of the higher-level control system. The internal pilot valves can be triggered by a manual override.

2.4 Determining the position

The position of the linear actuator is determined using a magnet carrier. This carrier is located in the spindle of the valve.

For rotary actuators, a rotary encoder with magnets is used to determine the position.

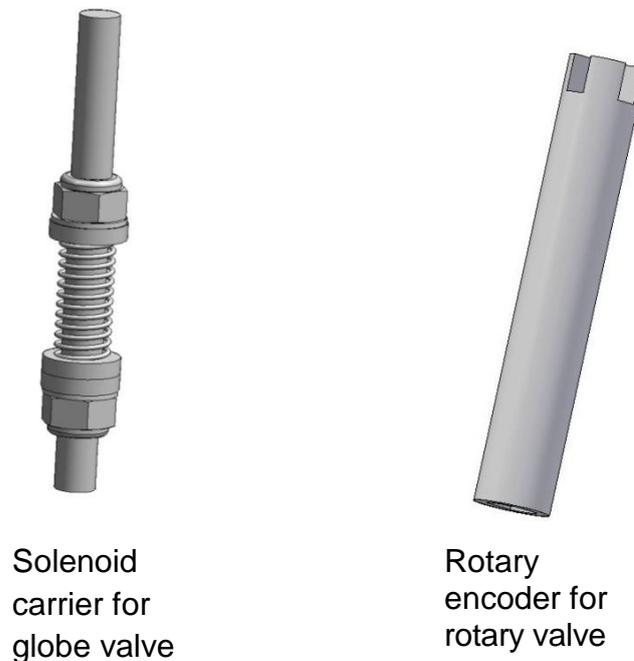


Figure 3

2.5 Set the actuator types

The settings of the valve types are made via the selector switch (S1) and the button (T1). The switch positions are assigned to the actuators via the following list.

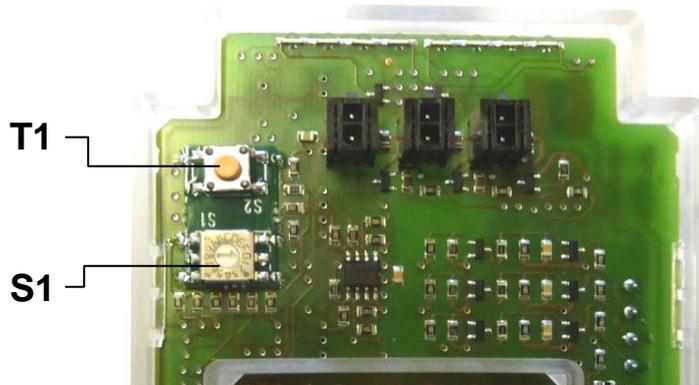


Figure 4

Actuator description	Switch position (S1)
Double seat valve phase up / down without feedback	0
Double seat valve without phase	1
Double seat valve phase up only	2
Double seat valve with cyclic stroke detection and feedback	3*
Globe valve LÖ / FS	4
Globe valve LÖ / LS	5
Globe valve LÖ / FÖ	6
Double seat valve with inverse phase	7
Rotary valve / flap LÖ / FS	8
Rotary valve / flap LÖ / LS	9
Rotary valve / flap LÖ / FÖ	A
Globe valve LÖ / FS	B*
Globe valve LÖ / LS separately controllable	C
Rotary valve / flap LÖ / LS separately controlled	D
Globe valve FÖ / LS	E*
nu	F

Table 1



*Attention Please note when setting valve types 3, B and E: To teach in the positions, button T1 must be pressed and held for 5 seconds. After releasing the button, the actuator goes into learning mode and moves to the positions in sequence. The hood must then be closed again.

2.6 LED Signalling

LED's red
and
green

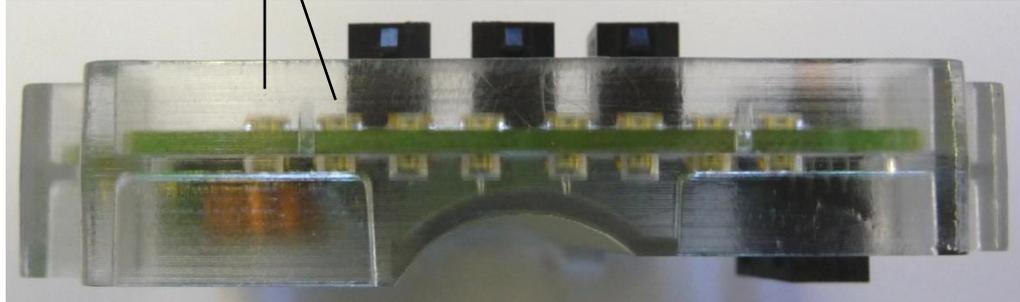


Figure 5

The actuator position is signalled by the LED on the board

		Comment
Valve closed	LED red	
Valve open	LED green	
Valve position undefined	Alternating red / green 8 Hz	
For valves with learning mode switch position 3		
Cycle down	LED red blinks	only P variant
Cycle up	LED green blinks	only P variant
Programming	Red / green simultaneously	4Hz
Incorrectly programmed	Red blinks	20 Hz
Program error	Red / Green alternating	4 Hz

Table 2

3 Electrical connections Position of the



connectors

Figure 6

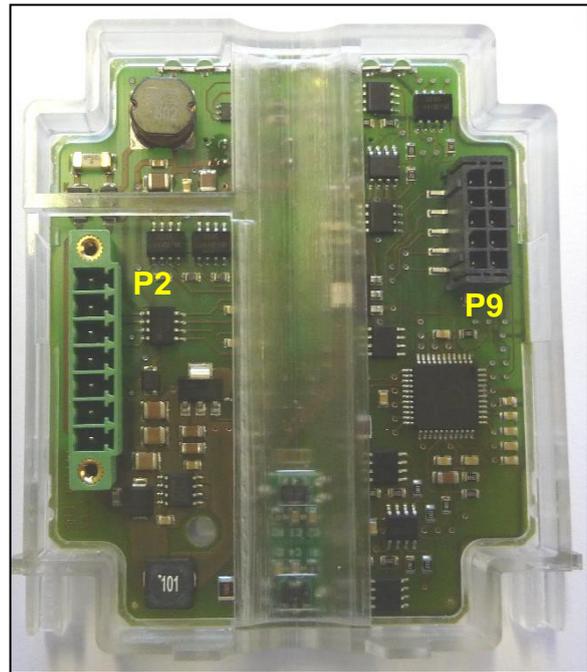


Figure 7

3.1 Electrical connections Connector

7 pin (P2)

Connector P 2 . 1	GND
Connector P 2 . 2	A0
Connector P 2 . 3	A1
Connector P 2 . 4	A2
Connector P 2 . 5	E0
Connector P 2 . 6	E1
Connector P 2 . 7	

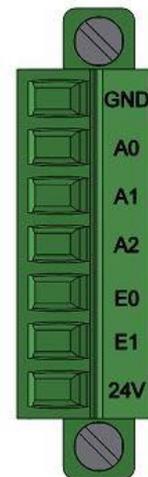


Figure 8



Observe assembly instructions in point 7

3.2 Electrical connections Connector 10 pin (P9)



**Programming connection, do not use for operation.
Connection in the Ex zone is expressly prohibited**

3.3 Electrical connection Solenoid valve connector 2 pin (P4;P5;P6)

Connector P 4. 1 MV 1+
Connector P 4. 2 MV 1 -



Connector P 5. 1 MV 2 +
Connector P 5. 2 MV 2 -



Connector P 6. 1 MV 3 +
Connector P 6. 2 MV 3 -



Figure 9

3.4 Technical data

PLC Electronics

Supply voltage	24V DC
Supply voltage range	± 10%
Power consumption max.	80 mA (24V DC)
Ambient temperature	0°C to 60°C
Protection class	IP 67 DIN EN 60529
with stainless steel hood	DIN EN 61140 I

Control air requirements according to DIN ISO 8573-1:2001

Particle size	max. 5 µm
Particle density	max. 5mg / m ³ class 3
Water content	Dew point 2 ° C class 3
Oil content	oil-free max. 25mg / m ³ class 3
Air pressure	6 – 8 bar
Air volume	160 l / min / 6bar



Only trained personnel should be entrusted with installation and maintenance work. The operator is liable for improper handling and processing.

The operator must ensure that the hoods are locked correctly. Proper earthing of all metallic parts of a system must be checked and documented. Improper earthing can lead to explosions and fires. Wiring must be carried out in accordance with the relevant standards. Make sure that the cable glands are properly processed.



Observe assembly instructions in point 7

4 Dimensions and installation

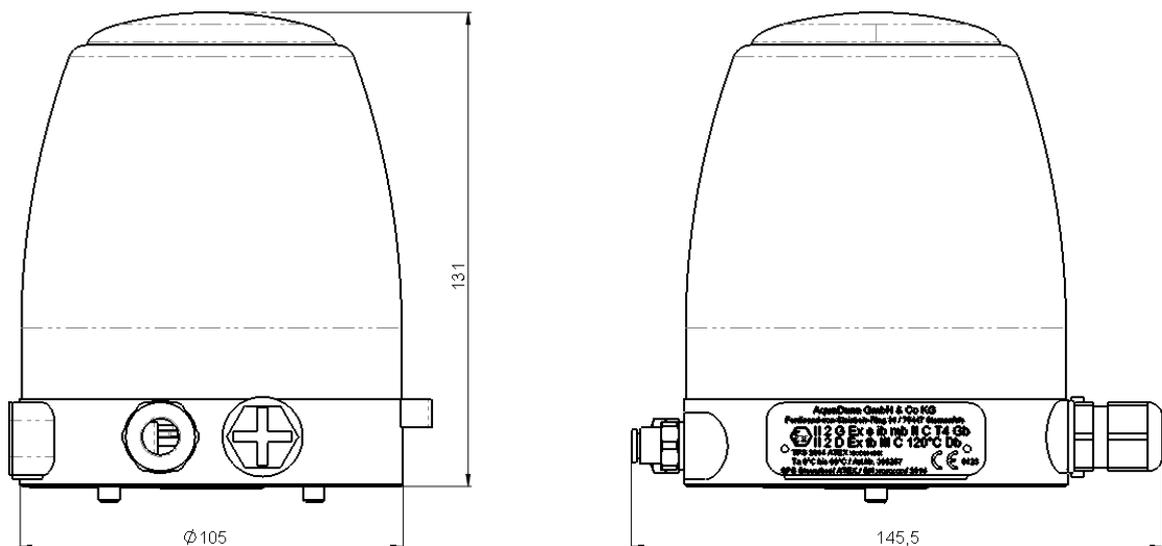


Figure 10

Pneumatic connections
Pneumatic hose
Electrical connections

G1/8
Ø 6 mm
EX- cable gland

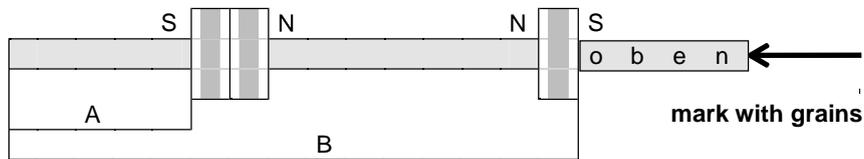
5 Adjustment of solenoid encoder for globe valves

Double seat leakage valves (e.g: 5670...)

$$A = 46.5^{+0.5}$$

$$B = 51.0^{-0.5} + \text{stroke}_{\text{measurable}} \quad \text{or}$$

$$B = 51.0^{-0.5} + (\text{stroke}_{\text{theor}} - \text{leakage space})$$



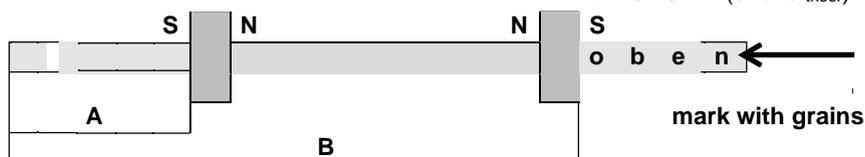
Nominal size	Stroke	Leakage-R	(Cyclic stroke)	A +0.5	B -0.5	Springs	Position indicator
DN 25	21.8	2.5	5.0	46.5	70.5	1	5620.025.005-K000
DN 40	28.0	2.5	5.0	46.5	76.5	1	5620.040.005-K000
DN 50	34.0	2.5	5.0	46.5	82.5	2	5620.050.005-K000
DN 65	43.0	2.5	5.0	46.5	91.5	2	5620.065.005-K000
DN 80	51.5	3.5	6.0	46.5	99.0	2	5620.080.005-K000
DN 100	61.5	3.5	6.0	46.5	109.0	3	5620.100.005-K000
DN 125 /150	65.0	3.5	6.0	56.5	122.5	3	5620.150.005-K000

Angle valve (e.g: 5536...)

$$A = 43.5^{+0.5}$$

$$B = 51.0^{-0.5} + \text{stroke}_{\text{measurable}} \quad \text{or}$$

$$B = 51.0^{-0.5} + (\text{stroke}_{\text{theor}})$$



Nominal size	Stroke	A	B	Springs	Position indicator
DN 25	22.0	43.5	73.0	2	5702.025.005-K000
DN 40 / 32	24.0	43.5	75.0	2	5702.040.005-K000
DN 50	26.0	43.5	77.0	2	5702.065.005-K000
DN 65	26.0	43.5	77.0	2	5702.065.005-K000
DN 80	35.0	43.5	86.0	2	5702.100.005-K000
DN 100	35.0	43.5	86.0	2	5702.100.005-K000

Switch valve (e.g: 5714...)

Nominal size	Stroke	A	B	Springs	Position indicator
DN 25 / 32	18.5	43.5	69.5	1	5714.025.005-K000
DN 40	24.0	43.5	75.0	2	5702.040.005-K000
DN 50	26.0	43.5	77.0	2	5702.065.005-K000
DN 65	26.0	43.5	77.0	2	5702.065.005-K000
DN 80	35.0	43.5	86.0	2	5702.100.005-K000
DN 100	35.0	43.5	86.0	2	5702.100.005-K000

Aseptic valve (e.g: 5836...)

Nominal size	Stroke	A	B	Spring s	Position indicator
DN 25	10.0	43.5	61.0	1	5802.025.005-K000
DN 40	12.0	43.5	63.0	1	5802.040.005-K000
DN 50	17.0	43.5	68.0	1	5802.050.005-K000
DN 65	21.0	43.5	72.0	1	5802.065.005-K000
DN 80	24.0	43.5	75.0	2	5702.040.005-K000
DN 100	29.0	43.5	80.0	2	5802.100.005-K000
DN 125	34.0	43.5	85.0	2	5802.125.005-K000
DN 150	40.0	43.5	91.0	2	5802.150.005-K000

6 Safety

6.1 Requirements

The operator of the control head is obliged to train both the operating personnel and the personnel authorised to carry out maintenance. All persons working with controlling pneumatic actuators must be informed about the dangers posed by these devices.

Persons who are not listed as operating or maintenance personnel must not be in the operating range of the devices. The operator must ensure that the necessary measures are taken.

Basically, the devices should only be serviced by suitable specialist personnel. Only original spare parts may be used. If third-party parts are used, not only the ATEX approval, but also the warranty will become void.



All assembly work on the control head must be carried out in a de-energized, depressurized state

6.2 ATEX General Guidelines

For devices that are operated in Zone 1, the special regulations for Atex-certified devices must be observed. Work on the devices may only be carried out when the devices have been taken out of operation. Operation of the units in open condition must be prevented at all costs.

7 Installation Commissioning

7.1 Assembly of the control head

To remove the control head supplied, the hood is firmly gripped with both hands. Turning it counterclockwise by approx. 15° releases the bayonet lock. Now the hood can be removed upwards.

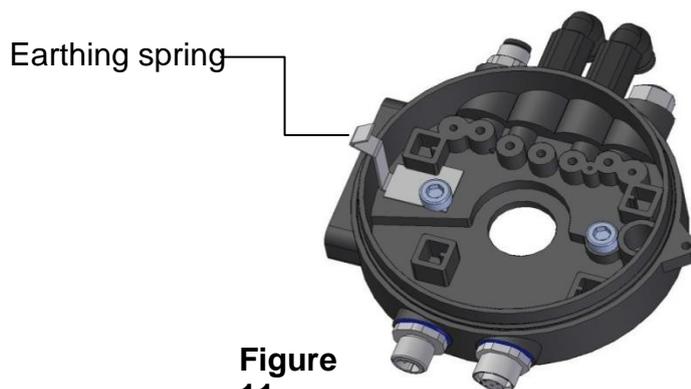


The control head is mounted on the actuator of the globe or rotary actuator. Special care must be taken to ensure that the two O-rings are correctly installed in the lower part of the control head. The air feed-through in the actuator with the cardioid groove on the underside of the control head must be fitted to match the air outlet. The two M6 Allen screws with the attached O ring are required for assembly.



The spring for earthing must be fitted as shown in Figure 10. Care must be taken to ensure correct assembly; a secure connection from spring to hood must be ensured so that dangerous potentials can be discharged.

For actuators that are smaller than 100 mm in diameter, an intermediate plate Art. No.: 5630600076-087 with an encoder extension Art. No.: 5630600077-059 must be used.



**Figure
11**



Before putting the control head into operation, always check all parts for tightness. The operator is liable for incorrectly installed control heads.

7.2 Electrical connections



The installation standard EN 60079-14 "Explosion-endangered areas - Project planning, selection and installation of electrical systems" must be observed

Connector

Ex cable gland

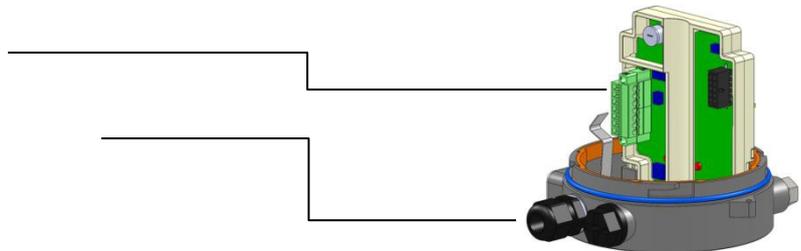


Figure 12a

Connection:

Cable diameter: 4.5 to 9 mm, the cable must be fastened near the Ex cable gland, no tensile forces must be transmitted to the Ex cable gland

Flexible cable: Cross-section 0.34 to 1.0 mm², connection with wire end ferrule, special attention must be paid to secure crimping

Tightening torque: 0.22 to 0.25 Nm

Connection diagram see Point 3.1



The connecting cable must be laid securely and protected, damage must be excluded. Clearance and creepage distances of 3 mm must be maintained.

Cable-free area
min. Ø 35

Connector

Ex cable gland

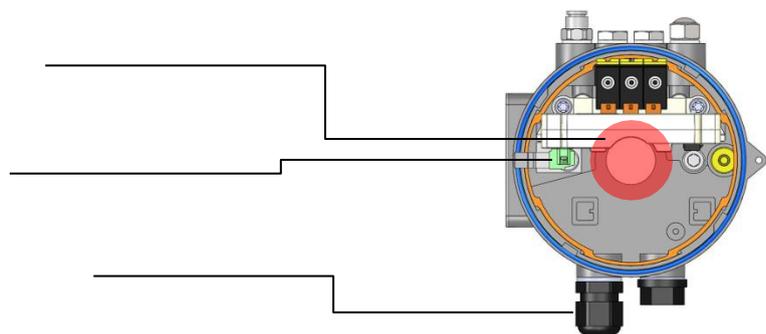


Figure 12b



The cable-free area marked in Figure 12b must be observed when laying the connection cable. The cable connections must be carried out carefully.

Short circuits and badly assembled contacts can cause explosions

7.3 Required tools for assembly and disassembly

1. Torx screwdriver size T20
2. Allen key size 5
3. Screwdriver long blade size 3
4. Screwdriver size 2

7.4 Commissioning



Once all screw connections have been tightened and the air line and electrical connection have been made, the control head is ready for initial start-up. The air supply must be carried out in accordance with the regulations. Check that the filter body is inserted in the air inlet of the control head and that all O-rings are correctly fitted. Before initial commissioning, the air supply line to the control head must be blown free. Metallic impurities, welding residues and other solid objects can destroy the control head.

7.5 Integration into a system

If the control head is integrated into an automatic operating system, it must be ensured that the function of the control head can be monitored. Monitoring must be ensured by the system concept. A visual check must also be carried out at certain intervals. The function check must be documented during an optical inspection. If faults or damage are detected during the check, they must be rectified immediately.



In the case of remote-controlled valves, care must be taken to ensure that media cannot be mixed by manually operated valves. When operating in automatically operating systems, the operator must be familiar with the shutdown procedure or the emergency stop situation of the system.

7.6 Disassembly of the control head



The control head is dismantled when the control head is to be repaired.



First disconnect the control head from the power supply. Then cut off the air supply to the control head. To disassemble the control head, the cover is firmly gripped with both hands.

Turning it counterclockwise by approx. 15° releases the bayonet lock. Now the cover can be removed upwards. Tool 1 can be used to remove the electronics or sensors including the pilot valve block. The pilot valve block is equipped differently. For control by external valves, the block is installed without equipment. If, in addition to the control board or the sensors, the lower part is to be removed as well, all hose and electrical connections must be disconnected. The lower part is fixed with 2 Allen screws M6 using tool 2. The lower part is then removed from the valve upwards.

8 Service

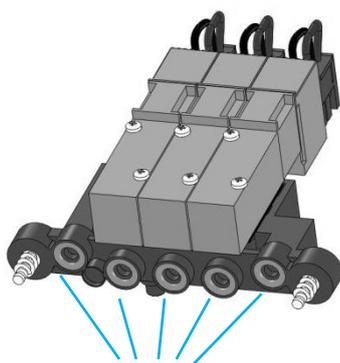
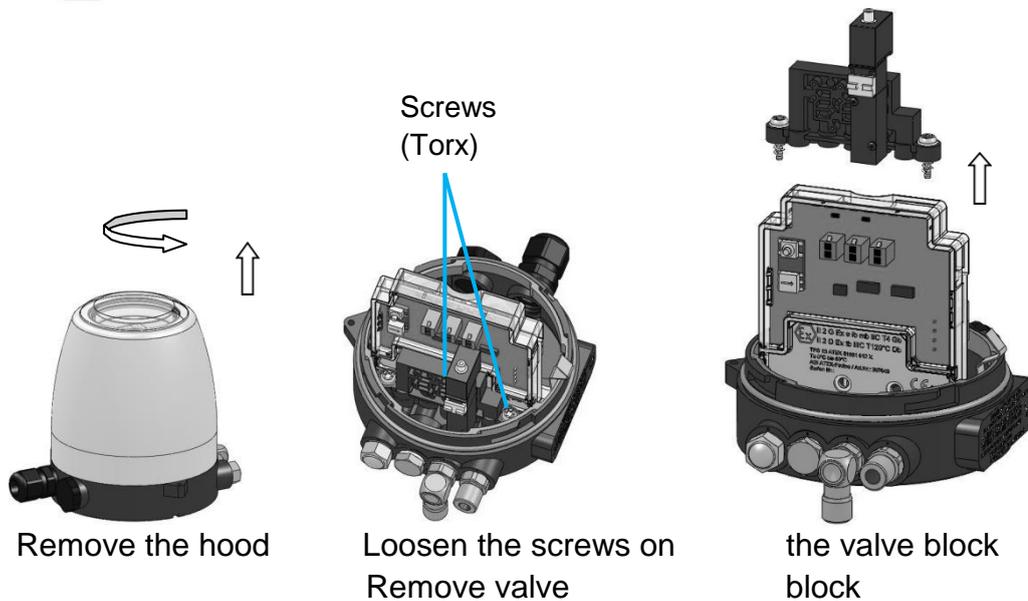


When servicing the control heads, TRBS 1201 Part 3, 2018 (repairs to devices, protective systems, safety, monitoring and regulating devices within the meaning of Directive 2014/34 / EU) must be observed.

8.1 Replacing the valve plate



First disconnect the control head from the power supply. Then cut off the air supply to the control head.



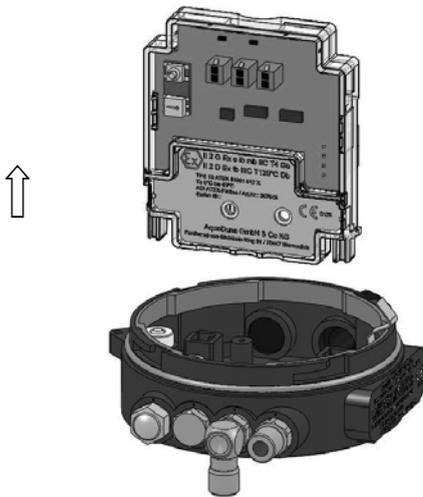
O-rings

The new valve plate (original spare part) is mounted in reverse order.

Make sure that the five O-rings in the valve plate are fully present and correctly fitted. When fitting the valve plate, make sure that the spigot of the valve plate snaps into the hole in the electronics board.

The valve plate is screwed onto the lower part with the recommended torque of 2 Nm.

8.2 Replacing the electronics board



To replace the electronics board, the valve plate (8.1) must be removed first. Then the electronics board can be removed upwards. When further mounting the control head, proceed with extreme care.

Basically, the devices should only be serviced by suitable specialist personnel. Only original spare parts may be used. If third-party parts are used or maintenance work is carried out improperly, the guarantee becomes invalid in addition to the ATEX approval.

8.3 Spare and wear parts

stainless steel hood Indicator	Spare part	5631000110-021
O Ring Set	Spare part	5631000006-000
Pilot valve block 1MV DSV	Spare part	5631001013-A00
Pilot valve block 2MV DSV	Spare part	5631002013-A00
Pilot valve block 2MV DSV	Spare part	5631004013-A00
Pilot valve block 3MV DSV	Spare part	5631003013-A00
Pilot valve block 1MV PDA	Spare part	5631601013-A00
Pilot valve block 2MV PDA	Spare part	5631602013-A00
PLC-ATEX control heads	Spare part	5631000013-A00
Screw set	Spare part	5631000005.000
Solenoid encoder for globe valves	Spare part	see table point 5.0
Rotary encoder flap	Spare part	5630600010-000

9 Transport and packaging



Our products are manufactured, assembled and tested with great care. Should there nevertheless be any reason for complaint, we will of course satisfy you within the scope of our warranty. We are also there for you after the warranty.

For all deliveries, the packing list must always be compared with the scope of delivery. After determining completeness, the goods must be checked for damage.

If there is any damage, a note on the delivery documents is essential. The forwarder must countersign the damage.

For return deliveries, either keep the outer packaging or choose packaging that does not damage the equipment.

10 Emergency shutdown



In order to force an emergency shutdown of the control head, it is essential that the operators of the system are familiar with the system concept. It is essential that an emergency shutdown is trained and the necessary elements for emergency shutdown are made known. The training of the persons entrusted with the operation of the system must be documented. All personal injury and damage to property resulting from incorrect operation or incorrect use are borne by the system operator.

11 Disposal

If the control head is taken out of service, the plastic parts shall be sent for recycling for such materials. The electronic assembly shall be sent for recycling of raw materials via the designated recycling facility.



ATTENTION It must be ensured that there is no longer any contamination with substances from the operation. For this purpose, the appropriate substance must be used to rinse the parts to be disposed of.

12 Imprint

Original operating instructions

Control head PLC-
ATEX as of March
2019
Revision 03
AquaDuna GmbH & Co.KG
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Fax.: 07045 / 204990
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13 Appendix 1

Appendix PLC-ATEX-VA

Switch position 0* Double-seat valve, normally closed, with cycle, without cyclic stroke detection

A2	A1	A0	Position	E1	E0	Action
0	0	1	closed	0	0	Shut
				0	1	Cycle upward
				1	0	Cycle downward
0	1	0	Opened	1	1	Open

Switch position 1 Double seat valve, normally closed, without cycle.

A2	A1	A0	Position	E1	E0	Action
0	0	1	closed	0	0	Shut
				0	1	Shut
				1	0	Shut
0	1	0	Opened	1	1	Open

Switch position 2* Double-seat valve, normally closed, with cycle only below, without cyclic stroke detection

A2	A1	A0	Position	E1	E0	Action
0	0	1	closed	0	0	Shut
				0	1	Shut
				1	0	Cycle downward
0	1	0	Opened	1	1	Open

Switch position 3* Double-seat valve, normally closed, with cycle, with cyclic stroke detection, with teach in

A2	A1	A0	Position	E1	E0	Action
0	0	1	closed	0	0	Shut
0	1	1	Cycle up	0	1	Cycle upward
1	0	1	Cycle down	1	0	Cycle downward
0	1	0	Opened	1	1	Open

Switch position 4 Single-seated valve, normally closed, spring closing

A2	A1	A0	Position	E1	E0	Action
0	0	1	closed	0	0	Shut
				0	1	Shut
				1	0	Open
0	1	0	Opened	1	1	Shut

Switch position 5 Single-seated valve, normally closed, Air opening / air closing

A2	A1	A0	Position	E1	E0	Action
0	0	1	closed	0	0	Shut
				0	1	Shut
				1	0	Open
0	1	0	Opened	1	1	Shut

Switch position 6

Single-seat valve,
normally open,
spring opening

A2	A1	A0	Position	E1	E0	Action
0	0	1	closed	0	0	Open
				0	1	Open
				1	0	Shut
0	1	0	Opened	1	1	Open

Switch position 7

Double seat valve, normally
closed, with cycle, without
cyclic stroke detection

A2	A1	A0	Position	E1	E0	Action
0	0	1	closed	0	0	Open
				0	1	Cycle upward
				1	0	Cycle downward
0	1	0	Opened	1	1	Shut

Switch position 8

Butterfly valve,
normally closed,
spring closing

A2	A1	A0	Position	E1	E0	Action
0	0	1	closed	0	0	Shut
				0	1	Shut
				1	0	Open
0	1	0	Opened	1	1	Shut

Switch position 9

Butterfly valve,
normally closed
Air opening / air closing

A2	A1	A0	Position	E1	E0	Action
0	0	1	closed	0	0	Shut
				0	1	Shut
				1	0	Open
0	1	0	Opened	1	1	Shut

Switch position A

Butterfly valve,
normally open, spring
opening

A2	A1	A0	Position	E1	E0	Action
0	0	1	closed	0	0	Open
				0	1	Open
				1	0	Shut
0	1	0	Opened	1	1	Open

Switch position B*

Single-seated valve,
normally closed,
spring closing with
teach in

A2	A1	A0	Position	E1	E0	Action
0	0	1	closed	0	0	Shut
				0	1	Open
				1	0	Shut
0	1	0	Opened	1	1	Open

Switch position C

Single seat valve,
basic position
undefined
Air opening / air closing

A2	A1	A0	Position	E1	E0	Action
0	0	1	closed	0	0	-
				0	1	Open
				1	0	Shut
0	1	0	Opened	1	1	-

Switch position D
butterfly valve, basic
position undefined
Air opening / air closing

A2	A1	A0	Position	E1	E0	Action
0	0	1	closed	0	0	-
				0	1	Shut
				1	0	Open
0	1	0	Opened	1	1	-

Switch position F
Factory setting

A2	A1	A0	Position	E1	E0	Action
-	-	-	Internal	-	-	Internal

***Switch positions B and 3**

To teach in the positions, the T1 button must be pressed and held while inserting the seven-pin connector (P2). After releasing the button, the actuator goes into learning mode and moves to the positions one after the other. Then the connector must be screwed in and the hood closed.

14 Appendix 2 Declaration of Conformity

EU - Konformitätserklärung

Hiermit erklären wir, dass die

Geräte: SPS Steuerkopf ATEX
Baureihen: VA/2014
Serien Nr.: 60.000.000 ff.

der RICHTLINIE 2014/34/EU DES EUROPÄISCHEN PARLAMENTS UND DES RATES vom 26. Februar 2014 zur Harmonisierung der Rechtsvorschriften der Mitgliedstaaten für Geräte und Schutzsysteme zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen entsprechen.

 II 2 G Ex eb ib mb IIC T4 Gb
 II 2 D Ex tb IIIC T120°C Db

für Zone 1/21 (Gas/Staub-Atmosphäre) Ta 0°C bis 60°C

Die EG-Baumusterprüfung wurde bei der benannten Stelle TÜV SÜD Product Service 0123 unter der Zertifikatsnummer TPS 15 ATEX 51981 010 X durchgeführt.

Der oben beschriebene Gegenstand der Erklärung erfüllt die einschlägigen Harmonisierungsrechtsvorschriften der Union, folgende harmonisierte Normen sind angewandt:

DIN EN 60079-0:2012/A11:2013
DIN EN 60079-7:2015
DIN EN 60079-11:2012
DIN EN 60079-18:2015
DIN EN 60079-31:2014

Die zugehörige Betriebsanleitung enthält wichtige sicherheitstechnische Hinweise und Vorschriften für die Inbetriebnahme der genannten Geräte gemäß Richtlinie 2014/34/EU (ATEX).

Änderungen und Reparaturen an den genannten Geräten sind nicht zulässig, außer mit ausdrücklicher schriftlicher Zustimmung des Herstellers.

Werden die genannten Geräte in eine übergeordnete Maschine eingebaut, so müssen die durch den Einbau entstehenden neuen Risiken durch den Hersteller der neuen Maschine beurteilt werden.

Die alleinige Verantwortung für die Ausstellung dieser Konformitätserklärung trägt der Hersteller.

AquaDuna GmbH & Co.KG., im März 2019

Geschäftsführer

Frank Zeidler
Name


Revision 02