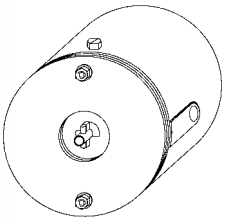
MONTAGE INSTRUCTIES
INSTRUCTIONS DE MONTAGE

HEKON
JOUW EXPERT IN ROOKGASAFVOER

The actuating drives · motor controls

Actuating drive
STA2 (S1) 230 VAC
STA2 (S1) 24 VAC





INSTALLATION INSTRUCTIONS

CE according to:
89/392/EWG
73/23/EWG
89/336/EWG

Safety instructions

The actuating drive is fully wired and designed for being connected to the AC current. Setup and components comply with the applicable VDE (Association of German Electricians) guidelines.
The actuating drive may only be connected to the AC current specified on the terminal block.
The connection between the actuating drive and the appliance is to be carried out according to VDE 0116 and local energy supply company regulations in accordance with the circuit diagram.
During connection works, the entire firing system must be voltage-free.
The connection may only be carried out with a NYM 4 x 1.5 mm^2 cable or a flexible and heat-resistant control line with a minimum cross-section of 4 x 0.75 mm2.
If the appliance does not have a main switch, the actuating drive must be provided with an all-pole separator with a contact distance of at least 3.0 mm.

Technical data

Actuating drive type	STA2 (S1)
	voltage-free, closed
Consumption	approx. 12 W
Torque	approx. 120 Ncm
Opening time	> 7 sec.
Closing time	> 7.5 sec.
Environmental temp.	max. 70° C
Motor voltage	230 VAC 50/60 Hz
	24 VAC in the 24 V model
Consumption	approx. 12 W
Switching current	max. 6 A
Fuse	5 x 20 – F 6.3 A 250 V
Protection class	EN 60529 IP 44

Installation of the actuating drive onto the flue dampers

Type series MOK
(Fig. 1 – Retaining plate Type 1)

1. Turn actuating pin of the flue damper to a closed position. (Fig. 1 left)
2. Check whether the cross pin of the motor shaft and both of the cams run parallel. (Fig. 2)
3. Select cable entry according to the most favourable installation position.
4. Remove the nut from the lower stud bolt.
5. Loosen the nut of the top stud bolt, to a few windings.
6. Insert the actuating drive on an angle into the retaining plate. In order to do this the loosened nut must first be drawn through the extended section of the elongated hole. (Fig. 3)
7. Press the actuating drive against the retaining plate, while pushing the second stud bolt through the drill hole in the retaining plate.
   The cross pin of the motor shaft and the two cams must completely swing into the groove of the damper shaft.
8. Screw loosened nuts onto the stud bolt.
9. Tighten both nuts securely.

Type series MOK…AD / MUK
(Fig. 1 – retaining plate Type 2)

1. Turn actuating pin of the flue damper to a closed position. (Fig. 1 right)
2. Check whether the cross pin of the motor shaft and both of the cams run parallel. (Fig. 2)
3. Remove the nuts from both stud bolts.
4. Select cable entry according to the most favourable installation position.
5. Press the actuating drive against the retaining plate, while pushing the both stud bolts through the drill holes in the retaining plate.
   The cross pin of the motor shaft and the two cams must completely immerse into the groove of the damper shaft.
6. Screw both nuts onto the stud bolts and tighten securely.

Caution: In no case should the actuating drive be installed without the accompanying insulation disc.
A functional test (also short-term) of the appliance, with a non-functioning actuating drive, must only take place if the control pin of the flue damper is turned to an open position and has been fastened with the fixing lever. It must be ensured that the actuating drive can have air circulating around it. Flue gas dampers and actuating drives have to be installed with a vertical shaft.

Assembly of the actuating drive to secondary-air appliances

1. Release securing nuts, pull out opening lever (Fig. 4)
2. Check whether the cross pin of the motor shaft and both cams are running parallel at the actuating drive. (Fig. 2)
3. Remove the nuts from both stud bolts.
4. Select cable entry according to the most favourable installation position
5. Turn actuating pin of the motor control to open position. (Fig. 5)
6. Press the actuating drive against the retaining plate, while pushing the both stud bolts through the drill holes in the retaining plate.
   The cross pin of the motor shaft and the two cams must completely immerse into the groove of the damper shaft.
7. Screw both nuts onto the stud bolts and tighten securely.
8. Turn the actuating pin of the motor control to control position, lock with fixing lever. (Fig. 4)
9. Push opening lever into axle, attach securing nut and tighten. (Fig. 4)
10. Release fixing lever.

Caution: In no case, should the actuating drive be installed without the accompanying insulation disc.
A functional test (also short-term) of the appliance, with a non-functioning actuating drive, must only take place if the control pin of the flue damper is turned to an open position and has been fixed using the fixing lever.

Electrical connection
Point 1 must only be noted when connecting the actuating drive for the first time.

1. Disconnect the control line from the temperature control to the actuator of (motor/magnetic valve, etc.) of the appliance (according to manufacturer's specifications).
2. Release the clamping screws of the cap. (Fig. 2)
3. Pull cap off of actuating drive.
4. Feed cable (e.g. NYM 4 x 1.5 mm2) into cable entry (strain relief) and clamp down.
5. Establish earth wire connection. (The labelled ground screw is situated next to the terminal block)
6. Combine neutral wire with clamp 2 (N).
7. Connect the control line from the temperature control of the automatic stoker with clamp 1 (LTh.).
8. Connect control line to actuator of the automatic stoker with clamp 3 (LBr.).
9. Push cap onto actuating drive, paying attention to a visible label.
10. Fasten cap with clamping screws.

If a flexible, heat-resistant control line is used, the lower cable diameter must be compensated using one of the enclosed cable ducts (Ø 6.5/8.0 mm). In doing so, it must be ensured that the band of the cable duct is abuts on the outside of the strain relief.

Start-up (functional test)
Unlock actuating pin and turn fixing lever from its pivoting area.
Switch system on, start up according to the instructions of the manufacturer of the fireplace. Combustion must only take place if the:

– flue damper is in open position
– motor control of the draught regulator is in control position.

Prior to handing over the system, the entire flue gas ducting and functionality of the actuating drive must be checked.

Maintenance
Exchange of the fuse (micro-fuse 5 x 20 – F6.3A 250V)
Prior to removing the cap, the actuating drive must be voltage-free.

1. Release clamping screws, pull off cap.
2. Remove fuse covering.
3. Exchange micro-fuse.
4. Slide on fuse covering.
5. Slide cap onto actuating drive and fasten with clamping screws.

Fig. 1
Retaining plate - Type 1

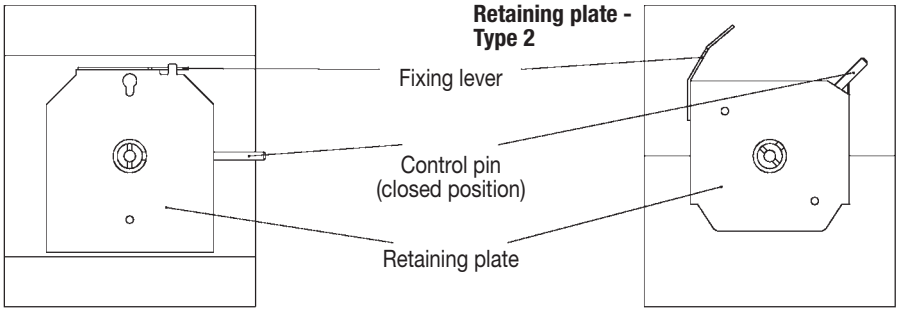


Fig. 2
Actuating drive

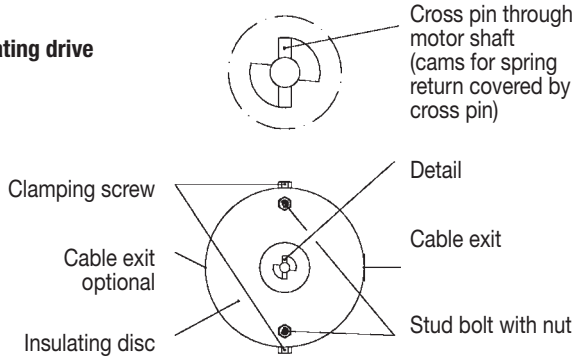


Fig. 3

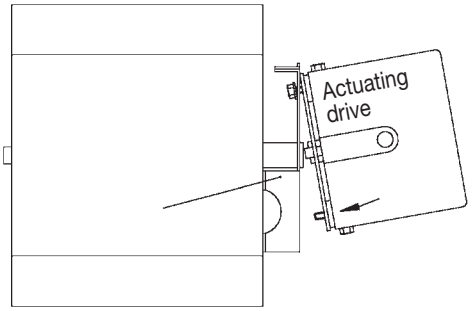


Fig. 4
(e.g. ZUK 250)

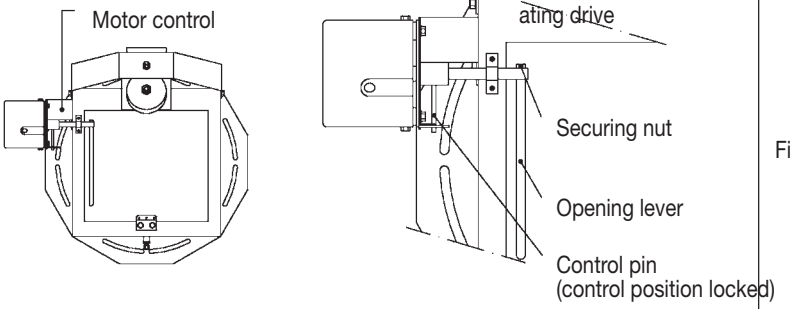


Fig. 5

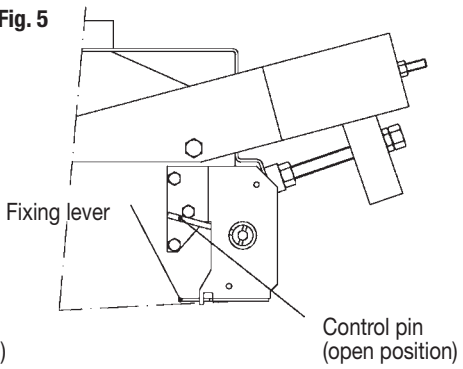
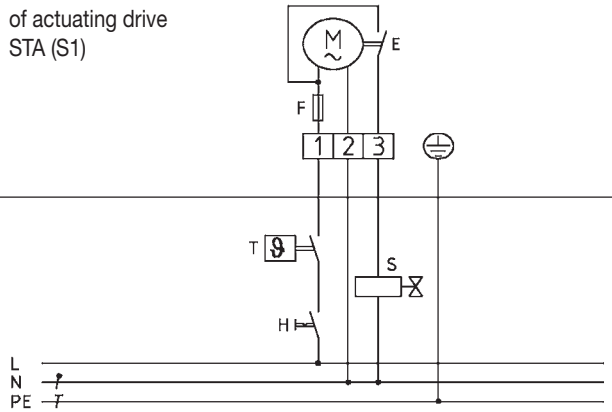


Fig. 6
Connection
of actuating drive
STA (S1)



Schematic diagram of a fireplace

Legend:
1 = Terminal clamp of temperature control
2 = Terminal clamp of neutral wire
3 = Terminal clamp of fireplace actuator
E = Limit switch of actuating drive
F = Micro-fuse 5X20 F6, 3A 250V
M = Motor (actuating drive)
6 = Ground wire connection

Legend:
H = Main switch of fireplace
T = Temperature control of fireplace
S = Actuator of fireplace (motor-magnetic valve, oil/gas automatic stoker)
L = Wire
N = Neutral wire
PE = Ground wire

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