

Danfoss
**AMV 130 Actuators
For Three Point
Control**



Danfoss AMV 130 Actuators For Three Point Control User Guide

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Danfoss AMV 130 Actuators For Three Point Control



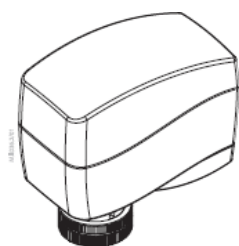
Specifications

- Model: AMV 130(H), AMV 140(H)
- Maintenance: Maintenance Free
- Operating Conditions: 5-95% RH (no condensing)
- Voltage: 24V (AMV 130/140, AMV 130H/140H), 230V (AMV 130/140, AMV 130H/140H)
- Valve Type Compatibility: VZ 2/DN 15, VZ 2/DN 20, VZ 3/DN 15, VZ 3/DN 20, VZ 4/DN 15, VZ 4/DN 20

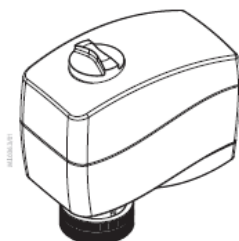
Product Usage Instructions

- To avoid injury and damage, read and follow instructions carefully. Assembly, start-up, and maintenance by qualified personnel only.
- Check valve neck position (steam up). Securely mount the actuator on the valve body.
- Wire actuator following wiring diagram.
- Observe the stem movement direction on the position indicator.
- Remove the cover.
- Insert Allen key 6 into the spindle.
- Press and hold the button on the bottom side of the actuator during manual override.
- Pull out the tool and replace the cover.

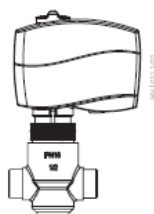
Overview



AME 130, 140



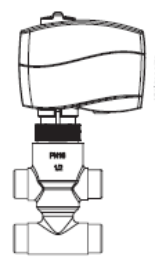
AME 130H, 140H



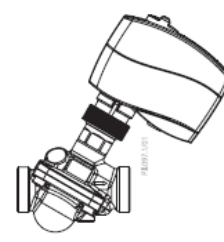
AMV + VZ 2 / VZL 2



AMV + VZ 3 / VZL 3



AMV + VZ 4 / VZL 4



AMV + AHQM

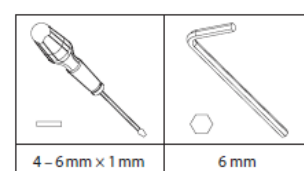
Features



MAINTENANCE
FREE



5-95 % RH
no condensing



Safety Notes

- To avoid injury of persons and damages to the device, it is absolutely necessary to read and observe these instructions carefully.
- Necessary assembly, start-up, and maintenance work must be performed by qualified and authorized personnel only.
- Please comply with the instructions of the system manufacturer or system operator.
- Do not remove the cover before the power supply is fully switched off.

Disposal instruction

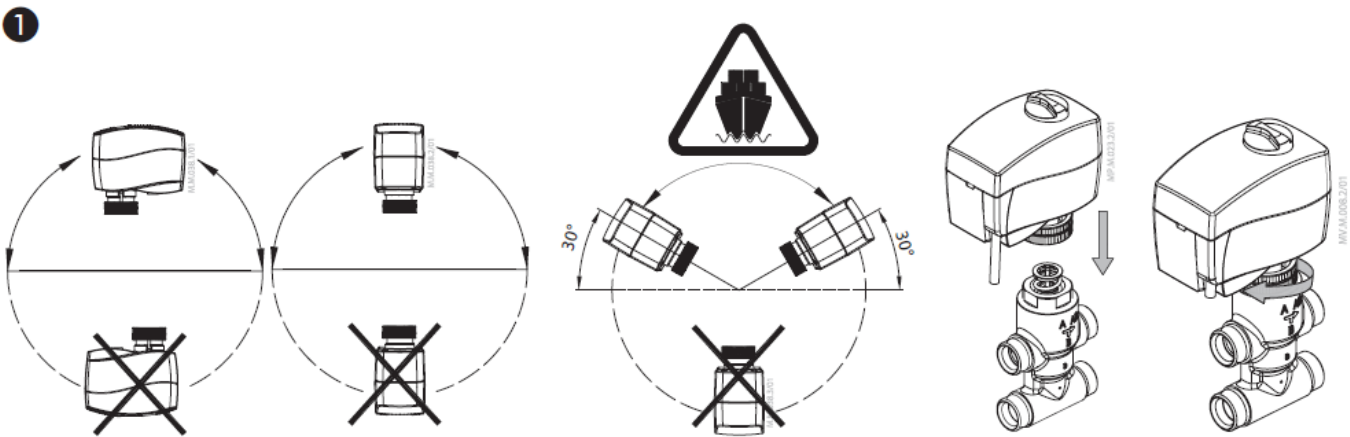


- This product should be dismantled and its components sorted, if possible, into various groups before recycling or disposal.
- Always follow the local disposal regulations.

Mounting

- In case of ship applications (on water) actuator should be mounted with the valve stem in either 30° above horizontal position or pointing upwards.
- In case of building applications actuator should be mounted with the valve stem in either a horizontal position or pointing upwards.
- The actuator is fixed to the valve body by means of a ribbed nut, which requires no tools for mounting. The



ribbed nut should be tightened by hand.



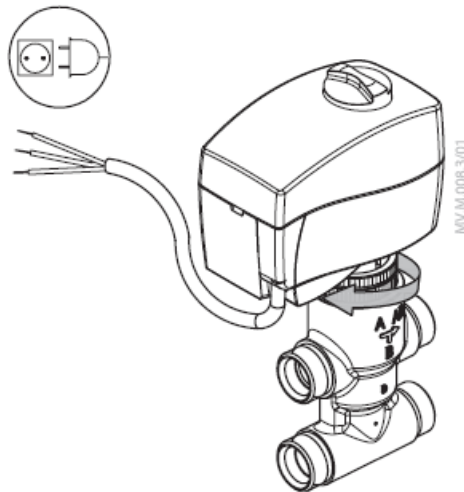
Wiring



24 V		Grey	Stem down	
		Black	Common	
		Red	Stem up	
230 V		Black	Stem down	
		Blue	Common	
		Brown	Stem up	

2**AMV 130/140, AMV 130H/140H - 24V**

Grey	Stem down	↓	
Black	Common		
Red	Stem up	↑	

M.E.001.1/01

**AMV 130/140, AMV 130H/140H - 230V**

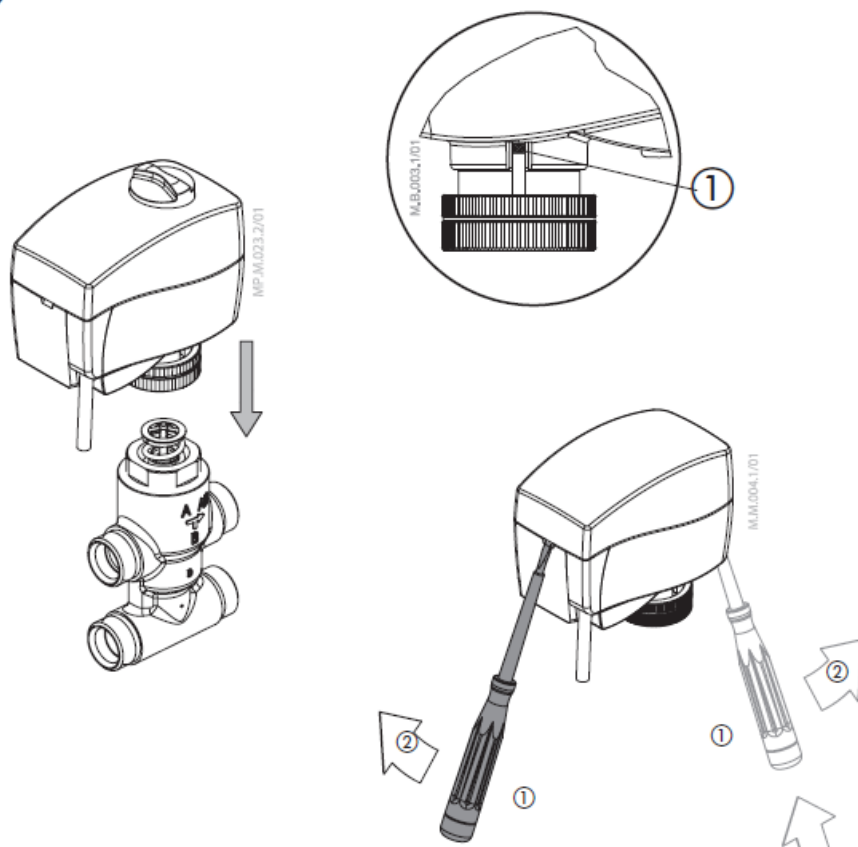
Black	Stem down	↓	
Blue	Common		
Brown	Stem up	↑	

M.E.001.3/01

- Do not touch anything on the PCB! Lethal voltage!

Installation

1. Check the valve neck. The actuator should be in the 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 stem movement can be observed on the position indicator ①

3

Manual override

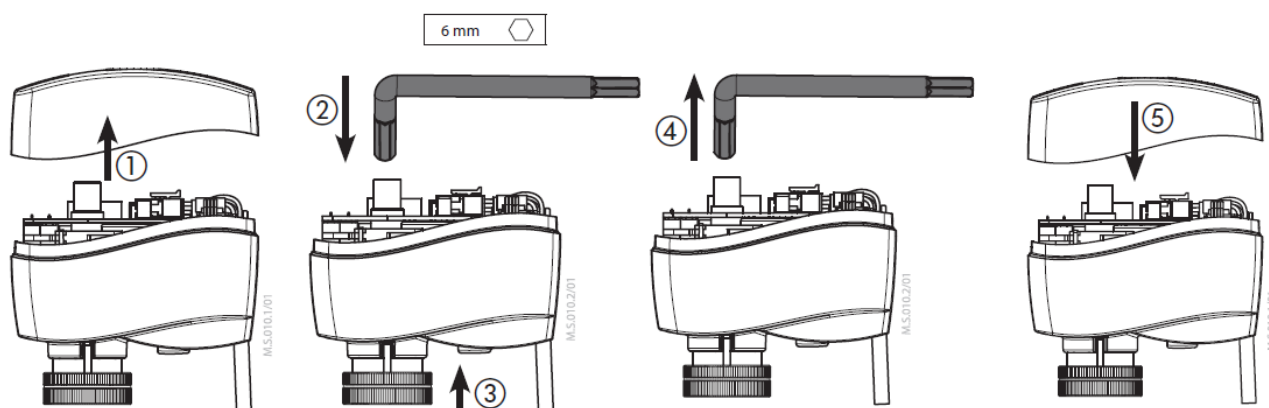
(for service purposes only)

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

AMV 130, AMV 140

1. Remove 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. Replace the cover

4 AMV 130, 140

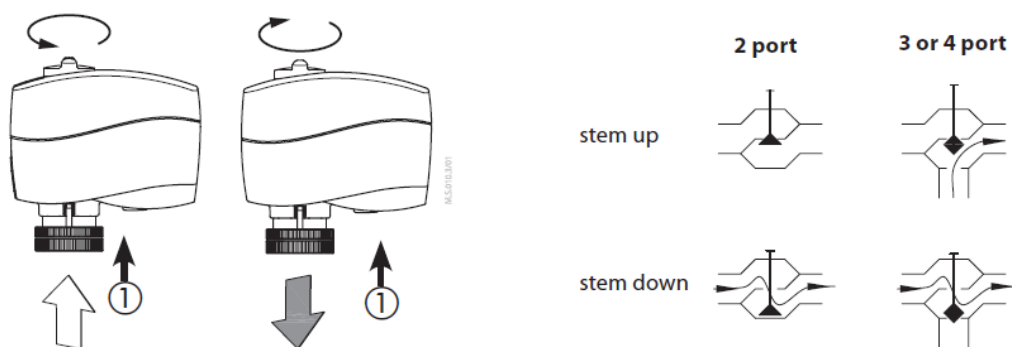


Remark: A 'click' sound after energising the actuator means that the gear wheel has jumped into normal position.

AMV 130H, AMV 140H

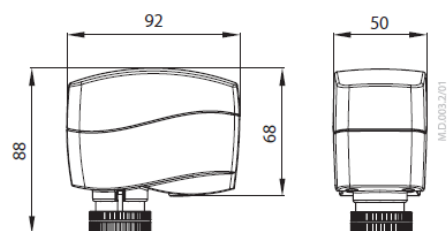
- Press and hold the button ① (on the bottom side of the actuator) during manual override.

5 AMV 130H, 140H

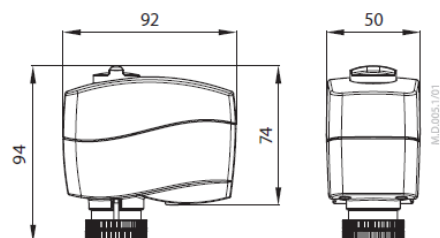


Remark: A 'click' sound after energising the actuator means that the gear wheel has jumped into normal position.

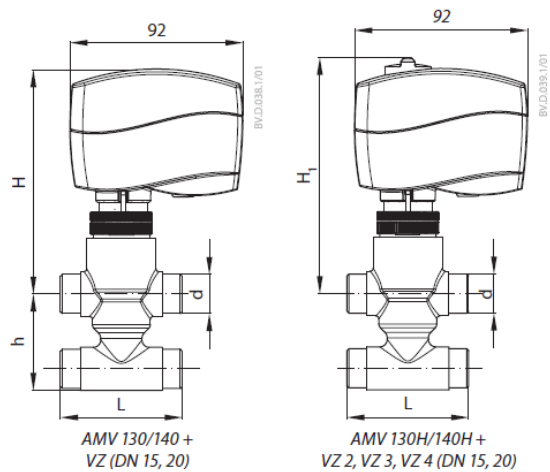
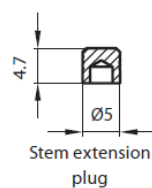
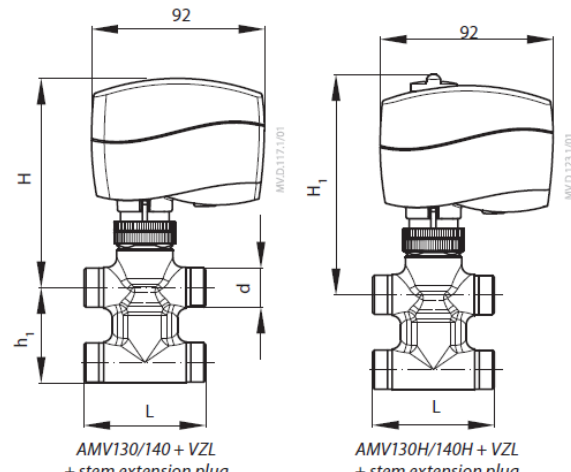
Dimensions



AMV 130, 140



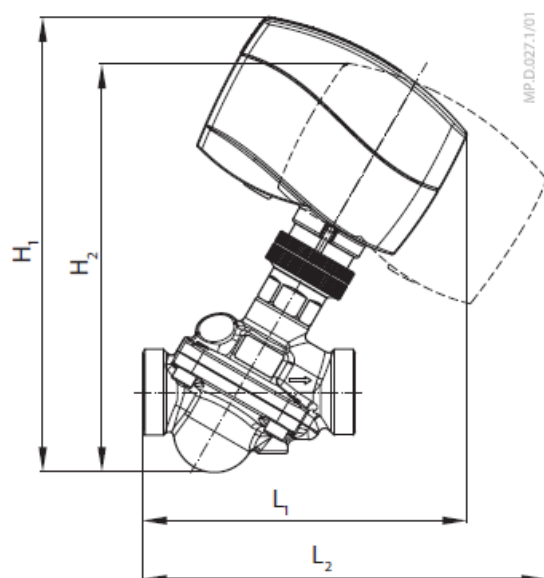
AMV 130H, 140H

AMV 130/140 +
VZ (DN 15, 20)AMV 130H/140H +
VZ 2, VZ 3, VZ 4 (DN 15, 20)Stem extension
plugAMV130/140 + VZL
+ stem extension plugAMV130H/140H + VZL
+ stem extension plug

Valve type	d	L	H	H ₁	h
		mm			
VZ 2 / DN 15	G ½"	65	119	125	26.5
VZ 2 / DN 20	G ¾"	77			
VZ 3 / DN 15	G ½"	65			
VZ 3 / DN 20	G ¾"	77			35
VZ 4 / DN 15	G ½"	65			
VZ 4 / DN 20	G ¾"	77			

Valve type	d	L	H	H ₁	h ₁
		mm			
VZL 2 DN 15	G 1/2"	65	111	117	29.5
VZL 2 DN 20*	G 3/4"	77	117	123	34.0
VZL 3 DN 15	G 1/2"	65	111	117	35.0
VZL 3 DN 20	G 3/4"	77	117	123	35.0
VZL 4 DN 15	G 1/2"	65	111	117	51.0
VZL 4 DN 20*	G 3/4"	77	117	123	65.0

* conex valves DN 20 - G 1 1/8" 14 TPI



DN	15	20	25	32
L ₁	118	125	141	160
L ₂	148	156	174	194
H ₁	168	178	196	216
H ₂	152	162	180	200

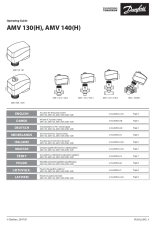
Part Name	Hazardous Substances Table					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (Cr(VI))	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)
Connecting nut	X	O	O	O	O	O
	X	O	O	O	O	O
O: Indicates that this hazardous substance contained in all of the homogeneous material for this part is below the limit requirement in GB/T 26572;						
X: Indicates that this hazardous substance contained in at least one of the homogeneous materials for this part is above the limit requirement in GB/T 26572						

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FAQ

- **Q: What should I do if the actuator is not responding?**
 - **A:** Check the wiring connections and power supply. Ensure the actuator is securely mounted on the valve body.
- **Q: Can I manually operate the actuator during normal operation?**
 - **A:** No, manual override is for service purposes only. Do not manually operate the drive if power is connected.

Documents / Resources

	<p>Danfoss AMV 130 Actuators For Three Point Control [pdf] User Guide</p> <p>AMV 130 Actuators For Three Point Control, AMV 130, Actuators For Three Point Control, Three Point Control, Point Control, Control</p>
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References

- [Engineering Tomorrow | Danfoss](#)
- [Pagrindinis puslapis | Danfoss](#)
- [User Manual](#)