

## Data sheet

# Electrical rotary actuators

## AMB 162, AMB 182

### Description



Actuators AMB are intended to control rotating mixing and diverting valves.

AMB 162 and AMB 182 actuators are used for temperature control in central heating systems together with 3-way and 4-way rotary valves of the types HRB, HRE and HFE.

### Features:

- Additional AUXILIARY switch;
- Indication of actual valve position;
- LED indication of turning direction;
- Manual valve turning mode enabled by a permanent clutch;
- No damage in case of valve blocking;
- Silent and reliable operation;
- Maintenance free;
- Selectable speed on DIP switch;
- LED indication of activated AUXILIARY switch (3-point controlled actuators only).

### Main Data:

- Nominal voltage:
  - 230 V AC, 50/60 Hz,
  - 24 V AC, 50/60 Hz - 3-point,
  - 24V AC/DC - modulating;
- Output torque 5, 10 and 15 Nm;
- Rotation angle 90°;
- Actuator running speed
  - variants: 15/30/60/120/240/480 sec. per 90° (option to change speeds on DIP switch);
- Control signal:
  - 3-point,
  - modulating (0(2)-10 V).

### Ordering

Type	Torque (Nm)	Control signal	Speed (s/90°)	Supply voltage (V)	Remark	For RVA DN	Code No.	
AMB 162	5	3-point	15	24	-	15-50	082H0210	
			30				082H0211	
			60				082H0212	
			120				082H0213	
			480				082H0214	
			15				AS*	082H0215
			30				082H0216	
			60				082H0217	
			120				082H0218	
			480				082H0219	
	15	230	-	082H0220				
	30			082H0221				
	60			082H0222				
	120			082H0223				
	480			082H0224				
	15			AS*	082H0225			
	30			082H0226				
	60			082H0227				
	120			082H0228				
	480			082H0229				
mod	60/90/120	24	-	082H0230				

\* actuator with build in aux switch

**Ordering (continuous)**

Type	Torque (Nm)	Control signal	Speed (s/90°)	Supply voltage (V)	Remark	For RVA DN	Code No.		
AMB 182	10	3-point	60	24	-	15-100	<b>082H0231</b>		
				230			<b>082H0232</b>		
	15		60	24	60	AS*	15-150	<b>082H0233</b>	
								240	<b>082H0234</b>
			60	230	60	-		<b>082H0235</b>	
								240	<b>082H0236</b>
			60	230	60	AS*		<b>082H0237</b>	
								240	<b>082H0238</b>
			60	230	60	-		<b>082H0239</b>	
								240	<b>082H0240</b>
			mod	60/90/120	24	-		15-150	<b>082H0241</b>

\* actuator with build in aux switch

**AMB linkage kits**

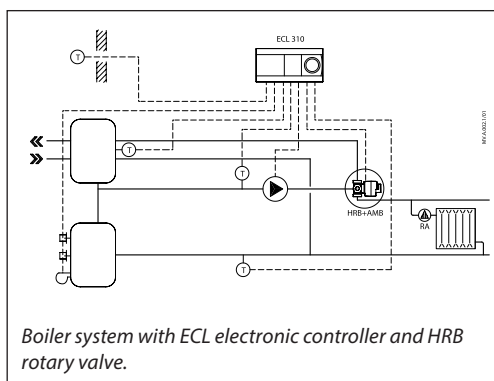
Description	Code No.
for Esbe - old type, Seltron, Somatherm, Hora, WIP, PAW, Acaso, BRV, IMIT, IMP, IVAR	<b>082H0250</b>
for Centra - Type DR/ZR	<b>082H0251</b>
for Centra - Type DRU	
for Meibes, Wita	<b>082H0252</b>
for Honeywell - Type V5442..., Type V5433..	<b>082H0253</b>
for old Danfoss RVA, Esbe VRG	<b>082H0254</b>
for Danfoss HRB, HRE, HFE	<b>082H0255</b>

**Technical data**

Power supply	V	24 AC/DC or 230 AC
Power consumption	VA	AMB 162: 2,5 AMB 182: 3,5
Frequency	Hz	50/60
Running speed	3-point	sec/ 90° 15/30/60/120/240/480
	modulating	
Control input		3-point modulating (0(2)-10 V)
Operating torque	Nm	5, 10 or 15
Rotation angle		90 °
Auxiliary switch		adjustable 0-90° (only 3-point actuators)
Max. medium temperature	°C	110
Ambient temperature		0 ... 50
Storage and transport temperature		-10 ... 80
Protection Class		II according to EN 60730-1
Grade of enclosure		IP42 according to EN 60529
Wire length	m	2
Weight	g	300
Color / material		dark grey/PC
- marking in accordance with standards		Low Voltage Directive 2006/95/EC EMC-Directive 2004/108/EC RoHS II: 2011/65/EU Applied standards: EN 60730-1, EN 60730-2-14

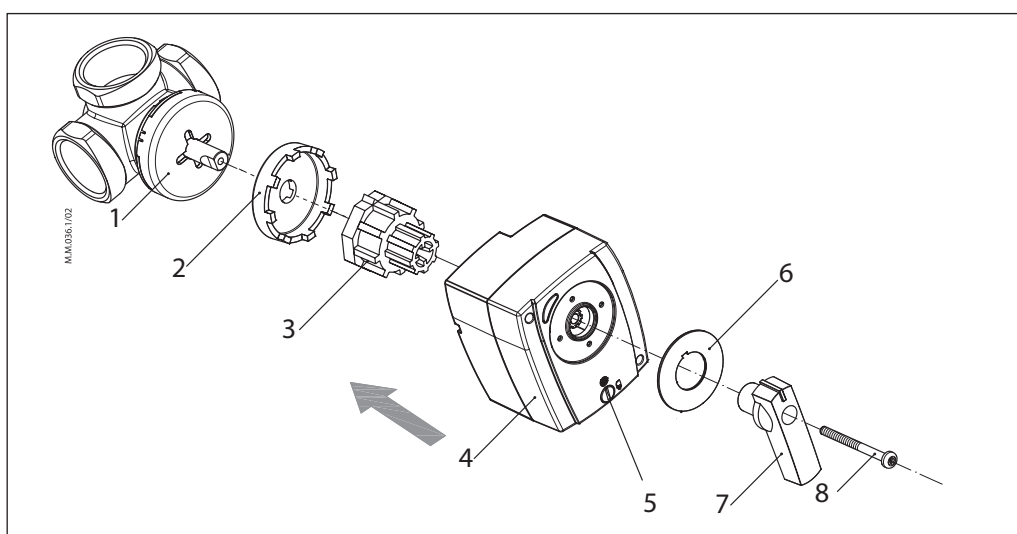
\* selectable on DIP switch

Application principle



Installation procedure

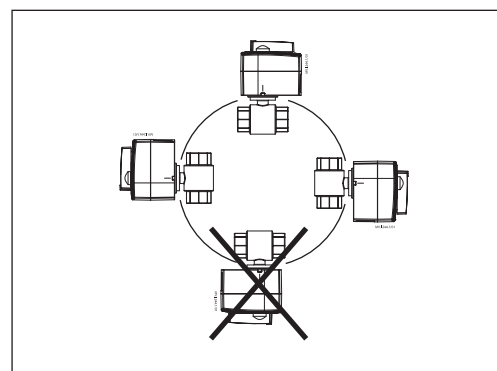
1. Rotary valve
2. Anti-rotation spacer
3. Valve adapter
4. Actuator
5. Manual operating clutch
6. Position indicator
7. Handle
8. Fixing screw



Installation

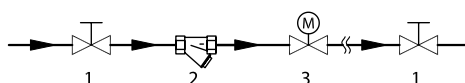
The actuator can be mounted directly to the rotary valve.

Rotating angle is limited to 90° and when the actuator reaches the limit, the voltage supply to the actuator is disconnected.



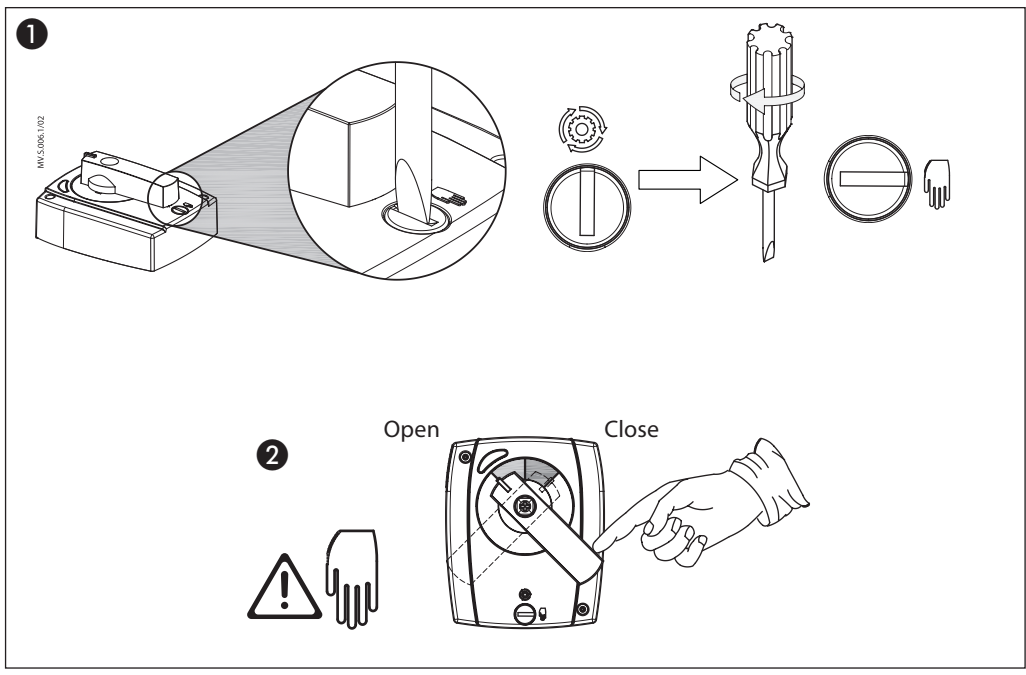
Hydraulic installation

Recommended installation of the electric actuated valve



1. Ball valve
2. Strainer
3. AMB

Manual override



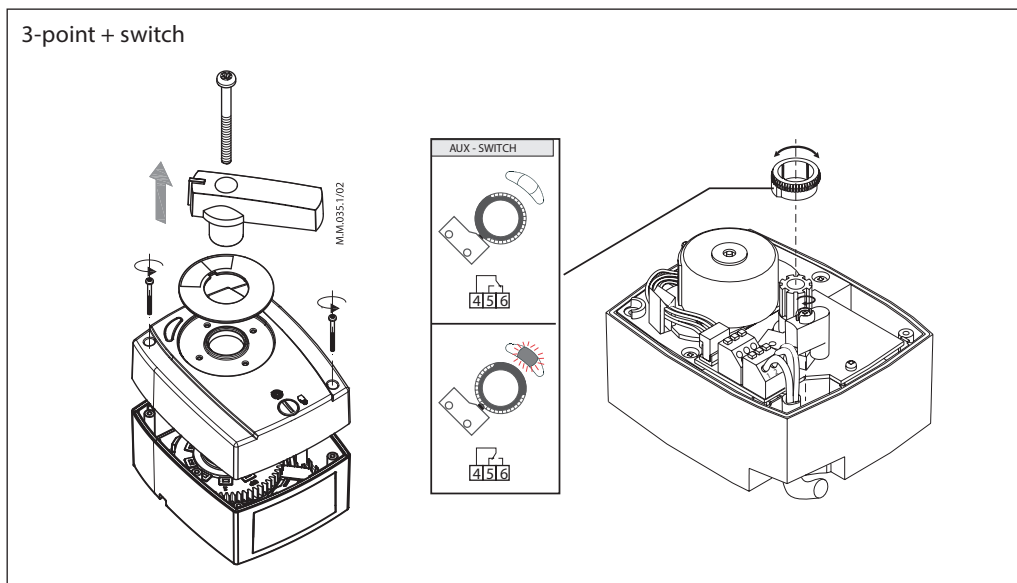
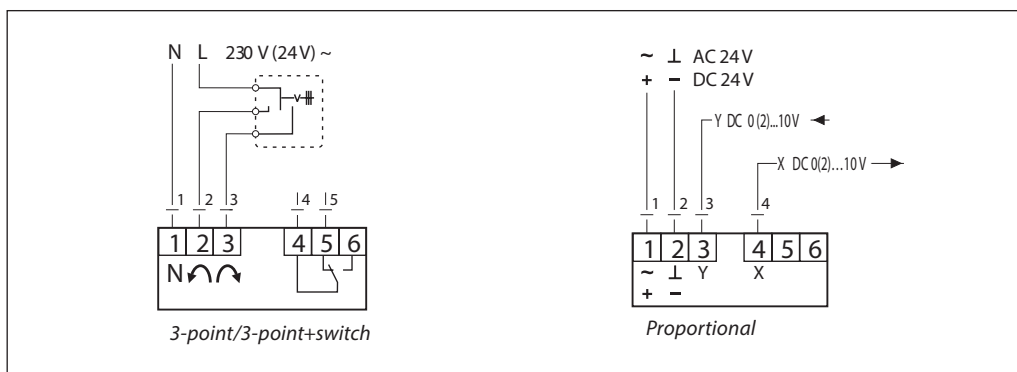
LED signalling

LED orange (Rotate Left)  
LED red / green  
LED orange (Rotate Right)

AMB 162/182

LED color	3-point	Modulating
orange	Rotation Left / Right	
green	/	Status OK
red	AUX switch activation	/

Wiring



DIP switch setting

**ON**

1	2	3	4	5	6
---	---	---	---	---	---

N.S.046-1/01

S1	S2	SIG.
0	0	U
1	1	I

S4	
0	
1	

S3	U/I
0	0-10 V/0-20 mA
1	2-10 V/4-20 mA

S5	S6	
0	0	60 s
0	1	90 s
1	0	120 s
1	1	120 s

**S4:**

**S3:**

Dimensions

with handle

84

without handle

84



