



# Gear actuators

## AMV 110 NL / AMV 120 NL

Actuators for three point control

## Description

The actuators are used together with automatically balanced combination valve type AB-QM for DN 10 to DN 32.

Typical applications for that products are: temperature control and permanent automatic balancing on terminal units (fan-coils, chilled ceilings, air-handling units..).

## Features & benefits


- Gap detection at stem up position
- 3 point version
- Force switch-off at stem down position prevents overload of actuator and valve
- No tools required for mounting
- Maintenance-free lifetime
- Low-noise operation
- Halogen free cables

## Ordering

### Product code numbers

Type	Supply voltage [V]	Spindle speed [s/mm]	Cable length [m]	Code number	VVS DK
AMV 110/120 NL 3-point	24 V AC	24	1.500	082H8056	460946331
AMV 110/120 NL 3-point	24 V AC	12	1.500	082H8058	460946332
AMV 110/120 NL 3-point	24 V AC	24.0	5.000	082H8080	
AMV 110/120 NL 3-point	24 V AC	24	10.000	082H8086	

### Spare parts code numbers



082H8054


**Cable (24 V) 10 m**

Cable (24 V) 10 m

Related products

082H8056
082H8058
082H8076
082H8078
082H8080
082H8086

082H8088
082H8090



082H8052

**Cable (24 V) 5 m**

Cable (24 V) 5 m

Related products

082H8056
082H8058
082H8076
082H8078
082H8080
082H8086

082H8088
082H8090

## Functions

### Operation

#### Commissioning

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

#### Manual override

(for service purposes only)

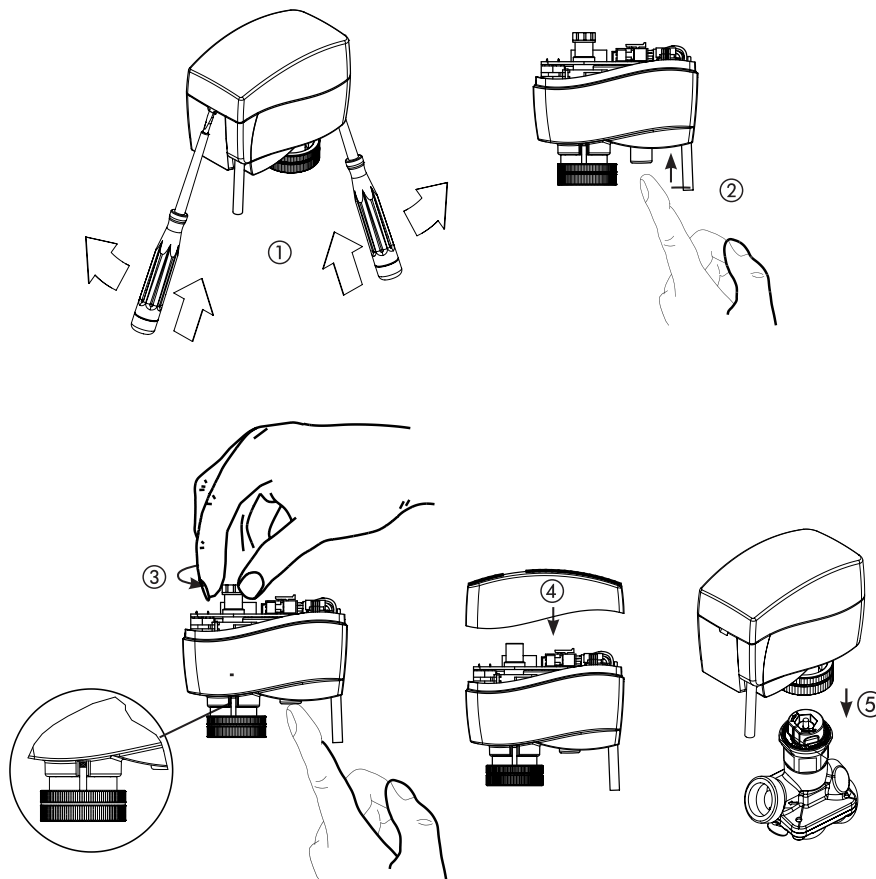


#### Caution:

**Do not manually operate the drive if power is connected!**

**Do not dismantle the actuator from the valve when it is in a stem down position!**

If dismantled in a stem down position, there is a high risk that the actuator gets stuck.



- Remove cover ①
- Press and hold the button ② (on the bottom side of the actuator) during manual override ③
- Replace cover ④
- Install actuator on valve ⑤

#### Remark:

A 'click' sound after energising the actuator indicates that the gear wheel has jumped into normal position.

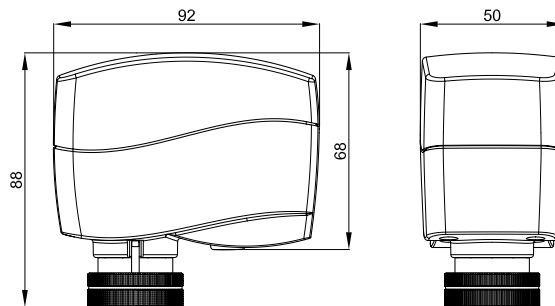
## Product details

### General data

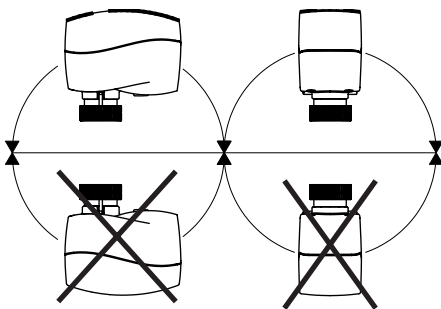
#### Technical data

Type			AMV 110 NL	AMV 120 NL
Power supply		V	24 AC, +10 to -15 %	
Power consumption	running	VA	1	
	standby	W	0	
Frequency		Hz	50 Hz/60 Hz	
Close of force		N	130	
Stroke		mm	5	
Speed		s/ mm	24	12
Relative humidity			max. 80 %	
Max. medium temperature		°C	120	
Ambient temperature			0 ... 55	
Storage and transport temperature			-40 ... 70	
Protection class			II	
Grade of enclosure			IP 42	
Weight		kg	0,3	

### Dimensions



### Installation



#### Mechanical

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

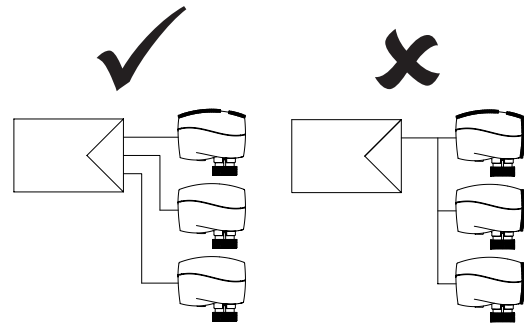
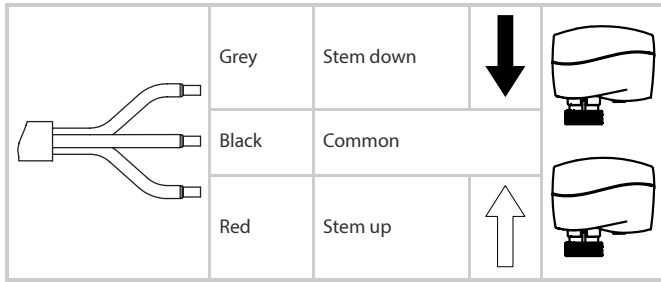
The actuator is fixed to the valve body by means of a mounting ring, which requires no tools for mounting. The ring should be tightened by hand.

#### 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.

## Wiring



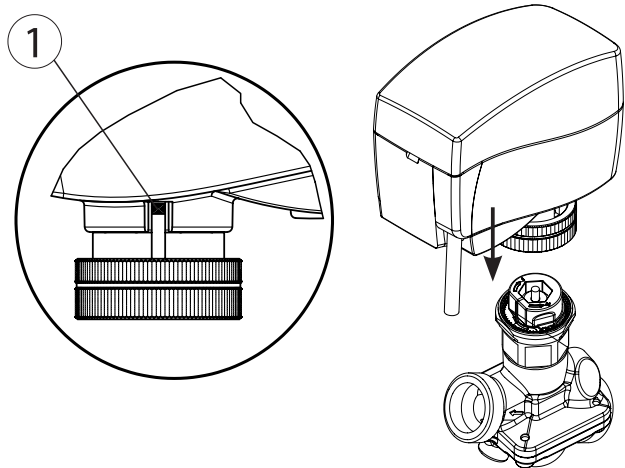
## Installation and commissioning procedure

(if required)



Do not touch anything on the PCB!  
Do not remove the cover before the power supply is fully switched off.

1. Check the valve neck. The actuator should be in stem up position (factory setting). Ensure that the actuator is mounted securely on the valve body
2. Wire the actuator according to the wiring diagram
3. The direction of the stem movement can be observed on the position indicator



1 — Position indicator

## Certificates, declarations and approvals

The list contains all certificates, declarations, and approvals for this product type. Individual code number may have some or all of these approvals, and certain local approvals may not appear on the list.

When you click on the link you will be directed to the latest version of the 'Declaration of Conformity'. Products developed and sold before this date of issue conform to the directives/standards in force at the time of their sale.

Approval type	Title	Certification body	Approval topic
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Export Control Declaration	<a href="#">Gear and Thermal</a> <a href="#">actuators</a>	Danfoss	
UA Declaration	<a href="#">UA Controllers 2024-</a> <a href="#">07-25</a>	Danfoss	LVD, EMC

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