8, 16, 24 & 32Nm Modulating Actuator

Features

- Reversible rotation
- Mechanically set rotation limits

Specification

Power supply:
- VA-DM1xE 24Vac/dc
- VA-DM2xE 230Vac

Frequency 50 - 60Hz

Max. power consumption:
- VA-DM1xE
  - Running 4.0W (2.5W, 32Nm)
  - Stopped 0.7W (0.3W, 32Nm)
- VA-DM2xE
  - Running 4.8W
  - Stopped 1.0W

Control signal:
- VA-DM1xE 0(2)-10Vdc or 0(4)-20mA
- VA-DM2xE 0(2)-10Vdc

Angle of rotation:
- 0° - 90° mechanical
- 5 - 85º Limit angle (5º increment)

Protection IP44 or IP55

Aux. switch rating:
- VA-DMGxE 24V @ 3 (1.5)A
- Others 230V @ 3 (1.5)A

Ambient:
- Temperature -20°C to +50°C
- RH 5 to 95% RH

Max sound power 45 dB(A)

Protection class II

Conformity CE

Country of origin Germany

Drive times:

8Nm	30 seconds
16Nm	80 seconds
24Nm	125 seconds
32Nm	240 seconds

Product Codes

VA-DMS1.1E
24Vac/dc 8Nm Modulating actuator

VA-DMS1.1SE
24Vac/dc 8Nm Modulating actuator with end switches

VA-DM1.1E
24Vac/dc 16Nm Modulating actuator

VA-DM1.1SE
24Vac/dc 16Nm Modulating actuator with end switches

VA-DML1.1SE
24Vac/dc 24Nm Modulating actuator with end switches

VA-DMG1.1SE
24Vac/dc 32Nm Modulating actuator with end switches

VA-DMS2.2SE
230Vac 8Nm Modulating actuator with end switches

Technical Overview

The VA-DME range of actuators require 24Vac/dc supply (VA -DM1E) or 230Vac (VA-DM2E) and accept a modulating control signal input. They are available in 8, 16, 24 or 32Nm torque ratings and can have auxiliary switch options fitted. The direction of rotation can be reversed.

Installation

1. Ensure that all power is disconnected before carrying out any work on the VA-DME.
2. Maximum cable is 2.5mm², care must be taken not to over tighten terminals.
3. Attach the actuator to the damper spindle, finger tighten the nuts on the V-clamp.
4. Fix the anti-rotation strap to the back of the actuator (bend if required).
5. Move the damper to the closed position.
6. Using the manual override push button, turn the clamp until the actuator is in the correct position.
7. Tighten the V-clamp.
8. If the damper has no fixed stops of its own, the angle of rotation / working range can be adjusted mechanically by re-positioning the adapter in 5° steps. The adapter can be released by simply pressing the clip at the base of the actuator (see page 3).
9. Undo the screw on the cover of the actuator and remove the cover.
10. Fit the M20 converter into the back of the actuator.
11. Terminate the cores at the terminal block (see page 3), leaving some slack inside the unit.
12. Ensure that the voltage is within the specified tolerances.
13. Replace the lid after the electrical connections have been made.

Auxiliary switches

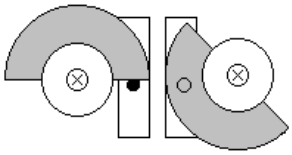
To adjust the auxiliary switches, (in this example to 30° and 70°), follow the procedure below. (NB The switches, where fitted, are factory aligned to 10° for A and 80° for B.)

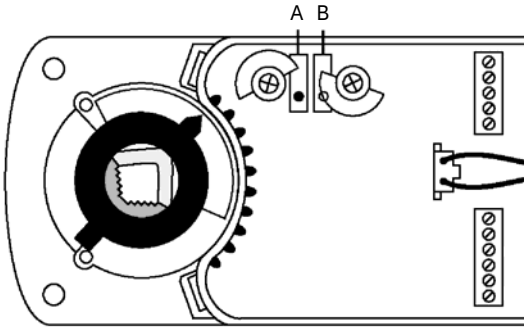
1. To set switch A (see Fig. 2) press the manual over-ride switch and rotate the adaptor (Fig. 1) to the 30° position.
2. Slightly loosen the cross head screw in cam wheel A so that the wheel can be moved by hand.
3. Rotate cam wheel A until the micro switch clicks.
4. Re-tighten the cross head screw in cam wheel A.
5. To set switch B (see Fig. 2) press the manual over-ride switch and rotate the adaptor (Fig. 1) to the 70° position.
6. Slightly loosen the cross head screw in cam wheel B so that the wheel can be moved by hand.
7. Rotate cam wheel B until the micro switch clicks.
8. Re-tighten the cross head screw in cam wheel B.

Fig 1.

Adaptor (Angles not to scale)

Fig 2.





Dip Switches

Direction of rotation:

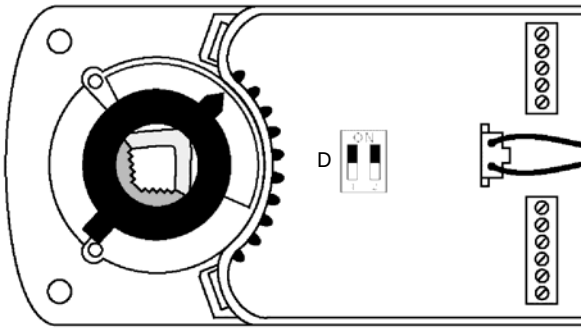
0 to 90°

90 to 0°

Control signal range:

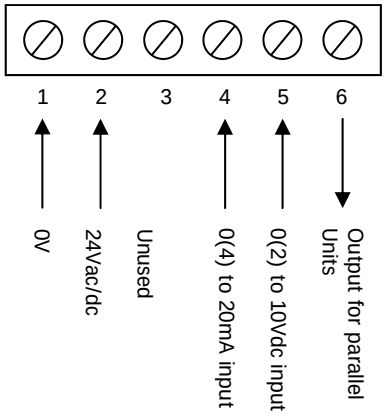
2 to 10Vdc

0 to 10Vdc



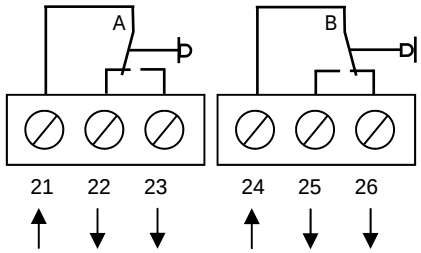
Connections

Modulating control:



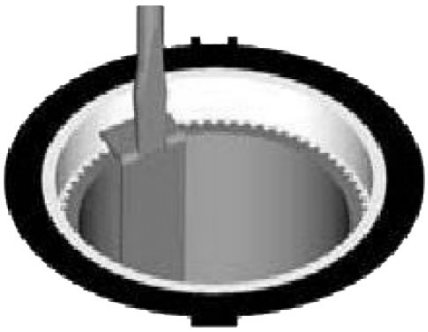
Connections (continued)

Auxiliary switches:



Actuator at 0° position

Angle of rotation



Angle of rotation limiting per 5° and releasing by the adapter on the bottom of the damper motor body.

Dimensions