SIEMENS

Solenoid actuator

POUSSAX24, POUSSAX24-N

Mounting

Legal notice

The specifications and availability are subject to change without notice.

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1 About this document

This document describes how to mount the POUSSAX24 solenoid actuator on Siemens cylinder valves in extinguishing installations with a Siemens Extinguishing Control Panel (ECP).

Purpose

This document describes mounting operations. It does not explain how the actuator works.

Intended audience

This document and the information it contains are intended for the following groups of people:

Personnel	Activities	Qualification
Product manager	Is responsible for the local management of the product and the exchange of information between the manufacturer and their division for the product range. Coordinates the flow of information between the teams involved in different projects.	Has obtained suitable specialist training for the function and for the products. Has attended the training courses for Product Managers.
Project Manager	Coordinates the resources and the schedules of all teams working on a project. Collects the technical information required to conduct the project.	Has obtained suitable specialist training for the function and for the products. Has attended the training courses for Project Managers.
Installation technician	Installs products, devices or parts of system on site and performs a general operation test.	Has received professional training on building automation or electrical installations.
Commissioning technician	Checks operation and officially transfers the product, device or system to the operator (specific configuration of the product or device for the customer, or of the system for the installation site). Performs troubleshooting and eliminates faults and errors of use.	Has received technical training suitable for his function and the products. Has received technical training for commissioning personnel.
Maintenance technician	Performs all maintenance work indicated in the product documentation and full servicing of the equipment.	Has received technical training suitable for his function and the product.
Support technician	Receives requests from field personnel. Performs troubleshooting and eliminates faults and errors of use.	Has received technical training suitable for his function and the product.
Seller	Sells the products.	Has received training suitable for his function and the product range.

Reference document and source language

- The original version of this document is in French.
- The reference version of this document is the French version. No localized version of this document exists.

The name of the reference document is:

ID_fr--_x

fr = French, -- = International, x = revision level

Marking conventions in the text

Text markups

Special text markups are used as follows in this document:

▻	Prerequisite to an instruction
◈	One-step instruction
1. 2.	Instruction with at least two steps, which must be performed in the indicated sequence
-	Variant, option, or detailed information in an instruction
⇨	Result of an instruction
·	List, or instruction for which no particular performing sequence is required
[→X]	Reference to a page number
'Text'	Quote
<Button>	Identification of buttons
Function, indicator, menu	Name of function, indicator, or menu

Additional information and tips

The "i" symbol indicates additional information and help tips.

Revision history

The following table provides the revision history for this document:

Revision level	Publication date	Brief description
a	02.2021	First issue

2 Safety

2.1 General safety instructions

To ensure the safety of people and property, the safety instructions in this document must be fully adhered to. They include:

- Symbol identifying the type of risk
- Severity
- Type and cause of the risk
- Consequences if the risk occurs
- Recommendations and prohibitions to avoid or reduce the risk

Hazard symbol

	This symbol indicates **risks of injury**. Instructions associated with this symbol to prevent any risk of injury or death must be strictly adhered to at all times.

Other hazard symbols

Other symbols can be used to indicate specific risks. The following table shows a few examples:

 General hazard

 Explosive atmosphere

 Electric shock

 Laser radiation

 Battery

 Heat

Mention

The potential severity is defined in the following table:

Mention	Risk severity
DANGER	DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.
WARNING	WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.
CAUTION	CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.
NOTICE	NOTICE is used to address practices not related to physical injury.

Information on the risk of injury

An example of the risk of injury is as follows:

	⚠ WARNING
	Type and cause of the risk Consequences if the risk occurs ● Preventive actions / prohibitions

Information on potential property damage

An example of the risk of potential property damage is as follows:

	*NOTICE*
	Type and cause of the risk Consequences if the risk occurs ● Preventive actions / prohibitions

2.2 Products and spare parts

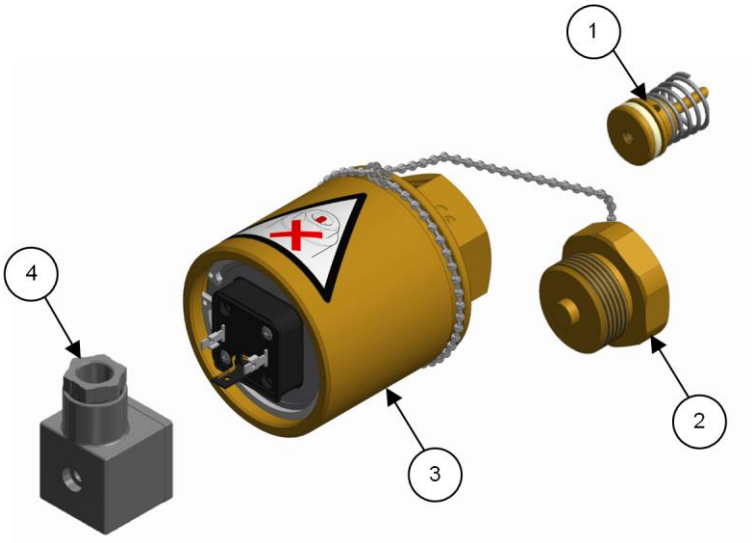
Products and spare parts must comply with the technical characteristics defined by Siemens. Use exclusively components specified or recommended by Siemens.

3 Overview

Description

POUSSAX24 is a solenoid actuator used in automatic extinguishing systems. It is mounted on the actuation port of cylinder valves (see Cas d'emploi [→ 10]). When the actuator is activated, it opens the cylinder valve.

Structure



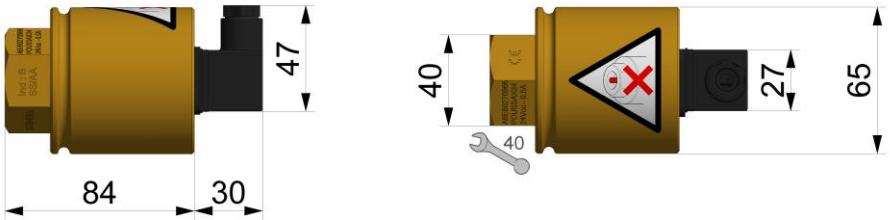
Item	Description	Item	Description
1	PIST actuation piston (not used with VFR300-S cylinder valves)	3	Body of POUSSAX24 actuator, with a voltage release coil
2	Resetting plug	4	3-pin connector, fitted with a gland for CORRA cable

Tools and accessories

- 40 mm open-end wrench
- Philips screwdriver
- Fluorosilicone grease

Overall dimensions

Dimensions in mm

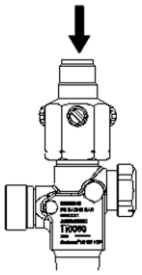


4 Use cases

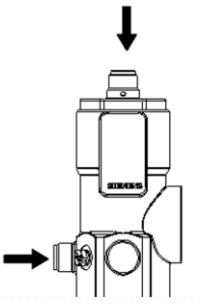
The POUSSAX24 actuator can be mounted on the following products.

Actuation ports where the actuator can be mounted are marked with an arrow.

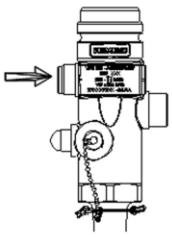
VS12/VR12 and VS12F-KVP cylinder valves



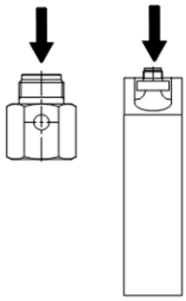
VSB33 cylinder valves



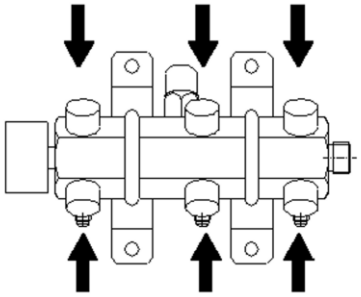
VFR300-S cylinder valves



DPM and CPD actuators



MAVADI distribution matrix



One or two POUSSAX24 actuators can be mounted on each zone port of MAVADIx matrices.

With PIST

Without PIST

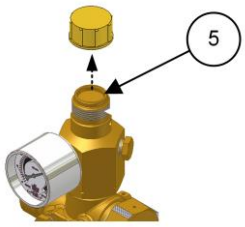
5 Mounting the actuator

5.1 Mounting the PIST actuation piston

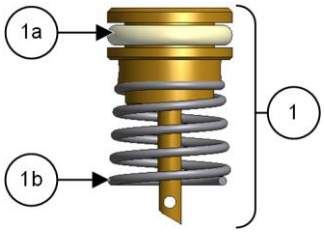
!	*NOTICE*
	The PIST actuation piston is not compatible with VFR300-S cylinder valves. Do not use the PIST actuation piston supplied with the actuator.

i	The PIST actuation piston is for single use.

!	*NOTICE*
	Use of PIST actuation piston Always mount the actuator immediately after mounting the PIST.

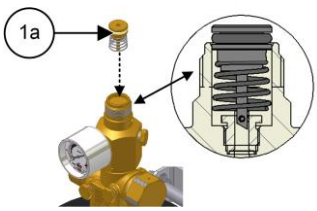


1. Remove the protective cap from the actuation port (5).
2. Check that there are no foreign bodies in the bore of the actuation port (5).
   ⇨ If necessary, remove the foreign body.



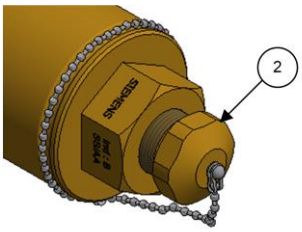
3. Check that the O-ring (1a) of the PIST is not damaged.
   ⇨ If the O-ring (1a) is damaged, replace the complete PIST (1).
4. Check that the spring (1b) is correctly positioned, its wide base towards the tip of the needle.
5. Apply fluorosilicone grease sparingly to the PIST O-ring (1a).

⚠	⚠ WARNING
	Cylinder actuation hazard When mounting the PIST, do not engage it past the O-ring to avoid any risk of actuating the cylinder.

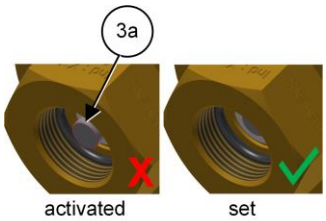


6. Carefully position the PIST (1) with its spring in the bore of the actuation port (5), without engaging the O-ring (1a).
   ⇨ The PIST O-ring (1a) must remain visible.

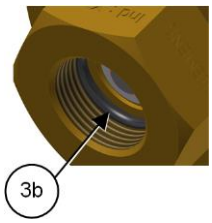
5.2 Mounting the POUSSAX24 actuator



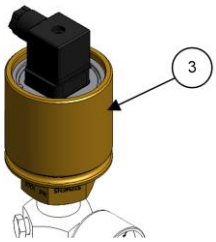
1. Unscrew the POUSSAX24 resetting plug (2).



2. Check that the POUSSAX24 is set: the metal rod (3a) must be recessed in the bore.
   ⇨ To reset the POUSSAX24, fully screw the resetting plug (2) and then unscrew it.



3. Apply fluorosilicone grease sparingly to the O-ring (3b) of the POUSSAX24.



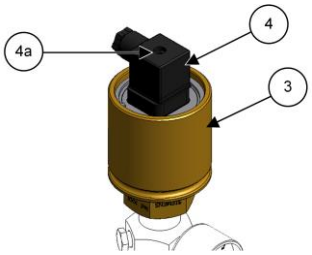
4. Screw the POUSSAX24 (3) by hand on the actuation port, to the stop.
5. Tighten the POUSSAX24 (3), without forcing, using a 40 mm open-end wrench.

5.3 Connecting the CORRA cable to the actuator

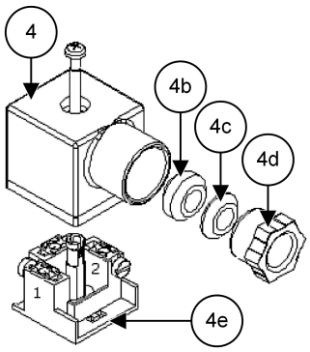
⚠ WARNING

Electric shock

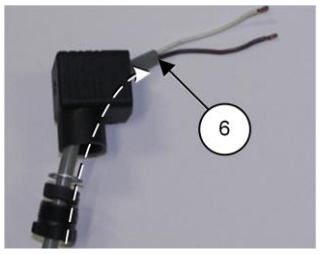
To avoid electric shock, do not connect the CORRA cable to the BORA junction box until commissioning the installation.



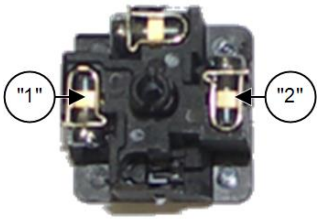
1. Unscrew partially the attachment screw (4a) of the cable gland using a Philips screwdriver.
2. Remove the cable gland (4) from the actuator (3).



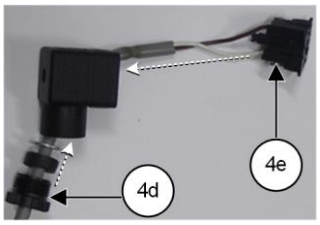
3. Disassemble the cable gland (4):
   - Unscrew the nut (4d).
   - Remove the O-ring (4c) and the washer (4b).
   - Unclip the base (4e).



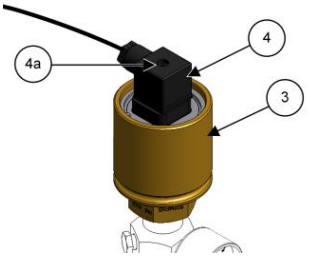
4. Push the stripped end of the CORRA cable (6) through the nut (4d), the O-ring (4c), the washer (4b) and the cable gland (4).



5. Connect the two wires of the CORRA cable (6) on pins 1 (+) and 2 (-) of the base observing correct polarity.



6. Fit the base (4e) on the cable gland body.
7. Screw the nut (4d) on the cable gland body.



8. Connect the cable gland (4) to the actuator (3).
9. Tighten the attachment screw (4a) using a Philips screwdriver.

	⚠ WARNING
	Unexpected system actuation Before connecting the CORRA cable to the actuator, check that the cable is not connected to the BORA junction box. Do not connect the CORRA cable to the BORA junction box until commissioning the system.

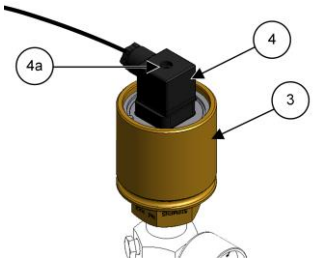
For more information on electric connection to the BORA junction box and the ECP, refer to the mounting instructions for these products.

6 Maintenance

	⚠ CAUTION
	Product malfunction To ensure proper operation of the actuator, perform the following test regularly.

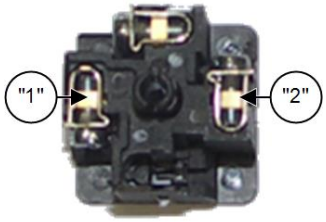
	⚠ WARNING
	Unexpected system actuation To avoid unexpected system actuation, make sure to unmount all POUSSAX24 actuators in the installation.

Inspection procedure

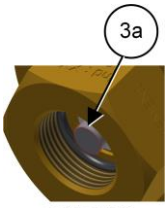


1. Unscrew partially the attachment screw (4a) of the cable gland (4) using a Philips screwdriver.
2. Remove the cable gland (4) from the actuator (3).
3. Unscrew and remove the POUSSAX24 (3) from the actuation port using a 40 mm open-end wrench.
4. Place the POUSSAX24 on a flat and stable surface.

	NOTICE
	Electric cable damage Handle the actuator and the electric cable with care.



5. Connect the actuator to a 24VDC power supply. Observe polarity: pin 1 (+) and pin 2 (-).

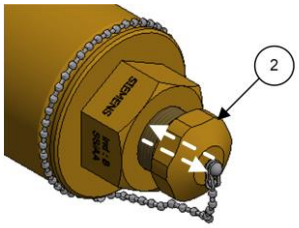


activated

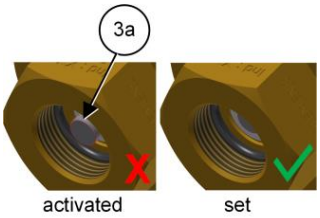
⇨ If the metal rod (3a) sticks out, then the POUSSAX24 has been activated, and thus works properly (see opposite).

⇨ If the metal rod (3a) is still recessed, then the POUSSAX24 is defective. Replace it.

Recommissioning

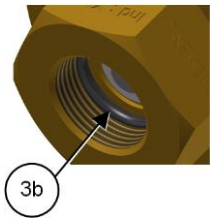


1. Disconnect the actuator from the 24 V power supply.
2. Screw the resetting plug (2) to the stop to set the POUSSAX24.
3. Unscrew the POUSSAX24 resetting plug (2).

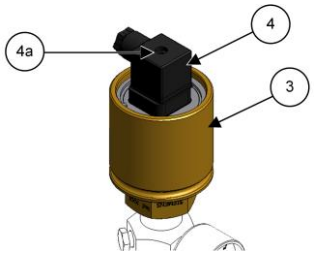


⇨ If the metal rod (3a) est recessed, the POUSSAX24 is set.

⇨ If the metal rod (3a) sticks out, the actuator is not set. Repeat the reset procedure once. If the procedure fails, replace the actuator.



4. Apply fluorosilicone grease sparingly to the O-ring (3b) of the POUSSAX24.



5. Screw the POUSSAX24 (3) by hand on the actuation port, to the stop.
6. Tighten the POUSSAX24 (3), without forcing, using a 40 mm open-end wrench.
7. Connect the cable gland (4) to the actuator (3).
8. Tighten the attachment screw (4a) using a Philips screwdriver.

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