

Data sheet



ADG111AO00  
ADG211AO00  
AHD001B02  
AHD001B04  
AHD001B12  
AHD001B14  
AHD001B14Y

Applications

Control valve for heating zones, air handling units and ventilation convectors max. medium temperature 120°C.

Features

- 2 way and 3 way reversing valve PN10 with external therad connection
- Valve body of red brass
- Stem of Cr-Ni Steel with soft sealed valve plug
- Service free stuffingbox with double O-Ring sealing
- Force dependent end position switch off, no stroke adjustment necessary
- Control by 2 point, pulse-break-signal or 0 ... 10 VDC

Technical Data  
Linear actuators

Power supply (see below table)	230 VAC +/- 10%	24 VAC/DC +20/-10%
Frequency	50 ... 60 Hz	0 ... 60 Hz
Force	100 N +/- 5%	
Closing if not energized	2-way valve are closed in case of power failure	
Closing and opening times	approx. 3 min.	
Ambiente temperature	0°C ... + 60°C	
Protection class acc. to EN 60529	IP 54	
Mounting position	all positions	
	An up-side down position may reduce product life through special circumstances (e.g. contaminated water).	

Valve

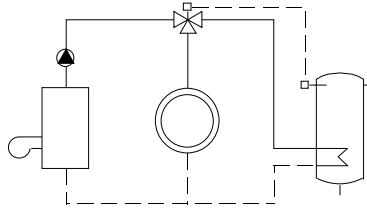
Valve flow characteristic	equal-percentage
Stroke	1,6 ... 2,2 mm
Leakage rate	0,00%
Pressure rating max.	1000 kPa
Low pressure stream	110°C / 50 kPa
Temperature of media	2°C ... + 120°C

Linear actuators

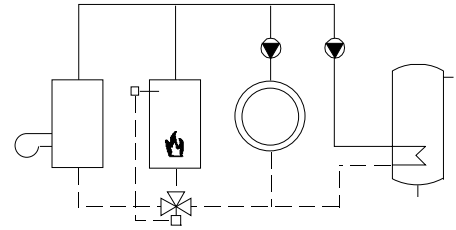
Type	Voltage	Control signal	Max. inrush current	Operating current	Consumption	Connecting-cable
AHD001B02	230 VAC	2-Point o. Puls-break	300 mA	8 mA	1,8 W	1 m fix
AHD001B04	24 VAC/DC	2-Point o. Puls-break	250 mA	75 mA	1,8 W	1 m fix
AHD001B12	230 VAC	2-Point o. Puls-break	300 mA	8 mA	1,8 W	1 m plug in conn.
AHD001B14	24 VAC/DC	2-Point o. Puls-break	250 mA	75 mA	1,8 W	1 m plug in conn.
AHD001B14Y	24 VAC	0 ... 10 VDC	250 mA	83 mA	2,0 W	1 m plug in conn.

### Application examples for 3-way valves

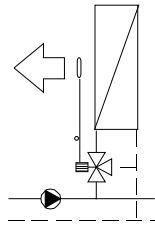
Change over scheme between heat consumer e.g. heating circle and hot water tank.



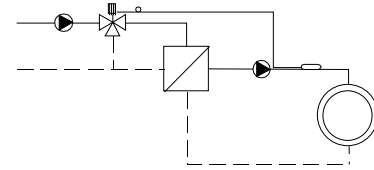
Change over scheme between heat generation e.g. oil/gas-boiler or boiler for woodfuels.



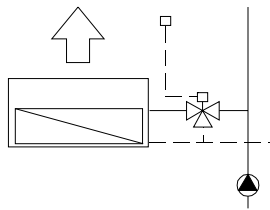
Volume control for constant exhaust air temperature for air heaters.



Change over scheme for fix value control of the flow temperature on the secondary side Of the heat exchanger, e.g. hot water Preparation swimming pool water.



Fan-coil-application.



### Commissioning

First-Open function

In its delivery condition, the actuator is kept open when deenergised due to the First-Open function (filling). This enables heating operation during the carcass construction phase even when the electric wiring is not yet complete. During the later electrical start-up, the First-Open function is unlocked (you can hear this with an easy crack on the actuators) by applying the operation voltage for more than 6 minutes. The actuators will then be completely operation.

Function display

The function display of the actuators allows identifying the operating condition at a glance.

Antitheft function

At the actuators AHD001B12, AHD001B14 and AHD001B14Y, the clear visibility cover is removable. Through it the actuators is through unauthorized no longer removable.

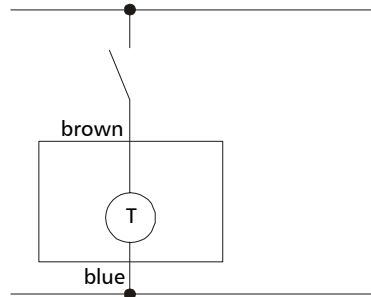
**Hints for project engineering**  
Wiring diagramm

Electrical wiring by authorized staff only according to local technical rules.

2-Point or Puls-brake control 230 VAC:  
2-Point or Puls-brake control 24 VAC/DC:

AHD001B02, AHD001B12  
AHD001B04, AHD001B14

230 VAC / 24 VAC/DC

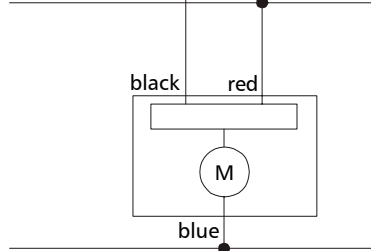


Analog control 0 ... 10 VDC:

AHD001B14Y

24 VAC

0 ... 10 VDC

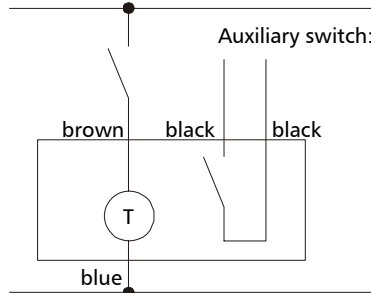


Optional with auxiliary switch

2-Point or Puls-brake control 230 VAC:  
2-Point or Puls-brake control 24 VAC/DC:

AHD001B02-S  
AHD001B04-S

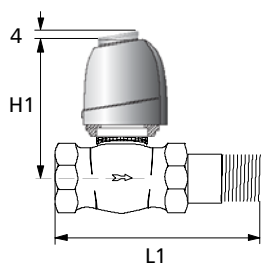
230 VAC / 24 VAC/DC



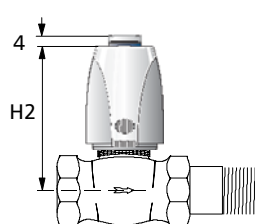
Auxiliary switch: Max. 230 V, 5 A ohm load, 1 A inductive load  
Switch between 0 ... 2 mm open, up 2 mm closed

Dimension drawings

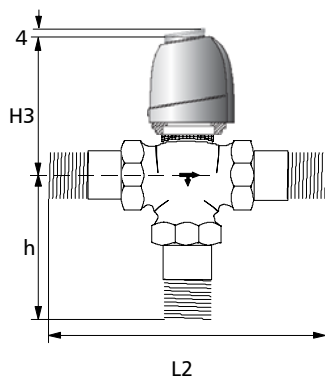
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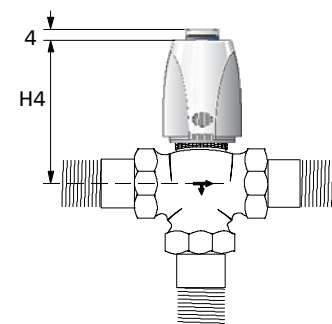
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Dimension table

	H1	H2	L1	H3	H4	L2	h
DN 3/8"	75	76	85	--	--	--	--
DN 1/2"	75	76	95	80	81	117	53
DN 3/4"	77	88	106	85	86	132	66
DN 1"	84	95	118	87	88	150	75
DN 1 1/4"	84	95	135	--	--	--	--

Accessories

Suitable for: AHD001B12, AHD001B14, AHD001B14Y  
 Type: ASK1004 + VA80 H Adapter Protection cap + adapter for almost all valves (optional)

Special design

Linear actuators

Type:	NO	with auxiliary switch		
AHD001B02	AHD101B02	AHD001B02-S		
AHD001B04	AHD101B04	AHD001B04-S		
AHD001B12	---	---		
AHD001B14	---	---		
Longer connecting cable	2 m	3 m	5 m	10 m
AHD001B02	AHD001B02-2	AHD001B02-3	AHD001B02-5	AHD001B02-10
AHD001B04	AHD001B04-2	AHD001B04-3	AHD001B04-5	AHD001B04-10
AHD001B12	AHD001B12-2	AHD001B12-3	AHD001B12-5	AHD001B12-10
AHD001B14	AHD001B14-2	AHD001B14-3	AHD001B14-5	AHD001B14-10
AHD001B14Y	AHD001B14Y-2	AHD001B14Y-3	AHD001B14Y-5	AHD001B14Y-10

Delivery

ADG1/211AO00 DN ... kvs-value ... AHD001B... with valve adapter  
 The respective linear actuator has to be chosen out of the table page 1.

Valve adapter suitable for: Heimeier MNG (up to 1998), Oventrop M30x1,5 1997), Oventrop Cocon Q, Onda, Schlösser (up to 1993), Compac (M30x1,5), Tour & Anderson (ab 1999), Böhnische/SBK (ab 1998), IVAR, Strawa (up to 2003 new attachment), Taco (for Alpha-Antriebe ab to 2005), Emmeti, Caleffi Verteiler Serie 670, Bianchi 4-way valve, Neureus angle valve DN 10.