Data sheet

Actuators for modulating control
AME 130, AME 140, AME 130H, AME 140H

Description



AME 130, AME 140



AME 130H, AME 140H

AME 130, AME 140, AME 130H and AME 140H actuators are used with VZ, VZL or VRBZ valves. The actuator can be used with fan coil units, induction units, small reheaters, recoolers, and zone applications in which hot/cold water is the controlled medium.

Main data:

- Modulating control
- Force switch-off at stem down position prevents overload of actuator and valve.
- No tools required for mounting
- Maintenance free during lifetime
- Low noise operation
- Self-positioning process
- Supplied with 1.5 m cable.

Ordering

Type	Supply voltage	Speed	Code No.
AME 130	24 V~	24 s/mm	**082H8044**
AME 140		12 s/mm	**082H8045**
AME 130H		24 s/mm	**082H8046**
AME 140H		12 s/mm	**082H8047**

Spare parts

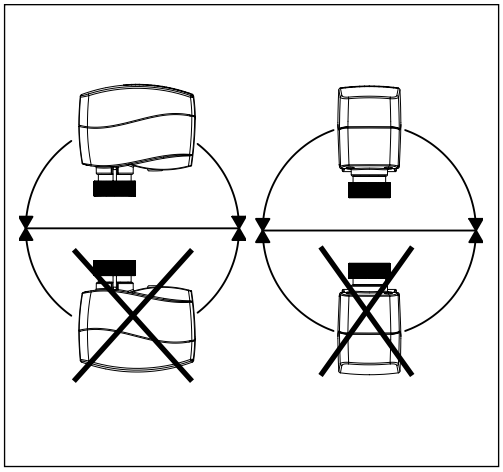
Type	Code No.
Cable (5 m)	**082H8053**

Technical data

Type	AME 130, AME 130H	AME 140, AME 140H
Power supply	24 Vac; +10 to –15%	
Power consumption	1.3 VA	
Frequency	50 Hz/60 Hz	
Close of force	200 N	
Stroke	5.5 mm	
Speed	24 s/mm	12 s/mm
Max. medium temperature inside the pipe	130 °C	
Ambient temperature	0 … 55 °C	
Storage and transport temperature	–40 … +70 °C	
Protection code	IP 42	
Weight	0.3 kg	
CE - marking in accordance with standards	EMC- Directive 89/336/EEC, 92/31/EEC, 93/68/EEC, EN 61000-6-1 and EN 61000-6-3	

Data sheet — Actuators for modulating control AME 130, AME 140, AME 130H, AME 140H

Installation



Mechanical
The actuator should be mounted with the valve stem in either horizontal position or pointing upwards.

The actuator is fixed to the valve body by means of a mounting ring which requires no tools for mounting. The ring should be tightened by hand.

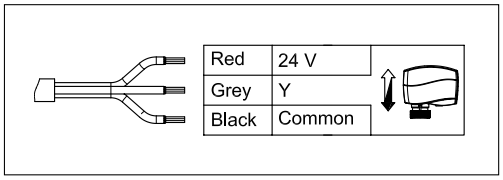
Electrical
Important: It is strongly recommended that the mechanical installation is completed before the electrical installation.

Each actuator is supplied with the connecting cable for the controller.

Disposal

The actuator must be dismantled and the elements sorted into various material groups before disposal.

Wiring



Commissioning

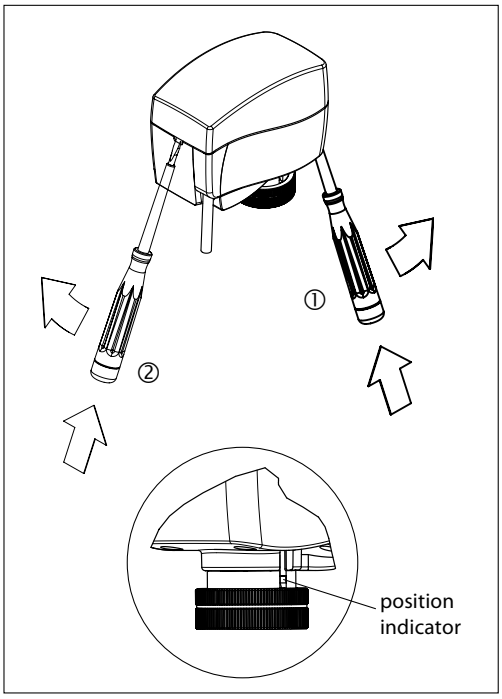
The factory setting of the spindle is the fully stem up position because of easier mechanical connection of the actuator on the valve.

Installation procedure

1 Check the valve's neck. The actuator should be in steam up position (factory setting). Ensure that the actuator is mounted securely on valve body.

2 Energise the actuator according to the wiring diagram - see page 2.

3 The direction of stem movement can be observed on the positon indicator.



DIP Switch Setting
(for service purposes only)

The actuator has a function selection DIP switch under the removable cover.

The switch provides the following functions:

- SW1:
  Reset
  Changing this switch position will cause the actuator to go through a self stroking cycle.

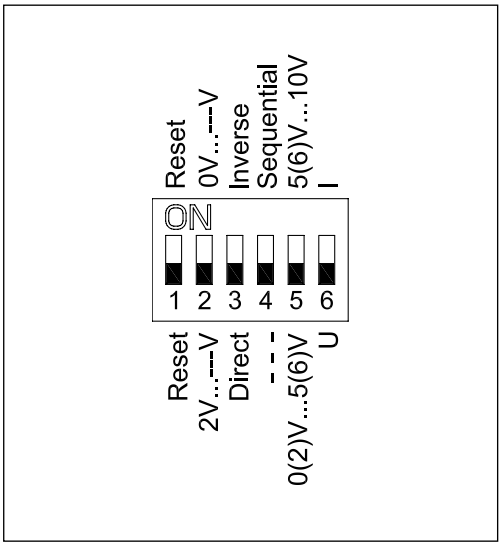
- SW2:
  0/2 - Input signal range selector
  If set to OFF position, the input signal is in the range from 2 V … 10 V (voltage input) or from 4 mA … 20 mA (current input). If set to ON position, the input signal is in the range from 0 V … 10 V (voltage input) or from 0 mA … 20 mA (current input).

- SW3:
  D/I - Direct or inverse acting selector
  If set to OFF position, the actuator is direct acting (stem lowers as voltage increases). If the actuator is set to ON position, the actuator is inverse acting (stem raises as voltage increases).

- SW4:
  ---/Seq - Normal or sequential mode selector:
  If set to OFF position, the actuator is working in range 0(2)..10V or 0(4)..20mA. If set to ON position, the actuator is working in sequential range; 0(2)..5 (6)V or (0(4)..10 (12)mA) or (5(6)..10V) or (10(12)..20mA).

- SW5:
  0 … 5 V/5 … 10 V - Input signal range in sequential mode:
  If set to OFF position, the actuator is working in sequential range 0(2)..5 (6)V or 0(4)..10 (12)mA. If set to ON position, the actuator is working in sequential range; 5(6)..10V or 10(12)..20mA.

- SW6:
  U/I - Input signal type selector
  If set to OFF position, voltage input is selected. If set to ON position, current input is selected.



Manual override
(for service purposes only)

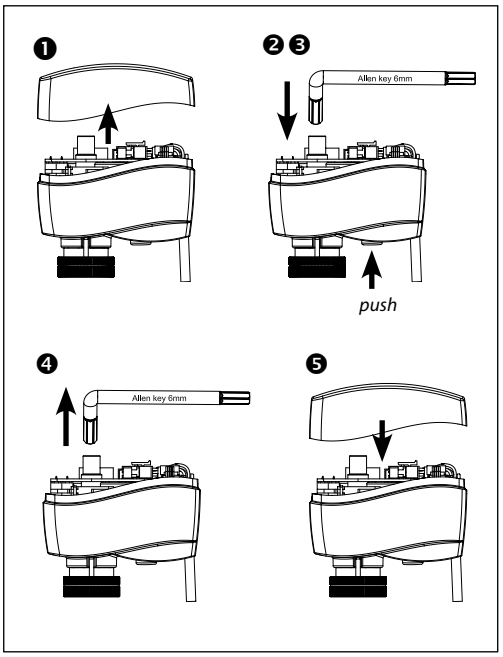
Caution:
Do not manually operate the drive under power!

AME 130, AME 140

1 Remove the cover.
2 Insert the Allen key 6 into the spindle.
3 Press and hold the button (on the bottom side of the actuator) during manual override.
4 Pull out the tool.
5 Place cover back on the actuator.

Remark:
A "click" sound after energizing the actuator means that the gear wheel has jumped into normal position.

If manual override has been used, then Y signal is not correct until the actuator reaches it's end position. If this is not accepted, reset the actuator.

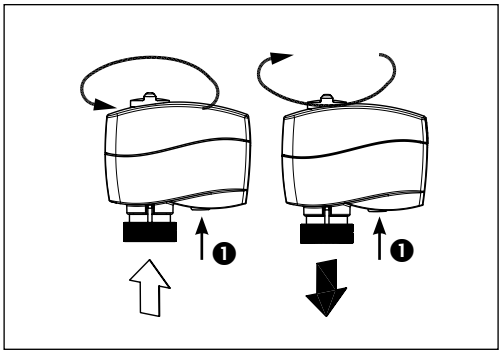


Manual override *(continuous)*

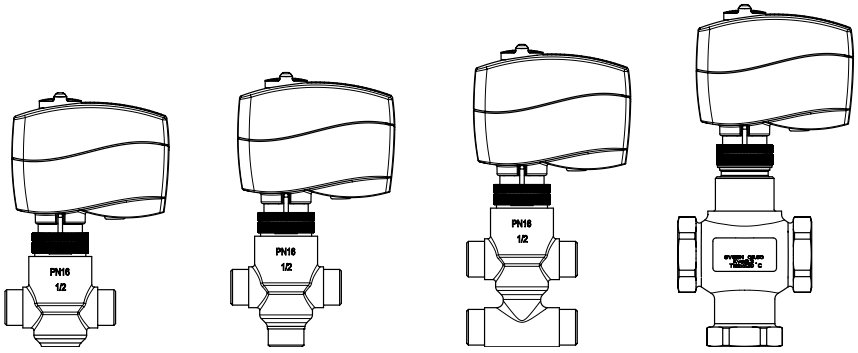
AME 130H, AME 140H

1 Press and hold the button (on the bottom side of the actuator) during manual override.

Remark:
A "click" sound after energizing the actuator means that the gear wheel has jumped into normal position.



Actuator - valve combinations



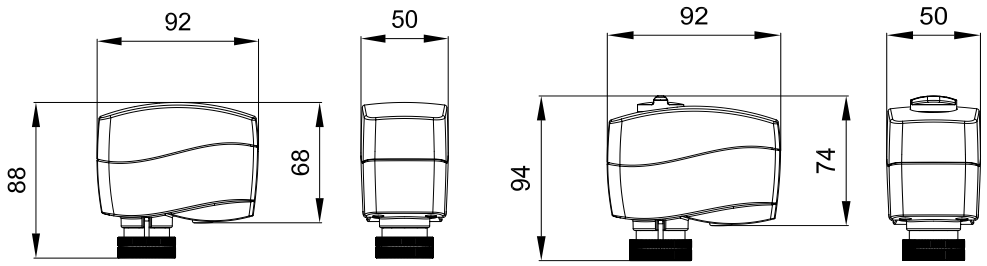
AME 130(H) / 140(H) + VZ 2, VZL 2

AME 130(H) / 140(H) + VZ 3, VZL 3

AME 130(H) / 140(H) + VZ 4, VZL 4

AME 130(H) / 140(H) + VRBZ 2/3

Dimensions



AME 130, AME 140

AME 130H, AME 140H

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