

APPLICATION

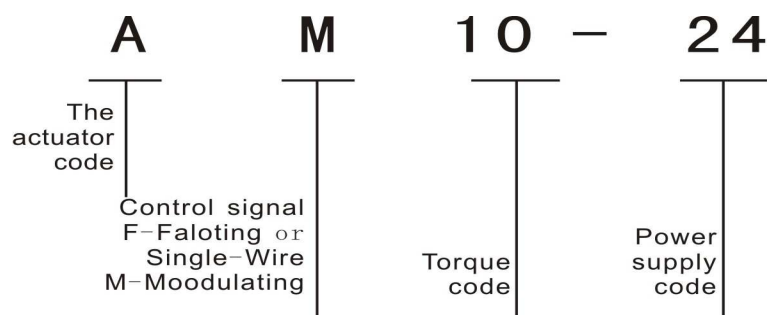
The AM/AF series of electric damper actuators are used in ventilation, and air-conditioning (HVAC) applications. The AM series of electric damper actuators are modulating control actuators used with controls that provide an analog output of 0 to 10Vdc, 2 to 10Vdc or 4-20mA. The internal selector plug can be used to reverse the direction of action. The AF series of electric valve actuators are controlled by an on/off output.



FEATURES

- Low power consumption
- Position feedback by signal
- Direct/reverse acting
- 4-20mA/0-10V/2-10V choice
- Maintenance free
- Quick and easy installation
- No separate linkage required
- Accurate valve positioning
- Indicator Continuous Position Indicator
- Manual Override Non-clutch design
- Stall Protection Built-in thermal protection

MODEL NUMBER DESCRIPTIONS



WARNING

1. Only for professional installation. To avoid injury and electric shock, do not perform any servicing other than that contained in this manual.
2. All actuators have been installed before shipped from the factory; no electrical

adjustments are required before placing them in operation.

3. Check the connections before energizing the power supply because wrong connections can damage the equipment.

4. The actuator should be stored in a clean and dry shipping carton.

TECHNICAL DATA

Actuator	
Actuator	AF/AM
Output torque	10, 15, 20, 30 40N.m
Power supply	AC220V or AC/DC24V
Run time	About 120S
Operating power	5VA
Output angle	90°± 3°
ON/OFF control signal	1 wire or 2 wire control
Control signal	4(0) ~20mA, or 0(2)~10V
Feedback signal	DC0 -10V
Installation position	Upright to horizontal (No upset)
Protection class	IP54
Ambient conditions	- 10°C. to. +55°C 0..90% RH
Weight	1kg
Material	Flame-resistant Abs

DIRECTION OF ACTION

Repositioning the selector plug S3 can change the direction of action.

S3 ON 10V/20 mA OFF 0V

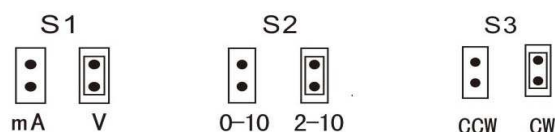
CONTROL SIGNAL

The control signal Vdc/mA can be changed by selector plug S1.

The control signal 0-10V/2-10V can be changed by selector plug S2

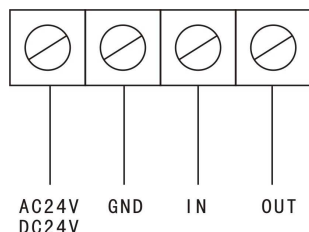
S1 ON 0-20mA/OFF 0-10V

S2 ON 2-10V/OFF 0-10V OR ON 4-20mA/OFF 0-20 mA



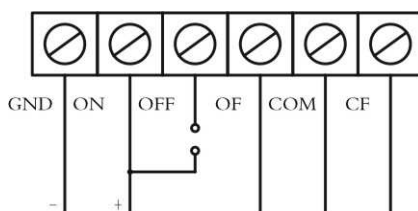
WIRING DIAGRAMS

AM

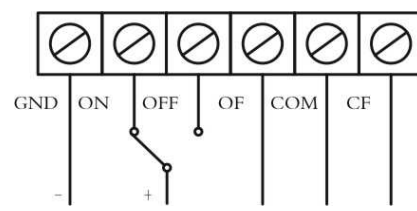


IN: 0-10V / 4-20mA Control signal
OUT: 0-10V Feedback signal

AF



ON/OFF control



Floating-point control

POWER: 24V ADC/220VAC

24VAC/DC: Connect via safety isolating

220VAC: To isolate from the main power supply, the system must incorporate the device which disconnects the phase conductors

OFF-LOAD PUSHBUTTON

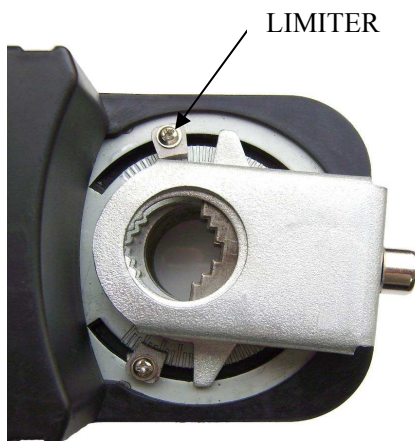


Press the off-load pushbutton, you can manually turn the damper from fully close to fully open position freely and evenly.

0...90 LIMITER

Mechanical Limiter Adjustment

1. Loosen the screw of the mechanical limiter.
2. Move the limiter to the appropriate position.
3. Screw on the screw.



CENTRIC CLAMPING ADAPTER

Fix the spindle in the middle of the adapter, make the spindle right in the center, easy to install, reduce



torque loss

1. Set the spindle in the center of the adapter
2. Revolve fixing screw, the spindle will be fixed in the center automatically

INSTALLATION

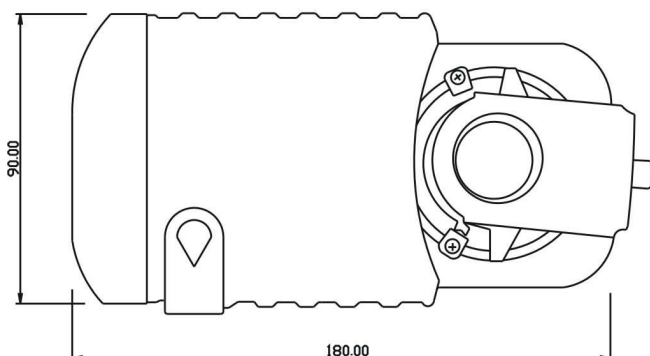
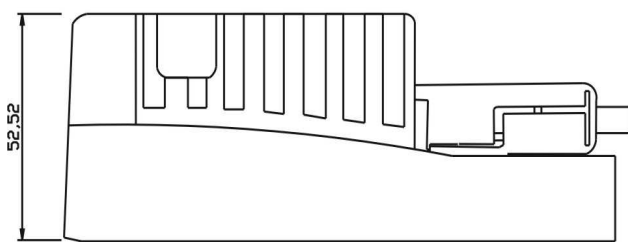
The actuator is suitable for circular spindle of $\varnothing 7$ -27mm, or square spindle of 5-19mm, length \geq 45mm.

Procedure :

1. Set the damper at fully close position. Turn the actuator to the corresponding fully close position (press down the off-load push-button, turn the spindle connector manually).
2. Set the spindle in the center of the adapter, revolve fixing screw, the spindle will be fixed in the center

automatically

3. Bend the mounting bracket to the suitable shape and fix its position with screws. (Leave some space between the actuator and the bracket so as to eliminate eccentric phenomenon).
4. Press the off-load pushbutton, manually turn the damper from fully close to fully open position freely and evenly.
5. Connect the wires according to the wiring diagrams on the casing. Make sure the lead wires, and signal wires are connected correctly.

DIMENSION**ORDER EXAMPLE**

When order the actuator only , the customer should write the order form with detailed electric parameter.

Order: NM10,24V DAMPER ACTUATOR

Type: AF10-24